



Climate Change

Surrey Wildlife Trust Position Statement

JANUARY 2020

1. Background and need for a position statement

2019 may go down as the year when the penny universally dropped that a 'climate crisis' is genuinely upon us. Surrey County Council and most of our borough and district authorities have this year declared Climate Emergencies. This is in response to various unfolding global urgencies, culminating in the previous government's formal adjustment of our national policy targets to mitigate future climate change. The Trust has increasingly found itself drawn into decision-making procedures that have wider repercussions for climate change mitigation, as well as adaptation.

Mitigation seeks to ameliorate the inevitability of human-accelerated climate change through measures to lower the rate of greenhouse gases (primarily Carbon di-oxide/CO₂ from fuel combustion) entering the atmosphere. **Adaptation** is making ready for the future consequences of rapid climate change, from infrastructure planning to biodiversity conservation approaches, which is where the equally popularised concern for exponential global wildlife extinction overlaps as a separate but associated issue.

As a charitable body the Trust is principally accountable to its membership, many of whom are actively concerned lobbyists in the democratic decision-making around the climate change issue. The Trust is being consulted on various planning matters with climate change implications as the leading environmental NGO for Surrey championing wildlife conservation. As specialist planning advisors to the majority of Surrey's local planning authorities and also as a key steering partner in the Surrey Nature Partnership¹, we must adequately consider the broader sustainability issues of the current, modern agenda.

The Trust has been working to its *Living Landscapes* strategy since 2010, a chief driver for which is the necessity for a 'landscape scale' approach as climate change adaptation for future biodiversity conservation. Only by re-establishing ecological connectivity across our county and the country as a whole, can we expect the least mobile of species to adjust their distribution northwards in response to a warming climate. Our role has traditionally championed the preservation of Surrey's species and habitats. But it would seem increasingly appropriate for us to now campaign more overtly against the *causes* of human-induced climate change underlying the problem.

We are already witnessing the effects of climate change on our wildlife². Average temperatures are rising incrementally and the phenology (annual life-history calendars) of many plants and animals are adjusting accordingly. The fear here is for cases of evolved synchrony of behaviour to seasonality (for example the flowering of a plant with the adult emergence of a mutually-dependent pollinating insect) pulling apart temporally, thereby causing the critical relationship to break down and contribute to both species' local extinction. More mobile species, such as migratory birds and winged invertebrates are better equipped to respond to shifts in their preferred micro-climate, so we have seen dramatic expansions of some formerly restricted species as well as regular new colonists from abroad. These arrivals can change existing species assemblages, especially if they behave 'invasively' by replacing residents through simple resource competition or fresh predatory pressure. Hibernating species like bats, dormice and hedgehogs have become confused by milder, unstable winter temperatures, which effect their normal period of torpor with stressful, sometimes even fatal consequences. Lastly, an important element of Surrey's biodiversity represents the leftover relicts from the last and much cooler post-glacial period, already at the limits of climatic tolerance. These species are particularly vulnerable to a warming climate and their extinction could now prove unavoidable.

2. Policy & the Trust's position

National policy.

As signatories to the United Nations Framework Convention on Climate Change³ 2016 Paris Agreement, the UK government is obliged to pursue efforts to limit global warming to 1.5°C, while the Climate Change Act 2008 legally binds the government to ensuring that carbon emissions in 2050 are at least 80% lower than the 1990 baseline. In 2019 the government amended the 2008 Act to include a net zero target for 2050. Burning fossil fuels (coal, oil and gas) is the primary cause of CO₂ emissions, and the major sources are from air and road

1. See: <https://surreynaturepartnership.org.uk>

2. See: Terrestrial Biodiversity Climate Change Impacts Report Cards (LWEC 2013, 2015)

transport, food production and waste disposal, and of course the energy required to run our own homes and workplaces. Potential solutions include the provision of energy from renewable sources such as wind and solar power, but must also involve a serious reduction in the power we consume and indeed waste.

Key issues for the Trust.

Fossil fuels: Our parent body The Wildlife Trusts (TWT) has issued a policy position⁴ specifically opposing 'fracking' (hydraulic fracturing) for both the immediate destructive environmental impacts (especially those on local hydrology and water resources), as well as its contribution to our continued reliance on hydrocarbons as non-renewable and polluting energy sources. In this position statement Surrey Wildlife Trust formally aligns itself with TWT on these matters, especially in relation to reducing our present dependency on fossil fuel sources as speedily as possible.

We are therefore firmly of the opinion that all new exploratory proposals for the extraction of carbon-based fossil fuel resources should be resisted. Both these and any proposed extension or escalation of existing extractive projects will henceforth be opposed by the Trust as a matter of policy. Until new mechanisms of regulation catch-up with evolving national policy this may only be achieved on a case-by-case basis through the planning system, normally at the strategic/county level. If only for consistency with its freshly-declared Climate Emergency, Surrey County Council must therefore be prepared to endorse this position and determine relevant planning applications accordingly. Moreover, given the rate of additional global evidence for the impacts of climate change, national policy and targets can be anticipated to be further upgraded and hence call for future revocation of some permitted extractions.

Sustainable transport: The Trust has and will continue to oppose local airport expansion that serves to facilitate growth in the volume of air travel. Although advances in fuel technology are predicted to make flying increasingly carbon-efficient, the carbon emissions of the aviation industry will continue to far outstrip those of all other contenders for the foreseeable future. Major road schemes should arguably be similarly opposed, but here an expanded capacity objective often underlies a related one seeking to improve road safety, which we would support; especially if the project can incorporate retrofitted wildlife collision avoidance measures. Road capacity increases can also promote the regularity and use of public transport services, as well as enabling dedicated cycle-lanes, and so do not just benefit private car owners.

Agriculture & food waste: Modern intensive agriculture can be a further significant emitter of CO₂ and other greenhouse gases, adding to its other negative impacts on the environment from excessive pesticide use and fertiliser applications, soil exhaustion and denudation of farmland habitats. The Trust will use its limited ability to advocate the action necessary to correct this, although more can be achieved by TWT at national policy level in this regard.

Carbon capture & tree planting: Some strategies for climate change mitigation, including carbon capture as well as exploitation of renewable energy sources, can have debatable implications for biodiversity conservation. Aggressive tree planting schemes are often advanced as a solution to addressing excessive carbon emissions. Whilst this is admirable for multiple reasons beyond carbon capture (or 'sequestration'), its contribution to balancing the sheer scale of our own Surrey 'carbon footprint' alone can only ever be minimal. But taken in combination with its other benefits including adaptation for climate change (via remedial shading/shelter, local pollutant and water absorption, a renewable biofuel resource, improving recreational assets, and biodiversity conservation) tree planting should of course be encouraged - but only where it is appropriate to do so. This caveat is explored more fully in a Surrey Nature Partnership position statement⁵, but briefly is concerned with not compromising land suited for other, more relevant uses in the landscape that will be better for recovery of biodiversity in the long-term. Inappropriate tree cover can be disastrous for rare wildlife and will cause further local extinctions. Conifers planted for timber over former open heathland still require clearance, and within ancient woodland should ultimately be replaced with native broadleaved trees (which incidentally sequester more carbon).

Renewable energy production: Land-locked Surrey is not affected by large scale off-shore, or in fact land-based wind farms but plenty of mini-turbines are present here and are likely to increase locally. Care needs to be taken with the siting of these as they can result in the deaths of both birds and bats by accidental collision. Local in-river hydroelectric projects can similarly present new barriers to fish passage, so again require appropriate ecological impact assessment before installation. Solar farms are so far a minor presence in Surrey and are usually sited on land of low value for wildlife, but this nevertheless requires suitable consideration.

3. <https://unfccc.int/>

4. See: <https://wildlifetrusts.mangoapps.com/miink/file/Mjg5ODU3NQ>

Carbon-neutral developments: There are growing incentives for new developments to be built 'carbon-neutral', or at least to function as efficiently as possible in terms of their energy and water consumption. The Trust would of course applaud and support this, as well as retrofitted insulation upgrade schemes in older properties (including those on our own estate). However, as these efforts often call for the elimination of building features traditionally used by synanthropic wildlife (for example roof-nesting birds and roosting bats), it is all the more important that bespoke designed bricks and other dedicated structures are incorporated into the built environment as routinely as possible.

Burning of wood (including as biofuel): Whilst not wholly 'clean', there is no doubt that both on principle and balance burning wood as a renewable biofuel is better for the environment than burning an equivalent quantity of a non-renewable fuel. This is concluded from a consideration of various factors in combination. The release of carbon for typical modest domestic heating uses will be far less than that fulfilling an equivalent demand supplied from a centrally-distributed (non-renewable) electrical or hydrocarbon-powered source. Wood fuel promotes the restorative management of native broadleaved woodland, proven as essential for halting the decline of associated specialist woodland wildlife such as the Common dormouse *Muscardinus avellanarius* and a great many invertebrates, including rare butterflies and moths. Some of our richest habitats are predominantly unwooded (for example chalk grassland and wet heathland), where the soils have been undisturbed for centuries and themselves sequester significant carbon, and which are reliant on constant management effort to maintain their optimum open condition. The 'arisings' from this will either end up in the digestive tracts of grazing animals or can be composted, but are usually more efficiently disposed of by burning. 'Controlled' burning under close supervision is actually a traditional means of reducing scrub on heathland (somewhat mimicking a natural 'wildfire' event), and all the benefits to wildlife conservation variously derived from these practices are surely worth their essentially minor carbon contribution in the wider scheme of things.

3. Conclusions

This position statement has been produced in response to the various unfolding global urgencies, as reflected by our government's ongoing adjustment of national policy to mitigate future climate change. As the leading environmental NGO for Surrey championing wildlife conservation, and a specialist planning advisor to the local planning authorities as well as a key partner in the Surrey Nature Partnership², the Trust must consider these sustainability issues.

The existing SWT Environment Policy has already committed the Trust to minimising its collective carbon footprint across all departments, with the aspiration to stand out as an exemplary organisation. The influence of our procurement policy on this can be significant and will be under constant review. In 2020 we can anticipate new climate change policies and innovatory zero-carbon technologies being developed across many governing bodies, organisations and industries, as well as fresh supportive legislation such as in the Agriculture and Environment Bills. The Trust will closely monitor such developments to update our policy accordingly.

The Trust will continue to review and adjust all of the management practices across its estate, in order to be sure that the right decisions will be routinely taken in respect of the unfolding climate emergency, *and* to best benefit Surrey's wildlife, including its wider natural environment in the long-term.

ENDS

5. Tree planting for Climate Change mitigation in Surrey: a position statement (Surrey Nature Partnership, 2020)