



Scotland 2045
Our Fourth National
Planning Framework
Draft



Scottish Government
Riaghaltas na h-Alba
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CONSULTATION QUESTIONS

This is a list of consultation questions as they appear in the consultation draft NPF4 and accompanying impact assessments. (This list comprises 11 pages.)

Scottish Water Response

GENERAL COMMENTS

There is strong alignment between Scottish Water's Strategic Plan ([Strategic Plan - Scottish Water](#)) and the ambitions set out in NPF4.

We welcome the inclusion of the need to address the increasing risk of flooding and the recognition that nature-based solutions (including blue-green infrastructure) have a key role to play to deliver the Scottish Government Water Resilient Places Policy Recommendations.

We do though recommend greater emphasis on the need for closer partnership working to deliver blue-green infrastructure to transform the towns and urban environment to tackle the climate and nature emergencies.

The current policy framework lacks a focus on integrated planning for water and climate change adaptation and mitigation. An integrated approach to planning development should be led by planning authorities, engaging with developers and the relevant agencies, factoring in the long-term impacts of climate change on water and environmental resources.

We welcome the strong focus on land, energy, emissions and industry through NPF4 but would like to highlight there is currently insufficient consideration of water efficiency and the water environment. The requirements around homes, buildings and water use should be strengthened to bring in water and energy efficiency and the sustainable management of surface water at a property level, with a view to driving both adaptation and mitigation.

In terms of the individual policies (Questions 23 through to 53) we believe the language in some of the policies is not as directive as it should be (e.g. suggest use of "must do" instead of "should or may do") to drive the required outcomes of the policy. This is likely to result in varying interpretation and application across local authorities and developers, potentially reducing the intended effect of NPF4 or leading to points of dispute between these parties. More instructive language would be welcomed where there is a clearly demonstrated (adaptation) need for such measures. We also feel there is a lack of detail on metrics that will demonstrate the success of individual policies.

A draft delivery plan / route map would be helpful to aid understanding of how NPF4 aids delivery on the ground.

Part 1 - A National Spatial Strategy for Scotland 2045

Sustainable places

Our future net zero places will be more resilient to the impacts of climate change and support recovery of our natural environment.

Q 1: DO YOU AGREE THAT THIS APPROACH WILL DELIVER OUR FUTURE NET ZERO PLACES WHICH WILL BE MORE RESILIENT TO THE IMPACTS OF CLIMATE CHANGE AND SUPPORT RECOVERY OF OUR NATURAL ENVIRONMENT?

Scottish Water is supportive of the proposed *Sustainable Places* approach. The inclusion of the nature-positive places that can support resilience to the impacts of climate change is crucial to support the Scottish Government Water Resilient Places Policy Recommendations. The delivery of nature based solutions and blue-green infrastructure will support places to become more resilient in the face of the changing climate and the increased risk of surface water flooding.

The planning and development of sustainable places should also consider how to adapt the existing urban environment (e.g. public areas, roads, parks, schools, etc) to have a role in the better management of surface water in storm events. Designing public areas and open spaces to convey and store flows from storm events on the surface, will provide resilience to properties, businesses, and communities.

Consideration should also be given to achieving water neutrality in new developments (where a development does not increase the rate of water abstraction above existing levels) to help tackle water resource and climate resilience pressures.

Liveable places

Our future places, homes and neighbourhoods will be better, healthier and more vibrant places to live.

Q 2: DO YOU AGREE THAT THIS APPROACH WILL DELIVER OUR FUTURE PLACES, HOMES AND NEIGHBOURHOODS WHICH WILL BE BETTER, HEALTHIER AND MORE VIBRANT PLACES TO LIVE?

The incorporation of blue-green infrastructure into places can deliver a wide range of benefits such as enhancing native biodiversity, improving human health and wellbeing alongside adapting to the impacts of climate change.

Blue-green infrastructure could be placed in vacant or derelict land, or in spaces which are unsuitable for other kinds of development. This could further increase the transformative effect of providing liveable places.

Creating blue-green spaces on a neighbourhood level requires close co-operation between developers, landowners, local authorities, SEPA and Scottish Water and should be embedded into the design and planning process for new developments and extend into the existing urban environment.

Consideration should be given to the opportunity that new development can offer in creating betterment in terms of reduced surface water flood risk on the existing community, through the creation of a principle of flood risk 'net gain', mirroring the principle of biodiversity net gain.

We note that planning resilient water and waste water services for homes in rural environments is not specifically acknowledged in NPF4. In some areas existing private water supplies and sewerage systems are inadequate. The powers to prevent such problems from worsening or repeating are not currently strong enough. Given the commitment to SDG6 from the Scottish Government there should be strong planning conditions on reliable, resilient and sustainable water and waste water provision. We suggest that the resilience and quality of the water supply must be a condition for planning.

Productive places

Our future places will attract new investment, build business confidence, stimulate entrepreneurship and facilitate future ways of working – improving economic, social and environmental wellbeing.

Q 3: DO YOU AGREE THAT THIS APPROACH WILL DELIVER OUR FUTURE PLACES WHICH WILL ATTRACT NEW INVESTMENT, BUILD BUSINESS CONFIDENCE, STIMULATE ENTREPRENEURSHIP AND FACILITATE FUTURE WAYS OF WORKING – IMPROVING ECONOMIC, SOCIAL AND ENVIRONMENTAL WELLBEING?

No comment.

Distinctive places

Our future places will be distinctive, safe and pleasant, easy to move around, welcoming, nature-positive and resource efficient.

Q 4: DO YOU AGREE THAT THIS APPROACH WILL DELIVER OUR FUTURE PLACES WHICH WILL BE DISTINCTIVE, SAFE AND PLEASANT, EASY TO MOVE AROUND, WELCOMING, NATURE-POSITIVE AND RESOURCE EFFICIENT?

We know that the incorporation of blue-green infrastructure into distinctive places can deliver a wide range of benefits such as enhancing native biodiversity, improving human health and wellbeing and mitigating effects from climate change.

Creating blue-green spaces on a neighbourhood level requires close co-operation between developers, landowners, local authorities, SEPA and Scottish Water and should be embedded into the design and planning process for new developments and extend into the existing urban environment.

Q 5: DO YOU AGREE THAT THE SPATIAL STRATEGY WILL DELIVER FUTURE PLACES THAT OVERALL ARE SUSTAINABLE, LIVEABLE, PRODUCTIVE AND DISTINCTIVE?

We believe it is essential that a catchment-based approach to drainage, rather than a localised or site based approach, is taken by all relevant stakeholders. There is a need to identify at an early stage in the development process where strategic blue-green infrastructure should be optimally located and ensure that sufficient land is identified and safeguarded to ensure its future delivery. This may also include considering the wider use of existing vacant and derelict land sites for uses other than building housing.

Spatial principles

Q 6: DO YOU AGREE THAT THESE SPATIAL PRINCIPLES WILL ENABLE THE RIGHT CHOICES TO BE MADE ABOUT WHERE DEVELOPMENT SHOULD BE LOCATED?

We agree that the spatial principles will support the right choices to be made about where development should be located.

Within the urban environment, consideration of the increasing risk of surface water flood risk through the impacts of climate change must be built in to planning design and decisions to ensure these principles support the development of climate resilient places.

In terms of the compact growth principle, increased density needs to take cognisance of the space required to locate, operate, and maintain the key local infrastructure required, such as water and drainage, to serve the site. Vacant and derelict sites may need to be safeguarded to create space for surface water through blue-green infrastructure. Measures to capture, store, re-use (rainwater harvesting) and manage rainwater within the site boundary should be encouraged, to drive net gain within the site, and ensure no detriment to the surrounding existing community.

Spatial Strategy Action Areas

Q 7: DO YOU AGREE THAT THESE SPATIAL STRATEGY ACTION AREAS PROVIDE A STRONG BASIS TO TAKE FORWARD REGIONAL PRIORITY ACTIONS?

We note that whilst these regional priority actions help identify national priorities, they are varied and wide ranging. There is a risk that this may be detrimental to other essential priorities not contained within the priority actions. A 5 area approach with different priorities whilst providing clarity may also become problematic to other new strategies that may become common nationally.

North and west coastal innovation

Q 8: DO YOU AGREE WITH THIS SUMMARY OF CHALLENGES AND OPPORTUNITIES FOR THIS ACTION AREA?

We suggest that the summary needs to give greater emphasis to the need for partnership working to deliver blue-green infrastructure to transform our existing towns and cities and tackle climate and nature emergencies.

Within this action area, the focus for delivering blue-green infrastructure appears to be biodiversity and nature. Whilst these are important, the summary should also make clear the challenges of flood risk management and benefits associated with flooding prevention and delivering climate resilience in this action area.

Planning conditions for homes in a rural environment needs to be strengthened to ensure a resilient and reliable water and waste water service provision.

Q 9: WHAT ARE YOUR VIEWS ON THESE STRATEGIC ACTIONS FOR THIS ACTION AREA?

No comment.

Northern revitalisation

Q 10: DO YOU AGREE WITH THIS SUMMARY OF CHALLENGES AND OPPORTUNITIES FOR THIS ACTION AREA?

We recommend that the summary needs to emphasise the need for closer partnership working to deliver blue-green infrastructure to transform the towns and urban environment within the action area to tackle both the climate and biodiversity emergencies.

Q 11: WHAT ARE YOUR VIEWS ON THESE STRATEGIC ACTIONS FOR THIS ACTION AREA?

Under “Nurture nature-based solutions”, we suggest that strategic actions are needed to cover how blue-green infrastructure can be planned and delivered to transform the towns and urban environment within the action area, for new and existing developments.

Also, under “Stimulate green prosperity” the action needs to consider co-location of services such as commercial greenhouses next to wastewater treatment plants to benefit from nutrients and heat.

Strategic actions need to address the number of private water supplies in the area.

North east transition

Q 12: DO YOU AGREE WITH THIS SUMMARY OF CHALLENGES AND OPPORTUNITIES FOR THIS ACTION AREA?

We recommend that the summary needs to emphasise the need for closer partnership working to deliver blue-green infrastructure to transform the towns and urban environment within the action area to tackle both the climate and biodiversity emergencies.

Q 13: WHAT ARE YOUR VIEWS ON THESE STRATEGIC ACTIONS FOR THIS ACTION AREA?

We believe that strategic actions are needed to address the resilience of private water supplies in the area, particularly rural Aberdeenshire.

Central urban transformation

Q 14: DO YOU AGREE WITH THIS SUMMARY OF CHALLENGES AND OPPORTUNITIES FOR THIS ACTION AREA?

We agree with the summary of challenges and opportunities in this action area although recommend that the summary needs to emphasise the need for closer partnership working to deliver blue-green infrastructure to transform all the towns and cities in the central urban action area to tackle climate and biodiversity emergencies rather than particular focus only on Glasgow & Edinburgh.

The management of flood risk is key to making the towns and cities in the central area climate resilient.

The summary needs to emphasise the need for closer partnership as demonstrated by the Metropolitan Glasgow Strategic Drainage Partnership and the Edinburgh & Lothians Strategic Drainage Partnership. These

partnerships are providing critical planning and delivering blue-green infrastructure to transform the towns and urban environment within the action area to tackle climate and nature emergencies. This underpins the development and execution of the National Planning Framework and the supporting strategies, policies and associated local development planning needed to support a sustainable, climate resilient Scotland.

Q 15: WHAT ARE YOUR VIEWS ON THESE STRATEGIC ACTIONS FOR THIS ACTION AREA?

We suggest including the Metropolitan Glasgow Strategic Drainage Partnership and the Edinburgh & Lothians Strategic Drainage Partnership, within the initiatives highlighted under urban greening.

The increasing risk of surface water flooding due to the impact of climate change is a significant challenge within the urban areas across Scotland's central belt. We would strongly encourage inclusion of the need for catchment-scale approach to both understand the scale of flood risk, and the development of integrated blue-green infrastructure to help reduce the risk of flooding, create water sensitive urban design as part of the central urban transformation and accelerate delivery of the Scottish Government Water Resilient Places Policy Recommendations.

As part of the action to reuse land and buildings, consideration should be given to opportunities to deliver multifunctional blue-green infrastructure to both support the action to accelerate urban greening and reduce the risk of flooding to new and existing developments.

Consideration should also be given to the part that new development can have on creating betterment in terms of reduced surface water flood risk on the existing community, through the creation of a principle of flood risk 'net gain,' mirroring the principle of biodiversity net gain.

Actions to encourage investment in net zero housing should also seek opportunities to manage surface water at plot/street level through the use of the Sustainable Urban Drainage Systems (SuDS) and to encourage nature based solutions as close as possible to where the rain falls. Incorporation of water efficient devices and smart rainwater harvesting systems should also be supported through both new and upgraded development.

Southern sustainability

Q 16: DO YOU AGREE WITH THIS SUMMARY OF CHALLENGES AND OPPORTUNITIES FOR THIS ACTION AREA?

We recommend that the summary needs to emphasise the need for closer partnership working to deliver blue-green infrastructure to transform the towns and urban environment within the action area to tackle both the climate and biodiversity emergencies.

Q 17: WHAT ARE YOUR VIEWS ON THESE STRATEGIC ACTIONS FOR THIS ACTION AREA?

We believe that managing the growing risk of surface water flooding should be clearly identified as a risk within the summary of challenges and opportunities for this area. However, there are no clear objectives/actions against this in the list of bullet points or supporting actions. Although there is a mention of creating places resilient to flood risk, there is no mention of dealing with existing surface water flooding risk through new development or retrofit within existing developments. These will be key to accelerating delivery of the Scottish Government Water Resilient Places Policy Recommendations.

National Spatial Strategy

Q 18: WHAT ARE YOUR OVERALL VIEWS ON THIS PROPOSED NATIONAL SPATIAL STRATEGY?

We welcome the inclusion of the need to address the increasing risk of flooding within the national spatial strategy, and the recognition that nature-based solutions (including blue-green infrastructure) have a key role to play to deliver the Scottish Government Water Resilient Places Policy Recommendations.

Part 2 - National developments

Q 19: DO YOU THINK THAT ANY OF THE CLASSES OF DEVELOPMENT DESCRIBED IN THE STATEMENTS OF NEED SHOULD BE CHANGED OR ADDITIONAL CLASSES ADDED IN ORDER TO DELIVER THE NATIONAL DEVELOPMENT DESCRIBED?

We would like to raise the point that for 7. Islands Hub for Net Zero, the production of 'renewable hydrogen' requires significant volumes of water so when calculating the carbon cost of hydrogen production, the cost of water production and transportation should be included. This point is also relevant to the proposed developments at 10. Hunterston Strategic Asset and 11. Chapelcross Power Station Redevelopment.

Island water supplies are often limited and any water used for hydrogen production should consider the impact on the local water environment and the ability for Scottish Water to provide resilient potable water services.

We welcome the recognition of the need to improve infrastructure to ensure climate resilience and the inclusion of surface water management and drainage systems as national developments. We are supportive of these national developments and would be keen to work in collaboration with other stakeholders to ensure the aims set out for each area are achieved.

We consider that there are synergies across National Developments 1-4, and within National Developments 14, 16 and 17. Any associated delivery programme and action plan must ensure that delivery partners appreciate the potential for interdependencies across these and other National Developments as well as the ability to deliver on a number of the NPF4 Spatial Strategy and National Planning Policy Outcomes. This recognition can maximise opportunities for shared delivery across towns and cities.

Consideration of a catchment approach to planning these national developments could highlight opportunities to deliver together for maximum benefit to new and existing communities, making all national developments work harder by including blue and green elements within them from the outset.

Regarding specific National Developments we would note the following:

Within National Development 1, the language reads as "blue" and "green" which could be seen as separate. There needs to be integration of blue within all green thinking and including the term "creation of blue space" gives concerns that this may drive continued creation of end of pipe solutions.

Central Scotland Green Network can play a key role in adaptation to climate change impacts through the planning and delivery of blue-green infrastructure and should be clearly articulated under the need for this national development.

Regarding National Developments 2 and 3, the delivery of active travel routes/mass transit network should also ensure delivery of supporting blue-green infrastructure. Any change to the surface to create linear networks to move people and vehicles can also create space and connections for blue-green infrastructure and positively support the Scottish Government Water Resilient Places Policy Recommendations.

We welcome the inclusion of this National Development 4. We suggest the needs and classes of the development are reviewed to ensure clarity of what is required to be delivered. We would ask that the removal of the word 'drainage' from the title to ensure that these developments are not seen as solely having a drainage function, but emphasis the need for the planning framework and community to proactively lead the planning and delivery of multi-functional blue and green solutions.

We would suggest that consideration is given to widening out National Development 4 to classes of developments across all cities and towns in Scotland within the NPF4 timeframe, to accelerate the delivery of water resilience to new and existing communities.

Finally, the use of several terms within the Statement of Need (and elsewhere in the Framework) appear to be used interchangeably, such as nature-based solutions / blue-green infrastructure / nature-based approach to surface water management.

Clarity on the use and definitions of these terms is required to ensure that delivery partners are clear on what is expected through this national development, and wider spatial strategies and policies. The need statement sets out the ambition to minimise the use of built engineered structures. However, it is important to recognise that Sustainable Urban Drainage Systems (SuDS) are designed to mimic natural approaches to the management and treatment of surface water, they are engineered structures designed to standards, which are a key component of blue-green infrastructure.

We welcome the recognition that a catchment scale approach to the planning and delivery of surface water infrastructure is needed and this will support the adaptation of our towns and cities to be resilient to the impacts of climate change. We recommend that the classes of development described in the Statement of Needs mirrors the classes set out for National Development 1 Central Scotland Green Network. This will enable opportunities for creating national level developments that support both outcomes.

Q 20: IS THE LEVEL OF INFORMATION IN THE STATEMENTS OF NEED ENOUGH FOR COMMUNITIES, APPLICANTS AND PLANNING AUTHORITIES TO CLEARLY DECIDE WHEN A PROPOSAL SHOULD BE HANDLED AS A NATIONAL DEVELOPMENT?

We recommend that the level of information in the Statement of Needs should be expanded to better describe what is expected to meet the scale of how a development is identified as a national development.

For example, in the case of National Development 4, there is a need to plan and deliver the retrofitting of sustainable drainage solutions within our existing buildings, roads, public realm and open/green space to tackle the significant flood risk increase from climate change impacts. This will require the delivery of small retrofit opportunities at scale, as well as large scale infrastructure to support new places whilst supporting climate resilience in the surround urban environment. It is not clear from the Statement of Needs how this critical mix of large and small scale interventions driven through catchment planning approaches would be supported as a national development.

Q 21: DO YOU THINK THERE ARE OTHER DEVELOPMENTS, NOT ALREADY CONSIDERED IN SUPPORTING DOCUMENTS, THAT SHOULD BE CONSIDERED FOR NATIONAL DEVELOPMENT STATUS?

We believe that the approach set out in “Urban Sustainable, Blue and Green Drainage Solutions” should be national and not be limited to Glasgow / Edinburgh. Similar challenges occur across Scotland and national developments should emphasise the need for closer partnership working to deliver blue-green infrastructure. This would transform the towns and urban environment within an action area to tackle climate and nature emergencies.

Part 3 - National Planning Policy

Sustainable Places

We want our places to help us tackle the climate and nature crises and ensure Scotland adapts to thrive within the planet's sustainable limits.

Q 22: DO YOU AGREE THAT ADDRESSING CLIMATE CHANGE AND NATURE RECOVERY SHOULD BE THE PRIMARY GUIDING PRINCIPLES FOR ALL OUR PLANS AND PLANNING DECISIONS?

We agree that these should be the primary guiding principles.

The delivery of nature-based solutions and blue-green infrastructure will support places to become more resilient in the face of the changing climate and the increased risk of surface water flooding. These are crucial to support the Scottish Government Water Resilient Places Policy Recommendations.

We recommend that the place-based approach extends beyond any new development to support wider environmental and community flood risk net gain in adjoining communities. This would provide multiple benefits across all of the Place Principles.

Policy 1: Plan-led approach to sustainable development

Q 23: DO YOU AGREE WITH THIS POLICY APPROACH?

We welcome the policy approach for a plan-led approach to sustainable development. This must include the requirement for an integrated catchment based approach to the management of flood risk, and surface water flooding in particular.

This approach must recognise that the flow of rainfall and flood waters do not recognise the local development plan boundaries or organisational boundaries.

The policy should set clear expectations for local development plans and public sector agencies to take the lead on delivering the strategic infrastructure, including blue-green infrastructure, required to enable climate resilient communities.

A clear link should be made between this policy approach and the requirement for catchment based approach to planning within the sustainable FRM (Flood Risk Management) guidance and objectives to make that happen. (<https://www.gov.scot/publications/flood-risk-management-scotland-act-2009-delivering-sustainable-flood-risk-management/pages/3/>).

Policy 2: Climate emergency

Q 24: DO YOU AGREE THAT THIS POLICY WILL ENSURE THE PLANNING SYSTEM TAKES ACCOUNT OF THE NEED TO ADDRESS THE CLIMATE EMERGENCY?

We believe that local authority planning and local development plans are key enablers to help Scotland achieve net zero. Development plans are a key tool to show how an area can take steps to deliver net zero such as allocating land for renewable generation and sequestration activities as well as ensuring that homes and economic development are not planned in areas which are at risk of flooding.

Further to community-level planning, each planning application can also test if a building itself is doing all it can to deliver net zero outcomes. We would support the progression of net zero as a key test in planning applications. Additionally, through building control, local authorities can ensure that a building's ability to deliver efficient water consumption is considered in development. Examples of this are low water use fixtures and appliances and we expand on this in answers to other areas of the consultation such as Q31.

It is critical that this policy supports the active retrofitting of buildings, infrastructure and open/green spaces to drive climate resilience, e.g. property level flood resilience measures, plot level source control of surface water through disconnection to reduce flood risk and spills to the environment from the sewer and drainage systems.

The planning system should also take account of flood risk management, surface water management and blue green infrastructure which are key elements in adapting to the impact of the climate emergency. We expand on this in our answers to other areas of the consultation.

Policy 3: Nature crisis

Q 25: DO YOU AGREE THAT THIS POLICY WILL ENSURE THAT THE PLANNING SYSTEM TAKES ACCOUNT OF THE NEED TO ADDRESS THE NATURE CRISIS?

We note that the policy sets out key stages of development - planning, proposals, and impacts - where nature must be taken account of. The terms used to describe the action at each stage are subjective as demonstrated using "facilitate" "contribute" and "minimise." The language used to address the approach required by practitioners would benefit from being clarified, standardised, and strengthened.

A recurring theme within the policy, at all stages of development, is the need for nature networks to achieve connectivity between areas of high biodiversity value. This approach could be highlighted as an overarching aim by providing details in a separate section within the policy text, including setting out the level of commitment to a network of connecting sites at a national level.

Whilst biodiversity and natural capital are referenced in the policy, there is no guidance to planning authorities or developers on how this should be planned, measured or considered in the decision making. There must be some way of objectively assessing whether the policy framework is supporting this, and it is

not apparent in the current version. We have been developing an approach that will support this to help us to both report status and to bring nature and biodiversity into decision making. The current consultation should make clear how this would lead to changes on the ground, and the same goes for natural capital.

The local development plan and any development proposals must ensure consideration is given to enhance biodiversity in conjunction with the requirements of other policy areas to drive synergies and increase opportunities for multiple benefits, including the inclusion of blue-green infrastructure and nature based solutions.

Policy 4: Human rights and equality

Q 26: DO YOU AGREE THAT THIS POLICY EFFECTIVELY ADDRESSES THE NEED FOR PLANNING TO RESPECT, PROTECT AND FULFIL HUMAN RIGHTS, SEEK TO ELIMINATE DISCRIMINATION AND PROMOTE EQUALITY?

No comment.

Policy 5: Community wealth building

Q 27: DO YOU AGREE THAT PLANNING POLICY SHOULD SUPPORT COMMUNITY WEALTH BUILDING, AND DOES THIS POLICY DELIVER THIS?

No comment.

Policy 6: Design, quality and place

Q 28: DO YOU AGREE THAT THIS POLICY WILL ENABLE THE PLANNING SYSTEM TO PROMOTE DESIGN, QUALITY AND PLACE ?

We believe it is critical that this policy supports a multiagency approach, which considers the management of surface water and flood risk, at a catchment level.

Design principles and guidance should incorporate water sensitivity into development proposals at all scales and this should require to be demonstrated as part of the six qualities of successful places in a way that contributes positively to both the character of the place and net flood risk within the wider community.

We would recommend that effect on current and future flood risk should also be taken into account under the assessment of whether a development proposal is detrimental to the character or appearance of the surrounding area.

Policy 7: Local living

Q 29: DO YOU AGREE THAT THIS POLICY SUFFICIENTLY ADDRESSES THE NEED TO SUPPORT LOCAL LIVING?

We would recommend that development proposals should consider inclusion of sustainable drainage systems (including nature based solutions) to manage surface water as close to where rain falls as possible.

As neighbourhoods are redesigned, nature based solutions to manage surface water can be incorporated into walking, wheeling and cycling networks, parks, green streets and spaces. These climate resilient measures can demonstrate how the development can enhance the local area.

Policy 8: Infrastructure First

Q 30: DO YOU AGREE THAT THIS POLICY ENSURES THAT WE MAKE BEST USE OF EXISTING INFRASTRUCTURE AND TAKE AN INFRASTRUCTURE-FIRST APPROACH TO PLANNING?

We are supportive of the objectives to move to an “infrastructure first” approach to enable development. However, this must be a balance of delivering infrastructure just ahead of need and ensuring this represents good value for investment of public funds, in order to guard against the risk of stranded assets where growth is not realised. We will continue to work closely with planning authorities and the wider development community to enhance forecasting of future growth across Scotland.

Infrastructure first needs to have a clear focus on early planning of blue-green infrastructure at a strategic level. This then needs to feed through into local development plans and master plans. Clear guidance is required on how this can all be delivered.

The plan-led system needs to ensure that, for any sites that are allocated, it is already known that water and drainage capacity is available. It is also important that programming the sites ties in with when infrastructure can be provided.

A place-based approach to infrastructure first will be crucial to the management of surface water and delivery of blue-green infrastructure at local, regional and catchment scale. Considering blue-green infrastructure needs at an individual site level, as part of development planning, is often too late in the process and makes it much harder to deliver a regional/catchment approach.

There is this need for clarity in the policy if the infrastructure first approach applies for new development only as there is insufficient focus on blue-green infrastructure within existing places/redevelopments and the needs to retrofit. We believe that this policy should apply to all development i.e. anywhere where planning is required. This would align with Scottish Water’s storm water

and surface water policies and our ambitions on net-zero and sustainable drainage systems to tackle the impacts of climate change.

The link to the objectives and actions set out within Scotland's Flood Risk Management Strategies and Plan must be made to ensure opportunities are maximised to deliver shared outcomes. Consideration should be made to enable the part funding of public sector funded strategic blue-green infrastructure, by subsequent developer contributions when individual development sites are connected to the strategic infrastructure.

The policy also needs to be stronger on the circular economy as well as net zero. A key point here is that there needs to be a requirement across the infrastructure section to drive the consideration of whole life and embodied carbon emissions in the supply chain as well use of materials and disposal.

Policy 9: Quality homes

Q 31: DO YOU AGREE THAT THIS POLICY MEETS THE AIMS OF SUPPORTING THE DELIVERY OF HIGH QUALITY, SUSTAINABLE HOMES THAT MEET THE NEEDS OF PEOPLE THROUGHOUT THEIR LIVES?

We do not believe the policy goes far enough to meet the stated aims. The measure for sustainable homes must include water efficiency, consumption, and sustainable drainage.

Sustainable metrics for homes need to include measures to address future pressures from climate change on both water, drainage and flood risk. These metrics should include similar mandatory sustainable targets maximising opportunities to increase water efficiency through fixtures and fittings, rainwater harvesting and focus on more sustainable nature-based drainage systems (e.g. green roofs, living walls, smart water butts, bioretention areas) to minimise surface water runoff.

The policy needs to cover water consumption, grey-water recycling, and the management of surface water through plot, street, and development level implementation of sustainable urban drainage systems.

Reducing the demand for water is part of Scottish Water's road map to going beyond net zero by 2040 [Intro - Net Zero \(scottishwaternetzero.co.uk\)](https://www.scottishwaternetzero.co.uk). By introducing a more co-ordinated approach to water efficiency between government, regulators and stakeholders, customers will be better informed on how using water wisely contributes to a reduction in their own carbon footprint, through heating less hot water and saving money on their energy bills.

We believe that to achieve a sustained reduction in water consumption we need a combination of behaviour and infrastructure change supported by planning decisions.

This can be achieved by

- Supporting further collaboration between stakeholders to develop mandatory water efficiency standards for domestic and non-domestic building regulations for both new build and retrofit programmes. This will allow water efficiency to be considered in the same manner as energy efficiency standards.
- Ensuring water is given the same weighting as energy when labelling housing as “Green.”
- Developing and applying building standards that support water efficient homes. For example, by supporting the implementation of water re-use technology.
- Applying minimum fittings standard regulations to remove sub-standard products from the market. This should be under-pinned by a UK mandatory water label allowing consumers and developers to make more informed decisions in the marketplace.

The policy must encourage the implementation of water neutrality in new developments (for domestic and non-domestic buildings). This would mean that new developments need to maximise water efficiency and offset any additional demand by improving water efficiency elsewhere in the water resource area. This would help enable development while reducing the environmental impact associated with water use.

It should also encourage inclusion of water efficiency measures in non-domestic buildings, ensuring they are a key part of net-zero and sustainability goals.

Policy 10: Sustainable transport

Q 32: DO YOU AGREE THAT THIS POLICY WILL REDUCE THE NEED TO TRAVEL UNSUSTAINABLY, DECARBONISE OUR TRANSPORT SYSTEM AND PROMOTE ACTIVE TRAVEL CHOICES?

We recommend that this policy, particularly the planning and delivery of active travel / cycle routes, should consider what positive contributions are made to the management and conveyance of surface water. This includes the need to consider existing and future exceedance flood-routing and ensure that scope for the future delivery of flood risk management interventions is not blocked or made significantly more difficult or expensive. Any change to the surface to create linear networks to move people more sustainably can create space and

connections for blue-green infrastructure and positively support the Scottish Government Water Resilient Places Policy Recommendations.

Policy 11: Heat and cooling

Q 33: DO YOU AGREE THAT THIS POLICY WILL HELP US ACHIEVE ZERO EMISSIONS FROM HEATING AND COOLING OUR BUILDINGS AND ADAPT TO CHANGING TEMPERATURES?

We believe that there needs to be an enablement of a greater implementation of district heat networks (DHN) through instigating a systematic evaluation within local development plans of potential or existing energy centres in the vicinity.

Policy 12: Blue and green infrastructure, play and sport

Q 34: DO YOU AGREE THAT THIS POLICY WILL HELP TO MAKE OUR PLACES GREENER, HEALTHIER, AND MORE RESILIENT TO CLIMATE CHANGE BY SUPPORTING AND ENHANCING BLUE AND GREEN INFRASTRUCTURE AND PROVIDING GOOD QUALITY LOCAL OPPORTUNITIES FOR PLAY AND SPORT?

We welcome the inclusion of a policy that supports blue-green infrastructure, however it is not clear why “blue-green infrastructure” has been combined with “play and sport” for this policy section.

We recommend a separation of these two areas with the development of a dedicated policy for blue-green infrastructure (BGI) to reflect its importance to support and deliver many spatial strategies and other policies under the planning system and deliver Climate Resilient Places.

Opportunities to include elements of ‘play’ with blue-green infrastructure have merit, to deliver multi-functional spaces and increase awareness of, and engagement with, surface water to manage flood risk for the wider catchment. Sports facilities should not be in competition with land that could be used for blue-green infrastructure and recreational places can be designed to be ‘blue’ for some of the time to reduce flood risk to communities, properties and infrastructure.

We are working with partners, agencies and communities to plan and move to deliver blue-green infrastructure. This work would be strengthened by including a clear definition of blue-green infrastructure within this policy, linked to the inclusion of ‘natural infrastructure’ in the definition of Infrastructure within the Infrastructure Investment Plan for Scotland 2021-22 to 2025-26.

This would support the recognition of BGI as an essential infrastructure in its own right and be included as part of an integrated infrastructure first approach to new developments.

To ensure this policy is applied consistently across Scotland, we recommend the creation of national guidance and national technical standards for Sustainable Urban Drainage Systems, to support planning authorities, the development community and delivery partners.

Consideration should be given to the creation of multi-agency groups to drive collaboration on the planning of strategic blue-green infrastructure at local development plan scale, as set out under PAN61 - Planning and sustainable urban drainage systems. Dundee City Councils SUDS working group, is a good example of this collaborative working in practice, where agencies work with the development community to influence good quality SuDS within the city and look for opportunities to link to existing place and joint up approach across new development in close proximity.

Sustainable surface water management principles are recommended through a hierarchy approach where dealing with rainfall at source (close to where it lands) is preferred before considering acceptable surface water conveyance systems (blue-green infrastructure, watercourses, or surface water sewers).

In addition to new development proposals, this policy should be expanded to consider how to retrofit and enhance existing streets, open/green spaces and public areas and should incorporate and accelerate the delivery of blue and green infrastructure. This is particularly important as a response to existing and future flood risk and the development of water resilient places.

Finally, we recommend that a funding model for the delivery and maintenance of blue-green infrastructure is developed at a national level. The need for effective and funded maintenance plans for long-term stewardship is critical for long-term success of blue and green infrastructure.

Policy 13: Sustainable flood risk and water management

Q 35: DO YOU AGREE THAT THIS POLICY WILL HELP TO ENSURE PLACES ARE RESILIENT TO FUTURE FLOOD RISK AND MAKE EFFICIENT AND SUSTAINABLE USE OF WATER RESOURCES?

Flood risk management has continually been identified as one the biggest challenges to Scotland from climate change. There is scope for this policy to be strengthened to ensure NPF4 and the subsequent Local Development Plans deliver places that are resilient to current and future flood risk.

The language of the policy is focused on "avoid increase" rather than creating betterment in terms of reduced surface water flood risk on the existing community. We strongly recommend that this policy creates a principle of

flood risk 'net gain', mirroring the principle of biodiversity net gain from new developments. Several terms are open to interpretation and could be strengthened (e.g. "adequate", "where practicable")

NPF4 and this policy should highlight the statutory link between the Flood Risk Management Plans and Local Development Plans and highlight the importance of considering Flood Risk Management Plans as part of the planning system.

This should include the need to carry out Strategic Flood Risk Assessment (from all sources of flooding) as part of the Local Development Planning process, as set out in the current Scottish Planning Policy.

The cumulative effect of multiple small-scale extensions and alterations within the same catchment needs to be considered within this policy, to ensure these do not have a significant impact on increasing flood risk within new and existing communities. Capture and re-use of rainwater and grey water on site together with green roofs and living walls should be encouraged (and potentially rewarded through incentives), as a way to off-set any cumulative increase in flood risk.

We recommend that this policy only supports development proposals that manage surface water through SuDS that are integrated with current and planned blue-green infrastructure. The SuDS management train approach should be required to deliver plot, street, and development scale management of surface water, rather than reliance on the continued creation of end of pipe SuDS ponds. There should be a requirement for an effective, costed maintenance plan to be provided with any SuDS proposed for new development. In addition, development proposals should require or incentivise the local capture and re-use of rainwater at an individual plot level would also be beneficial to both reduce flood risk and reduce demand for potable water.

Where possible rainwater storage / attenuation systems could be made 'smart' to empty ahead of storm events and maximise the volume of storage available.

Policies 14 and 15: Health, wellbeing and safety

Q 36: DO YOU AGREE THAT THIS POLICY WILL ENSURE PLACES SUPPORT HEALTH, WELLBEING AND SAFETY, AND STRENGTHEN THE RESILIENCE OF COMMUNITIES.

No comment.

Policy 16: Land and premises for business and employment

Q 37: DO YOU AGREE THAT THIS POLICY ENSURES PLACES SUPPORT NEW AND EXPANDED BUSINESSES AND INVESTMENT, STIMULATE ENTREPRENEURSHIP AND PROMOTE ALTERNATIVE

WAYS OF WORKING IN ORDER TO ACHIEVE A GREEN RECOVERY AND BUILD A WELLBEING ECONOMY?

No comment.

Policy 17: Sustainable tourism

Q 38: DO YOU AGREE THAT THIS POLICY WILL HELP TO INSPIRE PEOPLE TO VISIT SCOTLAND, AND SUPPORT SUSTAINABLE TOURISM WHICH BENEFITS LOCAL PEOPLE AND IS CONSISTENT WITH OUR NET-ZERO AND NATURE COMMITMENTS?

No comment.

Policy 18: Culture and creativity

Q 39: DO YOU AGREE THAT THIS POLICY SUPPORTS OUR PLACES TO REFLECT AND FACILITATE ENJOYMENT OF, AND INVESTMENT IN, OUR COLLECTIVE CULTURE AND CREATIVITY?

No comment.

Policy 19: Green energy

Q 40: DO YOU AGREE THAT THIS POLICY WILL ENSURE OUR PLACES SUPPORT CONTINUED EXPANSION OF LOW CARBON AND NET-ZERO ENERGY TECHNOLOGIES AS A KEY CONTRIBUTOR TO NET-ZERO EMISSIONS BY 2045?

Organisations who are developing renewable energy projects typically need to apply for a grid connection for such projects.

The electrical distribution infrastructure needs to support the uptake of renewable energy projects, energy storage, the switch to the electrification of heat through heat pumps and the decarbonisation of transport through electric vehicles and associated charging infrastructure. The lack of available capacity in the electricity distribution system is often a key constraint that can slow down or stop projects that we are developing towards meeting our and Scotland's net zero targets.

We are pleased to note that development proposals for renewable energy developments must consider hydrology, the water environment and flood risk. In our response to the Draft Hydrogen Action Plan we noted that water is key to producing hydrogen. We are keen to understand the water resource impacts of producing hydrogen and to balance hydrogen demand with the need to maintain water resource for potable and other users in a climate change future. We support any action that will ensure hydrogen development

in Scotland is planned where it can be best supported by available water resources.

Policy 20: Zero waste

Q 41: DO YOU AGREE THAT THIS POLICY WILL HELP OUR PLACES TO BE MORE RESOURCE EFFICIENT, AND TO BE SUPPORTED BY SERVICES AND FACILITIES THAT HELP TO ACHIEVE A CIRCULAR ECONOMY?

Any future development and expansion of communities should have circular economy principles at the heart of them. This would include the utilisation of existing assets prior to new build, recycling of materials and looking to extract value from “waste streams” e.g. grey water recycling, surface water management, energy and nutrients from waste water streams and integrated energy from multiple waste streams.

Policy 21: Aquaculture

Q 42: DO YOU AGREE THAT THIS POLICY WILL SUPPORT INVESTMENT IN AQUACULTURE AND MINIMISE ITS POTENTIAL IMPACTS ON THE ENVIRONMENT?

No comment.

Policy 22: Minerals

Q 43: DO YOU AGREE THAT THIS POLICY WILL SUPPORT THE SUSTAINABLE MANAGEMENT OF RESOURCES AND MINIMISE THE IMPACTS OF EXTRACTION OF MINERALS ON COMMUNITIES AND THE ENVIRONMENT?

No comment.

Policy 23: Digital infrastructure

Q 44: DO YOU AGREE THAT THIS POLICY ENSURES ALL OF OUR PLACES WILL BE DIGITALLY CONNECTED?

As well as water, waste water, drainage and low carbon energy infrastructures, we agree that digital infrastructure will play a key role in achieving the NPF4 objectives. However, we note that the language used suggests development proposals “should” incorporate and would question

whether this is strong enough to ensure the policy aims are fully met across Scotland.

We regard this policy in being important to:

- Facilitating greater engagement with residents/customers, businesses and across communities throughout Scotland in decision making processes so we can all meet their evolving expectations.
- Supporting the planning framework to become fully digitally connected with communities across Scotland.
- Supporting the implementation of innovative technologies that will allow us to manage our assets more efficiently.

Policies 24 to 27: Distinctive places

Q 45: DO YOU AGREE THAT THESE POLICIES WILL ENSURE SCOTLAND'S PLACES WILL SUPPORT LOW CARBON URBAN LIVING?

We believe that town centres and retail development should also maximise the introduction of blue-green infrastructure especially in regeneration of public realm spaces.

Policy 28: Historic assets and places

Q 46: DO YOU AGREE THAT THIS POLICY WILL PROTECT AND ENHANCE OUR HISTORIC ENVIRONMENT, AND SUPPORT THE RE-USE OF REDUNDANT OR NEGLECTED HISTORIC BUILDINGS?

We support the need to preserve historic characteristics of places, however it should be recognised that we also need to protect and enhance these assets for future climates. Development decisions to retrofit historic assets should not merely aim to replace infrastructure as built but should consider how improvements can be made sympathetically to enable resilience for future climates (particularly related to drainage infrastructure). Any extensions should also mitigate climate change impact by incorporating devices such as green roofs and living walls.

Policy 29: Urban edges and the green belt

Q 47: DO YOU AGREE THAT THIS POLICY WILL INCREASE THE DENSITY OF OUR SETTLEMENTS, RESTORE NATURE AND PROMOTE LOCAL LIVING BY LIMITING URBAN EXPANSION AND USING THE LAND AROUND OUR TOWNS AND CITIES WISELY?

We recommend that as a condition this policy requires dedicated blue-green infrastructure that deals with the relevant catchment area and discharges directly back to the water environment must be a prerequisite.

Within the green belt development, proposals are not supported unless for a list of things including 'essential infrastructure' but it does not include water and wastewater infrastructure within the list.

Policy 30: Vacant and derelict land

Q 48: DO YOU AGREE THAT THIS POLICY WILL HELP TO PROACTIVELY ENABLE THE REUSE OF VACANT AND DERELICT LAND AND BUILDINGS?

We note that a body to lead on how we bring vacant and derelict sites back into effective use, whatever that use may be, would be helpful. A range of public agencies need to work together on issues such as flood risk adaptation and planning at a more regional level. It might not be development, as a site might be turned into a park or landscaped. Development is not always the answer; it depends on where a site is and, often, on what is in the ground i.e. how contaminated it is. Our *Call for Ideas* response suggested that some vacant and derelict land could be safeguarded to locate strategic blue-green infrastructure as part of a wider surface water management plan.

We would welcome specific inclusion within the policy for vacant and derelict land to be considered for blue-green infrastructure, to contribute to water resilient places. By taking a catchment approach, this land may need to be safeguarded to manage existing and future flood risk and deliver strategic blue-green infrastructure solutions.

Policy 31: Rural places

Q 49: DO YOU AGREE THAT THIS POLICY WILL ENSURE THAT RURAL PLACES CAN BE VIBRANT AND SUSTAINABLE?

We believe that a greater focus on water efficient homes and use of nature-based solutions through blue-green infrastructure would support more sustainable water use and drainage. These measures will be particularly important in the catchments of certain rural treatment works that are less able to adapt to growth in demand.

Policy 32: Natural places

Q 50: DO YOU AGREE THAT THIS POLICY WILL PROTECT AND RESTORE NATURAL PLACES?

We consider it unlikely that the measures proposed will be sufficient to protect and restore natural places.

The measures proposed are likely to maintain the status quo and while they afford some protection, it is unlikely that these measures are sufficient to restore or enhance nature.

More emphasis could be placed on mitigation, remediation and considering the introduction of metrics (measurable characteristics), the latter to determine progress and inform and strengthen future policy.

Priority is currently given to areas already under statutory protection when protecting and restoring natural places. For nature to thrive in terms of

abundance, species diversity and genetic diversity we believe it will be essential to identify and develop a means of promoting a network of interconnecting sites at a national level.

There is no guidance on how the success of the policy should be measured or considered in the decision making.

Policy 33: Peat and carbon rich soils

Q 51: DO YOU AGREE THAT THIS POLICY PROTECTS CARBON RICH SOILS AND SUPPORTS THE PRESERVATION AND RESTORATION OF PEATLANDS?

We welcome measures that protect and, where possible, enhance organic rich soils. We would welcome the requirement for site specific surveys, plans and mitigations where there is no alternative but to disturb organic rich soil during the construction phase.

Policy 34: Trees, woodland and forestry

Q 52: DO YOU AGREE THAT THIS POLICY WILL EXPAND WOODLAND COVER AND PROTECT EXISTING WOODLAND?

No comment.

Policy 35: Coasts

Q 53: DO YOU AGREE THAT THIS POLICY WILL HELP OUR COASTAL AREAS ADAPT TO CLIMATE CHANGE AND SUPPORT THE SUSTAINABLE DEVELOPMENT OF COASTAL COMMUNITIES?

The policy should reflect the requirement for a multi stakeholder approach to 'operationalising' measures to enhance resilience including prioritisation, cost sharing, risk assessment and we would contribute to this. This approach is favoured in the Dynamic Coast recommendations.

We recognise that the future development policies are good for asset resilience as this means we will not have any new assets or infrastructure exposed to coastal erosion/flooding.

We have already identified nature-based solutions as the preferred option for enhancing resilience to coastal erosion (e.g. salt marsh restoration) and this also aligns with other business objectives such as net zero and carbon sequestration.

We support a multi stakeholder, co-operative approach to tackling coastal change and enhancing resilience.

Part 4 - Delivery

Delivering our spatial strategy

Q 54: DO YOU AGREE WITH OUR PROPOSED PRIORITIES FOR THE DELIVERY OF THE SPATIAL STRATEGY?

We believe that a plan-led infrastructure first approach, at a catchment scale (possibly across local authority boundaries), is key for delivering strategic infrastructure to manage existing and future flood risk, and enable sustainable, water resilient places – both existing and new. Where possible, this should be delivered through blue-green infrastructure to maximise the multiple benefits it can provide to places. Investment will likely need to be public-sector led, with private development contributing as it connects to strategic infrastructure.

Q 55: DO YOU HAVE ANY OTHER COMMENTS ON THE DELIVERY OF THE SPATIAL STRATEGY?

We believe that clear responsibilities and leadership decision making pathways are essential to enable this.

Part 5 - Annexes

Annex A

Q 56: DO YOU AGREE THAT THE DEVELOPMENT MEASURES IDENTIFIED WILL CONTRIBUTE TO EACH OF THE OUTCOMES IDENTIFIED IN SECTION 3A(3)(c) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997?

No comment

Annex B

Q 57: DO YOU AGREE WITH THE MINIMUM ALL-TENURE HOUSING LAND REQUIREMENT (MATHLR) NUMBERS?

No comment.

Annex C

Q 58: DO YOU AGREE WITH THE DEFINITIONS SET OUT IN THE GLOSSARY? ARE THERE ANY OTHER TERMS IT WOULD BE USEFUL TO INCLUDE IN THE GLOSSARY?

No comment.

