

APPENDIX 2

Climate Change Adaptation Consultation – April 2024 Response from Orkney Islands Council (CC officer WG)

[Draft Scottish National Adaptation Plan \(2024-2029\) \(www.gov.scot\)](http://www.gov.scot)

Consultation Question.		Response.
1.	What do you think the current effects of climate change are on people in Scotland?	Orkney Islands Council declared a Climate Emergency in 2019. The Council recognises the importance of the adaptation and resilience agenda and has incorporated Climate Change into its Risk Register.
2.	The next Scottish National Adaptation Plan will cover the period of September 2024 to 2029. What effects, if any, do you expect climate change will have on people in Scotland over the next five years?	<p>Over the period in question (to 2029), it is expected that climate change impacts will continue to develop and affect people across the Orkney islands (although impacts can be masked by the inherent resilience of long-term island living). Issues that are already causing concern include, increasing impacts from weather events (e.g. storms, floods and surface water), the effects of prolonged weather periods (e.g. prolonged saturated ground impacting farming) and coastal flood risks effecting settlements and communities. For residents, impacts are felt both at home and in relation to access and services (for example disruptions via ferry delays or closing of barriers connecting island communities).</p> <p>Since the introduction of National Planning Framework 4 (NPF4) and V2.1 flood mapping in 2023, SEPA has been of the opinion that the Kirkwall Harbour Flood Protection Scheme (KHFPS) no longer provides protection equivalent to the 1:200 year return event plus climate change uplift (CCU) that it was designed and constructed to, when completed in 2018. The KHFPS is still considered to provide effective long-term protection from the 1:200 year climate change events. However, unless it can be demonstrated with further detailed study of coastal flood risk at Kirkwall, that the KHFPS does provide protection equivalent to the Revised 1:200 + CCU level, then SEPA is likely to continue to object to a range of development types in central Kirkwall due to what they understand as future coastal flood risk.</p> <p>These developing risks will potentially restrict the land available in Kirkwall for important development including the housing required to address the county's housing shortage.</p>

3.	What actions, if any, would you be willing and able to take to adapt to climate change? You may wish to consider the action you could take a) in your community and b) around your home and/or business.	No response made.
4.	What factor(s), if any, would prevent you from taking action to adapt to climate change and become more climate-resilient?	The primary barriers are financial constraints, knowledge and awareness (understanding the risk and uncertainties) and competing short term priorities.
5.	What action(s) do you think the Scottish Government should prioritise in order to build greater resilience to the impacts of climate change?	<p>The challenge is complex and cannot be solved by single actors in isolation. The Scottish Government has collaborated with Local Authorities, supporting with resources and recognising their important role (in effect on the front line working with communities). This situation is especially relevant in island settings and therefore a key priority is this need for strong collaboration and support to Island Councils.</p> <p>In relation to the SNAP 3 priorities listed, OIC would also emphasise the Council’s Marine Planning function and the imperative of Orkney’s Archaeology (see specific response on both at Q8).</p> <p>The Scottish Government’s Priorities should also address actions identified by the UK Climate Change Committee in their report “Adapting to Climate Change – Progress in Scotland” - November 2023.</p> <p>As an example relevant to Orkney (and not to exclude other equally important recommendations), this should include the following CCC recommendation regarding financial constraints.</p> <p><i>Facilitate access to finance to install proactive adaptation measures for overheating and flood resilience in buildings. This could be via grant schemes or green finance for private owners, with public funding targeted at low-income households or buildings with vulnerable occupants, alongside energy efficiency retrofit.</i></p>

		<p>As well as financial barriers, there can be other barriers, such as regulations, associated guidance and its interpretation. An example also mentioned at Q13 below, is the flexibility for some households to continue to use ‘direct emission heating’ at least as a back-up during extreme weather events and grid disruptions.</p> <p>A further situation (see below) relates to conservation areas and the ability of residents to protect their property and contents.</p> <p><i>Guidance on flood resilience measures that allow for adaptation of listed buildings and houses in Conservation Areas, such as door flood barriers. The identification and use of appropriate materials resilient to increased rainfall and temperature fluctuations should be provided, and guidance against use of tropical hardwoods such as teak, in adapting Listed Buildings and buildings in Conservation Areas given. Current planning guidance can incorporate the balance between climate adaptation and the protection of the character and appearance of buildings and areas, to potentially include non-traditional materials or finishes, particularly for temporary installations, to help communities adapt buildings to become more resilient.</i></p>
6.	<p>Which of the following actions should the Scottish Government prioritise? Please check all that apply.</p> <ul style="list-style-type: none"> i. More trees and green spaces in built-up places for flood resilience and cooling ii. More joined up natural habitats (“nature networks”) iii. Managing pests and diseases which will be more prevalent with climate change iv. Restoring forests and peatland v. Reinforcing natural coastal barriers such as dunes 	<p>The Scottish Government should not prioritise any one of the listed initiatives but should seek to ensure that all measures can contribute appropriately and where most effective (i.e. as adaptation resilience measures and whilst maximising co-benefits). In addition to coastal ‘barriers’, the Government should also consider marine habitats and their role in coastal protection.</p> <p>Nature network opportunities should be prioritised with local decision making on what the optimum option is to deliver them depending on the location and specific circumstances. This approach would be able to incorporate ‘trees and green spaces in urban areas’ as well as ‘restoration of peatland habitats and new woodlands’ (there are no native forests in Orkney) and ‘natural coastal barriers’, help build resilience to deal with pests and diseases, as well as other opportunities that would be best suited to local circumstances and that would benefit both nature, climate and people.</p> <p>Nature based adaptation projects should themselves include consideration and where appropriate, assessment of impact, for example on archaeological and historic environment assets and how to avoid adverse effects. Non-designated</p>

	vi. Other	assets should be identified by consulting the Local Authority Archaeologist.
7.	When you consider your local natural space e.g. park, canal, woodland or beach, what would you like to see improved in terms of blue and green space in your local area?	<p>At the moment, the majority of public green space in Orkney is closely mown grass, with little biodiversity value, limited carbon sequestration (a situation common to many communities across Scotland). It does not provide any shelter from the elements, nor attractive or distinctive features for people. It would be great to see such green spaces made more diverse for both nature and people with a variety of planting and functions (eg surface water management, active travel routes, etc that incorporate biodiversity, and provide both shelter and shade. Guidance and funding could be helpful for realising greater holistic benefits of nature-based solutions, and in particular at local (rather than landscape) scale.</p> <p>Like other locations in Scotland, Orkney beaches suffer from plastic litter that is washed ashore. However there is also a significant amount of waste washing ashore from creel fisheries and fish farms, for example from creel lines and pots dislodged during bad weather that get snagged on rocks and then wash ashore, and fish farm infrastructure such as pipes, polystyrene tubes and ropes that get washed ashore and/or become loose during on-shore works on fish cages, are not removed and become embedded in the coastal edge or end up back in the sea. Waste such as this creates a hazard for wildlife, causes pollution as it breaks down and looks unsightly (which is important in a location such as Orkney that relies on the natural environment to attract tourists, who are important to the local economy). It would be beneficial for a system of reporting and removal to be set up so that such waste is removed from the marine and terrestrial environment, particularly if it could be reused or recycled, to avoid releasing embodied emissions.</p>
8.	For Scotland to adapt to the impacts of climate change, lots of different groups, such as individuals, communities, businesses and public bodies, will need to work together and support each other. How could others	<p>As outlined in response at Q5, OIC recognises the climate change adaptation and resilience challenge as complex and requiring collaboration and clarity between the Scottish Government and Local Authorities (resourcing and recognising their important role). This is especially important on the following areas unique to Orkney.</p> <p>Marine Environment / Marine Planning</p> <p>Annex A NC4 concerning marine planning should be prioritised with Regional Marine Plans and decision making on what the optimum option is to deliver marine and coastal planning depending on the location and specific</p>

	<p>support you (or your organisation) to adapt to climate change over the next five years? You might want to think about some of the groups listed below and the roles that they could take:</p> <ul style="list-style-type: none"> • Central and local government • Other public bodies, such as NHS Boards or enterprise agencies • Small and large businesses • Third sector organisations • Communities 	<p>circumstances. Only NMP and NMP2 are referred to in the SNAP Annex A NC4.</p> <p>OIC supports Objective NC4 which aims to increase the climate resilience of marine ecosystems and the blue economy and identifies evidence informed planning and management as key delivery mechanism. On page 30 of the Draft Scottish National Adaptation Plan, marine planning, including the National Marine Plan and National Marine Plan 2, is highlighted. This is welcomed and it is hoped that National Marine Plan 2 will align with National Planning Framework 4; prioritising the climate and nature crises, giving significant weight in decision making to these matters.</p> <p>It is also welcomed that the Marine Directorate intends to prepare a marine restoration plan for 2026-2045 within the next 2 years. This strategy will need to be ambitious and commensurate with the scale biodiversity loss and the need for restoration at scale.</p> <p>This section of Draft Scottish National Adaptation Plan needs to acknowledge the importance role that Regional Marine Plans play in setting locally developed marine planning policy, spatial planning and supporting guidance. It is recommended that the following text be included in the adaptation plan:</p> <p>Regional Marine Plans are prepared by Marine Planning Partnership to help guide public authority decisions on sustainable development and activities within the Scottish marine regions. They enable local communities and stakeholders to take forward locally appropriate marine planning policies and spatial planning to deliver sustainable development, climate change mitigation and adaptation, and the protection and enhancement of the marine environment. These plans provide a significant opportunity for coastal communities to take forward opportunities to deliver multiple benefits including biodiversity enhancement, adaptation and blue carbon innovation.</p> <p>Historic Environment and Archaeology</p> <p>Annex A C5 refers only to the work and function of Historic Environment Scotland. Many of the outcomes, objectives and adaptations are achieved at a local level through the Local Planning Authority, local development plan policies and by consultation with the Local Planning Authority Archaeologist and Historic Environment Record. These should be included</p>
--	--	--

		<p>within the document, contributing to a mutually supportive system.</p> <p>SCAPE is only one of a number of bodies working on coastal erosion and threatened heritage. Local community heritage groups, various universities and other bodies around Scotland, such as The Swandro – Orkney Coastal Archaeology Trust, are all responding to the effects of climate change on our coastal heritage assets. All of them require support and collaboration.</p>
9.	<p>what way(s) could the plan help different groups across Scotland and/or its regions to collaborate on climate adaptation? Please offer suggestions that could support collaboration on climate adaptation. For example, the plan could describe how different groups should work together and support each other. Or the plan could define geographic areas, roles and responsibilities for responding to climate change risks. Please offer suggestions that could support collaboration on climate adaptation.</p> <p>You might want to think about collaboration between some of the groups listed below: • Central and local government • Other public bodies, such as NHS Boards or enterprise agencies • Small and large businesses • Third</p>	<p>It is noted that the draft plan includes the following statement –</p> <p><i>Across the period of this Adaptation Programme, the Scottish Government want to drive collaboration on adaptation planning and investment with a broader set of partners, covering all of Scotland’s regions. Scottish Government will work in partnership with local government and a broad range of others to facilitate mature regional adaptation partnerships and collaborations covering all regions in Scotland by 2029.</i></p> <p>This is a positive statement on collaboration and the Orkney Islands Council is itself committed to collaborative working on the climate emergency. For some geographic areas a regional approach may prove effective. For Orkney, it is likely that adaptation planning would be best progressed to the natural geography of the islands.</p> <p>Within Orkney, Community Planning is proceeding, and a Sustainable Development Delivery Group exists, addressing the climate emergency (also a Community Wealth building group). Of course, public bodies engaged are all addressing their statutory purpose and financial and immediate pressures can limit the attention given to the medium-term challenge of adaptation and resilience. Nonetheless, the partnership exists and provides a basis for collaboration and some shared planning across the islands.</p> <p>It could be very positive for the Adaptation Plan (SNAP3) to consider the potential of Community Planning Partnerships and the information, guidance and support that could be made available to support. It is notable that in Scotland a Climate Intelligence Service will now be developed to support the climate mitigation agenda, but will not address adaptation and resilience. This is therefore a gap and continued and further support on the adaptation agenda will be welcome.</p>

	sector organisations • Communities.	
10.	<p>Scotland's net zero targets are part of global efforts to limit global temperature rise to 1.5°C. At the same time, the Climate Change Committee's advice is to adapt now to a minimum global temperature rise of between 1.5 and 2°C for the period 2050 – 2100, and to consider the risks of up to a 4°C warming scenario. Should the Scottish Government adopt the Climate Change Committee's advice to 'adapt to 2°C and assess the risks for 4°C'?</p>	<p><i>Strongly Agree</i> <i>Agree</i> <i>Don't know</i> <i>Disagree</i> <i>Strongly Disagree</i> <i>Please share detail on your answer</i></p> <p>This advice should be followed but it needs to be recognised that a) the current global trajectory will overshoot 2 degrees and b) the severity of change and geographic spread of impacts will be variable. In this regard, adapting to (only) 2°C could be inadequate for some front-line communities.</p> <p>There is a case for not just assessing risks for 4°C but also commencing some proportionate and strategic planning (such as the formative use of adaptive pathway planning).</p>
11.	<p>Some decisions, for example those in relation to long-term planning or infrastructure investment, may require greater consideration of future climate conditions. Would further guidance on the appropriate future climate scenario(s) to consider when you (or your organisation) are making plans and investment decisions be useful?</p>	<p>Yes / No ?</p> <p>YES - Guidance on recommended scenarios will be useful but this should not be prescriptive and blanket guidance. Local context will be important.</p>
12.	<p>If yes, what sort of information or advice would be useful for you</p>	<p>Information exists on sea level projections and is available on temperature, precipitation and wind. Projections at a more granular and island level would be beneficial. In addition,</p>

	<p>or your organisation when considering future climate scenarios in long-term planning or investments?</p>	<p>(although challenging) information and projections regarding the frequency and strength of storms, extreme weather events and weather periods.</p> <p>Although Orkney is not associated with heatwaves and impacts will likely be lower than mainland based Local Authorities, understanding future likelihood of prolonged heat would be helpful in some situations.</p> <p>As well as weather related projections, it could be beneficial to receive related economic scenarios (i.e. projected costs and impacts of the future weather).</p>
13.	<p>Climate change makes extreme weather more likely in Scotland. When weather events disrupt one part of our infrastructure (e.g. energy, telecoms, transport networks), the impacts can quickly “cascade” out to disrupt other infrastructure networks or vital services. For example, an interruption in electricity will quickly affect businesses, hospitals and transport. Would an assessment of “cascading” risks from weather-related disruptions to infrastructure help you or your organisation to adapt?</p>	<p><i>Yes/ No? Please share your reasons.</i></p> <p><i>YES-</i> For dispersed and island populations, the “cascade” can be instant when extreme weather hits. Further assessment of risks could be helpful in island areas where transport and access can be disrupted (given the importance of ferry linked and barrier connected islands). Any such assessment should be progressed locally and with front line public services.</p> <p>For supporting households in remote and rural areas, there are concerns about the resilience of the energy supply. This is a concern in island and rural populations, especially for those who have decarbonised (or will in coming years). New houses will no longer have traditional alternative heating (e.g. wood or peat burning stoves). It could be appropriate to further assess their risks.</p>
14.	<p>The Climate Change Committee suggests more Scottish businesses should be assessing and responding to climate risks. What, if any, are the barriers to businesses accessing</p>	<p>Businesses are primarily occupied with near term issues, or medium-term issues where they can at least make an informed assessment. A barrier to adaptation or to seeking advice, is a) awareness, b) capacity to engage and c) uncertainty (perceived confidence gaps) in the climate risk projections and how they specifically will impact the business.</p> <p>A further barrier is access to time (cost) and expertise to undertake and engage in key activities such as energy</p>

	advice and support on climate risks? 1	<p>audits/business assessments. There is an appetite to pursue low carbon initiatives (which have the dual benefit of reducing cost of doing business/energy use) but pursuing this agenda can be beyond company knowledge/expertise or financial means. This could be resolved by provision of advisory services, targeted at local businesses to support energy audit and signpost businesses towards most efficient and accessible interventions; and also support with application for potential funding. In addition to this specific funding measures to support energy audit and energy efficiency improvements would be well received.</p> <p>If the Scottish Government is looking to increase available advice or additional funding measures to businesses, it could be sensible to do this within existing services or arrangements for example channelling this through local Business Gateway or Economic Development service teams.</p>
15.	Climate change is projected to increase disruption of international and domestic supply chains. How do you anticipate disruption to domestic and/or international supply chains caused by climate change will affect Scottish business, industry and consumers?	<p>This is a particular concern for island communities and businesses. To an extent, many have already had to build their resilience to survive disruptions (given their island context and as part of their business continuity). However, resilience is often based upon confidence in supplies quickly re-opening from the mainland. Clearly if mainland supply chain operations become increasingly disrupted, there would be concerns of consequent impacts (knock-on effects). In short island communities are at “the end of the line” for supplies and it is essential that national emergency planning ensures that there is sufficient resilience across the chain to ensure that remote communities are a core part of delivery.</p>
16.	What, if any, should the role of government be in supporting more resilient supply chains?	<p>Emergency Planning provision for enhanced logistics planning and resilience measures. Support for regular local supply chain training and exercise would be beneficial – to include financial support to enable local businesses to commit the time for staff training and development. Potential support for businesses to invest in infrastructure or technology improvements which could enhance resilience and capability to respond.</p>
17.	Farming, fishing and forestry sectors are particularly exposed to impacts of climate change. How should farming, fishing and forestry businesses be	<p>Farming and fishing are particularly important sectors for Orkney.</p> <p>Support will be required including knowledge exchange and funding for adaptation. Island communities are particularly vulnerable in terms of reliance on transport connectivity for imports and exports. This should be a key part of emergency planning and preparation to ensure the sustainability of</p>

	supported to adapt to climate change	supply and export from traditional sectors. For islands, important to ensure that natural capital/re-wilding policies and support mechanisms fully recognise the constraints of local context and physical geography. For example, the Orkney Islands do not support traditional productive forestry. In this regard essential that support mechanisms to agriculture are sufficiently flexible and tailored to ensure that Island farming businesses are not prejudiced in terms of options to deliver natural capital projects.
18.	Scottish businesses will face challenges as a result of climate change impacts. However, climate change will also present business and innovation opportunities. What, if any, do you think are the business and innovation opportunities arising from climate change in Scotland?	<p>Tourism opportunities – cool climate environments in a heating world.</p> <p>Local energy systems – wind and wave energy solutions abundant in island economies – but existing electricity market and regulatory systems limit capability to establish and manage local energy systems.</p> <p>Natural capital – opportunities to manage land and marine / coastal areas to support natural environments – noting this needs to accommodate specific island environmental opportunities and challenges.</p> <p>Energy efficiency – means to reduce cost of doing business through investment in technology.</p>
19.	What, if any, support would be required to encourage businesses in Scotland to take advantage of innovation opportunities arising from climate change?	Specific grants and finding support to invest in new technology – including first phase energy audits and technology assessments.
20.	How could the Scottish Government support communities impacted by climate change across the world?	The Carbon Neutral Islands initiative, offers some early potential for connecting island communities and for sharing experience and learning points internationally. Building on this, there is potential for communities to be supported in building global connections including cultural and artistic (Orkney has been especially active in this regard). Such initiatives offer scope for building a broader awareness of climate change.
21.	Scotland is known for its excellence in climate change research. Are there international adaptation focussed	Expertise based in Scotland should be encouraged. The development of the Climate Vulnerability Index for heritage assets was workshopped in Scotland by Professor Jane Downes of the UHI Archaeology Institute and by Historic Environment Scotland. Professor Downes is working

	research opportunities which Scottish-based academic work should focus on?	internationally as part of ICOMOS's Climate Change and Heritage Working Group.
22.	Both public finance and mechanisms to leverage greater private finance will be required to deliver adaptation action. What do you see as the main barrier to private investment for adaptation action?	Adaptation mainstreaming suffers by not having a clear metric (no equivalent to carbon). In this regard, any improvements on climate projections and scenarios will continue to be helpful. It will also be important for those projections to be referenced into requirements placed on the private sector.
23.	How can SG support/incentive more private investment? Some potential ways of promoting private investment are provided below. • Blended finance models • Mainstreaming adaptation in existing market codes • Grant funding schemes • Open data platform and industry-led common metric	All listed options should be explored. Private investment in adaptation measures can be achieved by greater integration of adaptation and resilience into requirements. This can be done through legislation, but other options are also available such as the use of standards and conformity assessment. Procurement also has a role to play.
24.	The draft Adaptation Plan sets out plans to develop an adaptation monitoring and evaluation framework.... Do you agree with the proposed approach to monitoring adaptation?	No response made.
25.	Do you have suggestions of data or indicators that could be used to track adaptation outcomes in Scotland? The proposed outcomes	No response made.

	and objectives of this draft Plan are set out here.	
26.	What, if any, impacts do you think this Adaptation Plan will have on groups/individuals who share the aforementioned protected characteristics?	No response made.
27.	What, if any, measures could be taken to strengthen any positive impacts or lessen any negative impacts in this respect?	No response made.
28.	What, if any, impact do you think this Plan will have on inequality caused by socioeconomic disadvantage?	This is unclear at this point. However, fuel poverty is a significant concern locally and fair pricing for electricity should be integrated as a key safeguard for community resilience to cold weather events and periods.
29.	What, if any, measures could be taken to strengthen any positive impacts or lessen any negative impacts in this respect?	No response made.
30.	What, if any, impact do you think the Adaptation Plan will have on children's rights and wellbeing?	No response made.
31.	What, if any, measures could be taken to strengthen any positive impacts or lessen any negative impacts in this respect?	No response made.
32.	What, if any, impacts do you think the	The plan is an opportunity to positively address climate risks that exist now, and which will continue to develop for island

	Adaptation Plan will have on Island communities?	communities. It will be important for unique islands context to be incorporated into the Adaptation Plan. See responses above and in particular – 2, 5, 6, 8, 13 and 15.
33.	What, if any, measures could be taken to strengthen any positive impacts or lessen any negative impacts in this respect	No response made.