

# The Leys EcoSchools ~ Environmental Review II ~ February 2010

This review includes all the issues prompted in the Formal Environmental Review document, provided by Eco-Schools.

## 1. ENERGY

Special responsibility for monitoring the consumption of energy in the school: Mr. Andy Strange (axs). Every house has an Eco-Schools rep that also encourages energy-saving actions.

Some energy meters are easily visible to pupils in houses (Efergy type), but this is not the case everywhere and they are not entirely reliable – flat batteries, etc. Pupils can take readings from the meters and do so for campaigns, such as Energy-Saving Fortnight, but not satisfactorily in 2008. Furthermore, no school-wide figures were obtained.

The School has taken many low-cost steps to reduce heat loss, including draught excluders, but not yet including reflective foil, nor are all areas covered. Closing windows is the responsibility of teachers using the classrooms.

Most of the School's windows are not double-glazed, due to the age of the buildings. New buildings do use double glazing and refurbishments (e.g. Fen House) have also done so, with K-glass as well.

Virtually all outside doors are self-closing. Many inside doors are as well.

Low-energy light bulbs and fluorescent tubes are used throughout the school. Most of the older tubes are being upgraded to high-frequency versions which are more efficient. Some classrooms have their own heating thermostat control, but not all, and many classroom radiators do not have individual thermostats either. Lights and electrical items are not always turned off when not in use. Lights normally are. Many computers, VCRs, speakers etc. do get left on all the time.

The only source of renewable energy at The Leys is the solar thermal array on the roof of Fen House.

Energy is a key priority in the School's 3 Year Sustainability Plan, but with such a large, old and complex site it is far from easy to make all the changes we would like in the short term.

**ACTION POINT 2:** There are still many windows and doors which would benefit from the fitting of draught exclusion technologies. A site-wide audit, perhaps flagged by pupils and departments, would be useful in achieving this.

**ACTION POINT REVIEW:** Some windows and doors have been draught excluded although some still need doing. APH is surveying departments for further input.

**ACTION POINT 3:** We would like to see radiators on external walls, particularly in old buildings, updated to include reflective panels behind them. Furthermore, wherever possible TRVs should be installed on all radiators.

**ACTION POINT REVIEW:** 400 radiator reflectors have been purchased and are nearly all deployed. New TRVs going in as standard for all refurbishment projects.

**ACTION POINT 6:** (see also section 5) Investigate additional renewable energy generation, such as Fen House's solar panels project.

**ACTION POINT REVIEW:** The swimming pool has been investigated for a £100,000 installation of solar thermal panels. Pending grant application. Hope to be done summer 2010.

**ACTION POINTS 8:** Not all houses have adequate electrical metering to run a proper monitoring programme, and the Efergy meters (provided f.o.c.) are often unreliable. A better system is needed - what can be done? Also, not all strip lights are high frequency: upgrading or replacing would seem sensible.

**ACTION POINT REVIEW:** A project to install networked metering across all boarding houses is in the planning stages.

## 2. LITTER

The problem of litter in the school grounds could be improved in specific areas. The Leys has a clear anti-litter policy.

Litter bins inside the school building are emptied daily therefore there is not a problem with overflowing litter bins. There are no areas in the school grounds that are littered where there are no bins. The litter bins are big, designed correctly and clean. However we feel that there is a need to get external recycling bins. There is still a problem with people from outside littering in areas such as the bike shed behind the North A and B houses.

# The Leys EcoSchools ~ Environmental Review II ~ February 2010

**ACTION POINT 1:** Obtain external recycling bins for use around the site. See also next section.

**ACTION POINT REVIEW:** Two bins now in place. Their use is being monitored.

## 3. WASTE MINIMISATION / RECYCLING

The school does control the use of resources, but only in a limited way - i.e. if we run out, we buy more! At the moment the school does sometimes buy stationary products that are made out of recycled material but it is only a relatively small amount and it is mainly in the form of the recycled lined exercise paper. As well as exercise paper some hand towels and disposable paper products are bought that are made from a recycled content. We recycle far more waste than we buy recycled; the loop is far from being closed in this respect.

The school recycles a wide range of items such as paper, printer cartridges, cardboard, plastic bottles and metal food tins and cans, however there are still a number of products that could be recycled that are not currently being recycled, for example the plastic cups used at tea and biscuits on a Tuesday and Thursday. Between 1% and 25% of school food waste is being composted at the moment, but it is very much at the lower end of this bracket as it is small-scale only: there are five compost bins in use at School, North A, West and Fen house by resident staff.

The school presently encourages its pupils to try and reduce waste and reuse certain materials such as plastic bottles and the school has a number of policies about waste reduction.

**ACTION POINT 1:** We would like to see the long-discussed external recycling bins being deployed around the site - even Cambridge City has them now! We should also investigate recycling plastic cups (especially for the lower dining hall) and buy or use more recycled products.

**ACTION POINT REVIEW:** See above.

**ACTION POINT 4:** We believe the extent of composting which takes place is so low that considerable expansion should be possible relatively easily. This should be investigated, primarily for dining hall waste.

**ACTION POINT REVIEW:** On-site composting considered unsuitable due to location of water table. Off-site composting by external company nearly finalised.

## 4. WATER

In the school, there is a water meter to record water use but it is not easily visible to the students. The pupils are therefore not involved in taking and displaying readings. The school has fitted toilet devices that reduce water loss. The last to be done were East and School Houses, following a £1700 Eco-Schools grant (2008). Not all the basin taps in the school are self-stopping but taps are seemingly never left running. Some taps have aerators to reduce flow rates, but these do not appear planned - e.g. one floor of East has them, other floors do not!

Any problems with leaky or dripping taps are always solved quickly – usually fixed within 2-3 days. The school however does not at present run any water-saving campaigns, despite the very obvious benefits of doing so.

**ACTION POINT 5:** All newly-installed taps should have aerators fitted, with Dale House being the short-term priority. Taps without should be upgraded where possible. New showers should be considered for aeration too. An annual water-saving campaign should begin.

**ACTION POINT REVIEW:** Numbers of baths being reduced and replaced with more showers. All new toilets are low-volume flush. Some pupils complain that the temperature of the hot water is too hot (at taps). Mixer taps may be a solution, as seen in Dale House refurbishment.

## 5. TRANSPORT

[Estimates by pupils] Through the school's monitoring of how pupils get to and from school we are able to say that 70% use a car. 40% as the only member of the school travelling in the car and 30% in a car where they are one of at least two members of the school sharing a car. Also 10% cycle in to school and another 10% use the train. With the train station's

## The Leys EcoSchools ~ Environmental Review II ~ February 2010

close proximity to the school this is an increasingly common way of members of the school to reach and leave school. We also believe 5% use the bus to attend school and 5% walk. In October 2008 we upgraded the bike sheds along The Fen Causeway and added a secure gate. The school does not offer cycle instruction but often pupils who regularly cycle have already qualified at their prep school such as St Faith's where it is frequently offered. It is worth mentioning that 49% (Dec 08) of our pupils board and some are offspring of resident staff so do not use transport to get to School.

The School runs several minibuses, vans and a tractor. All are fuelled by diesel and the Sustainability Committee have been given the go-ahead to develop a Biofuel Processor to make biodiesel in the Chemistry Department.

**ACTION POINT 6:** Our use of renewable energy can be expanded through the provision of a facility to recycle the waste cooking oil from the dining hall, converted into biodiesel for use in our vans and minibuses.

**ACTION POINT REVIEW:** We would like to see us start collecting cooking oil from wider sources so we can do this on a much more impressive scale.

### 6. *HEALTHY LIVING*

The school promotes healthier food at break and lunch. Cookery classes educate pupils on healthier living and eating and basic food safety procedures. Water is easily available in houses. Physical activity is compulsory and therefore offers over 2 hours of physical activity weekly. There is a no smoking policy for staff which is generally followed.

Windows can be opened (although limited) to provide ventilation. There are green plants in classrooms throughout the school in the Biology, Maths and Art departments. Water-based markers and interactive whiteboards are commonly used by teachers in the school. The school uses some environmentally friendly products although some are not. The school toilets have locks, hot water, toilet paper and sanitary disposal facilities. Although cookery classes educate about healthy living, the majority of foodstuffs baked are unhealthy (if consumed in large quantities!) due to the limited time frame and popularity.

**ACTION POINT REVIEW:** No change.

### 7. *BIODIVERSITY*

The school ground staff use chemical pesticides and herbicides quite often. We also have many plants in containers, pots and beds (mostly around departments). Furthermore, the Biology department grow plants for scientific experiments. In North B there are plans to grow cucumbers from seed! The Deer Park is a protected wildlife area (still lacking clear signage to that effect) and the Science pond in Dale Court is widely used by wildlife. The "Green Fingers Hairy Toes" (GFHT) group have deployed bird feeders, but these were stolen (!), but they hope to redeploy and add bird boxes. There is a wide variety of flowering plants around the site which attract insects and butterflies.

The School has links to the Cambridge Climate Change Charter, being a founding signatory, as well as the Methodist Church's World AIMS (Action In Methodist Schools) programme. Recently EDF Energy made contact to help work with us to promote green schools.

From time to time, as pressure on free space around the site grows, trees are heavily cut back or removed altogether, with not entirely clear communication to pupils or staff as to the reasons for this. There is, however, now a policy of not having the logs taken away and staff with wood-burning stoves/fires are offered it.

**ACTION POINT 9:** The Eco-Schools group would very much like to see the GFHT Group succeed. We would also like to see a greater number of plants inside buildings and classrooms.

**ACTION POINT REVIEW:** Staff in charge left, group folded.

**ACTION POINT 10:** We would welcome better communication regarding the very special habitats which The Leys has on its site. The Deer Park should have clear signs for visitors to read, revealing its history and designated use. Clearer communication about the removal of habitats elsewhere - such as tree felling or hedge removal - is highly desirable.

**ACTION POINT REVIEW: No change on much of this.**

## 8. SCHOOL GROUNDS

[Estimates by pupils] Approximately half of the school's grounds is grass playing field, 5% is woodland (including the Deer Park), 3% is water or wetland area, 10% is Astro turf/tennis courts, 15% is tarmac, paths and roads, 10% is flower/vegetable beds. There is 7% other land use. There are currently no activity play area, conservation or wildlife area or long grass (apart from the Deer Park) in the school grounds.

The school boundaries are composed of 50% trees and hedges and 50% wire or metal railings. Rarely the school holds lessons outside are these are perceived to be a distraction.

Pupils haven't looked into the heritage of the school grounds, although originally it was all fields – hence the name.

The school does recycle garden waste by composting, but sometimes when there is too much it is burned. Vegetable/fruit waste is not composted at present, except in small quantities (see Waste Minimisation / Recycling).

**ACTION POINT REVIEW: No change on much of this.**

## 9. GLOBAL PERSPECTIVE

Some pupils consider how actions taken within the school affect people and the environment both locally and globally, e.g. wasting energy here and associated impacts. The Eco-Schools group has not, at this stage, had the time to explore how all the Eco-Schools issues could be approached in other parts of the world. Opportunities for considering global environmental issues are not fully maximised through the curriculum, but doing so through PSHE is being addressed this year, although Consumerism is already a major topic in the L6. The School has made use of materials from organisations, such as WRAP, to help with this topic.

Other issues students have considered are dealt with through the Amnesty International Group and the MUN. The Eco-Schools group also looks at Fairtrade issues from time to time, with the aim of becoming a Fairtrade School in due course. The School is a signatory to the Cambridge Climate Change Charter. The Eco-Schools group is interested in seeing how we are progressing on this front.

Many students are excited about President Obama's green policies, such as reducing CO<sub>2</sub> emissions by 80% by 2050. The U6 have been widely discussing the impact on the world of the Gaza conflict and Israel's recent discovery of a major natural gas field.

**ACTION POINT 7:** We would like to see the PSHE programme sympathetically looking at Eco-Schools issues, without having to do so in a drawn-out way.

**ACTION POINT REVIEW: It is hoped that something will be in place PSHE-wise for September 2010.**

## PUPIL PARTICIPATION

Issues such as Fairtrade and Energy-Saving are featured in scheduled, annual assemblies, taking place in the Spring (to coincide with Fairtrade Fortnight) and Autumn (coinciding with National Energy Saving Week) respectively.

There are very few environment-related lessons or visits undertaken, except when such things are specifically part of subject specifications. Recently the University's engineering department has invited us to seminars on Engineering for a Low Carbon Future, which VI Physicists and others have been attending.

Pupils are encouraged (as well as staff!) to use the appropriate recycling facilities around the School, including that in Houses (which is now virtually every room).

## Action Plan Points ~ February 2010

Such a comprehensive Action Plan was produced for the initial formal environmental review that we have not produced a new Action Plan as so much is already well underway at this time.

## Action Plan Points Discussed and Agreed ~ March 2009

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1. External recycling bins top priority. Investigate recycling plastic cups; buy/use more recycled products.
  2. Draught exclusion of all windows and doors – need audit. Fit everywhere possible!
  3. Behind radiators – reflective foil? Radiator audit – TRV fitting priority.
  4. Composting – investigate massive expansion of this waste recycling.
  5. Use more aerators in new taps and showers – Dale Priority! Run water-saving campaign.
  6. Expansion of use of renewable energy. Support the bio-diesel production project in Chemistry.
  7. Our PSHE programme should make bigger use of these issues
  8. Electricity metering in houses – need reliability. Check whether all light fittings are high frequency.
  9. Support the GFHT group! Get more plants for classrooms and buildings.
  10. Deer park signs needed. Clearer communication on removal of habitat desirable.
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