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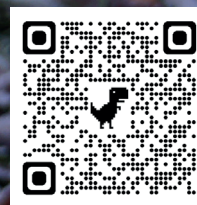
Guildford Environmental Forum newsletter

December 2023 - February 2024

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*Frosty fallen oak leaves,
photographed by Raymond Smith*

"Love is in the air": A Wildlife Gem Right on Our Doorstep

by Regena Coult



HAVE YOU ever felt that first day after the winter cold that brings a thawing? The temperatures have reached a milder level, buds on the trees are ready and awaiting the right moment to burst forth, blackbirds are singing, looking for a nest site to guard from rivals, the air has a sweetness that can be smelt, heralding the arrival of spring, bringing with it the hope of love and romance?

It is not just us human beings that can feel the season. Many animals receive the impulse to go in search of a mate, breed and raise offspring. Our beloved garden birds are well-known for their nesting behaviour early in the year. But I would like to present to you a different creature, one that is much more obscure: a female common toad, "bufo bufo" (pictured left).

While we go about our business quite unsuspectingly, a flurry of activity takes place in the world of toads and their distant relatives, frogs and newts. They emerge from their hibernating places, from holes in the earth, from under logs

or stones. They all have one thing in mind: get to their native pond, find a mate, lay their spawn, return. They walk, on their bare hands and feet, over long distances, some up to a mile.

Most of our native amphibians lack the ability to attract a mate by scent, vocalisation or display, which are some of the means employed by other classes in the animal kingdom, such as mammals and birds. How can a toad get around this lack and maximise its chances to find a mate? The answer is: by going to the same place as everyone else, at the same time, and picking someone out of the crowd! And so it happens that there is this massive migration of toads and other amphibians during the months of spring.

Where does all this take place, you might ask yourself?

Anywhere there exists a suitable pond and habitat is the answer. There might be an area very close to you, right on your doorstep, so to speak!



But sadly, the picture isn't all rosy. On their way to the breeding ponds amphibians encounter many man-made obstacles. Road traffic is by far the most deadly in its impact - thousands of amphibians lose their lives to road traffic every year.

This is where you come in. You can help save amphibians from getting killed! How, you might ask? Our recent event brought interested people together to find out how joining a local toad patrol can help our wildlife thrive.



Toads on the Roads: An Amphibious Evening

by Sarah Davis

ON JANUARY 16th, Zero Carbon Guildford and Guildford Environmental Forum, together with Shamley Green Environment Group, hosted our first event of 2024. 'Toads on the Roads' featured theatre, a talk, and a meet-and-greet with the amphibians. At the end, we had plenty of interested attenders signing up for local toad patrols, and a working party to help build a toad fence in Shamley Green.

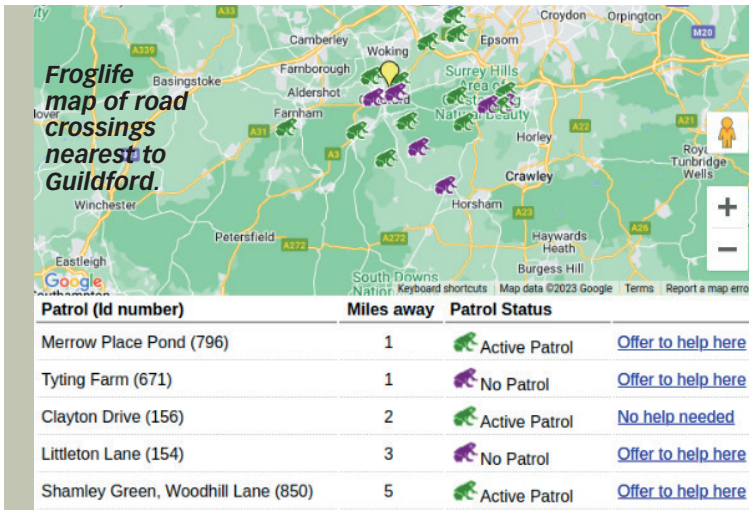
The picture to the right is myself in the middle, with Regena Coult, who is a Shamley Green Toad Patrol Warden of many years and who provided our talk. Chris, on my other side, is a Toad Patrol Warden in the area just off the A3, near Wisley, near all the current road works. Chris also spoke that evening. It was a full house of 60 people on a cold frosty night, so we started with a fun toad-themed warm up exercise. We were then plunged into darkness and watched a short piece of theatre from the Shamley Green toad patrol team, who did a re-enactment of a typical toad patrol evening, featuring their flash torches, hi-vis jackets and buckets. They put toy frogs in their buckets as they worked their way through our audience, with a bit of comedy thrown in, and the audience was soon having a chuckle.

This was followed by a very informative talk from Regena where we learnt about the development and lifecycle of amphibians. We heard about different species and how natterjack toads are so rare. We heard about the species that we know



we have locally, and were introduced to some live 'specimens', including Ralph.

We learnt about how our toads and frogs always return to the same pond they were born in and the importance of their mass migration. A working party was then advertised for the week of 22nd January, where help is needed to build a toad fence in preparation for that mass migration at Shamley Green. See below for information on how to sign up and a link, as well as email address to find out more about where your local toad patrol is and how to get involved. If you are aware of possible signs that toads cross roads somewhere in Surrey that we are not aware of, please do report it to Regena using the email below so we can try to organise a patrol to cover it!



The evening ended with everyone networking while waiting in a queue to handle our frogs and toads. Their cool skin soon puts a smile on your face and it was a privilege to get so up close and personal with such an amazing animal. Many people signed up for toad patrols, and SARG and Shamley Green are looking forward to working with all our new and enthusiastic volunteers to support the amazing nature spectacle which is the mass migration of our amphibians across January, February and March. See you there at one of our patrols!



There is a current need for more toad patrols to form in Clandon, Albury and Littleton near Compton. Help is also needed at Milford, on Station Road, between the golf course and woodlands. Some perfect nights to go and look and see if you might have toads crossing close to you are:

- End of January, as it starts to warm, through to April, sometimes even through to May, with February and March being the busiest times.
- Dusk, so in early winter around 5pm, but as the months move on it will gradually be later.
- In temperatures above 5°C, and usually in double figures.
- Wet and warm weather - raining is perfect!

Always wear your hi-vis and bring a very strong torch - you can usually find them at builder's merchant shops - as well as strong waterproof boots, rubber gloves and good, warm wet weather clothing for protection. Once a toad patrol is decided, a toad patrol portable road sign can be used on the night. Contact SARG for further advice, or Regana Coult at toads@surrey-arg.org.uk.



For further information on toad patrols in Ockham by the A3, and to find out more about his work on the toad tunnels, contact Christopher Campbell:

bythewildwood@outlook.com

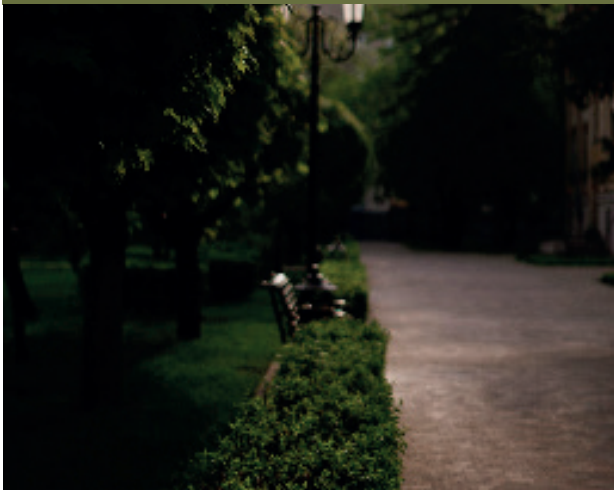
He can also advise getting torches from without breaking the bank!

Below is the link for the Shamley Green Toad Fence Working Party to sign up over whole week of the 22nd January: <https://volunteersignup.org/DRKDL>



The Ancient Art of Hedgerows

by Anna Williams



HEDGEROWS, MORE commonly called hedges, are a staple of the British countryside and, some say, an example of indigenous knowledge in Britain. Some British hedgerows have been in place for over two thousand years, though hedges as we know them today, were created in the Medieval Era. Traditionally, they marked boundary lines of ownership. However, they provide many benefits outside of this. They represent shelter and food sources for many animals. They connect otherwise fragmented forests. And, they provide a store of carbon. These are just a few of the many benefits hedgerows

Hedgerows are woodland edge habitat and consist of various plant life. In the Bronze Age, they would have been thin stretches of woodland. However, in modern times, they are generally thinner and comprise various shrubs and low trees, such as hawthorn, blackthorn, hazel, bramble or cow parsley. Flowers such as roses, bluebells or greater stitchwort may also be found. These are especially good for pollinators such as bees or butterflies.

Many of our hedgerows were lost during the Second World War, along with much of our knowledge in how to maintain them. However, as their importance becomes more and more



understood, groups of environmentalists are working on gaining this knowledge once again. Many government and charity initiatives have encouraged the conservation of these hedgerows, including the Surrey Wildlife Trust, which won funding for this in 2020.

While the importance of hedgerows may be ancient knowledge, they signpost our future priorities.

GEF Biodiversity Project Update: the Mount Volunteers

by Helen Harris

few of the threatened species who rely on it. Our aim is to restore (initially) one field on the Mount using only hand tools. This avoids the application of chemical herbicides, which is damaging to other plant and invertebrate life, and mechanical cutting, which is damaging to the brown meadow ant hills and fails to remove scrub plants below ground.

If you don't know about the amazing relationship between the large blue butterfly and brown meadow ants, watch here and be amazed <https://www.youtube.com/watch?v=BM8TczDI0g0>

GEF'S CONSERVATION and habitat restoration project on the Mount continues this winter. This programme was set up in 2022 jointly with Guildford Borough Council, who manage the Mount and with the brilliant support and energy of GBC Countryside Warden John Andrews.

The Mount is a chalk grassland habitat, with potential to be as biodiverse as a rainforest in terms of number of species per square metre. It already boasts a good range of chalk grassland perennial flowering plants, including three species of orchid as well as nesting skylarks and green hairstreak butterflies to name but a



We now have over 60 volunteers signed up to the Mount Volunteers Whatsapp and we meet monthly to remove mostly hawthorn and dogwood, clematis and brambles, opening up the grassland so it can thrive. This work is enhanced by the annual conservation grazing from the cows, who help to clear the fast growing grasses from the site and leave muddy open footprints where other plants in the seedbank can get a toehold.

In the last quarter, Mount Volunteers started its second season of work (scrub clearance is necessarily a winter occupation as we don't want to disturb nesting birds or trample delicate orchids!).

In October, we hosted 22 volunteers from local law firm Stevens and Bolton and another team from BugLife. Both groups did a day of tree popping as a break from the office and a contribution to local biodiversity. We have capacity to host more corporate groups midweek, so if you would like to arrange for your company to come please do get in touch to arrange via countrysidevolunteers@guildford.gov.uk



In November we installed our very own tools storage shed in the Wodeland Allotment site paid for with the help of funding from Councillors Angela Richardson and Colin Cross of Surrey County Council. The shed was built on a firm base constructed by a team of volunteers led by Fiona Moore with materials donated by local builder John Jenney. The shed will provide a secure and convenient place for tools to be stored in between sessions.



Our November work session was spent putting in scrapes (small areas where top soil has been scraped back) in order to plant kidney vetch and horseshoe vetch – food plants for the rare small blue butterfly and chalkhill blue butterfly. Thanks to Bill Downey from Butterfly Conservation for leading this session.

In December, we held our first ever fully independent Mount Volunteers work-party as we move forward into 2024 as a self-led volunteer group. We continue to work in close coordination with John and the Countryside Team at GBC, as well as with Butterfly Conservation, for whom the Mount is a priority site in Surrey.



Huge thank you to everyone who has supported the Mount Volunteers in 2023. If you would like to find out more please visit our website: <https://mountvolunteers.wixsite.com/guildford>.

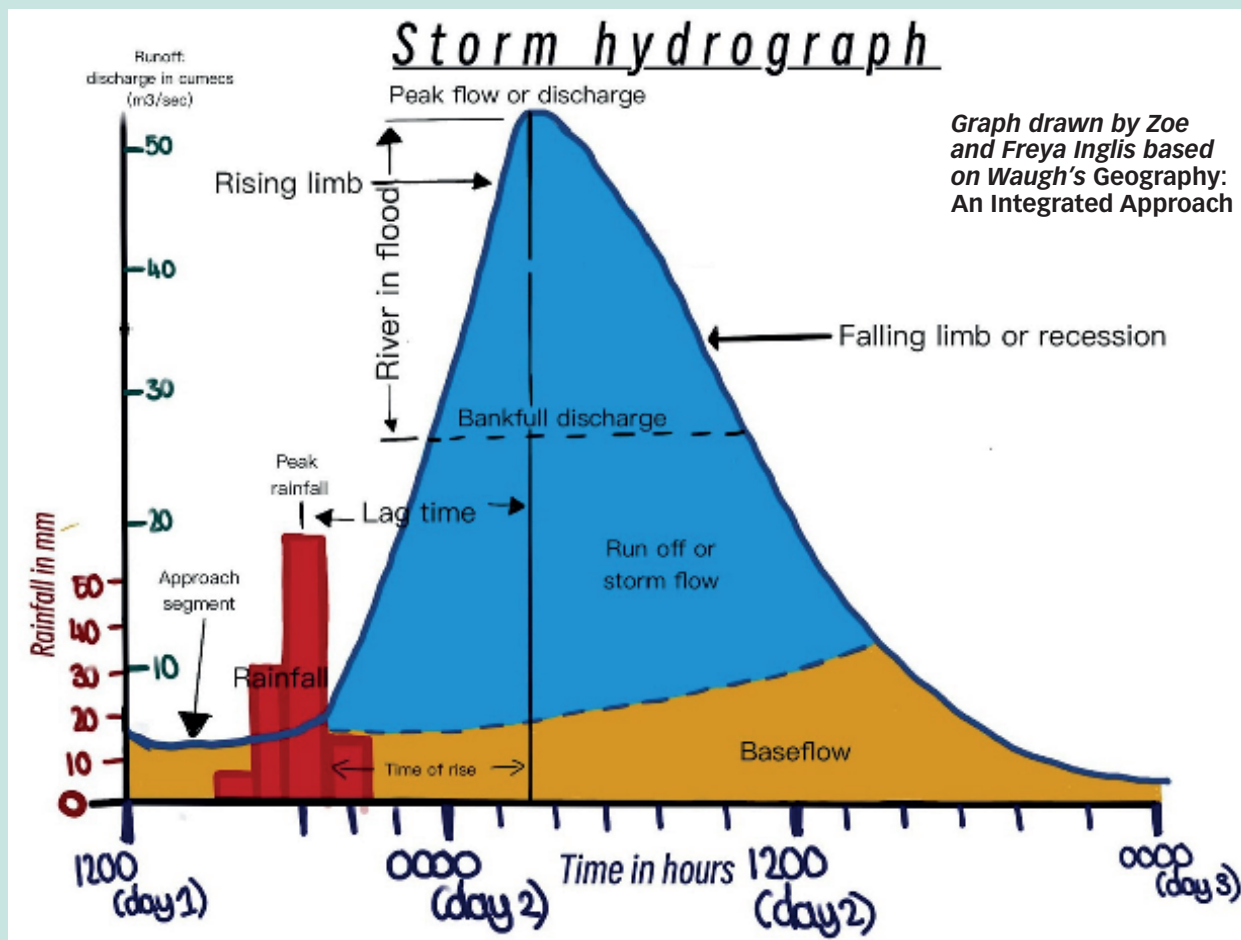
If you would like to be added to our Volunteer Whats App group please contact Helen Harris helenlwharris@gmail.com

Our 2024 spring meeting dates are February 4th and March 10th, 10am – 1pm. We meet on the footpath along the top of the second field beyond Henley Woods as you walk away from Guildford on the Mount. WhatThreeWords: undulation.poet.panels



Storm Hydrographs & Flooding

by R.E.J. Seymour



THE GRAPH above shows a basic storm hydrograph, which has time on the x axis, precipitation measured in mms, and river discharge measured in cubic metres of water per second passing a gauging station on the y axis. Bearing in mind the recent severe floods that have occurred in Scotland and in other parts of the UK, the use of river discharge data recorded by the Environment Agency and other data sources is critical when dealing with flooding problems along rivers and their floodplains.

When a storm starts, it takes time for rain that has fallen in the catchment area to reach the river. This can be by runoff from the surface and by throughflow from rocks and soil, as well as by falling directly into the river. Conditions prior to the storm event also have an impact on the hydrograph, such as the pre-existing levels of moisture within the soil. The graph in this case shows a steep rising limb, which indicates that the rainfall reached the channel quickly.

In addition, the top of the rising limb is the peak discharge, which is over 50 cumecs. The difference between the rainfall peak and the peak discharge is known as the lag time, and it is evident that a wide range of physical and anthropogenic factors influence the length of the lag time. The geology within the river's catchment impacts the lag time. For example, rock type; whether it is porous, pervious or impermeable.

Often, impermeable rocks in the catchment area will result in rapid surface runoff. The slope gradient in the catchment is vital, as steep slopes mean that surface water can reach the river's channel quickly in comparison with gently sloping lowland catchments. The size and shape of the catchment has an impact on lag times and, in particular, the drainage density, which refers to the number of surface streams in a given area. Locally, the River Mole in the Mole Valley has a high drainage density in the upper reaches, and the river is vulnerable to flood events.

The type of precipitation has shown to be very significant recently, as after prolonged rainfall the ground is saturated and infiltration has been replaced by overland flow, which adds to the flooding problem. Intense summer storms on hard ground result in flash flooding, as does heavy snowfall on frozen ground followed by rapid melting where surface runoff increases rapidly. On tidal rivers, high tide events prevent river flood water from reaching the sea, as it builds up in the lower parts of the river. In extreme circumstances storm surges can occur when high spring tides coincide with gale force winds, as happened in South East England in 1953.

In respect to the land use within the catchment, it is clear that urban land uses have a very different hydrology to natural surfaces. Urban areas have more impermeable surfaces, such as roads, concrete, bricks and tiles, which have limited storage capacity. This is evidently exacerbated by front garden grabbing, when they are turned into car parks. Also, urban areas have many artificial drains such as gutters, sewers and storm drains, which reduce the length of lag times and increase the level of the peak discharge.

With continued urban growth, floodplains are being built on, which in turn means that these riparian lands lose their capacity to store water as they would have in the past. This increases the potential for flooding.

In central Guildford, on the River Wey, there is a automatic gauging station which provides information about the discharge of the river and produces graphs. RiverLevels.UK is an independent website which draws together data from different sources, providing information about river levels, flooding and flood forecasting.

There is little doubt that due to climate change storm events such as Babet are likely to become more extreme and flooding events will increase in their severity.

It follows that data about river levels as displayed on hydrographs are of vital importance in understanding the impact of river levels, flooding and flood risks.

A rainbow appears over the forest between rain showers; photographed by Raymond Smith



We might finally be able to have our cake and eat it when it comes to housing

Britain can look to German cities like Freiburg on how to build homes without sacrificing farmland

by Rosie Pearson

This article, which discusses Guildford's twin town, Freiburg, was originally published in The Telegraph in December 2023.

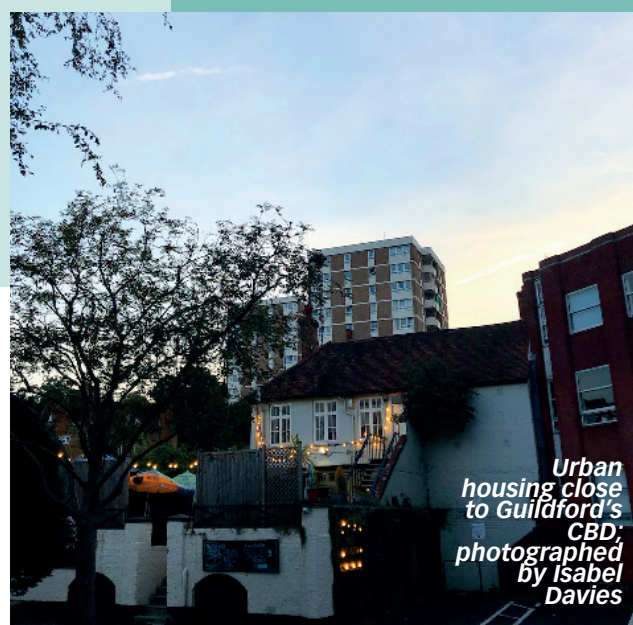
IN A Christmas present for communities, the new planning rules announced by Michael Gove contain some hope that we might see a shift away from the targets-based planning so loved by the development sector.

According to the rules, councils will not be expected to concrete over protected greenbelt land, and will have more flexibility to set their own housing targets. In addition, the importance of "food producing" land is now recognised, and proposals of "inappropriate density" can be rejected.

It comes following criticism of the latest planning permission figures, which showed the number of new home sites had fallen, with those calling themselves "planning campaigners" saying these changes are a "victory for the Nimbys". But look closely. These campaigners are in fact the Home Builders Federation, the self-styled "voice of the industry" representing house builders, not the people who need somewhere to live.

As my thoughts turn towards the festive cakes and other treats, I wondered – can we have our cake and eat it when it comes to housing? With MP Therese Villiers saying the new rules will strike the right balance between the rights of existing residents and the need to increase housing supply, perhaps we can.

A few years ago, I was asked to talk to architectural students in Colchester about planning. To the bemusement of other customers, this took place in a busy supermarket café. Aptly, it was situated in the middle of the kind of bleak, car-filled, housing estate surrounded by mega-stores, that epitomises what we



Urban housing close to Guildford's CBD, photographed by Isabel Davies

do wrong with development in Britain.

I kept my thoughts to myself, however, and sent the students forth to walk around the area to gather their own perceptions. They returned gloomy, describing the development as soulless, with no sense of community and no greenery, and too dependent on access by car. They said that this was not the kind of place they would wish to live in or raise children in, and there was a sense of despair that this was their future.

Sadly, as evidenced by the feed of @PlanningS--- on X (formerly known as Twitter) – which posts examples of terrible building decisions – it is clear that living on a bleak housing estate that is littered with cars is the future for our young people. We owe it to them to find a better way; we need to look to our continental friends.

Around the same time as I gave the talk, I took my children to visit Freiburg, a city on the edge of the Black Forest in Germany. What a contrast with Colchester. This leafy city is chock-full of trams, buses and trains. They run frequently, reliably and cheaply, in all directions. There

are more than 400km of cycle paths, with cyclists, bikes and bike stations everywhere. Colchester, otherwise known as Britain's First City, and Freiburg, are under not dissimilar growth pressures. But while Colchester sprawls inexorably outwards, at a such a terrifying speed that you become disoriented and lost in its new outskirts each time you visit, Freiburg decided not to gobble up countryside and pursued a strategy that does not involve more and more cars clogging the roads and polluting the air.

With results that we could only dream of in England, Freiburg took the decision to prioritise public transport, cycling and walking, and to grow through compact and incredibly well-connected urban extensions. These two suburbs, called Vauban and Rieselfeld, both are on brownfield land.

Despite housing 5,000 inhabitants (and 600 jobs) in just 94 acres, Rieselfeld is bursting at the seams – not with people, but with shrubs, trees, flowers and also living walls and roofs. Vauban, too.

Unlike in Britain where, invariably, you have to make a special trip to the park, often in new developments having to cross a busy road to get there, in Freiburg, the homes are built in *among* the greenery. You do not have to make a conscious effort to visit a green space. The play areas are integrated among the houses, and we saw toddler groups, dog walkers, families and senior citizen exercise groups all using them.

My children spent hours happily exploring, finding fairytale red and white spotted toadstools, and playing in a stream. They asked me why new housing at home could not be designed like this. The secret recipe? Freiburg's residents were asked what kind of growth they would like. They said "no sprawl".

Many of the problems associated with growth were solved by integrating transport planning with land use planning, something we are phenomenally bad at doing. A few hours' drive south of Freiburg, Munich's Municipal Housing company is building its own sustainable suburb, called Freiham, with subsidised housing, according to Transport for New Homes.

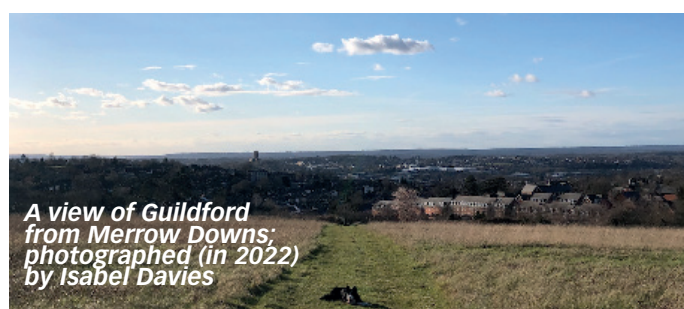
Like Freiburg, it is designed around having facilities within reach by foot or on bike, and accessible by

public transport. It is still under construction, but already there is a coffee shop, hairdresser and food store. The Germans, like the Dutch, seem to have this approach down to a tee.

Look at the differences with the way we generally do things at home. Firstly, we waste space – that means using up good farmland and destroying green spaces, while low density also bakes in car-dependency. Freiham will house 25,000 people on the 470-acre development, in low-rise apartments. Here in Britain, a typical development on a site of this size would only house 2,700 people. It would be predominantly accessed by car, be disconnected from its urban centre, contain virtually no social housing, and suffer from a lack of services.

Barking Riverside, in London, offers some hope. Described as "a place to be, become and belong", the 440-acre brownfield site that once hosted a power station will house 11,000 people. Unusually, an infrastructure-first approach has been taken. Residents are spoilt for choice when it comes to public transport. The tube line was extended, a new station opened last year, the Thames Clipper departs from the waterfront and there is a network of cycle paths.

Perhaps the secret to big picture planning is the number of partners collaborating on the project, who in this case include the Mayor of London, Transport for London and Homes England. The Germans do seem to have their cake and eat it when it comes to housing. Perhaps that will be something we can enjoy one day.



*A view of Guildford
from Merrow Downs;
photographed (in 2022)
by Isabel Davies*

The new planning rules provide a glimmer of hope that we will see more brownfield development and urban intensification instead of green field sprawl and housing on best farmland. The next step is for politicians to start to take a strategic approach.

Read the original here: <https://www.telegraph.co.uk/money/property/planning-housebuilding-decisions-greenbelt-germany-freiburg/>

EVENTS

All the forum's events are open to the public!



EVERY SUNDAY, 12PM - 4PM Big Job Sundays

Every week at Rosamund Community Garden, come and work together on a group project! From 12-4pm, bring a packed lunch. We'll make a brew. Work parties also occur every Tuesday and Sunday afternoon between 2-5 PM. We also organise big projects such as hedge or tree planting, and wildlife surveys. And keep an eye on our website, <http://www.guildfordcommunitygarden.org.uk/> for more events! We welcome ideas for additional events at the garden.

Longdown, Guildford, GU4 8PP

FEBRUARY 3RD & 4TH + MARCH 2ND Community Hedge Planting

Surrey Hills Society is continuing to work with local landowners and farmers to plant native hedgerows across the Surrey Hills National Landscape, as part of the Surrey Hills Conservation Volunteers scheme. This will create vital wildlife corridors, as well as provide food and shelter for a variety of wildlife. Hedgerow planting is a fun activity, suitable for individuals, families and friends and a great way to enjoy the beautiful landscape. Join us and the local farmer in planting a variety of native tree species for nature to enjoy! No prior experience necessary! Find the events here: <https://www.eventbrite.co.uk/cc/surrey-hills-conservation-volunteer-events-1594099>

Great Tangle Manor Farm, Wonersh, GU5 0PT



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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 around the town and have this newsletter posted or emailed to you four times a year. Forum membership is only £10 per year or £15 for a couple, while for age 21-25 it's £5 and for under 21s it's free. New members are warmly welcomed! Please contact Janice Bennett with any queries.



Please send all newsletter submissions for our spring edition (articles or photographs) to Isabel Davies by March 1st at the latest!