

Appendix 1

Climate Change Scoping Development Plan Document

Scoping Feedback

Town & Parish Councils and Political Party

Strategic Planning

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1	St Mawgan	20	Calstock Parish Council
2	Launceston Town Council	21	Stithians Parish Council
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4	Budock Parish Council	23	Bude-Stratton Town Council
5	Hayle Town Council	24	Lanteglos by Fowey Parish Clerk
6	Launceston Town Council	25	Perranzabuloe NDP.
7	Mawnan	26	Perranzabuloe Parish Council
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9	Camborne Town	29	Madron Parish Council
10	Ladock Parish Council	30	Egloshayle Parish Council
11	Looe East and St Martins	31	Clerk to Morwenstow Parish Council
12	Calstock Parish Council	32	Lanner Parish Council.
17	St Agnes Parish Council		

Political Party Responses**1.1 URN 140 - Cornwall Green Party response to Cornwall Council's consultation on the Climate Change Development Plan Document Scoping Report.**

In the context of this Climate Emergency, decisions made in relation to Planning play an important role in achieving the ambitious-but-necessary target of net-zero-carbon emissions by 2030. We welcome the opportunity to comment on this Development Plan Document Scoping Report. However, we are clear that Planning in general suffers from systemic failures at national level that have taken power away from local communities and handed it to large, unaccountable developers. This response focusses on decisions that lie within Cornwall Council's control. We will provide a supplementary response outlining the changes for which we believe Cornwall Council should lobby central government. Cornwall Green Party welcomes the vast majority of the measures proposed by the Scoping Report; it demonstrates a clear intention to take the Climate Emergency seriously. Our response focusses far less on what is already included than on what we believe should also be

considered. However, it is imperative that Cornwall Council takes initiative to reduce the likelihood of a conflict between its climate change priorities and other material considerations by integrating the specific Planning requirements of this DPD with the broader areas that impact on Strategic Planning, especially the Cornwall Local Plan and the Local Industrial Strategy. Our response, therefore, provides a number of cross-cutting recommendations, before detailing proposed changes to the specific areas outlined by the Scoping Report.

Cornwall Green Party response to the Climate Change DPD Scoping Report consultation.

Section 1: responses regarding the scope and use of the DPD

- 1. The Climate Change DPD should be renamed the 'Climate Emergency' DPD.* It's no longer enough to talk about climate 'change', when the situation has become a crisis. As the Covid-19 crisis has demonstrated, an emergency situation requires an emergency response. Though we have had more time to prepare for the climate emergency, it will hit us much harder and for much longer. Just as responding to Covid-19 has taken precedence over all other aspects of life, so our climate emergency response must equally take precedence over all other considerations. The sooner and more robustly we act, the more we can turn a climate emergency response into a new lease of life. Failure to act rapidly and radically now will leave us with far fewer positive choices down the line.
- 2. Consideration should be given to climate adaption as well as reducing carbon emissions.* Even if we achieve the ambitious target of reducing our carbon emissions to net-zero by 2030, the rest of the world is still off-track for doing the same. Though our priority should be to reduce Cornwall's carbon emissions, we should nevertheless plan for a future in which the effects of Global Heating are felt here. In particular, both an increase in extreme weather events and the unreliability of global food supply are likely features of our future that we should begin to prepare for now.
- 3. The climate emergency and the ecological crisis - through which we are experiencing rapid loss of biodiversity - are inextricably linked, and we need language that reflects that.* Though we need policies to dramatically reduce our carbon emissions, the bigger picture is that we have built an economy that relies on extracting value from the natural world - and that this has now caused two major crises that place our future under serious threat. The language of 'eco-system services', 'natural assets', and 'natural climate solutions' - while we recognise that these are part of the language of current national policymaking - is problematic because it perpetuates this approach, albeit while seeking to mitigate the environmental impact. Cornwall Council could take a lead in using different language that goes further in reorienting our relationship to the natural world, which can then be reflected in strategy. We recommend the language of 'health' as an alternative. The Covid-19 crisis has demonstrated clearly the extent to which our collective health is really our paramount concern - and that our economy has to serve our collective health and not the other way around. What the climate and biodiversity crises require is an urgent recognition that our human health is inextricably bound up with the health of the planet's ecosystems - and that should be the primary reason for taking ecosystems and climate impacts seriously. Failure to do so will have a much greater health impact than Covid-19. Climate change is a threat to both human health and the health of the ecosystems with which we are interdependent. Ensuring that Planning is a function of local government that has collective health as its top priority is a way of bringing together the value of Planning to our communities with the climate and ecological emergencies that demand urgent responses - for the sake of our collective health.
- 4. The Local Industrial Strategy and the ongoing New Frontiers future-planning must be integrated with a Climate Emergency response to Planning.* One area, for example, that we believe is crucial to our strategic planning is local food production. As a means of both reducing carbon emissions *and* adapting to likely future food shortages, Cornwall could produce a much higher proportion of our food here. Of course, this is affected by national government policies, but a Climate Emergency Local Industrial Strategy could identify provisions for which to lobby national government (as was done for other sectors with New Frontiers) as well as scoping the local infrastructure to manage a productive transition. Support for infrastructure such as Market Gardens, local abattoirs, farmers' co-operatives, ecological land-management training should be part of this. This is not limited to Planning, but it has important Planning implications. Another area that has a large impact on Cornwall, including on our carbon emissions, is Tourism. Planning rules around Second Homes and Holiday Lets cannot consider the Climate Emergency seriously if they are not also related to Cornwall's strategic economic planning. We need a strategy for tourism that ensures its economic benefit doesn't come at the cost of a climate emergency response - which includes the strengthening of resilient local communities.
- 5. Cornwall needs an Energy Plan that details how maximum-capacity renewable generation infrastructure will be achieved by 2030 with annual targets to drive and monitor progress. The CC DPD then needs to reflect the role of Planning in delivering it.* Collaborative development of an energy plan with targets for

installation levels could help unlock many of the existing barriers to achieving the levels of renewable energy generation required to meet the objective of net-zero-carbon by 2030. The involvement of local stakeholders such as Western Power Distribution, communities, businesses, land-owners, etc., would be a significant assistance in developing appropriate targets and plans for each area. 6. *There is a need to incentivise developers and builders to undertake higher relevant training in how to meet the climate emergency standards for buildings, perhaps with the creation of a Cornish environmental standards marque.* This is to address how things *actually* get built in the absence of adequate Building Control. As a separate activity to this DPD we suggest that the Council Climate Action team develop methods of improving awareness and local building skills in low carbon building technologies and methods, as well as a basic understanding of ecosystems and ecological impact. Making this a planning condition is a proactive - and much cheaper - way of reducing ecological and climate harm through the building process. It is also crucial if this DPD is not going to apply to developments which already have outline planning or are in (or will soon move to) the 'reserved' matters stage - which will substantially delay its impact. 7. *We need a specific Cornish Nature Recovery Network strategy (as per the government's 25-year Environment Plan 2018) within which natural climate and flood solutions can be mapped.* Following the government's 25-year Environmental Plan which committed to a National Nature Recovery Network, Cornwall needs to be proactive in detailing our own. This should become a vital document to inform Planning, not just in terms of detailing places to avoid building, but also as a way to better integrate local ecosystems with human habitat on and work. (We have submitted a separate response to the Biodiversity Net Gain consultation, but many of those recommendations are relevant here and we have highlighted how they can support this DPD later in this response.) 8. *The new Design Guides contain a lot of very valuable recommendations for developers. However, at present they are only advisory. We would like to see these adopted as part of this DPD making them a Material Consideration in Planning.* In particular there are a lot of valuable provisions to support biodiversity which we would like to see enforced. 9. *We would welcome further consideration of the decision-making processes which will utilise this DPD.* When decisions come before Planning officers or Planning committees, decision-makers have a responsibility to weigh the various different material considerations in order to reach their decision. There is currently no mechanism in that process to reflect the Emergency nature of our climate and biodiversity crises, relative to other concerns. We recognise that this is a difficult issue to address, since each individual application requires its own individual assessment. However, we believe that this question needs further consideration in relation to the scope of the DPD. Would it be possible, for example, to establish a relative weighting to prioritise carbon-reduction considerations? We would welcome a collaborative process to address this and to be part of the discussion. 10. *Since the CC DPD is the Planning action from the Climate Action Plan, if any of these headlines are deemed out-of-scope of the DPD, they need to be considered as gaps in the Climate Action Plan itself.* We are unclear about the process for drawing back learnings from the various actions of the Action Plan in order to ensure it is tackling the most urgent issues. We would welcome clarity on this. **Section 2: responses to the areas specified by the Scoping Report 6. Renewable Energy** 11. *Development of local area maps for wind energy development.* The NPPF requires that wind turbines are only allowed in areas allocated in Local Plans. At present, in Cornwall, this is only done through NDPs. However, there is an urgent need for a much more joined-up approach. It is imperative that Cornwall Council develops suitable mapping to include wind energy as part of this DPD and inserts these into the Cornwall Local Plan at the earliest opportunity. This would be most effective if it involved local consultation on mapping for wind energy at several scales – large and small to allow for commercial, community and individual site developments 12. *Changes to the planning process to reduce the burden on smaller and community-owned renewable energy applications.* In particular, we recommend re-establishing the Renewable Energy Planning unit within the Council – which used to be a significant help developing renewable energy projects appropriate for Cornwall, because of the high skill levels developed in that section. 13. *For solar arrays, planning applications must include sustainable land use proposals under and around the panels.* Sustainable land use conditions would enable a balance to be struck between the need for local food production, renewable electricity generation and increased biodiversity. This would mean stronger requirements regarding the land grade and how the ecology of any solar array site can be supported. 14. *We strongly support "Providing a positive policy approach to support energy storage and development of infrastructure, to support smart energy considerations to help alleviate constraints on the electricity network."* (6.2.2) *The DPD will be most effective if it provides for a wide range of technologies.* Without a smart grid, other gains in renewable generation will be much less effective. The DPD can facilitate a wide range of options, but this requires consideration of the different Planning implications of

different technologies. For example, pumped storage can be achieved at seaside quarries, china clay lagoons, etc., and there are options for mineshaft storage, gravel pit batteries, energy storage towers, etc. It would limit our storage capacity if only certain technologies were provided for by the DPD. 15. *The scoping document (6.2.2) includes as a possible step: "Creating a clear policy stance on how proposals for renewable energy can demonstrate community support and a proportionate approach to providing community benefit from the installation." We believe this is crucial and should be prioritised.* We strongly support the need for local communities to determine their own Planning priorities. However, the current NDP system does not adequately serve the wider needs of Cornwall's renewable energy supply. Firstly, very few parish or town councils have access to the kind of specialist knowledge required to determine a credible local energy plan within the content of their NDP. Secondly, without any requirement to locate renewable supply, NDPs simply hand NIMBYs the opportunity to insist it is built somewhere else in Cornwall. The Cornwall Local Plan needs to be revised in order to include far greater renewable energy provision. But the principle of local community engagement provided by the NDP needs to be retained - and strengthened. We believe that this is a good example of a scenario where a Citizens' Assembly can be very useful. A conflict exists in most communities between the value of 'landscape' and the need for renewable energy. If a community can work through a facilitated process to solve the conflict, it promotes compromise and creative solutions, while also ensuring that decision-making is empowered at local community level. 7i. **Energy Efficiency** 16. *Change the framing of this topic from 'Energy Efficiency' to 'Energy Demand Reduction'.* Efficient energy-use is important in reducing carbon emissions. But it is only one part of a much bigger question about the overall demand for energy created by any given building. The feature of any building that is most difficult to change is its location - and yet this has one of the greatest impacts on its energy demand because of transport requirements it may have (and the disproportionate carbon emissions generated by private car use). In addition, the building process itself makes substantial energy demands, through the manufacture and transport of materials and the machinery required to build (a significant proportion of any building's total carbon emissions). And then its ongoing use - particularly in heating it - demands energy, which can be reduced through efficient design and supply. Therefore, considering the energy efficiency of a building in isolation fails to address the broader problem which is total energy demand. 1ti. *The Energy Hierarchy should consider location the primary factor for new developments, not just the individual standards of buildings themselves.* The Energy Hierarchy would better reflect climate emissions if location - and the transport requirements produced by location - were top of the hierarchy. Note, this doesn't need to lead to default urbanisation, but preventing it does require rural and semi-rural locations to have better public transport infrastructure and local services provision. 18. *All new build and refurbishment should include mainly or only low carbon and local materials to reduce the embedded carbon during the build process.* This is something that would also benefit from being reflected in the Local Industrial Strategy. 19. *The DPD needs to link building standards to the actual build process for new build and refurbishments. The "as built" standard must meet planning conditions standards, particularly on air tightness, insulation & the installation of suitable heating systems and their controls.* We suggest that local stakeholders are more involved in the process of decision-making on how to quickly get to net-zero carbon for all new buildings. In particular, on how to prioritise low CO₂e and local materials for builds. In the absence of effective Building Control, stakeholder buy-in is especially important. 20. *Conservation Areas and Listed Buildings issues must be addressed on how to improve the building fabric and energy systems to move these buildings more rapidly to low carbon.* 21. *All new buildings need to be zero carbon in operation.* A clear and progressive weighting of energy and carbon reduction approaches, from demand reduction all the way down to offsetting, would, for example, allow on-site generation capacity to receive 50% of the carbon credit of demand reduction measures, while carbon offsetting measures would only receive 25%. This would incentivise builders and developers to adopt progressive approaches and would be straightforward for the planning regime to implement. 22. *The new Cornwall Design Guides would be improved with more information and guidance on low carbon and local materials to reduce the carbon cost of new build and refurbishment.* 8. **Coastal change and flood management** 23. *We need more ambitious policies to bring natural flood solutions to the building of all developments including commercial, retail and industry.* For example, outlawing non-porous hard services and introducing planning restrictions on paving front gardens. 24. *Cornwall needs a Cornish Nature Recovery Network strategy as part of our flood management response.* This strategy can make site allocations for restoration projects and develop policies for their ongoing management. Tree planting, habitat creation, rewilding, restoration of peatlands and reed beds, the reintroduction of beavers in upper catchment areas can all facilitate natural flood solutions. 25. *Mandate consideration of natural flood solutions*

before other structural projects can be approved. 26. Need a commitment not to build new developments below an agreed altitude in at-risk areas to protect against expected sea level rise. **9 Natural Climate Solutions** 2ti. Pueng ecosystems alongside climate as a top priority in all policy considerations. The more ecosystems are enhanced the more carbon we sequester and the healthier the world becomes. Natural climate solutions must not be seen as a substitute for reduction of CO₂; they complement reduction strategies. It is vital that we identify the drivers of ecosystem loss and use the Planning system to prevent them as much as possible. 28. 10% biodiversity net gain is woefully unambitious, difficult to measure, and impractical to monitor for 30 years. A 10% biodiversity gain over the span of the development's construction is more practical, and while more ambitious is certainly achievable. Specifically: • All new buildings and developments to respect existing habitat and include provision for new habitat = bee bricks, bat and owl boxes. • "Every new housing development to provide minimum 5sq/m of pond/marsh/reedbed per 5 houses. Every new development of 5+ houses must have a village green, a pond and grass play area for children with native hedging and 20% wild borders" (Ref: *A New Deal for Nature* commissioned by C Lucas published Nov 2019) • All mature native trees should be automatically subject to a TPO with stronger fines in place for breach (at present many developers just include TPO fines in their budget). 29. We need clear designation of specific geographic areas and related policies for the 'Forest for Cornwall'. What is to be planted and where? (A 'Reforestation Network' that brings together relevant stakeholders could facilitate this.) The Forest for Cornwall won't just happen with aspirational words. Given the time it will take to achieve, we urgently need a clear plan that details how it can be achieved, recognising that a wide range of stakeholders will be needed to achieve it, and that it faces various ongoing threats (private tree felling, lack of coordination between land-owners, failure to protect native species against invasive fast-growing trees - e.g. Sycamore, etc.). A 'Reforestation Network', of the type that has been used effectively to protect other native species (e.g. [https:// nativeoysternetwork.org/](https://nativeoysternetwork.org/)) could provide a mechanism to bring relevant stakeholders together. In particular we would like to see clear recognition that isolated trees have less value than large contiguous areas. A clear plan for how to achieve a Forest for Cornwall would then inform the number and type of trees required for any given planning application. **10 Transport** is the largest source of carbon emissions and needs maximum ambition across all Cornwall Council's strategic planning. Since the 2015 devolution deal, the One Transport framework means that Cornwall Council has the power to make the changes required in this area - yet progress has been far too slow. We support the recommendations of 10.3.1, noting, however, that without a step-change in public transport provision other transport policies fail to have the necessary impact. 30. Reduce speed limits. This is a straightforward way to reduce carbon emissions, as well as making roads in general safer, and produce safer, cleaner and quieter town centres. The 20mph speed limit should be extended in town environments. In certain central pedestrian areas, we suggest introducing a 'walking pace' speed limit which further improves safety and mitigates the dangers of 'quiet transport' in mixed environments, where bikes, scooters and EVs (both cars and delivery vehicles) are mixing with pedestrians. A 'walking pace' speed limit is easily measured and can be readily 'policed through social pressure'. 31. Actively plan infrastructure for shared and demand-responsive transport We need to prioritise innovation and investment in greener transport systems. The following are possibilities that could be explored - and the DPD would produce greater change if it made more reference to the requirements of innovative systems. • Facilitation and servicing of spaces for people or enterprises to share or switch transport options with the express intent of reducing the number of vehicles required to deliver people and goods to their destinations. • Could be most easily done through planning the additional benefits that are required of large developments. Retrospective examples could include the Langarth estate where a car share initiative would have a good chance of being successful, more so if supported by planning and electric charging infrastructure; or the Cornish Services on the A30 which could support a 'Delivery Hub' (DH) servicing all of mid-Cornwall, where large delivery vehicles from out of county can park and transfer their goods to local electric delivery vehicles. The DH can then support re-fuelling infrastructure for both the large vehicles (e.g. Hydrogen technology) and the delivery vehicles (electric charging). • Consideration of a system where taxis can be used alongside buses to provide a more comprehensive and flexible Public Transport service for example from Rail stations. This involves a vehicle (large taxi) being used as both 'the bus' and as a taxi depending on location, time and schedules. This demand-responsive system used by Lincolnshire County Council is the sort of model Cornwall could explore <https://lincsbus.info/callconnect/> to better service rural and semi-rural communities. All of these approaches need better integration of Transport policy with Planning in order to proactively incentivise and commission the necessary infrastructure. **11. Agriculture and rural development** ti5%+ of Cornwall's land use is agricultural.

Agricultural reform is vital to achieving net-zero carbon and reversing biodiversity loss. Massive-scale monocrop farming and current approaches to livestock (especially cattle) farming degrade the land, reduce our biodiversity, and make a significant contribution to Cornwall's carbon emissions. Soil regeneration and more ecologically-friendly forms of farming are vital if we are to achieve net-zero-carbon by 2030. However, we recognise that most farming is not currently economically viable without subsidies - and that subsidies are a major driver of current farming practice. Therefore, policies to support reform must also support farmers. In particular, prioritisation should be given to the development of a broader Local Industrial Strategy to support local foods for local markets. This should focus on supporting small farmers who are at the heart of many rural communities. Very little physical or commercial infrastructure currently exists to facilitate this kind of shift. While Cornwall Council only owns around 1.5% of Cornwall's farming estates, proactive policies, particularly around Planning, can play a major role in identifying the blocks to change and facilitating collaboration to overcome them. 32. *Lower-grade land should also be protected from development in order to facilitate transition to net-zero-carbon.* Currently, only land classified as 1, 2, or 3a is afforded protection from development. Land classified as 3b, 4, & 5, however, can play an important role in carbon sequestration with the right approach to land management. We suggest this should be a major change to the existing proposals. 33. *Require higher ecological standards of Whole Estate Plans.* Requiring higher ecological standards from the Whole Estate Plan process (to allow more development on agricultural land) could, for example, include the requirement for Estates to reduce imported fertiliser, bring herbicide/pesticide use to zero over an agreed period, and to develop higher soil carbon (for example, through no till, organic agriculture and even permaculture). 34. *Incentivisation of biochar facility development (this also feeds into flood management by increasing the water holding capacity of soil).* Biochar is an extremely effective approach to carbon storage in soil and is easy for farmers or other rural producers to generate. It can increase carbon sequestration while also providing new sources of income for small farmers. 35. *Livestock farming needs to be subject to much stricter criteria. This can be achieved through the Planning process by ensuring development of farm buildings is associated with strict criteria.* Livestock (especially cattle) farming is a very difficult area in which to make clear policy because there are many factors at play. On the one hand, the substantial methane emissions produced by cattle and the inefficient use of land for grazing is a problem for strategies to reduce net-carbon emissions. On the other, transition to a more diversified output requires consideration of what is possible with different land grades, and there are examples of regenerative agriculture which have used cattle effectively in a land-management approach to achieve a total reduction of net-carbon emissions. What is possible in one farm is not necessarily possible in another and a policy approach to supporting agricultural reform in Cornwall must acknowledge the complexity and diversity of approaches to farming as well as the financial constraints on small farmers for whom local policy changes can affect access to national subsidies. However, there are some general changes that it should be possible to achieve across the board and the Planning process can play a part in this by making them requirements for farm buildings approval. Suggestions include: • inclusion of legumes in pasture • grazing intensity optimisation • trees planted at field edges • responsible slurry disposal • cattle-sheds with sloped floors to facilitate urine run-off reducing ammonia 36. *Planning incentives for horticulture development, especially in proximity to urban settlements, can revive the local Market Garden economy, reducing the carbon footprint of foods, supporting local businesses and town centres. Land needs to be identified for this purpose in the Local Plan and be properly supported by the DPD.* **12. Town Centre Densification** We believe that resilient local communities are the building blocks of any response to the Climate Emergency. Therefore, broadly speaking we support the revitalisation of our town centres for all the local community benefits that brings, including the capacity of towns to strengthen the local economy. This is an important part of a Climate Emergency response, especially when compared to the provision of out-of-town retail parks, for example, which undermine the local economy and incentivise private car use. However, in our view this section is one of the weakest areas of the scoping report, because without broader consideration of the local economic infrastructure, policies do not join up. For example, reviewing classification of town centre buildings without prohibiting out-of-town retail, or supporting town-centre markets without provision of land for Market Gardens, is insufficient. Increasing town centre density within reason is useful in reducing transport requirements and can support towns in becoming places for communities to thrive, rather than simply places people come to buy stuff. However, consideration also needs to be given to the balance with supporting village infrastructure, including rural and semi-rural transport connections. We do not support a policy of increased urbanisation for Cornwall. Hyper-local services are not only important for community life, but also help to reduce transport emissions and increase local economic resilience. 37. *The scope of Town Centre Density planning needs*

to be much wider to turn the climate emergency response into an opportunity to support thriving urban communities. Specifically, we recommend: • Consider the importance of green spaces and increased biodiversity for individual and community wellbeing. • Consider what part tourism plays in a town’s vitality and its environmental impact. • Engage with how planning encourages and supports local events and how this plays into vitality • Identify clear financial pathways to support the reallocation of buildings towards community objectives. Providing support for the development of social enterprises is a way to enable community groups to devise financially sustainable ways to run projects with community benefits.

1.2 URN 269 - Cornwall’s Climate Change Development Plan Document Scoping Report (Regulation 18): Lessons from Labour for a Green New Deal (L4aGND)

1. Renewable Energy Generation

Large-scale investment in renewables will be essential to decarbonisation of electricity generation, buildings, industry and transport. This would best be achieved by investment in proven, mainstream renewable technologies, predominantly on- and offshore wind and solar PV. As one of the sunniest parts of the UK, and also one of the windiest, Cornwall is uniquely suited to this kind of development. Other technologies such as wave and tidal energy are presently more costly than wind or solar but could be considered as and when their price falls, as projected. Recent reductions in battery storage costs support the feasibility of higher renewable energy use

One further technology historically-deployed in Cornwall, with its small communities and dispersed population, is water-power. Cornwall Council could perhaps commission a desk-top feasibility study of reintroducing small turbines in streams to provide local, highly-dispersed power sources.

Rapid investment in renewables is also required to make up for the rapid removal of fossil fuels from the economy in heating, transport and industrial processes. In the UK as a whole, electricity generation will need to increase x 3 in order to enable decarbonisation of those sectors. At the same time, large-scale investment in renewables, particularly onshore wind, roof-mounted solar PV, and localised energy storage, all of which are essentially modular, provides unprecedented opportunity for step-change from private energy companies to decentralised, community-led and democratically-owned energy systems. These allow people and communities to benefit from ‘demand-side’ response – saving money by using less electricity or selling stored energy at peak times, and bring a host of benefits, including reduction in fuel poverty, improved local energy resilience, reduced transmission and distribution costs. Planning approvals could be used to ensure that all new large and public buildings maximises full potential ability to save energy, and to generate its own power (Each building its own power station).

All of the above measures will lead to an increase in high quality, skilled and semi-skilled, green employment of the kind to which Cornwall, with its long tradition of technologically-based industries, is ideally suited.

2. Improving building standards and energy efficiency

Along with power supply, industry and transport, heating of UK domestic and public buildings is a major source of greenhouse gas (GHG) emissions (17%). Generally, UK domestic and public buildings are historically, poorly insulated compared to those in other West, and especially North European countries. This is especially true of those constructed during the first eight decades of the twentieth century, and earlier. However, a major programme of retrofitting (e.g. to C standard), with special measures to provide for Cornwall’s numerous solid stone buildings, would clearly result in much energy saving, perhaps by 41%.

Again, such measures will lead to an increase in high quality, skilled and semi-skilled, green employment. However, since at least some of the materials involved can be sourced locally, they would also cross-feed into measures designed to stimulate local economies (see 5 below).

3. Coastal Change and flooding

In the case of coastlines, a policy of managed realignment, brings about new social and economic benefits, such as jobs in ecotourism, and can do much to alleviate local problems. Using planning laws to protect coastal areas from future developments which appear likely to be jeopardised by flooding, seems only sensible.

On streams and rivers, schemes which aim to re-vegetate and restore floodplains to a semi-natural state, in order to enhance their capacity to absorb flood waters, should be given priority. Reintroduction of Eurasian beavers (*Castor fiber* L.) achieves many of these measures, especially on smaller and medium size streams. (Re)-afforestation of headwaters, to reduce the speed of runoff, the size of flood peaks, and the total run-off into downstream areas is also crucial. In towns, greenways ('urban lungs') can also act as areas to absorb floodwaters, and as wildlife corridors.

NB: All of the areas mentioned in this section also act as carbon sinks, and as key wildlife habitats for many species (e.g. pollinators) currently threatened by developments in the wider landscape. Therefore, there is cross-feed into the next section.

4. Natural Climate solutions

The best strategy is to promote policies which preserve and rehabilitate native habitats, while using planning and other procedures to discourage practises which jeopardise them. Wetlands are particularly important for natural carbon sequestration, but also vulnerable to development.

In the case of woodland, the efficacy of trees as absorbers of GHG is now well accepted and tree-planting schemes to mitigate climate change and to promote biodiversity, such as the Forest for Cornwall, are well-established. Rather than plant trees which may not represent a local clone, perhaps a better strategy in some cases would be to allow spontaneous woodland regeneration, which would also promote local genetic diversity, and re-create habitats using native species (although management in order to ensure removal of invasive exotics such as the Sycamore [*Acer pseudoplatanus*, L.] would also be necessary.

5. Town centre density and vitality

This is perhaps the most important part of this exercise, in that the solution to many problems associated with climate change are in fact related to the way local economies are arranged and structures. Most relevant to this discussion is work centred around the 'Preston mode' of local economic development conducted since 2011 by Preston City Council and now numerous other communities, in conjunction with the Centre for Local Economic Strategies. This approach focuses on 'Community Wealth Building' (CWB) by promoting the role of local organisations such as schools, colleges and hospitals as 'anchor institutions', which concentrate on attracting labour, and procurement of materials and services, within the local community using local supply chains. As a result, a number of key issues attached to climate change are addressed, not least of which is the decline of our town centres.

This is because CWB creates strong multiplier effects in the local community, by stimulating demand in the local community for labour, skills, products and materials. As a result, the local economy expands, as small and medium businesses and other organisations respond to increased demand for goods and services. And as a result, trade in the local economy is revived, and town centres become more vibrant. Examples of possible 'anchor institutions' in Cornwall include Treliiske Hospital, Camborne School of Mines, Falmouth University, various campuses of Truro and Penwith, and Cornwall FE Colleges, and Cornwall Council itself.

Beyond the immediate community, there are other effects which more directly affect the causes of climate change, especially transport, which contributes 23% of UK GHG emissions. But as local economies are stimulated, so transport emissions are greatly reduced as more and more goods and services are sourced locally, new, local sources of employment arise, thus obviating the need to travel long distances to work (a particular problem in Cornwall), and 'food miles' are reduced as local suppliers' step in to meet increased local demand.

Under such a policy, planning preference would therefore be given to organisations whose impact is to retain wealth in the local community as opposed to those which ultimately remove it elsewhere. Anomalies such as that which exists on the edge of Liskeard, where Menheniot Parish Council can approve applications which then act as 'out of town' retail and service outlets to Liskeard, need to be resolved.

6. Transport

Emissions from transport in the UK totalled 169 million tonnes in 2018, or 23% of the UK's total consumption emissions – more than any other sector. A recent figure for Cornwall is 21%. UK domestic transport emissions have in fact grown since 1990. Passenger cars make up the majority of these emissions, followed by aviation. The vast majority of trips (62%) and overall km travelled (81%) are made by car. Only a small fraction are made by rail (3%), although rail travel constitutes closer to 11% of total kilometres travelled. Public travel by bus has decreased by more than a third outside of London since the mid-1980s. The vast majority of people travel to

work by car or van (68%), and 18% of goods are moved by road, with only 9% by rail and 13% by water. Funding for public transport (both buses and National Rail) has moved from a fairly even split between passenger fares and government subsidies, to a majority from passenger fares, disadvantaging those on lower incomes. These figures demonstrate our excessive reliance on costly and emissions-intensive private modes of transport.

Many of the measures needed to decarbonise this transport system are beyond the control of local authorities, particularly the levels of investment needed to switch the majority of journeys from fossil fuel powered private cars to public transport using electric vehicles. Instead, what could perhaps be done is for Cornwall Council's transport policy to make use of public transport as genuinely as attractive as possible, thus discouraging car use, including:

- a. Providing bus services to those many communities which do not have one!
- b. Making sure that timetables are properly coordinated so that train and bus services are properly connected. For example, trains on the Looe branch line frequently arrive in Liskeard just after main line services have departed (sometimes by only a few minutes!) Also, buses often depart Liskeard station at times halfway between arrival and departure of mainline services.
- c. Making sure that small, rural stations are actually usable. For example, Menheniot station is so ill-served by trains that using it to travel back and forth to work either in Plymouth or in Truro/Redruth/Camborne is completely impractical.
- d. People in lowest income groups make 15% of their public transport trips by bus. Buses are particularly important to those without access to a car, including the young and elderly who collectively make up nearly half of bus passengers. As Cornwall is one of the poorest regions in Europe, these points are particularly apposite. Although bus fares are already subsidised, and especially for some income groups, a truly 'green' public transport system would probably need to be free to all to make it sufficiently attractive to reduce car use by significant amounts. During the period 1974-1986, South Yorkshire County Council subsidised bus fares in that region by up to 85% of operating costs, and low fares contributed to an increase in bus travel of 7% from 1974-1984, compared with a 30% decline elsewhere in the UK.

7. Agriculture and rural development

Increase local and regional sustainability by promoting increased local production and consumption of food produced in a sustainable manner, as part of a 'Preston Model' approach (see above 5, Town centre density and vitality) using local organisations as 'anchor institutions'. This would help decarbonise agriculture itself, and also reduce 'food miles', thus leading to reduced GHG emissions from transport.

Enhance ability of urban communities to grow as much food as possible locally for themselves, via increased provision of allotments and communal gardens.