



GUILDFORD ENVIRONMENTAL FORUM

newsletter

www.gefweb.org.uk

JUNE – AUGUST 2012



Transition Guildford's growing project

The Rosamund Trust land up at Pewley is beginning to flourish. Transition Guildford volunteers meet every second and last Saturday of the month to work the acre. On the Easter weekend the group met to plant the first crop –

potatoes – and celebrated the beginning of what is hoped to be a long and fruitful relationship with the land. Good food and wine were enjoyed along with a 'rain song' from Mark which worked a treat – it hasn't stopped raining since!

For more information contact Kate at kjmillington@yahoo.co.uk

A Waitrose for Guildford?

Waitrose has recently consulted on its proposal to build a new store between York Road and Leapale Lane, to the north of North Street. Guildford Environmental Forum has submitted comments on this.

We did not comment on the overall principle of whether this site should include major retail use, but addressed three main areas: the building; the highways and traffic implications; and the relationship with the town, especially North Street. In general we felt that more work needs to be done on connecting the proposed development with its surroundings.

The building

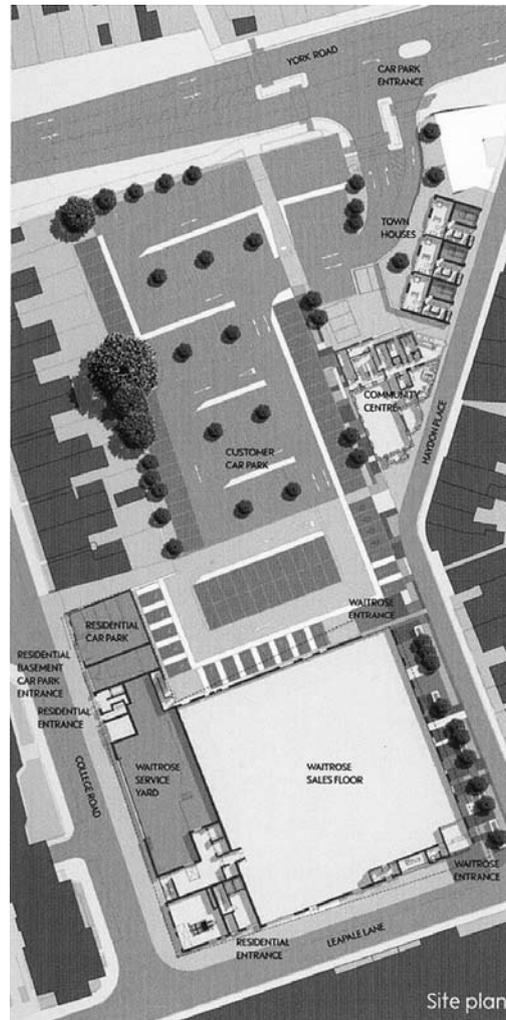
Our fundamental view on the building is that it should be built to higher environmental standards than currently proposed, and we feel that a BREEAM "Excellent" rating should be committed to or insisted on. Elements that might contribute to this include greater use of solar p.v., greater use of "green roofs" (we do of course welcome the inclusion of some of these in the current proposals), the use of "green walls" and the use of porous surfaces on the car park and other hard areas.

Air quality is an important issue with this site. Air quality is already poor at the road junctions and this includes the area close to Sandfield School. Green walls and green roofs help improve air quality (as well as reducing the amount and speed of rainwater runoff).

The highways and traffic implications

It has been acknowledged by the proposers that there would be negative impacts on the existing highway. We note that there would not only be disruption to the existing traffic but also that there would be additional traffic generated by the site.

We presume that the traffic lights would be planned to work as one system with the well established traffic management of the gyratory roads, but there would



still be knock-on effects in peak hours, with backing up in York Road and then to and through the Woodbridge Road junction. We acknowledge that there is some question over whether the traffic to the shop would be at the same time of day as the peak traffic hours, but this disruption from the traffic lights would be the case even without significant extra traffic to the development. However, we consider that the impact would definitely be severe at the start of the afternoon peak, when shop traffic would combine with commuter traffic.

The removal of the underpass, which would be required for the construction of the junction, would not be a 'community benefit' (see below) although it has been presented as such.

The limitation of residential parking spaces in town centre sites is a valid way to discourage car use. In this case we feel that the apparent absence of parking for the proposed houses, taken

with the implications of the presence of a community centre and the loss of some on-street parking in College Road to allow for deliveries, will mean the proposals could generate significant parking problems.

The relationship with the town, especially North Street

The location is well placed to be used from the existing bus station, and the proposals should emphasise and optimise the pedestrian links with that bus station in addition to the other pedestrian routes to and through the area. In particular these links should be coordinated with the proposed regeneration of the North Street area, and the opportunity taken to upgrade the landscaping of the pedestrian access.

The location is also well placed to be accessed on foot from the residential areas north of York Road.

However, the loss of the pedestrian subway is a concern for the families that attend Sandfield Primary School and will be a concern for residents north of York Road wishing to shop at Waitrose. Being trapped on islands in the middle of this road is an extremely unpleasant and unhealthy experience. The more so as congestion along York Road, Stoke Road and Onslow Street would be made worse as a result of the Waitrose development.

The surface level car park seems to be a profligate use of space in this central location. For example it could be made two-storey by having a below ground level, as is already envisaged for some of the residential parking. We understand that the desire for substantial parking provision on the redevelopment in the Friary/North Street area, in which Waitrose's associated company John Lewis is closely involved, is a major reason for suggestions that the bus station be removed altogether from the town centre. An increase in parking on this

site could reduce the demand for parking spaces in the proposed North Street redevelopment.

It has been suggested to us orally that excavating for an underground car park adjacent to the houses in College Road would be inappropriate. We do not accept that this is in any way a challenging piece of engineering, although not as cheap to construct as a surface car park and such work is already proposed for the delivery access and the residential parking for the flats. It has also been suggested to us that shoppers do not accept parking on a different level from the shop floor. One need look no further than Cobham to challenge this claim, where the Waitrose store has a two-storey (above ground) car park. Whilst we have expressed concerns about the congestion that might be caused in the York Road area, we feel that this would be a better location for parking rather than taking traffic further into the town centre even if that parking did not imply the loss of the existing bus station.



Where are we going with our water?

Raymond Smith

Recently a Thames Water director commented, perhaps ruefully, "We know there's been a lot of rain since we announced the hosepipe ban, and we understand why people are talking about 'the wettest drought ever'." Before adding, "But - seriously - a couple of wet weeks are not going to fix the problem."

ALTHOUGH THE WEATHER of the last couple of years, and especially this spring, is not necessarily evidence of global warming, it does illustrate the problems that we face with the impact of man-made climate change, which include greater variability and unpredictability. This is both at the longer term level of the way that climatic flows will shift but also at the level of yearly weather changes in limited areas such as the UK.

Coping with this requires water management

changes and investment. As with any increase in unpredictability, there is the risk of some new infrastructure being out of use for much of the time, either because there is no water to be abstracted or there is so much elsewhere that the resource is not needed (although this is not new in the water industry).

There are three key elements to coping with the worsening shortage of water, and its associated environmental impacts; reduce consumption; increase retention in aquifers; and

The River Wey flowing through Guildford. How many times could its water be re-used?



Talk by Thames Water:

WATER CONSERVATION

Wednesday 20 June,
7.00pm,
Guildford Institute

Open to all

re-use water more, especially by “successive” use.

Reduce consumption

Thames Water, who supply water to much of Guildford (and handle all its sewerage), have taken quite a lot of flack in the past few weeks. The Green Party has listed leakage reduction as one area to be addressed. Thames Water do not have an exactly illustrious record in this regard, but the importance of leakage reduction is sometimes over-estimated. Some leaks are costly to repair in both economic and environmental terms, and if the loss is small there is not much point in doing so unless the water is causing a nuisance. The water is often not being “lost” but returns to the aquatic system. The loss is of the energy and other resources used to treat and distribute it, which might not outweigh the leakage repair costs. It is also argued at times that many urban trees depend for their survival on leaking water due to the impermeable surfaces around them.

The more important aspect is to reduce the amount that consumers use. High demand domestic customers, such as those with power showers or swimming pools, are supposed to be metered, but it is worth considering a two-level charging system with a per capita allowance for a household at a standard rate and anything above this charged at a higher rate. This would be one aspect of reducing per capita demand through attitude change and behaviour change. But reducing demand – even with static population levels – is unlikely to be enough to cope with the increased unpredictability of a changing climate.

Increase retention in aquifers

In the South East (and in the lowland zone in general) most of our water comes from underground. These aquifers are at worryingly low levels, and of course it is the water flows from them into rivers that also support river abstractions throughout the year. We need to take care of these underground resources, not just of our surface water and its attendant ecosystems.

As is widely recognised, an increasing problem for groundwater is that hard surfaces divert rainfall straight into watercourses, preventing groundwater recharge and increasing the risk of flooding. The reduction in loss of water as run-off depends on more sustainable drainage management. We are starting to address this with the installation of porous surfaces on many new developments, but there are still large areas of hard surfaces which will be in place for decades yet. The main sector in which we can make a difference is road drainage management. In most cases road water runs into artificial drainage systems before discharging into natural watercourses. We need to survey all our road systems and see how many of the drainage works can be re-engineered to retain water long enough for it to enter the ground and recharge the aquifers. Undertaking this will require a change of attitude and the

necessary investment, but it will also save on flood management downstream. Sustainable drainage practice is not a fluffy green luxury: it is a necessity for minimising economic, social and of course environmental costs.

Re-use water more

The great thing about water, unlike many other resources, is that you can go on re-using it, provided that you clean it up enough between each use. We have been doing it for well over a century. Keeping this in mind there really is no excuse in the long term for shortage of water for supply, other than the lack of resources to clean it.

Although the concept of river basin management was introduced nearly 40 years ago and England and Wales are still at the forefront of this approach, even with the creation of the Environment Agency (via the National Rivers Authority after privatisation) we are still not able to look at the water environment as a whole and work out how best to use it. Increased successive use depends on improved river water quality, and pollution control is key to this. If river quality were sufficiently improved it would enable greater use of river water during the “wet” season, and the conservation of groundwater reserves for use in the dry season. This “conjunctive use” has been around for decades. Although there is ongoing investment in improving the quality of sewage works discharges, this needs to be sufficient to allow abstractors downstream to take the water out again and treatment for public supply. In the South East especially, this may require some ‘water supply only’ companies to start using river water, when they have only worked with groundwater in the past.

Not the answer

Approaches to the problem that are often suggested are new pumped storage reservoirs and inter-basin transfers. These macro-scale schemes are, I suggest, not the answer. Whether big-scale engineering fixes or small-scale reservoirs, surface level storage has a high land take and also suffers evaporation losses, though it may be of some use in the short term. It is more sense to ensure that the water is kept in aquifers where the space is ready and waiting to be used. Inter-basin transfers, for example pumping water from the lower reaches of the Severn into the headwaters of the Thames, are also a bad idea. Apart from even further distorting the existing flow regimes, they also introduce water of a very different character (and possibly even containing plant and animal diseases) into rivers, usually where they are at their most pure. One could even see inter-basin transfers as a form of pollution.

The water shortage problem has to be looked at on a wider scale than so far, and we have to accept that addressing it is beyond the scope of one or two agencies or companies. It requires active cooperation between many organisations both inside and outside the water industry.

Pollination

Investigating bee pollination (of fruit) at East Malling in Kent, researchers found that solitary bees and bumblebees boosted fruit set, while honeybees played little or no part. Of the 13 bee species foraging for pollen and nectar in the trial areas, none were honeybees.

(*The Garden*, Jan '12)

Slaughter in Cyprus

An estimated 1.4 million songbirds were illegally trapped on Cyprus in 2010.

(*Source: BBC Wildlife*, Mar '11)

FACTS & FIGURES

Chicken welfare

At last an EU directive banning battery cages for chickens has become law. Egg producers must now provide cages big enough for hens to spread their wings and move around.

(*Source: Waitrose Weekend*, 12 Jan '12)

Economies – 1

Ryanair is encouraging its staff to lose weight in an attempt to cut fuel bills.

Economies – 2

In the 1980s, American Airlines claimed it had saved £25,000 by removing one olive from every salad served on its flights.

(*Source: Daily Telegraph*, 4 Apr '12)

Peat bogs

There is as much carbon locked up in the peat bogs of the UK as there is in all the forests of this country, France and probably Germany put together.

(*Source: BBC Focus*, Apr '12)

Our woodburner stove

Jenny Barnes

5

IN 2011 WE RESEARCHED whether it would be possible to install a woodstove in our house. We knew it wouldn't be simple because we don't have a chimney or an existing fireplace.

There are some modern designs of stove that are safe to install without a heavy concrete surround, and we picked one of these – Danish design and manufacture, a Westfire 15 (see picture). This has a firebox that is about 30cm above the floor, and is designed so that convection air flows between the firebox and the outer skin, keeping the outer shell relatively cool. It's still too hot to touch, but it won't set fire to the wallpaper about 30cm away.

We installed the stove on a teardrop-shaped grey resin hearth plate in a corner, on top of 22mm plywood over our floorboards. The hearth plate is there as protection from any cinders that may come out when refuelling, which has happened once or twice in the 6 months we've been using it.

It's a highly efficient design at 80%+, rated at 5.5 kW, and capable of outputs in the range 2 – 7 kW depending on how much fuel it gets. This compares with burning logs in an open fireplace which, because of the uncontrolled airflow, can result in no more than 25% of the heat energy in the fuel being useful while the rest goes up the chimney, including warm air from the room. Our stove has an external air source, so it does not need an air brick letting cold air into the room, but takes its air from outside.

The chimney is a double wall stainless steel flue, which goes out through the wall above the stove, then up the wall and stops about 3 metres above the gutter line. This is 1.5 metres above the minimum building regulation requirement, but high enough to ensure that any smoke output gets blown away, and not swirled back into windows. We've had it swept once; the chimney-sweep recommended once a year for the state of the chimney after 6 months burning.



The heat output is enough for our living room and the three bedrooms and bathroom upstairs; heat flows upstairs as we have an open-plan staircase in the living room, and the rooms upstairs stay pleasantly warm.

Ideally the logs should be well seasoned, and below 20% moisture content. Freshly felled wood can be around 60% water, and such wood is very difficult to burn, as the water has to be turned to steam before the wood can even begin to burn. It has been difficult to find reliable supplies of well seasoned wood. We've bought mostly ash and birch logs, and it is quite obvious when you put a wet (high moisture content) log on the stove – it stops burning with any enthusiasm and

smoulders. Getting it back to burning well may require adding kindling or dry logs, increasing the airflow.

Our previous technique was to have 3 or 4 logs on top of the stove, warming and drying before they went on, which worked very well; but we have been advised that this is hazardous.

Wood gives out most heat when it's burning quite hot. The heat drives out volatile gases from the wood, which gives the flames. If it's smouldering, a large part of those volatile gases goes up the chimney, giving you no heat and condensing inside the chimney so that it needs cleaning more often.

Logs are usually delivered in "loads" or half-loads; a load is around 2 to 2.4 cubic metres of logs, and a half load is half that. The cost is about £75 a cubic metre. It's usually delivered in a big heap near your wood store. Because our drive slopes I couldn't buy a ready-made wood store, but had to build one. And of course once the logs are there in a heap they need to be stacked. It takes me a bit less than an hour to stack a cubic metre of logs. The log store in the picture holds about 1.4 cubic metres. I have a third bin



The chimney, on the back of the house.



Our home-built wood store.

which takes another 0.8 cu.m. which can be dismantled for the summer, so we can take a full load of logs, with maybe a few stacked next to the bins if we go for a 2.4 cu.m. load.

We find that it works well for us to run the woodstove in the evening. It burns out if not refuelled in about 3 hours, so it's not possible to keep it running continuously overnight. We also have gas central heating, and use that in the mornings for convenience.

The airwashed glass door is our window on to the flames, and it's a real pleasure in the evening to sit and watch them. It does need some attention every day: I use a thin piece of wood to clean the ash through the grate into

the ash pan, which needs emptying every 2 or 3 days. Hob-brite and a paper towel cleans any deposits off the glass door, and then I lay the fire with 7 or 8 sticks of kindling and a firelighter so that it needs just a match to start it up later in the day.

Wood costs about the same as gas per kWh, so it's not a major economy in that way, but it does provide about half our heat over the heating season, from a fully renewable resource, and saves several tonnes of CO₂. The stove itself cost about £1,500, and the installation and chimney around £2,500. Not cheap, but it's a really homely form of heat that we love.

Draught-busting

John Bannister

STOPPING DRAUGHTS in your house is probably the easiest and cheapest way to improve the comfort of your home and reduce your heating bills. Thanks to Hyde Farm CAN for providing the original draught-proofing workshops, product research and documentation, and to Transition Belsize for

glazed wooden windows. For the latter, good quality clear film can, with care, be fitted over the glazed area with resin-impregnated tape which is hardened using a hair dryer.

The TTT Draught Busters course is a partnership between Totnes Town Council and TTT. Funding comes from the income



Schlegel Retro B strip – for windows and internal doors

Use around internal doors and windows, including sash and casement windows

Schlegel 21 B strip – for external doors and larger gaps

Use for external doors but can also be used internally

their draught-busting project, other Transition groups are now starting to pass on this useful knowhow within their neighbourhoods. To learn the ropes I went to a free hands-on workshop run by Transition Town Totnes (TTT) as I happened to be there to help plant a community orchard.

Six of us assembled in a small terraced house on a cold February day and within two hours we had acquired the necessary skills, fitted sealing strips to the front door and a dormer window and come away with £10 worth of free draught-sealing products to take home.

Gaps around doors and windows and between floor boards can allow cold air to enter a house and warm air to escape. The normal reaction of the homeowner is to increase the central heating or leave it on for longer. Older houses generally have a bigger problem. Easy remedies to stop draughts also exist for unused open fireplaces and single-

stream generated by the Feed-in-Tariff paid for the solar PV panels fitted on the Totnes Civic Hall, which were installed under a Transition Streets initiative.

The products recommended in Draught Busting workshops are easy to fit and suitable for most wooden-framed doors, windows and loft hatches. Even moderately competent DIYers can be shown how to fit them. The products are available from Gti Ltd and manufactured by Schlegel. They have been selected for their good quality, the excellent memory-returns of the compression strips that make the seal, and their long life (reckoned to be 10 years minimum and 20 years expected).

Transition Guildford (TG) is proposing to join with GEF and source funds to run Draught Busting workshops from people's homes. We will update you about this as soon as possible and certainly before the next heating season.

Insulation – 1

A solid brick wall without insulation loses heat up to seven times faster than a cavity wall.

Insulation – 2

As of 2008, 70% of UK houses had cavity walls of which nearly half were insulated.

(Source: *New Statesman*, 21 Nov '11)

Palm oil

According to WWF, too few UK companies are taking seriously the issue of sourcing sustainably grown palm oil. WWF has assessed more than 130 retailers and manufacturers, finding that only 44% use palm oil that is certified as sustainable.

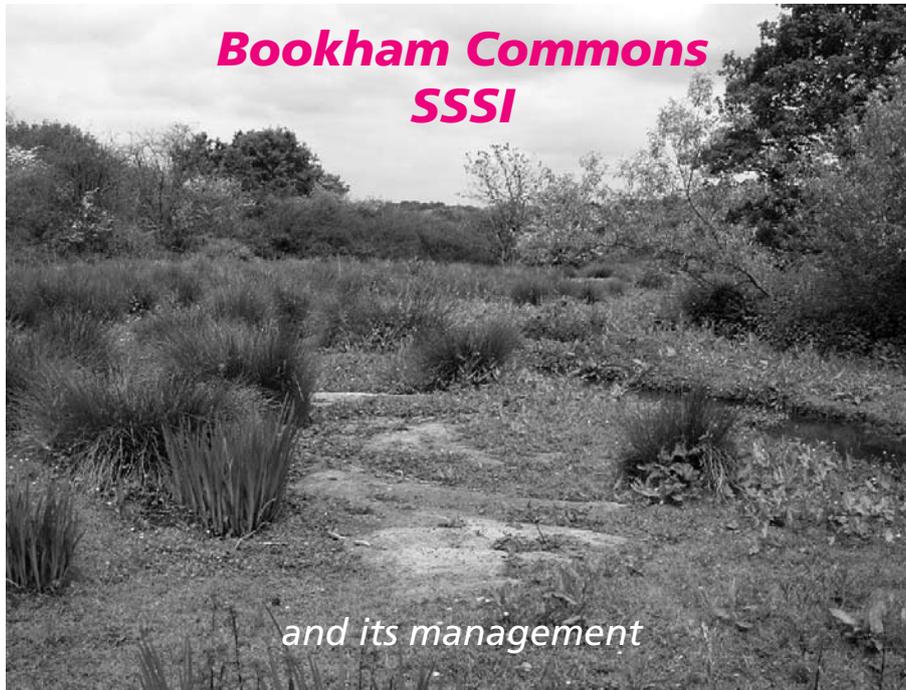
(Source: *BBC Wildlife*, Jan '12)

FACTS & FIGURES

Not totally bad then

The Harlequin ladybird, an alien that's bad news for our native species, may offer one advantage. Scientists have found that, when under threat, it releases chemicals including one called harmonine which could help combat diseases such as TB, malaria and MRSA.

(Source: *Waitrose Weekend*, 29 Sept '11)



Ian Swinney, National Trust Ranger – Bookham Commons

AS WITH MANY OF Surrey's heaths and commons, the Bookham Commons are rapidly reverting to dense woodland and are dominated by a few species of trees. The even-aged young trees have shaded much of the ground flora, leading to a serious decline in the diversity of plant life and consequently, invertebrates and birds.

This "invasion" of trees is attributable to the cessation of grazing by rabbits and domestic livestock during the last seventy years. With the lack of management (due to limited resources, the economics of a worldwide timber trade and, perhaps, a mistaken belief that "trees equal nature conservation"), even the woodland areas show signs of a sudden change. Veteran oaks and important intermediate trees are being shaded by densely-packed young ones, while areas of hazel coppice are neglected.

What can be done to prevent this terrible decline in our wildlife? It may come as no surprise that people are the answer – they caused the problem in the first place! We have been interfering with our surroundings for thousands of years, by hunting the large indigenous wild animals to extinction, taking over their role through rotational clearing for farmland or coppice, and have had grasslands grazed by our domesticated animals. Then suddenly, we left it all alone. Farming became more intensive, the roads got busier, timber was cheaper on the other side of the world.

Deciding what to do has been a problem. The National Trust is very fortunate to have access to a great deal of information concerning changes to the wildlife of the commons, thanks to the London Natural History Society's remarkable Bookham Commons Survey, started in 1941. This has helped us to refine our management options and target areas where intervention is essential. Equally, it helps us to retain fragile habitats or meet the requirements of rare species.

The commons have a great variety of plants and animals, though, as an example, the pyramidal and bee orchids growing beside streams that come from the chalk of the North Downs, will never be here in quantity.

Diversity, in the ecological sense, is linked to population size and therefore scale becomes important. We need each habitat to be on a large scale in order to support sustainable (i.e. large) populations of each species.

Careful, rotational clearing of some of the older scrub (retaining significant amounts for the hawfinches and the rare *Agrilus sinuatus* beetle that likes moist deadwood on mature hawthorn) and the felling of young trees in the grassland has encouraged at least nine nightingales to return this year. They are here to nest in the dense young scrub and feed on the numerous insects supported by the open grassland areas that are again being grazed by cattle. Some of the hazel has been coppiced, leaving other areas and strips as aerial passage-ways for dormice. Veteran oaks, intermediate and young ones (as eventual replacements) are undergoing "halo-release" with careful restoration of wood pasture.

Space prevents me from giving you more examples, but come and see for yourself, or join our wonderful volunteers to "rotationally browse" the commons! We want to grow wonderful trees for the future, in the woodland and wood pasture areas, but keep cutting the others down – they are a long-term threat to the landscape, the wildlife and people's enjoyment of both.



Trying out an electric car

The NISSAN LEAF

by Forum member John Pletts

Previous trials of electric cars

I have long been interested in electric cars and was briefly a member of the Electric Vehicle Society. In 2002 I took a test drive in the Reva G-Wiz, many of which can be seen on London streets; however, I found it much too uncomfortable for a tall person.

The NICE (no internal combustion engine) car was made in France and was a big improvement stylistically on the G-Wiz, but it was still a very small, rather uncomfortable vehicle. I have never seen one on the street.

Nissan's Leaf is a big step forward as it offers a genuine 5-seat vehicle with good levels of comfort and driver aids. At present these vehicles are made in Japan and are retailed through two outlets in England, one of which is in Aldershot.

Nissan is now offering the Leaf on 24-hour trial, and I took this up with enthusiasm although I was sorry that (for good reasons) I was not allowed to charge it up overnight. This curtailed the range available on the second day. On the dashboard display the remaining mileage available is shown and is constantly updated by the onboard computer, based on the driver's behaviour. It has two forward 'gears', DRIVE where full acceleration is available, and ECO which speaks for itself.

When the amount of remaining charge is below about 10% a pleasant female voice tells you. I returned it to the garage with 8 miles still available. I had travelled about 90 miles or 150 km.

Comparison with an alternative

The Nissan Leaf was extremely pleasant to drive but what of its usefulness and significance in the effort to reduce energy use and greenhouse gas emissions? The car I would compare it with is the Toyota Prius, which being a hybrid, has much greater (ie normal) range. The initial price to the consumer is similar at around £26,000 and both cars are of similar size.

In travelling 150 km the Prius would emit $(150 \times 88=)$ 13.2 kg of CO₂ and consume approximately 7 litres of petrol, which at present prices would cost £9.80.

To travel 150 km the Leaf would need 1 full charge amounting to 30 kWh which at 12.3p per unit would cost £3.69. Emissions from the generation of this electricity would be $(30 \times 0.451=)$ 13.5 kg of CO₂.

From the above it appears that the electric car enjoys an advantage in fuel cost which would increase if petrol gets more expensive, although centrally generated



electricity may also increase in price. However, what appears to be a running cost advantage for the Leaf is offset in the longer term by the low life expectancy of the electric vehicle, with batteries currently guaranteed for 5 years and maybe lasting for 8 years.

Although the relative emissions from the two cars are similar, the emissions from the Leaf can be partly or wholly offset by either obtaining the electricity from a 100% green supplier such as Good Energy, or generating one's own energy by PV panels or wind turbine or other.

In our case we have recently installed 12 PV panels which we expect to generate 3,000 kWh per year whereas our consumption is about 2,500. There should thus be a surplus of about 500 kWh per year, amounting to 16 full charges which should deliver about 1,600 miles – not a lot!

Why do we need electric cars?

The Academy of Engineering in its 2010 report on the future of electric vehicles wrote that the revision of the emission reduction targets to 80% (in line with the 2008 Climate Change Act) means that we now need radical, emission-saving changes to transport and that would almost certainly mean electric cars.

The report went on to set out the formidable obstacles in the way of electric cars, not least of which is the physical difficulty of recharging vehicles which are parked on the street overnight.

Nevertheless, the Nissan Leaf is now available and provided that the electricity needed to recharge it comes from renewable sources then a significant reduction (1.12 tons of CO₂ for 8,000 miles) in carbon footprint, compared with the Prius, can be achieved.

Prof. David MacKay, in his book *Sustainable Energy Without The Hot Air*, foresees that a huge fleet of electric vehicles could provide back-up to the future national network of wind turbines on the occasions when there is insufficient wind to generate energy.

The Green Motor Show in London

At this event last month there were electric vehicles

on show from Nissan, Mia, Vauxhall, Chevrolet and Citroën, but unfortunately not from Renault.

The car that really impressed me was the Chevrolet Volt. This is an 'extended range electric vehicle' (EREV) where the electric motor is always driving the wheels. It will travel about 50 miles on a single battery charge,

so local trips can be made like a pure EV, but the 1.4 litre engine is there as a back-up and for essential longer voyages. At about £5,000 more than the Leaf this looks a more practical proposition – although with considerable emissions from the manufacture it's really better, and cheaper, to walk, cycle or take the train!

Count the steps . . .

Every step you take on the beach on the west coast of Scotland marks enough [wave] power on average through the year to power 100 homes. (Source: *Professional Engineering*, Mar '12)

Fewer hedgehogs – blame the badgers again

The huge drop in hedgehog numbers is often blamed on badgers. Yet the British Hedgehog Society says that where the decline is highest there are fewer badgers. It attributes the decline instead to the way we have altered the environment: paved-over gardens, impassable fences, strimmers, pesticides (especially slug pellets), and even the ubiquitous worm-like rubber bands discarded by postmen. (Source: *Badger News*, Winter '12)

FACTS & FIGURES

Olympian task

Before construction of the Olympic Park in London, 2,000 newts were moved to a new home. A total of 525 bird boxes and 150 bat boxes have been put up in the Park.

(Source: *Surrey Matters*, Spring '12)

DORMICE AND LOTS BESIDE

John Bannister

THE SHEEPLEAS lie on top of the chalk downs above the Horsleys. It is a fairly large area consisting mostly of mixed deciduous woodland and flower meadows. There is a famous avenue of yew trees planted as a ride by a previous Lord of the Manor and a few singularly tall cedars also dating from that time. Nowadays the Sheepleas is a SSSI designated Local Nature Reserve right in the heart of the Surrey Hills Area of Outstanding Natural Beauty, managed by Surrey Wildlife Trust (SWT).

Hazel and ash are two dominant tree species in this beautiful woodland. Some of the hazel has been coppiced to encourage native chalk-loving wild flowers such as violets, primroses, honeysuckle and yellow archangel. And maybe, just maybe, with hazel and honeysuckle present we might find that sweetest little native creature the hazel dormouse. Once widespread over the British Isles, it is now confined to parts of southern Wales and England. Changes over the last century in woodland management, farming practices, loss of hedgerows and fragmentation of woodland are all reasons for the steep population decline.

I joined Jim Jones, SWT Wetlands Officer and Surrey Mammal Group Officer, and Sheepleas Ranger Guy Kent early one Saturday morning in mid-May, together with two young conservation-qualified volunteers. We had come to monitor small mammals in the Sheepleas but we weren't just looking for dormice. The previous evening some 50 or so small mammal traps had been placed on the ground over a part of the woodland floor identified with numbered stakes. These had been baited with grains, larvae and fruit with a bundle of straw to make a welcoming nest.

In the traps

We found that approximately 10% of the traps had been sprung and these were carefully placed in a large, clear plastic bag before being opened. The mammals we found were incredibly fierce and desperate to escape – the Wood Mouse and the Yellow-necked Fieldmouse. These were scruffed (held by the skin at the back of the head), upended in an undignified position to be sexed and then weighed and the results recorded before the animals were carefully released.

Next we visited two separate areas with about 50 dormouse boxes in each area. The boxes are



Elizabeth Burtenshaw

positioned at about chest height and wired to a hazel trunk with a small hole next to the trunk. At this time of the year dormice are thinking about coming out of their long October to April/May hibernation so their weight is at a minimum.

In the dormouse boxes

We were delighted to find two boxes occupied. Being quite cold for the time of the year both dormice were in torpor, curled in a ball and inactive so an easy matter to sex and weigh. They were 15 and 18 grams respectively and would have needed to be 30 to 40 grams going into hibernation in order to survive. One had made a simple nest with freshly cut hazel leaves. Their honey-coloured fur and large black eyes make them adorable creatures. Many of the boxes were occupied by birds sitting on eggs or a nest full of hungry youngsters, which were immediately left in peace.

Monitoring will continue on a monthly basis through the breeding season and volunteers are very welcome to join Jim and Guy at the Sheepleas. Please contact Guy on 07817 166652 if you want to assist in a unique wildlife experience. We saw fly orchid and a number of other flower species and other kinds of orchids were in leaf. There will be a Sheepleas Wildflower Walk on Saturday 16 June at 10 am starting from the Shere Road car park, when many butterflies should also be seen.

While we are thinking about our native mammals, if you have a wildlife garden without a pond or one that is mammal-friendly please think about giving a home to a rescued hedgehog from the Wildlife Foundation in Leatherhead (www.wildlifeaid.org.uk or 01372 377332).

Country Diary, May 2012 – Gunpowder Legacy

Michael Tanner

AT THE WEST AND EAST approaches to Chilworth even motorists are likely to notice the white pairs of discs cast in concrete which have been arranged on the grass verges. The notice states they have been donated by the people of Chilworth to celebrate the Queen's Diamond Jubilee of this year. Certainly they catch the eye, but they might puzzle those drivers who have no time to investigate. Their *raison d'être* becomes much clearer to the pedestrian who, braving the sodden black earth paths of the Tillingbourne valley, suddenly comes upon gigantic, blackened millstones projecting here and there through the woodland soil. It seems a pity that four of these could not have replaced their polite, miniature imitations by the road. They certainly make a more dramatic and more moving statement about the gunpowder mills which operated for three centuries in what has now reverted to a lush and peaceful valley, lulled by the song of many waters: shades of *Ozymandias* in a distinctly non-desert setting.

It is difficult to imagine the sounds echoing through this valley in the late 19th and early 20th centuries: rumbling transport, machine hammers, steam engines, men shouting, and on one fateful day in 1901, an enormous bang, when an explosion killed six of the many people employed on the site. By that date the structures and machines involved in the intricate and precise process of cleaning, grinding and mixing the three ingredients (saltpetre, sulphur and charcoal) occupied a length of at least half a mile, to judge by the substantial remnants of storage and mixing buildings interlaced with a multitude of little channels, where water flows in from the south side. Here was based the biggest producer in the UK of the then most modern form of gunpowder, the brown (prismatic) powder which had superseded the earlier black form. It released far less smoke with considerably greater explosive force.

You may well guess that the whole process greatly upset many people, one of them William Cobbett, famous son of Farnham in Surrey, in his rural tour of England. But there was no lack of demand for the product, even earlier than Napoleonic times and the First World War and no lack of demand for the services of the country lads who formed such a large part of those forces which served under Wellington, Nelson or Field Marshal Haig – lads epitomised by Thomas Hardy's Drummer Hodge, doomed to die and be buried on the South African Veldt in a campaign against the Boers: the terrible surrealism of war!

Now the entire area is undergoing a carefully planned operation under a local management team adhering to guidelines laid down by English Heritage, Natural England and The Forestry Commission. There has already been a thinning out of trees as evidenced by the sawn stumps of oak and alder, and the rebuilding of

culverts. This work will be resumed in the autumn when it will be less disruptive to wildlife.

After the sustained rains of this April, the whole Tillingbourne Valley, the adjacent water meadows and the hillsides of the North Downs are lusher than ever. Herons stand sentinel along the little tributaries, human fishers cast and recast their dry-lines upon the trout lakes, and a few walkers brave the side paths which descend through woods from the sandy, northern ridge. They are rewarded by the unexpected round every turn of the overhung path: apple blossom in profusion in an abandoned farm garden; sturdy lambs exploring the boundaries of their brief freedom; buzzards calling; oak trees in full leaf well before the ash, and glimpses of more and more Surrey Hills in the clear-washed distances.

Maybe, when they return to their cars and again approach Chilworth, they will notice something else in addition to the celebratory 'millstones': the roadside sign warning that toads may be crossing. Strange creature, Man, concerned about the manufacture of gunpowder on one hand and about the welfare of toads on the other. One might think he were two different species.

Keep track of Michael's observations by typing 'Get Surrey blogs country diary' into Google.

Well done Guildford!

Guildford's kerbside recycling collections now include virtually every sort of routine domestic waste. With the recent addition of mixed plastic packaging, clean foil, plastic bags and clean plastic film (but please not bubble wrap, polystyrene and crisp packets), food and drink cartons including Tetrapaks and metal and plastic screw tops, there is very little left that needs to go into your wheelie bin and end up in landfill. Moreover, the now long list of items we can recycle through the kerbside scheme are collected every week.

Well done the Guildford Borough Council Recycling Team, who can be contacted on 01483 444499.

Well done Surrey!

The amount of waste sent to landfill sites by Surrey County Council has halved between 2007/8 and 2010/11. A reduction of around 200,000 tonnes over the period (of which 76,000 tonnes were domestic waste) has saved the council £12.8 million. Surrey's aim is to eliminate the use of landfill disposal altogether by 2014.

GUILDFORD BUS STATION UPDATE

Keith Chesterton

The Guildford Bus Users Group presented their 2,600-signature petition to Guildford Borough Council in February with its rubric "Bus Station – Don't Move it – Improve it", as reported in the March newsletter. At that meeting the Council agreed that two members of the group could join the Council Working Party looking at the bus station. I (Keith Chesterton) and John Gaff, a very experienced bus consultant who has been MD of Tillingbourne Buses, and who has been responsible for Weymouth's new bus arrangements to cope with the Olympic sailing events, thus joined the group.

Besides us two, the group has Cllr Rooth (Council leader), Cllr Wicks (lead Member for Environment) and the officer managing the work for Guildford, Chris Mansfield, representatives from all the bus companies, the Council's consultants and a representative from Surrey County Council.

There have been two meetings of the group since we joined. Naturally, we were asked to keep our discussions confidential, so I cannot go into detail on these. However, in a desire to be co-operative, John and I put forward a scheme which would have a new, smaller bus station at the far end of the existing one (where the Aldershot buses leave from) and have buses set down elsewhere to save space in the development site.

More work has been done on the Bedford Road option, and also variants having bus stands on the street. Discussions are complicated by various requirements that we are told the developers have. The Guildford Dragon website has said, for example, that John Lewis wants a car park in the development with a minimum capacity of 400 cars. To me, it is difficult to see how this could be provided without making the existing traffic congestion even worse, and is against the whole strategy of the Council with its Park & Ride schemes.

Discussions are proceeding and we hope the group will be able to find a solution that will meet passengers' needs and will allow the Council to get reasonable shopping development on the site.

John and I are convinced that any solution which is going to provide proper facilities for bus passengers must have a bus station in the same general area as now, at its heart.

THE TALE OF A THOUSAND AND ONE LIGHTS

How John Redpath came by rather a lot of new lamps and what he is doing with them.

The lamps were rescued from landfill prior to the demolition of a building in south-west London. They never actually made it into the skip, money changed hands and they are now taking up a fair bit of storage space at the Spike in Warren Road. The intention is to offer them at rock bottom prices to environmental groups around Surrey and Hampshire and John is starting with Guildford!



These are high quality lamps made by Philips and their specification is:

Philips 'Energy Saver' light bulb, bayonet cap, 20 watts (equivalent to 100W)

12-year lifetime guarantee at 3 hours per day burning time.

They are on special offer to GEF members at £5.00 for three if collected from the Spike (open Tuesdays and Saturdays 10:00 to 15:00 or by prior arrangement) or £7.20 if sent by 2nd class post.

For more information contact John Redpath on 01483 598420.



Guildford Environmental Forum aims to improve the environment in and around Guildford for wildlife and for people and to build a sustainable future.

Join us in our work for the town and have this newsletter posted to your door four times a year. Forum membership costs only £10 per year or £15 for a couple, and new members are warmly welcomed.

Please contact Adrian Thompson on 01483 222687 or e-mail adrianthompson46@talktalk.net



CALENDAR



All the Forum's Group meetings are open to the public

Thursday 28 June

GEF Sustainable Construction Group. Chris Shaw, FICE, FIET, MStructE, MCMI, Consultant:
"Sustainable Construction and the Monet Bridge Project".
1900. Committee Room 1, GBC Millmead Offices.

Monday 2 July

GEF Energy Group. Dr Ed Lloyd-Davis from 'Frack-off':
"Surrey in the Fracking Firing Line: who owns local licences to explore for unconventional gas in your county? What will the process involve and how can you stop it?".
There will be plenty of scope for questions. Meanwhile, browse the website www.frack-off.org for a wealth of information including a map of planned sites.
1900. Council Chamber, GBC Millmead Offices.

Wednesday 4 July

GEF Biodiversity Group. Jim Jones, Wetlands Landscape Officer, Surrey Wildlife Trust:
"Wetlands in a Living Landscape".
1900. Committee Room 2, GBC Millmead Offices.

Thursday 19 July

Peter Curnock will lead **A Butterfly Walk Across Pewley Down**. Peter is one of the leading members of the Pewley Down Volunteers who are working to achieve good quality grassland habitat.
Meet at 1400 at the top of Pewley Hill at entrance to the Downs.

Tuesday 4 September

One-day Scythe Training Course for Beginners and Improvers.
Mark Allery returns by popular demand to repeat his highly successful course on the Downs off Longdown Road (where the Food Group is creating a market garden, as featured on page 1).
Booking essential. Please contact John Bannister for details, on 01483 570468.

Saturday 8 September

"Wildlife Rocks" (formerly Great British Wildlife Festival) at Guildford Cathedral.
The animal charity event of the year, with talks, music, animals, stalls, family-friendly activities and a charity auction. Brian May will be attending. Information and tickets from www.wildliferocks.me.

Sunday 16 September

Transition Guildford/GEF Food Group. **Apple Pressing at National Trust Winkworth Arboretum, "Live Local Love Winkworth Too"**. Please come and support us at our stall from 1000 to 1600.

GUILDFORD ENVIRONMENTAL FORUM

Chair / Biodiversity – Raymond Smith
7 Felday, Holmbury St Mary, Dorking, RH5 6NJ
E-mail: raysmith.biodiversity@envirohistory.waitrose.com

Vice Chair – Damien Short
Institute of Commonwealth Studies, School of Advanced Study, University of London, 2nd Floor, South Block, Senate House, Malet Street, London WC1E 7HU
Tel: 020 7862 8836 E-mail: damien.short@sas.ac.uk

Transport – Alastair Atkinson
7 Elles Avenue, Guildford, GU1 2QH
Tel: 07929 138650 E-mail: bags@btinternet.com

Waste and Recycling – Lucy McSherry
E-mail: lucy.mcsherry@hotmail.com

Energy – John Bannister
2 Littleholme, Upper Guildown Road, Guildford, GU2 4EZ
Tel: 01483 570468 E-mail: johnw.bannister@virgin.net

Schools – John Bannister
2 Littleholme, Upper Guildown Road, Guildford, GU2 4EZ
Tel: 01483 570468 E-mail: johnw.bannister@virgin.net

Community Projects – John Bannister
2 Littleholme, Upper Guildown Road, Guildford, GU2 4EZ
Tel: 01483 570468 E-mail: johnw.bannister@virgin.net

Sustainable Construction – Position vacant (John Bannister pro tem)

Food Group for Transition Guildford and GEF – Kate Millington
Tel: 07766 731717 E-mail: kjmillington@yahoo.co.uk

Treasurer – Adrian Thompson
Lamp Cottage, The Street, East Clandon, Nr Guildford, GU4 7RY
Tel: 01483 222687 E-mail: adrianthompson46@talktalk.net

Membership – Position vacant (Adrian Thompson pro tem)

Newsletter – Clare Windsor
15 Tuesley Corner, Godalming, GU7 1TB
Tel: 01483 418048 E-mail: clare.windsor@waitrose.com

Guildford Environmental Forum's newsletter is published in March, June, September and December. Please send contributions for the next issue to Clare Windsor by Monday 13 August. The views expressed in this newsletter are strictly those of its contributors and Guildford Environmental Forum.