National Planning Framework for Scotland (NPF4) – Call for Ideas

1. What development will we need to address climate change?

What we will need to do to reach the target of net zero emissions by 2045

Processes:
- Set up a Climate Review Panel, Minister led, to monitor progress with the Climate Emergency. Call on experts including the landscape profession who are well placed to provide help and advice along with other professionals.
- Prepare an **integrated national infrastructure, land use and landscape plan** that positively contributes to our landscape, biodiversity, health and wellbeing, based on Landscape Character Assessment. This strategic plan should inform decisions on our approach to climate mitigation and adaptation, delivery of 'all renewable energy' by 2045 including major changes to our transport infrastructure. It should be used to inform regional and local land use, planning and infrastructure decision-making.
- Prepare the equivalent of the Welsh Government's *Landscape and a Changing Climate*
- All development to take account of climate change, be carbon neutral and result in no net biodiversity loss. Carbon offsetting shouldn't count.
- All planning mechanisms, such as planning gain, to focus on climate change. (There will need to be trade-offs for example, in considering open space: amenity / cultural value may take precedence over, say, flood alleviation in some places).
- Review Permitted Development Rights in the light of climate change, for example to address the cumulative effects of soil-sealing driveways and gardens. This may require changes to guidance (e.g. on permeable surfaces, rain gardens) and/or incentives (e.g. provide water butts) as well as directive of changing or removing PDR.
- Set up and use valid evaluation mechanisms, e.g. whole-life carbon budgets, to make good decisions; for example, not over-reacting to one aspect of climate emergency but consider where turbines are sourced from and their disembodied energy). These decisions also need to consider maintenance and running costs.
- Scot Gov to set up mechanisms outside the scope of planning required to bring about the scale of change needed to retrofit green infrastructure into our urban areas. (There are numerous American and European models to learn from and adapt for the Scottish situation.) For example, SUDs could be the responsibility of a single public body to avoid the current issues around design, management and maintenance. Scottish Water with SEPA as the regulatory oversight body.

Energy:
- Plan for substantial investment in energy infrastructure types - repowering of existing windfarms; solar, pumped hydro, hydrogen and tidal energy, new onshore and offshore wind, geothermal/ground source. Development should not lead to loss of landscape quality or wild areas. Indeed, development of offshore may mean that our iconic Scottish landscapes may not need to change in order to become more 'resilient'.
- Invest in infrastructure to move energy around – island interconnectors; fine grained electricity and a flexible high voltage electric network; better management of electricity/ smarter grids; energy storage systems coupled with a strategic approach to EV across the whole of Scotland.
- Promote CHP, carbon neutral initiatives e.g. RHI, FIT, solar, wind, renewable – through CAP, FWPS, WIG.
- In support, Building Standards need to mandate that all new developments are energy efficient or Passifhaus standard and that existing buildings should be retrofitted as much as possible during refurbishment.
- The Scot Gov should consider with the UK Gov how retrofitting (including green roofs/walls etc) can be incentivised given the unfair VAT position on repair etc.

Transport:
- Develop a bold vision which sees a modal shift away from car dominance and towards investment and public use in active travel and cheap public transportation in both rural and urban environments, and for automated transport to be electric/ hydrogen/ biofuel as quickly as possible.
- Make an early start by increasing opportunities for walking and cycling and make this more enjoyable and biodiverse by routing paths through exiting greenspace and new green infrastructure.

Housing:
- Ensure housing allocations take account of and planning permission is granted on the basis of a hierarchy of choices around:
    - Reusing existing buildings first.
    - Reusing brownfield sites
    - Not developing on flood plains (traditional or emerging due to recent development)
    - Using natural local materials
    - Building to circular economy requirements i.e. whole life, deconstructable and reusable
    - Built now for aging populations or readily adaptable at low cost
    - Being fully energy efficient and net zero carbon
    - Having connectivity for sustainable transport, biodiversity, energy.

This change is urgent - The longer this is delayed the more costly this will be for future owners/society to address.

Allotments and Food security/supply:
- Make available significantly more neighbourhood land within new development and through retrofitting to allow more people to grow their own food. This is particularly important in denser development where homeowners have small or no gardens.
- Sites should be accessible by foot and bike, with limited vehicular provision for offloading. Orientation of the site and scale of adjacent properties should ensure minimum shade and maximum sunlight.
- Ensure planning (and Rural Development policy) encourages market gardening on the urban fringe and ways to support local food chains. For example, provision of fully serviced Market areas within new developments.

Waste:
- Commit to the Circular Economy across all sectors and activities and efficiencies in using less for an efficient living system. The public sector could lead by example through revising its procurement and stewardship processes.
- Commit to an integrated waste management stream across all of Scotland to eliminate the need for landfill.
- Ensure the layout and design of new homes and commercial development fully supports waste management – at present too many homes are dominated by bins at their front doors and city streets are cluttered with commercial refuse.

Biodiversity and Landscape:
- Planning approval to be based on delivering Environmental Net Gain and Biodiversity Net Gain (ENG/BNG) and to extend beyond the restrictions of a red line boundary.
- Protect from development and manage existing woodland cover in accordance with the woodland management plans now required following the new TCP Scotland amendments https://www.aberdeenshire.gov.uk/planning/plans-and-policies/aberdeenshire-local-development-plan-2017/ldp-sg-8-the-forest-and-woodland-strategy/
- More woodland creation, including urban woodlands which are biodiverse, productive (both for products at a range of scales (nuts/fibre/building products) and/or for carbon capture) and accommodate recreational uses.
- Continue ban peat extraction of viable or restorable peatland (with associated peatland restoration and management) resolving extraction needs for the whisky industry with Scottish Whisky Assoc., SNH and the Soil Association.

What opportunities would this provide to support jobs and the economy?

Scotland is already one of the most advanced countries with renewable energy generation and could develop this sector further aimed at future export which would generate opportunities: -
- Wind turbine manufacture in Scotland
- Development of deep-sea ports and harbours to facilitate the construction and passage of renewable energy components.

- Renewable technologies such as fuel-cell development; hydrogen fuel development; electricity storage solutions; more efficient transmission of electricity; and development of more efficient 'heat and power' solar systems.
- Market gardening/Local food production and connected supply chains.
- Creation of sustainable transport systems.
- Sustainable construction, including off-site fabrication and 'self-build' technologies.
- Partner with UK water companies and landowners to capture, store, treat and export surplus water in summer to drought-ridden England.
- Collection of 'waste' products and creation of new recycled products.
- Forestry/peatland management and forest products.
- Nature based solutions/Greenspace/GI implementation and management.

How can places be made more resilient to the long term impacts of climate change?

New development should:
- Use land more efficiently, achieve higher densities/ mixed uses whilst including integrated, meaningful blue-green infrastructure and green space that is accessible, good quality, uplifting and biodiverse.
- Be more self-sufficient in terms of energy efficiency, micro-energy creation, SUDS, waste minimisation and food growing.

Zero tolerance on flooding:
- Develop a strategy for the long-term resilience of all coastal, fluvial and upstream catchment areas to deliver 'slowing the flow' to reduce flooding downstream. This could include CPO of critical land in catchment areas.
- Plan nature based solutions and/or hard engineering solutions for areas likely to flood in the future and coastal infrastructure at risk of inundation or erosion due to storm surges, sea level rise. Hard engineering solutions only where natural methods alone will be insufficient.
- No development on flood plains.
- Work with rural and farming communities on opportunities for diversification and rewilding to move away from monoculture; to expand natural water storage systems for biodiversity and for flood resilience through alternative drainage management techniques, further reintroduction of species such as beavers and planting native trees on upland slopes and river valleys.
- Continue to ban peat extraction of viable or restorable peatland (with associated peatland restoration and management).
- A Government strategy to deal with removal and relocation of unsustainable development in known flood areas where no other solutions are economically viable or environmental acceptable.

Warming summers:
- Conserve water and develop an understanding of increasing agricultural needs for irrigation during drier summers and how this can be met without depleting long-term water stores.
- Design out the need for air conditioning - utilise topography, building orientation and design measures, like urban greening, woodlands and water bodies to moderate urban temperatures (ditto for winter conditions).

What climate change friendly places might look like in the future.

Prioritised for people and nature: -
- quieter, cleaner, more beautiful
- free from flooding, pollution and litter
- warm in the winter, cool in the summer
- designed and looked after for all – children to pensioners, able and infirm
- located and orientated to take advantage of topography, sun, micro-climate, views, vegetation and water
- biodiverse, connected habitats and natural drainage systems providing opportunities for public access
- networks of urban green spaces; green roofs/green walls/rain gardens to store and recycle stormwater; green and blue infrastructure for access, play, learning, observation and contact with nature, forest schools;
- walking/cycling prioritised to access local places of work/hubs of food production/retail and community facilities

- sustainable travel options to connect people and services for distances of more than 5km
- lots of allotments and growing spaces
- energy neutral homes, settlements and infrastructure.

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2. How can planning best support our quality of life, health and wellbeing in the future?

Where we might want to live in 2050 and how many and what types of homes we will need?

There is plenty of good policy evidence on the importance of landscape, greenspace and nature on quality of life, health and wellbeing but no realistic delivery through SPP. The new SPP and NPF4 need to address this. **We need high level and permanent advice to Ministers on landscape – a National Advisor on Landscape.**

Good landscape contributes to improved health and wellbeing (physical activity; mental wellbeing community cohesion, play and educational outcomes, as a place for walking & cycling, to provide space for nature) yet landscape is fragmented between SPP, Government directorates and LPA departments.
We need indicators on what a quality multi-functional landscape is and how this can deliver on health and wellbeing.
We need landscape/greenspace to become a statutory duty of public sector bodies/local authorities.

Urban Scotland needs to be better connected to link Aberdeen and Inverness with the central belt- more digital, more trains. Where people live in urban areas they need to have designed 'walkable' centres, safe cycle routes and frequent cheap public transport linked with integrated blue -green infrastructure, biophilic design and access to good quality, managed landscape spaces - good health relies on all urban centres being kept free of air pollution. Mixed residential development supports a broad demographic, which in turn promotes inclusivity and diverse types of housing.

There are great examples of public/social housing and one-off private homes that are fit for place and purpose. However, most housing is predominantly developer led and there seems to be little experience or desire for private developers to create locally distinctive places or prioritise the development of 'estates' or homes and gardens to deliver outcomes for health and wellbeing.

We need:
- energy efficient homes
- homes that are easy to repair, or adapt
- homes that won't flood or leak and will cope with climate change
- homes that suit their location, that are beautiful, that benefit from aspect and views
- well-designed and genuinely affordable social housing
- tenure-blind housing areas to foster social cohesion
- many more homes targeted at the elderly and empty nesters to encourage downsizing in order to release larger family homes (for which there is the biggest market for in terms of commercial gain for house builders) into the market
- More homes for wheelchair users – single story, or with lifts, and with gardens for user/family use.
- Starter homes to address homelessness
- Mixed development and with open spaces to tackle the crisis of loneliness in our communities
- locally distinctive places that safeguard local landmarks, historic buildings, features that define local character.

How we can encourage more people to live in rural Scotland?

Rural depopulation cannot be the norm and the issues surrounding this need to be addressed.
- Use spatial planning to look at how our population demographic is managed.
- Integrate Land Use Reform with a Scotland-wide strategic Landscape Plan.
- Build/retrofit more affordable homes for local workers in rural and coastal areas, especially those places under pressure from second homeowners. This may require CPO, land transfer etc. and new, innovative ways

to fund expansion and regeneration of existing villages and development of new rural communities (for example, self-build/ co-housing schemes/ modular construction/ demountable homes) and needs to be matched with improved digital connectivity, improved public transport and access to shops and local health/education and leisure facilities).

- Ensure home design is sympathetic to the landscape/townscape and the Scottish vernacular in terms of siting, orientation, massing, scale and external materials but as has been shown with award winning small-scale development this should not limit the creation of modern, beautiful, functional, energy efficient homes (often now prefabricated in Scotland). These are being created as small clachans (e.g. in Perthshire); the prize will be to encourage 'mass' housing developers to build appropriately for larger developments.
- Provide good digital connectivity, (cheap) energy, local schools and shops etc., and reliable transport.
- Manage the landscape and biodiversity to benefit tourism and other rural economies.
- Deliver a mix of sustainable social infrastructure and commercial development - school, community centre and local healthcare services, convenience store, live/work housing units, spaces for remote working, small business premises including leisure and tourism businesses.
- Align rural development and agricultural policy, mechanisms and incentives with planning policy to support rural housing, diversification or expansion of the rural economy, and support conversion of existing buildings for community and other uses.

How can we target development to address longstanding differences in health and quality of life?

- Good landscape contributes to improved health and wellbeing, including in our poorest, most deprived areas and most vulnerable groups. The benefits of being in landscape are not limited to improvements associated with physical activity; using the outdoors improves mental wellbeing and encourages community cohesion.
- Poor landscape and deprivation often occur together, meaning that those in greatest need are least able to access quality outdoor spaces. This contributes to health inequalities in Scotland.
- Action at a range of landscape scales is required to improve air quality and reduce flooding and urban heating; effects of our changing climate that are directly and indirectly impacting on societal and individual health and wellbeing.
- Greater numbers of people could benefit from landscape for health and wellbeing but cannot do so due to under investment in the design, implementation or stewardship of their local landscape.
- Communities can feel that local landscapes important to them are at risk and that they have little say in what happens to the facilities and services they offer.
- Landscape quality is not routinely or consistently measured and reported. This is due to variable coverage, methodologies and frequency of collection resulting in a lack of good quality data.

Policies:

- Move to a 'Wellbeing' Economy and make health and wellbeing a national priority in all areas of policy and financing.
- **Delivery and management of our landscape (including parks, greenspace and GI) should become a statutory duty of the public sector to address climate change and public health/health inequalities.**
- Recognise and respond to the interrelated benefits/inextricable relationships between health and wellbeing, and other NPF 4 priorities (Climate Change, housing, economic development and investment, special character of places, infrastructure…).
- Recognise and respond to the interrelated disbenefits to health (leading to heath inequalities) of living near vacant & derelict land and major roads or having no immediate access to a garden or greenspace.
- All development to contribute to health and wellbeing. In support, of this:
  - Develop guidance for planners/landowners/communities/developers to ensure that health outcomes are fully considered and delivered through spatial and development planning.
  - Develop a set of Health and Wellbeing objectives and design/planning principles against which planning applications will be assessed.
- Ensure the development process genuinely takes care of and integrates the needs of end users right from the outset.
- Ensure a place-based approach to planning, suitably resourced by community facilitators and not led by developers. Communities must be given the time, training and support to be actively involved in decision-making.

- Take an intergenerational approach to planning – social/health facilities etc., buildings, the spaces between them and access to public transport provision need to work for young and old, able and infirm, prams and wheelchairs.

Infrastructure and Environment:
- All development to include integrated green and blue infrastructure and accessible, good quality greenspace (access to nature). well-managed provision for all.
- Cross boundary co-ordination of transport infrastructure provision at regional level, - integration of active travel networks, facilitating integrated ticketing for public transport information and management towards space for well-connected walking, cycling (preferably integrated with GI) and public transport routes (with associated real time info, lighting, seating, publicly accessible toilets at frequencies that support access for all).
- Plan proper, secure cycle parking alongside planning AT routes.
- Encourage active travel by intervening in order to connect paths and spaces properly where developers refuse to do it on 3rd party land.

Development types:
- Better choice of housing types as a requirement of development, including a contemporary single storey solution and small garden for the increasing numbers of wheelchair users and their families who are not ready to live in flatted development.
- Homes with low heating needs to address fuel poverty and for NZC.
- Green infrastructure to include SUD's, community gardens, play, orchards and food growing /allotments opportunities incorporated into new development to encourage multigenerational social interaction.

Whether and where we might need new settlements, and regeneration of existing communities?

- Collate data to assess future demand for housing and sense check this with 'future thinking' on a wellbeing economy and what this mean in terms of the location of new forms of industry, construction and commerce.
- Look at how remote developments or developments in the west of Scotland can be incentivised to slow the eastward migration of the population (which if left unchecked could have severe resource implications for loss of quality agricultural land and the supply of water).

How places could be more inclusive, diverse, creative, vibrant, safe, resilient and empowering?

- Redefine and redesign 'neighbourhoods' after in-depth community engagement process; listen to people, respond to local knowledge and issues.
- mixed use, socially inclusive, tenure-blind neighbourhoods with regular public transport services and local facilities that attract diverse groups of people of differing age/social ranges, living together on car-free or traffic-calmed streets, with generous public spaces for social interaction and shared activities.
- assisted living near young families, business 'start-ups' near schools and colleges, creative industries and arts hubs in town centres.
- land uses to include well-overlooked amenity spaces, in high density layouts to minimise land-take, that safeguard biodiversity, minimise flood risk and air pollution, maximise natural ventilation.
- long-term stewardship of buildings and spaces providing, good management and future maintenance, community management schemes for waste, parking, gardens, shared spaces, play areas, pedestrian and cycle routes etc.

3. What does planning need to do to enable development and investment in our economy so that it benefits everyone?

Consider - what a 'wellbeing' economy might look like in 2050; how planning can anticipate and respond to the economic challenges of Brexit; what the key sectors might be and what infrastructure they may need to support them; how planning could stimulate and distribute growth; what type, scale and distribution of business and

industrial land and premises will be needed; where significant investment sites might be; how economic opportunities could improve, or be accessible from, places where deprivation is concentrated

Beyond scope of planning but change will be difficult without appropriate supporting fiscal measures like a change in VAT rules to favour reuse and repair ahead of new build.

Planning:

• Ensure that development planning and infrastructure planning are fully aligned so that capacity is coming on stream to meet future permissions.
• Planning needs to be much more prescriptive and proactive in guiding development; the developer-led system does not promote good placemaking.
• Make Scotland more attractive to inward investment but develop the right strategies for development in right place.
• Have a *'Scotland first' approach* to the distribution of major development opportunities; this may require prioritising rural and western communities to reduce population shift to the east of the country (where it will cause further pressure on resources and lead to loss of quality agricultural land) and looking to reduce transport miles for goods and services.
• Tourism is critical to our economy; exit polls reinforce this is based on our cultural heritage and landscape which attract tourists. This needs to be reflected in planning policy, controls and investment.

Planning Support:

• Expediate the planning process. Planning Authorities need additional resources and skills.
• Better skill base within LA's – needs proper resourcing; especially landscape architects, flood management specialists and development management enforcers. Being able to properly assess and guide applications and crucially, making sure that proposals are properly delivered;
• Enhance funding to secure growth of expertise in SNH. With less than 5 landscape architects across Scotland it is grossly under resourced for the important role it needs to play in addressing climate change.

Opportunities:

• New deep-water port; data storage hubs and digital connectivity; energy generation and storage; energy from waste plants close to major population centres; offsite construction and assembly to reduce waste and onsite construction time.
• Matched with a *'think local' approach* to support small-scale energy generation, district heating, local recycling and reuse (especially from the construction industry), urban agriculture and market gardening, and greater capacity and revenues in the public and third sectors to support management and maintenance of the public realm, public engagement in planning, design, delivery and maintenance of services and facilities.
• Use of existing redundant boat yards and deep-sea docks around Scotland. Before we lose all our knowledge of marine engineering to encourage a revitalisation of the manufacturing industry in the production of renewables. Many of these locations are already located in socially deprived areas due to industrial decline, Girvan, Methil, Rosyth etc. etc. A well paid and skilled local workforce will increase economic development in these areas.
• Areas of disadvantage - Focus effort into physically connecting areas of deprivation to work opportunities through better public transport/walking and cycling infrastructure (like the Green Link in Motherwell); infilling VDL with positive land uses and employment opportunities; improving green and blue spaces.
• Rural areas – Recognise and plan for the critical role of rural Scotland in meeting climate change targets and resilience – forestry/peatland/flood management/energy generation and storage/food and fisheries
• Rural areas – Provide quality low cost starter and family housing, support rural schools, health and other facilities, improve digital connectivity and speeds, address tourism pressures on infrastructure and review island transport connections.
• Keep ahead of digital technology (the 4th revolution). Encourage shared business hub space. Promote home working, reduce the need for travel whilst maintaining productivity and increasing time for health and wellbeing.

How planning could stimulate growth

- Take the risk/time/cost out of the development process by being far more prescriptive over what is required where and the type of standards/outputs/outcomes expected of development. This will take time upfront, especially in engaging the public and relevant interests, but will save costs in the long run.
- Be imaginative, look at how risk can be handled so that new ideas can be brought forward especially in respect of future technologies.
- Public sector bringing parcels of land together to achieve overall place-making adapted to climate change and delivery of public goods.

Deprivation

- Existing: deprived neighbourhoods need additional, long term support and facilitation. New ideas/projects shouldn't be jettisoned into these places – solutions need to secure health and wellbeing, be people-focused, place relevant and have community infrastructure guaranteed to support communities engage and benefit from development.
- Future: consider climate change, especially flooding and coastal erosion, and whether there are new communities of disadvantage emerging where thinking is needed now on repair/rebuild or even relocation – Undertake landscape scale studies of river corridors/coastal areas etc. to identify residential /commercial/agricultural land at risk and prepare options and financial assistance

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4. What policies are needed to improve, protect and strengthen the special character of our places?

Generally

- Prepare an **integrated national infrastructure, land use and landscape plan** that positively contributes to our landscape, biodiversity, health and wellbeing, based on Landscape Character Assessment. This strategic plan should inform decisions on our approach to climate mitigation and adaptation, delivery of 'all renewable energy' by 2045 including major changes to our transport infrastructure. It should be used to inform regional and local land use, planning and infrastructure decision-making.
- Ensure we are meeting international standards by reviewing and updating our approach to the identification and protection of areas of highest scenic and landscape significance including National Parks and National Scenic Areas. We should also look to integrate landscape and biodiversity management and its regulation which are considered as separate entities. To do this we should develop a new statute based on best international practice (as for example developed by the IUCN World Commission on Protected Areas) setting out a basis for protection based upon the benefits and co-benefits offered by landscapes towards other public goods.
- There is a lack of rigorous statute, policy and practice to safeguard our most important landscape and a lack of awareness of the importance of long-term stewardship. For example, Stronger protection for Gardens & Designed Landscapes is needed (both Inventory and non-Inventory) by strengthening the legislative base and making sure councils have up-to-date records and inventories
- Scotland is world leading in its recognition of the value of wildness and protection of Wild Land Areas and could expand this concept to recognise these attributes in less remote places.
- Strengthen the effectiveness of new/ existing designations so development proposals for our most special sites (to be determined by HES and SNH and other specialists) no longer come forward – eg Coul Links Golf Course.
- Better/ more informed leadership from Government down to Local Planning Authorities. It's difficult to have a co-ordinated approach when landscape matters fall across different directorates. Where is the Scottish Government's Landscape expertise coming from?
- More coordination on landscape heritage matters between departments in LPAs to improve decision making.

What special places will need protection in the future?

Future protection: -
- Green infrastructure and networks/greenspace and open space/ Trees and woodlands/Flood plain
- Topsoil and productive farmland

- Special character areas that are a consideration in the planning process but not protected eg designed gardens and landscapes
- Built heritage and critical archaeology

What the future might be for our rural, coastal and island communities?

- Having to adapt to coastal erosion and sea level rise – support to develop new technologies, innovative ways of working, community enterprise, digital connectivity, global markets for local products.
- Having to adapt agricultural and forestry crops due to rising temperatures, water shortages in summer, greater bio-security risks in terms of pests and diseases, increasing local markets for 'home-produced' food.
- Tourism based on local food and drink products/ textiles/ wildlife/ dark skies/ creative industries/ literary and music festivals.
- Good digital connectivity.
- Good local energy and waste systems.
- Community led decision making to ensure protection of their unique characteristics and forward planning for sustainability and growth.
- Communities trained and supported to engage fully in the planning and management of their local landscapes and places.
- Landscape's contribution to public goods has informed the preparation of Local Place Plans.

How we could unlock the potential of vacant and derelict land?

- Engage with local communities to develop a local place plan.
- Use 'VDL first' approach to land use planning.
- Use VDL to connect blue/green infrastructure, provide floodwater retention ponds/ rain gardens, for urban food growing /market gardening and where no 'hard' uses are viable.
- Active use of CPO and Community Right to Buy or other incentives (grants/land swop) to target land that is undevelopable in the next 20 years/ should be off the Register for green uses and community uses.
- Stalled Spaces programme deployed where land is developable in the conventional sense but the market is delayed.

What our city and town centres might look like in the future?

Prioritised for people and nature -
- Mixed use including residential (many traditional centres have unused space above shops)
- Retained historic buildings to provide local character and cultural identity.
- Imaginative repurposing of empty buildings and land for both public and private use - eg. nursery, arts centre, community library, shared use of office space
- Largely car free
- Energy neutral – including micro generation within biodiverse and sustainable habitats
- Working towards waste free – new businesses in uplifting, reusing, repurposing materials
- Located within walking/cycling distance of places of work and hubs of food production, retail and community facilities
- Sustainable travel options to connect people and services for distances of more than 5km.
- Restored natural drainage systems and mixed woodlands for public access
- Networks of green spaces, rain gardens to recycle stormwater, green and blue infrastructure for play and learning, observation and contact with nature, forest schools.

Whether we need to think about the concept of green belts?

- Review existing green belts to determine their effectiveness in relation to the Governments priorities for climate change, health and wellbeing, and inclusive economic growth.

How we can get the most out of our productive land?

- Consider food security and what Scotland can produce itself and where this production is best located now and as the climate changes.
- Scotland's most productive land lies along the eastern coastal margins. This is an enormously important resource (including the topsoil). It needs to be defended from development; however, this is where people are moving to. There's a need to hold back this trend by improving employment opportunities, public transport, housing choice etc in other parts of the country.
- Many of land use practices are unsustainable and we need a transition in rural landscapes to shift some land from sheep and cattle production and shooting estates to manage peatland, soils and biodiversity, increase dramatically woodland cover, improve water quality and limit water abstraction,
- Fisheries and farming restructured and possible relocated (at a range of production scales and with new (Mediterranean) crops) to maximise the benefits and cope with the disbenefits of a changing climate, reduce inputs like fertilisers and pesticides, improve biodiversity and to safeguard arable land from development.

How we can protect and restore peatland?

- Regional land use plans will be key with a ban on peat extraction of viable or restorable peatland.
- Mandatory powers to act to restore peatland - with peatland restoration assessment by SNH and management plans prepared for the owner to repair damaged areas.
- Planning to integrate climate change plans and look at catchment-scale approaches to environmental protection, flooding etc.
- Forest & Woodland Strategies should identify peatland areas and set out impact avoidance.
- Review extraction needs for the whisky industry with Scottish Whisky Assoc., SNH and the Soil Association.

How we can plan blue and green infrastructure?

- Good things in SPP GI policy BUT stronger wording and clarity on requirements needed.
- Require GCVGNP/CSGN guidance on planning for GI to be adopted by all LPAs.
- Require all flat roof development to be GI (and preferably also have some energy generation). Ditto major retrofitting schemes.
- LPAs to prepare better development briefs and design frameworks to require GI.
- Stronger enforcement of policy to ensure what GI is proposed is actually delivered.
- Address the ownership/management of sustainable urban drainage – mixed ownership impacts on effectiveness, quality and monitoring of effectiveness. Should all SuDS be 'owned' by Scottish Water, with oversight by SEPA?

What we can do to protect and enhance biodiversity?

- Adopt the principle and prepare policy to secure Environmental/Biodiversity Net Gain and, critically, make sure it is enforced in every development and on site (including green roofs and green walls on tight, urban schemes
- Embed more Landscape Architects and Ecologists into LPAs to advise on policy, briefs, review proposals and delivery
- Site development briefs to set out biodiversity and GI requirements clearly in spatial, policy and design terms.
- Stronger enforcement of policies to deliver quality open spaces.

How we can strengthen the character and heritage of our many different places?

- Incentives to encourage more inventive adaptation of our heritage/ historic buildings in cities/ for efficient places - embedded carbon, minimises exploitation of resources, reduces environmental impacts and whole life cost, contributes to local character.
- Increase use of existing (and new) Design Panels to support Local Authorities in both urban and rural locations. This could be particularly valuable when considering planning approvals with trans-boundary implications.
- Review of the term 'care' with listed and protected buildings or conservation areas to incorporate a more 'stewardship' requirement for long term survival of buildings in private ownership.

- Specific guidance for development on the edge of historic towns, in special landscapes etc. The Place Principle and the Place Standard will not address poor design; planners need to understand and insist on 'design' and 'design-thinking' as currently most development, especially mass housing, is generic and not place specific.
- Stop the use of out of date Council Road Design Manuals which can result in the 'urbanisation' of rural roads and edge of village development. A more site sensitive and nuanced approach is required to materials, kerb treatments, lighting, bus shelters and signage.
- Ditto within national parks and scenic areas where this type of infrastructure can diminish rather than add to the quality of a place.
- Encourage the use of locally sourced materials.

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5. What infrastructure do we need to build to realise our long term aspirations?

What infrastructure will we need in the future?

Landscape / Natural Capital:

- All recommendations pertaining to NPF4 and planning policy contained in "A blueprint for Scotland" should be incorporated. (Key Findings Report, Infrastructure Commission for Scotland. Jan 2020).
- Landscape needs to be recognised as a vital component of infrastructure (within planning and by the ICS) and the value it brings to climate change, health and wellbeing and our economy. This includes the value of soil/air/water/biodiversity as the building blocks as well as integrated blue/ green infrastructure, whilst ensuring its character and setting is valued.
- Prepare a high level **infrastructure, land use and landscape plan** for Scotland to address silo thinking and encourage improved alignment with programmes, strategies and policies captured in regional and local spatial strategies should plan for the critical role of rural Scotland in meeting climate change targets and resilience – forestry/peatland/flood management, energy generation and storage, food and fisheries, digital and transport.
- Invest in green bridges over major transport corridors to allow connectivity for wildlife.

Renewable Energy:

- Retain and capture fresh water – pumped water storage
- Greater investment in wind and tide for electricity which will require national grid upgrade and energy storage facilities
- Hydrogen manufacture facilities and storage.
- Improve district heating options and enforce developers to use them.

Transport:

- High Speed rail and extensive Scotland wide rail network to connect communities and tourism hot spots including opening up of rural stations and lines for alternative transport routes.
- A review of connectivity to the Islands – local needs to be prioritised. Tourism to provide funding for transport infrastructure including options for tunnels / bridges.
- All major upgrades and new transport routes to be designed for multi-use not just cars and vans.
- Integrated active travel /cycle storage to reduced car use.
- Initially incentives then compulsion to move from diesel/petrol to electricity and other sustainable fuel sources.
- Initially incentives to discourage private vehicle ownership and favour vehicle sharing, then compulsion (for example, banning on street parking of private vehicles.

How we can make better use of existing infrastructure capacity, including through innovation?

- **Invest in management and maintenance of all infrastructure – especially landscape and environmental infrastructure which has not been a focus for 'investment'.**
- Use a circular economy approach to all existing infrastructure
- Understand the carbon footprint of what exists and what might replace it to inform decision-making.
- Sustainability plan for major projects requiring EIA to include for ENG and community benefits

- Use a Local Tourism Tax, common in other countries, to provide funding for infrastructure including options for tunnels/ bridges.

Where transport connections will be needed to support future development/ Where our international gateways, hubs and links will be in a post-Brexit world?

- Europe-facing with new transport links into Europe by sea and rail (including rail connections via Eurotunnel).
- Ensure deep water ports on both the west and east coast to keep options open.
- Bridge to N. Ireland / Republic of Ireland.

How we can sustain our lifelines?

- Rural areas – Recognise and plan for the critical role of rural Scotland in meeting climate change targets and resilience – forestry/peatland/flood management/energy generation and storage/food and fisheries.
- Many of our land use practices are unsustainable and we need a transition in rural landscapes to shift some land from sheep and cattle production and shooting estates to manage peatland, soils and biodiversity, increase dramatically woodland cover, improve water quality and limit water abstraction, reduce inputs like fertilisers, to safeguard arable land and encourage a return to market gardening.
- Fisheries and farming relocated and restructured (at a range of production scales) to maximise the benefits and cope with the disbenefits of a changing climate.
- Market gardening is a potential option for the urban fringe and VDL and could be combined with district heating schemes or digital storage (constant energy demand for glass houses).
- Invest in management and maintenance of infrastructure and buildings so they last longer.
- Flexible development which allows future adjustment in layout/use.

How digital connectivity could change the way we live and work?

- Improved IT across Scotland to encourage home working, remote working, less commuting, shorter working week, more leisure time BUT could increase inequalities
- Digital systems owned and managed by communities.
- Adaptable systems – inbuilt flexibility for future technology change.

Where our natural resources for energy are?

- Energy needs a strategic view taken Nationally, regionally and locally and appropriate investment and new models of funding to work with private sector and communities.
  - Water – tidal, wave and hydro inc. micro hydro
  - Wind – onshore and offshore
  - Ground, air and water heat pumps
  - Solar/Light
  - Rain harvesting – micro (every down pipe could be contributing to local energy
  - Waste – natural and man made
- Need to move away from individual home heating to District Heating so that alternative energy mixes become viable, and/or Community owned and managed systems generating into the National Grid.

Future technologies
Natural Capital - Importance of soils, rare earth minerals, plants and animals to science and future technology. Need to safeguard environmental quality so that resources can later be developed and harvested. Need the scientists and investment in universities and research establishments to allow this to happen.