

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

Think about:

- What we will need to do to reach the target of net zero emissions by 2045.
- The opportunities that this could provide to support jobs and the economy.
- How places can be made more resilient to the long term impacts of climate change.
- What climate change-friendly places might look like in the future.

Scotland needs a greater focus on sustainable, blue-green, surface water management that has a lower carbon cost to implement and deliver multiple benefits in terms of increasing resilience to the effects of climate change, reducing urban heat, providing a home for biodiversity, improving air quality and contributing to placemaking.

Scotland need this to be not just for new development, but also as retrofit to existing systems to reduce existing flood risks / impacts that will continue to worsen with climate change and urban creep.

Blue-green interventions will have a lower carbon footprint than traditional 'grey' approaches to managing the drainage system.

In the future, climate change friendly places should all have 'smart' rainwater managed at source and on the surface, rather than traditional 'grey' approaches which focus on directing rainfall into a below ground drainage network as quickly as possible.

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

Think about:

- Where we might want to live in 2050.
- How many and what types of homes we will need.
- How we can encourage more people to live in rural Scotland.
- Whether we could target development to address longstanding differences in health and quality of life.
- Whether and where we might need new settlements, and regeneration of existing communities.
- How places could be more inclusive, diverse, creative, vibrant, safe, resilient and empowering.

Future, sustainable, places need to manage rainfall closer to where it lands – including re-using it, where possible. This helps to attenuate the impact of rainfall on the drainage system, which reduces flood risks / impacts both for new and existing development.

Reducing flood risk will have significant beneficial impacts in terms of carbon associated with the recovery from flooding, and the mental health and wellbeing of communities that already live with flooding.

The planning system should be much stronger in its requirement for the delivery of sustainable blue-green interventions for surface water management – both for new build / regeneration, as well as enabling interventions to reduce existing flood risk.

Due to the uncertainty and challenges of the climate emergency, the Planning system should also require the use of adaptation pathways when planning interventions. This would ensure consideration of multiple possible futures, and allow analysis / exploration of the robustness and flexibility of various options across multiple futures. This reduces risk of 'lock-in' to unsustainable decisions that lack potential to adapt.

### **3. What does planning need to do to enable economic development & investment in our economy to benefit everyone?**

Think about:

- What our 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.

Planning needs to ensure that climate change, and sustainable blue-green surface water management, is considered at the start of the planning for any new development, and as part of developing green structure plans. Strategic drainage partnerships, such as the MGSDP and the Edinburgh and Lothians Strategic Drainage Partnership, should be formed for other cities / regions to help shape an infrastructure first approach to placemaking.

In particular, the need for strategic infrastructure and up-front investment to provide the connection from a development site to a suitable receiving waterbody, should be considered and delivered in collaboration with key stakeholders as part of strategic

planning for Scotland, and as championed by the Infrastructure Commission for Scotland. This is a particular challenge for Scotland's urban areas where historic watercourses have been lost over time, which puts additional strain on existing combined sewer networks that are often the only available discharge location for much development.

#### **4. How can planning improve, protect and strengthen the special character of our places?**

Think about:

- What special places will need protection in the future.
- What the future might be for our rural, coastal and island communities.
- How we could unlock the potential of vacant and derelict land.
- What our city and town centres might look like in the future.
- Whether we need to think about the concept of green belts.
- How we can get the most out of our productive land.
- How we can protect and restore peatland.
- How we can plan blue and green infrastructure.
- How we can strengthen the character and heritage of our many different places.

Planning needs to ensure that climate change, and sustainable blue-green surface water management, is considered early in the planning for any new development, and on a strategic basis in terms of retrofit for urban areas – with the aim of delivering infrastructure in a coordinated manner, ahead of development, rather than a reactive, piece-meal approach. A strategic approach should consider the location / potential of vacant and derelict land in terms of both potential to manage surface water and the potential discharges from such sites, and Development Plans should safeguard land to allow space for sustainable water management to both enable new development and reduce risk for existing development.

Retrofit of SuDS is usually expensive and often disruptive, so the planning system should do more to require that any urban realm projects / programmes must consider the opportunities for retrofit surface water management early, to be able to deliver multiple benefits in the most cost effective manner possible.

To become resilient to climate change we believe that there is a need to completely reimagine what an urban street looks like in the future. The aspirations of the Glasgow City Centre Avenues project provide an indication of the scale of change to retrofit blue-green infrastructure that is required - <https://www.glasgow.gov.uk/avenues>

Community engagement will be important to communicating the importance of flood risk management interventions, and the multiple benefits of blue-green infrastructure.

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

Think about:

- What infrastructure we will need in the future.
- How we can make better use of existing infrastructure capacity, including through innovation.
- Where transport connections will be needed to support future development.
- Where our international gateways, hubs and links will be in a post-Brexit world.
- How we can sustain our lifelines.
- How digital connectivity could change the way we live and work.
- Where our natural resources for energy are.
- What emerging and future technologies we will need to plan for.

Scotland needs to plan and deliver a network of strategic surface water conduits for its urban areas to receive discharges from new and existing development. This is a challenge for Scotland's urban areas where historic watercourses have been lost over time. This puts additional strain on the existing combined sewer networks which are often the only available discharge location for new development, in addition to existing development discharges that are increasing through urban creep and the loss of permeable surfaces. Existing assets should also be considered for their potential to deliver additional benefits to their core purpose – ie the canal network. Where new infrastructure is delivered, it should be blue-green in nature, ideally managing water on the surface, to be able to realise the multiple benefits of reducing flood risk, improving biodiversity, improving air quality and reducing urban heat island effects.

Existing drainage assets should be considered for their potential in terms of 'smart' water management – where data and remote automation can be used to provide additional capacity prior to storm events. An example of this is Glasgow's Smart Canal - <https://www.youtube.com/watch?v=MFykgGeee1o>

The potential for 'smart' water management should be also be considered for any new development, including at individual property level, where the dynamic management of rainfall in response to weather forecast data can attenuate runoff and mitigate flood risk. This would be achieved by emptying storage tanks ahead of a forecast rainfall event to ensure capacity to collect and attenuate runoff when the storm arrives.

Both retrofit and new smart water management systems, including greywater recycling, will reduce demands on existing drainage infrastructure capacity, helping to both reduce flood risk and provide headroom for new development.

## National Developments

National Planning Framework 3, adopted in 2014, set out 14 national developments. It is intended that National Planning Framework 4 (NPF4) will also identify national developments.

National developments in NPF4 have the potential to help deliver the aims of our long term spatial plan. Essentially, they are the developments that the Scottish Ministers believe are needed in the future.

National developments aim to provide certainty upfront, for investors, businesses, and also communities.

A national development could be a single large scale project that makes a significant contribution to national outcomes. However, a number of smaller projects could work together to deliver significant benefits and also form a national development, and even a single small project could have a nationally significant impact that means it merits designation as a national development.

To ensure their status adds value, national developments must have some aspect which requires permission or consent before construction begins.

You are invited to submit ideas for national developments until 31 March 2020.

National Planning Framework 4 (NPF4) will be a plan for Scotland in 2050 that sets out where development and infrastructure is needed in the coming years.

The Scottish Ministers can identify national developments to include in NPF4. This could include single, large-scale projects or several smaller scale developments combined. Once designated, the question of whether a national development is needed does not have to be debated in later consenting processes. To benefit from this status, national developments have to be formally set out in a statement of need that is included in the National Planning Framework.

We can build on previous plans and consider ongoing programmes to identify new national developments. National Planning Framework 3 (2014) identified the following national developments:

1. Ravenscraig – Creating a sustainable settlement on one of the largest areas of vacant and derelict land in Europe.
2. Dundee Waterfront – Regenerating the waterfront with high quality placemaking and supporting the low carbon economy.
3. Carbon Capture and Storage Network and Thermal Generation – Linking carbon capture and storage (CCS) to electricity generation from key sites.
4. High Voltage Electricity Transmission Network – New infrastructure to facilitate renewable electricity generation onshore and offshore.

5. Pumped Hydroelectric Storage – New sites and further development at existing sites, including at Cruachan.
6. Central Scotland Green Network – Creating a step-change in environmental quality, addressing areas of disadvantage and attracting investment.
7. **Metropolitan Glasgow Strategic Drainage Partnership** –Water and drainage infrastructure investment to build climate change resilience and unlock potential development sites.
8. National Long Distance Cycling and Walking Network – Closing gaps in the current networks to enhance visitor experiences and provide better access to the outdoors for people.
9. High Speed Rail – Improving connections to the UK and Europe, strengthening links between cities.
10. Strategic Airport Enhancements – Supporting the main airports as gateways and recognising the importance of lifeline air links. Identified airports: Aberdeen, Edinburgh, Glasgow, Inverness and Prestwick. Wider investment zones supported at Edinburgh, Glasgow and Prestwick.
11. Grangemouth Investment Zone – Supporting improvement and investment in this nationally significant site for industry and freight.
12. Freight Handling Capacity on the Forth – Supporting additional sea freight capacity.
13. Aberdeen Harbour – New harbour to address existing capacity constraints.
14. National Digital Fibre Network – Supporting world-class connectivity in Scotland, focusing on connections to rural communities.

We will engage with the lead partners of these national developments to understand how they have changed and their continuing relevance to NPF4.

#### National Development Assessment Criteria

We will analyse all proposals for national development status in relation to the following criteria:

Climate change	People	Inclusive Growth	Place
The development will help to reduce emissions, contributing to Scotland’s target of net zero emissions by 2045, will be	The development will support the health, wellbeing, sustainability, and quality of life of our current and future population.	The development will contribute to sustainable economic growth that helps to reduce poverty and inequality across Scotland.	The development will protect or enhance the quality of a place or improve biodiversity.

emissions neutral, or emissions negative.			
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Ideally, proposals should contribute to all four criteria to be considered as candidates for national development status in the draft of NPF4.

Developments that only meet two or three criteria, may still be considered to be of national significance and potentially suitable for designation, for example where they will generate particularly significant benefits for one of the criteria.

It is unlikely that proposals that have a significant adverse impact on any of these criteria will be suitable for national development status. All proposals for national development status should be accompanied by an explanation of their contribution to each of the national development assessment criteria when submitted.

Send us your comments

Please use the table below to let us know about projects you think may be suitable for national development status. You can also tell us your views on the existing national developments, referencing their name and number, and providing reasons as to why they should maintain their status. Please use a separate table for each project or development.

Name of proposed national development	The Metropolitan Glasgow Strategic Drainage Partnership (MGSDP)
Brief description of proposed national development	<p>Continuation from NPF3:–</p> <p>Strategic partnership approach for water and drainage infrastructure investment to build climate change resilience and unlock potential development sites.</p> <p>With the focus on delivering sustainable, blue-green, surface water management, the aim is to deliver less carbon intensive interventions that provide multiple benefits:-</p> <ul style="list-style-type: none"> <li>Reduce the risk and impacts of flooding on people and places;</li> <li>Reduce the carbon, financial and mental health impacts of recovering from flooding;</li> <li>Improve air quality;</li> <li>Reduce urban heat island effects;</li> <li>Provide a home for biodiversity;</li> </ul>

	<p>Contribute to placemaking;</p> <p>Enable sustainable development and growth.</p> <p>This partnership approach, as noted in the Programme for Government, with a focus on delivering blue-green interventions for multiple benefits, should also be applied to other urban centres / regions, and has already been set up for the Edinburgh and Lothians region.</p>
Location of proposed national development (information in a GIS format is welcome if available)	West central Scotland – Glasgow City Region.
What part or parts of the development requires planning permission or other consent?	Each individual intervention will likely require planning permission.
When would the development be complete or operational?	The MGSDP is an ongoing programme, with interventions subject to funding being available. A delivery plan to 2060 is being developed.
Is the development already formally recognised – for example identified in a development plan, has planning permission, in receipt of funding etc.	The MGSDP is an NPF3 National Development. Many individual interventions, both large and small, have already been delivered. However, much more is required to mitigate existing flood risk, enable development in a sustainable manner, and combat climate change.
Contribution of proposed national development to the national development criteria (maximum 500 words)	<p>MGSDP interventions reduce existing flood risk and impacts, enable sustainable development and regeneration, and seek to combat the challenge of the climate emergency.</p> <p>MGSDP interventions link with the work of Climate Ready Clyde, the Central Scotland Green Network and Mission Clyde.</p>