Topic: Flood risk and water management

Engagement version – August 2025

Requirements addressed in this section

Table 1 Information required by the Town and Country Planning (Scotland) Act 1997, as amended, regarding the issue addressed in this section.

Section	Requirement
Section 15(2A)	A local development plan is to include a statement of the planning authority's policies and proposals as to the provision of public conveniences.
Section 15(2B)	A local development plan is to include a statement of the planning authority's policies and proposals as to the provision of water refill locations.
Section 15(5)(a)	the principal [physical], cultural, economic, social, built heritage and [environmental] characteristics of the district.

Table 2 Information required by the Town and Country Planning (Development Planning) (Scotland) Regulations 2023, regarding the issue addressed in this section.

Regulation	Requirement
Regulation 9(2)(e)(iv)	The information and considerations are—... The following plans and strategies, insofar as relating to the local development plan area— any river basin management plan,
Regulation 9(2)(e)(v)	The information and considerations are—... The following plans and strategies, insofar as relating to the local development plan area— any flood risk management plan,
Regulation 9(2)(e)(vi)	The information and considerations are—...

Regulation	Requirement
	The following plans and strategies, insofar as relating to the local development plan area— any local flood risk management plan,

Links to evidence

- Water Framework Directive
  https://environment.ec.europa.eu/topics/water/water-framework-directive_en

- National Parks Act (Scotland) 2000
  https://www.legislation.gov.uk/asp/2000/10/contents

- Flood Risk Management (Scotland) Act 2009
  https://www.legislation.gov.uk/asp/2009/6/contents

- Town and Country Planning (Scotland) Act 1997
  https://www.legislation.gov.uk/ukpga/1997/8/contents

- Environmental Protection Act 1990
  https://www.legislation.gov.uk/ukpga/1990/43/contents

- Water Resources (Scotland) Act 2013
  https://www.legislation.gov.uk/asp/2013/5/contents

- Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017
  https://www.legislation.gov.uk/ssi/2017/282/contents

- Directive 2000/60//EC of the European Parliament and if the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (Water Framework Directive)
  https://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF

- National Planning Framework 4
  https://www.dpea.scotland.gov.uk/LibraryDocument.aspx?id=2094

- Securing a green recovery on a path to net zero: climate change plan 2018 – 2032 – update
https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2020/12/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/documents/update-climate-change-plan-2018-2032-securing-green-recovery-path-net-zero/update-climate-change-plan-2018-2032-securing-green-recovery-path-net-zero/govscot%3Adocument/update-climate-change-plan-2018-2032-securing-green-recovery-path-net-zero.pdf

- Scottish National Adaptation Plan 2024 – 2029
https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2024/09/scottish-national-adaptation-plan-2024-2029-2/documents/scottish-national-adaptation-plan-2024-2029/scottish-national-adaptation-plan-2024-2029/govscot%3Adocument/scottish-national-adaptation-plan-2024-2029.pdf

- Water-Resilient Places: A Policy Framework for Surface Water Management and Blue – Green Infrastructure 2021
https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2021/02/water-resilient-places-policy-framework-surface-water-management-blue-green-infrastructure/documents/water-resilient-places-policy-framework-surface-water-management-blue-green-infrastructure/water-resilient-places-policy-framework-surface-water-management-blue-green-infrastructure/govscot%3Adocument/water-resilient-places-policy-framework-surface-water-management-blue-green-infrastructure.pdf

- A National Mission with Local Impact: Infrastructure Investment Plan for Scotland 2021 – 2022 to 2025 – 2026
https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2021/02/national-mission-local-impact-infrastructure-investment-plan-scotland-2021-22-2025-26/documents/national-mission-local-impact-infrastructure-investment-plan-scotland-2021-22-2025-26/national-mission-local-impact-infrastructure-investment-plan-scotland-2021-22-2025-26/govscot%3Adocument/national-mission-local-impact-infrastructure-investment-plan-scotland-2021-22-2025-26.pdf

- Our Sustainable Future Together: Long-Term Strategy
https://www.scottishwater.co.uk/-/media/ScottishWater/Document-Hub/Key-Publications/Strategic-Plan/Long-Term-Strategy/Our-Sustainable-Future-Together_Scottish-Water-Long-Term-Strategy.pdf

- Scottish Water Strategic Plan – A sustainable future together https://www.scottishwater.co.uk/-/media/ScottishWater/Document-Hub/Key-Publications/Strategic-Plan/030220StrategicPlanASustainableFutureTogether.pdf

- Scottish Water Climate Change Adaptation Plan 2024 https://www.scottishwater.co.uk/-/media/ScottishWater/Document-Hub/Key-Publications/Climate-Change/290224ScottishWaterAdaptationPlan.pdf

- Scotland's National Water Scarcity Plan 2020 https://www.sepa.org.uk/media/219302/scotlands-national-water-scarcity-plan.pdf

- Scottish Biodiversity Strategy to 2045: Tackling the Nature Emergency in Scotland https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2024/11/scottish-biodiversity-strategy-2045/documents/scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland/scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland/govscot%3Adocument/scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland.pdf

- Cairngorms National Park Partnership Plan 2022 – 2027 https://cairngorms.co.uk/wp-content/uploads/2022/09/Cairngorms-National-Park-Partnership-Plan-full-version-FINAL.pdf

- Cairngorms National Park Local Development Plan 2021 https://cairngorms.co.uk/wp-content/uploads/2021/03/CNPA-LDP-2021-web.pdf

- Cairngorms Nature Action Plan 2019 – 2024 https://cairngorms.co.uk/wp-content/uploads/2019/02/CairngormsNatureAction19_24PlanFinal.pdf

- Guidance for planning authorities on Strategic Flood Risk Assessment (2023) https://www.sepa.org.uk/media/3psdfwce/sfra-guidance-for-planning-authorities.pdf

- National Flood Risk Assessment 2024 https://informatics.sepa.org.uk/NFRA2018/

- National Flood Risk Assessment for Flood Risk Management in Scotland 2024: Review Summary
  https://beta.sepa.scot/media/u12bwpdw/report-national-flood-risk-assessment-review-summary.pdf

- Potentially Vulnerable Areas for Flood Risk Management in Scotland 2024: consultation summary report
  https://consultation.sepa.org.uk/evidence-and-flooding/potentially-vulnerable-areas/results/public_consultation_report_final.pdf

- Assessment of Potential Application of the Reservoir Inundation Maps for Land Use Planning Purposes Position Statement
  https://www.sepa.org.uk/media/594633/reservoir-position-statement.pdf

- The River Basin Management Plan for Scotland 2021 – 2027
  https://www.sepa.org.uk/media/594088/211222-final-rbmp3-scotland.pdf

- Flood Risk Management Plan for the Findhorn, Nairn and Speyside Local Plan District
  https://www2.sepa.org.uk/frmplans/documents/lpd5-findhorn-nairn-and-speyside-frmp-2021.pdf

- Flood Risk Management Plan for the North East Local Plan District 2021
  https://www2.sepa.org.uk/frmplans/documents/lpd6-north-east-frmp-2021.pdf

- Flood Risk Management Plan for the Tay Local Plan District 2021
  https://www2.sepa.org.uk/frmplans/documents/lpd8-tay-frmp-2021.pdf

- Findhorn, Nairn and Speyside Local Flood Risk Management Plan 2022 – 2028
  http://www.moray.gov.uk/downloads/file145841.pdf

- North East Local Flood Risk Management Plan 2022 – 2028
  https://www.aberdeenshire.gov.uk/media/27479/local-flood-risk-management-plan-2022-2028.pdf

- Tay Local Flood Risk Management Plan 2022 – 2028
  https://www.pkc.gov.uk/media/50689/Tay-Local-FRM-Plan/pdf/Tay_Local_FRM_Plan_Final.pdf?m=638101523092000000

- Dee Catchment Management Plan Summary https://www.deepartnership.org/wp-content/uploads/2020/06/DCMP-SummaryFORWEB.pdf

- Dee Catchment Partnership Delivery Plan 2022 – 2027 https://cairngorms.co.uk/wp-content/uploads/2025/04/Dee-Catchment-Partnership-Delivery-Plan-2022-–-2027.pdf

- Spey Catchment Management Plan https://speycatchment.org/spey-catchment-management-plan/

- Aviemore, Rothiemurchus and Glenmore Community Action Plan Looking to 2030 https://cairngorms.co.uk/uploads/documents/Aviemore-Rothiemurchus-Glenmore-Community-Action-Plan-2024.pdf

- Ballater and Crathie Community Action Plan 2023 https://cairngorms.co.uk/uploads/documents/Ballater-Crathie-CAP-2023-Final.pdf

- Blair Atholl Community Action Plan: Looking to 2030 https://cairngorms.co.uk/uploads/documents/Blair-Atholl-Struan-Community-Action-Plan-2023-final.pdf

- Breamar Community Action Plan 2017 https://cairngorms.co.uk/uploads/documents/2017-BraemarAction-Plan.pdf

- Carrbridge Community Action Plan: Looking to 2030 https://cairngorms.co.uk/uploads/documents/Carrbridge-Community-Action-Plan-2022.pdf

- Cromdale and Advie Community Action Plan 2013 https://cairngorms.co.uk/uploads/documents/2013CromdaleAdvieActionPlan.pdf

- Dalwhinnie Community Action Plan: Looking to 2030
- https://cairngorms.co.uk/uploads/documents/DalwhinnieCAP2023Report.pdf

- Dulnain Bridge Community Action Plan: Looking to 2030 https://cairngorms.co.uk/uploads/documents/Dulnain-Bridge-Community-Action-Plan-2024-1-2.pdf

- Kincraig and locality Community Action Plan: Looking to 2030 https://cairngorms.co.uk/uploads/documents/Kincraig-and-locality-Community-Action-Plan-2024.pdf

- Laggan Community Action Plan: Looking to 2030 https://cairngorms.co.uk/uploads/documents/Laggan-Community-Action-Plan-2022.pdf

- Nethy Bridge Community Action Plan: Looking to 2030 https://cairngorms.co.uk/uploads/documents/Nethy-Bridge-Community-Action-Plan-2023.pdf

- Newtonmore Community Action Plan: Looking to 2030 https://cairngorms.co.uk/uploads/documents/Newtonmore-Community-Action-Plan-2022.pdf

- Strathdon Area Community Action Plan 2016 https://cairngorms.co.uk/uploads/documents/2016-Strathdon-Action-Plan.pdf

- Cairngorms National Park Local Development Plan 3: Strategic flood risk assessment 2024 https://cairngorms.co.uk/wp-content/uploads/2024/03/Cairngorms-Strategic-Flood-Risk-Assessment-2024.pdf

- PCS 20000559 Scottish Environment Protection Agency response to Cairngorms National Park Authority draft Strategic Flood Risk Assessment https://cairngorms.co.uk/wp-content/uploads/2025/04/PCS-20000559-SEPA-Response-to-CNPA-Draft-Strategic-Flood-Risk-Assessment_Redacted.pdf

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- Scottish Environment Protection Agency reservoir inundation map https://map.sepa.org.uk/reservoirsfloodmap/Map.htm

- Cairngorms Nature Action Plan 2019 – 2024 https://cairngorms.co.uk/wp-content/uploads/2019/02/CairngormsNatureAction19_24PlanFinal.pdf

- Upper Spey beaver translocation – monitoring and mitigation plan https://cairngorms.co.uk/wp-content/uploads/2023/12/Redacted-Appendix-14-Monitoring-and-Mitigation-Plan-2023.pdf

- Scottish Environment Protection Agency water classification hub https://www.sepa.org.uk/data-visualisation/water-classification-hub

- Scottish Environment Protection Agency water environment hub https://www.sepa.org.uk/data-visualisation/water-environment-hub

- Cairngorms National Park – Waterbody information https://cairngorms.co.uk/wp-content/uploads/2024/12/Cairngorms-National-Park-waterbody-information.pdf

- Scottish Pollutant Release Inventory https://informatics.sepa.org.uk/SPRI/

- Nitrate Vulnerable Zones: maps https://www.gov.scot/publications/nitrate-vulnerable-zones-maps/

- The Urban Waste Water Treatment (Scotland) Regulations 1994 https://www.legislation.gov.uk/uksi/1994/2842/contents/made

- Urban Waste Water Treatment Directive Sensitive Areas 2024 https://www.gov.scot/binaries/content/documents/govscot/publications/map/2016/01/urban-waste-water-treatment-sensitive-areas-map/documents/urban-waste-water-treatment-sensitive-areas-map-2019/urban-waste-water-treatment-sensitive-areas-map-2019/govscot%3Adocument/UWWT%2BSA%2BMap%2B2024.pdf

- Loch Morlich bathing water information https://bathingwaters.sepa.scot/locations-and-results/results/?location=366986

- Cairngorms National Park – Protected site information https://cairngorms.co.uk/wp-content/uploads/2025/01/Cairngorms-National-Park-protected-site-information.pdf

- Scottish Environment Protection Agency Planning Advice Note for Planning Authorities: Local Development Plan Evidence Gathering: Water Scarcity https://www.sepa.org.uk/media/op5dcbka/pan-for-water-scarcity-evidence-3.docx

- Climate Crisis: Informing Scotland's actionable mitigation and adaptation response to water scarcity https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2022_07%20Main%20report%20and%20appendices_2024_04_15_V3_FINAL.pdf

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- Future predictions of water scarcity in Scotland: impact on distilleries and agricultural abstractors https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2023_05_Main_report_and_appendices_FINAL_V2.pdf

- Drought Risk Assessment Tool https://www2.sepa.org.uk/drought-risk-assessment-tool

- 8010 – River Spey at Grantown river monitoring data https://nrfa.ceh.ac.uk/data/station/info/8010

- 12003 - River Dee at Polhollick river monitoring data https://nrfa.ceh.ac.uk/data/station/info/12003

- Scottish Water guide to living or working in a drinking water protected area https://www.scottishwater.co.uk/-/media/ScottishWater/Document-Hub/Key-Publications/Energy-and-Sustainability/Sustainable-Land-Management/200320SWProtectedDrinkingWaterV4Lrweb.pdf

- Public Water Supplies (Scotland) Regulations 2014
https://www.legislation.gov.uk/sdsi/2014/9780111024782/contents

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https://www.gov.scot/publications/drinking-water-protected-areas-scotland-river-basin-district-maps/

- Scottish Water List of Precautions for Drinking Water and Assets – General
https://www.scottishwater.co.uk/-/media/ScottishWater/Document-Hub/Key-Publications/Energy-and-Sustainability/Sustainable-Land-Management/091120SWListOfPrecautionsForDrinkingWaterAndAssetsGeneralEdD.pdf

- Scottish Water List of Precautions for Drinking Water and Assets – Housing and mixed use
https://www.scottishwater.co.uk/-/media/ScottishWater/Document-Hub/Key-Publications/Energy-and-Sustainability/Sustainable-Land-Management/131120SWListofPrecautionsforDrinkingWaterandAssetsHousingandmixeduseEdE.pdf

- Private water supplies
https://data.spatialhub.scot/dataset/private_water_supply_properties-is

- Private Water Supplies and Climate Change: The likely impacts of climate change (amount, frequency and distribution of precipitation), and the resilience of private water supplies
https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2018_05_report_FINAL.pdf

- Septic tanks
https://data.spatialhub.scot/dataset/septic_tanks-is

- Scottish Water Top up Taps
https://www.yourwateryourlife.co.uk/find-my-nearest-tap/

Summary of Evidence

Policy Context

National Planning Framework 4

National Planning Framework 4's policy 1 Tackling the climate and nature crises states that local development plans must address the global climate emergency and nature crisis by ensuring the spatial strategy will reduce emissions and adapt to current and future risks of climate change by promoting nature recovery and restoration in the area.

Policy 2 Climate mitigation and adaptation states that local development plans should support adaptation to the current and future impacts of climate change by taking into account climate risks, guiding development away from vulnerable areas, and enabling places to adapt to those risks.

The risks associated with the requirements of these two policies include those from flooding and water scarcity.

Policy 22 Flood risk and water management aims to strengthen resilience to flood risk by promoting avoidance as a first principle and reducing the vulnerability of existing and future development to flooding. For planning purposes, at risk of flooding or in a flood risk area means land or built form with an annual probability of being flooded of greater than 0.5% which must include an appropriate allowance for future climate change.

It sets out that local development plans should strengthen community resilience to the current and future impacts of climate change, by avoiding development in areas at flood risk as a first principle. Resilience should also be supported by managing the need to bring previously used sites in built up areas into positive use; planning for adaptation measures; and identifying opportunities to implement improvements to the water environment through natural flood risk management and blue green infrastructure.

National Planning Framework 4 states that local development plans should take into account the probability of flooding from all sources and make use of relevant flood risk and river basin management plans for the area. A precautionary approach should be taken, regarding the calculated probability of flooding as a best estimate, not a precise forecast. For areas where climate change is likely to result in increased flood exposure that becomes unmanageable, consideration should be given to alternative sustainable land use.

Policy 18 Infrastructure first sets out the requirements for all types of infrastructure, including water supply and water waste management infrastructure. It states that for local development plans and delivery programmes should be based on an integrated infrastructure first approach. Local development plans should:

- Be informed by evidence on infrastructure capacity, condition, needs and deliverability within the plan area, including cross boundary infrastructure.
- Set out the infrastructure requirements to deliver the spatial strategy, informed by the evidence base, identifying the infrastructure priorities, and where, how, when and by whom they will be delivered.
- Indicate the type, level (or method of calculation) and location of the financial or in-kind contributions, and the types of development from which they will be required.

Local development plans should align with relevant national, regional and local infrastructure plans and policies and take account of the Scottish Government infrastructure investment hierarchy and sustainable travel and investment hierarchies in developing the spatial strategy.

National Planning Framework 4 also encourages consistent early engagement and collaboration between relevant stakeholders to better inform decisions on land use and investment.

Policy 20 Blue and green infrastructure have spatial strategies that identify and protect blue and green infrastructure. These may have benefits for natural flood management. Detail on blue and green infrastructure will be covered in a separate evidence paper to be engaged on later in 2025.

Policy 10 states that the spatial strategies of local development plans should consider how to adapt coastlines to the impacts of climate change. This should recognise that rising sea levels and more extreme weather events resulting from climate change will potentially have a significant impact on coastal and islands areas, and take a precautionary approach to flood risk including by inundation. The Cairngorms National Park does not have a coastline and therefore the requirements of policy 8 do not apply.

Policy 32 states that local development plans should guide new aquaculture development in line with National and Regional Marine Planning. Since the Cairngorms National Park lacks a coastline, this element of the policy does not apply. Due to the lack of a coastline, or large freshwater lochs, the National Park does not have any pressure for aquaculture developments and therefore there are no implications for the local development plan's spatial strategy in this regard, either.

Where the local development plan may support the policy, is through the safeguarding of migratory fish species. It is noted that barriers to fish migration is the most common pressure responsible for waterbodies not achieving overall good status in the Cairngorms National Park (see Figure 14). This is mostly related to hydroelectricity generation (see Table 6). While the Proposed Plan can do little about existing schemes, it should ensure that proposals for new hydroelectric schemes and associated works do not negatively impact migratory fish.

It is also noted that Atlantic salmon are a qualifying feature of both the River Dee and River Spey Special Areas of Conservation and the Proposed Plan will need to take account of this species in the preparation of its spatial strategy and assessment of allocations. This will be assessed through the habitats regulations appraisal process in consultation with NatureScot. Further information on protected sites and their qualifying features is provided in the Natural heritage evidence paper:

- https://cairngormsldp.commonplace.is/en-GB/proposals/v3/natural-heritage-survey?step=step1

National Parks Act (Scotland) 2000

The National Park has four distinct aims as set out in The National Parks (Scotland) Act 2000). All four are of relevance to the matters discussed in this paper:

- To conserve and enhance the natural and cultural heritage of the area.
- To promote sustainable use of the natural resources of the area.
- To promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public, and
- To promote sustainable economic and social development of the area's communities.

The aims are all to be pursued collectively. However, if there is conflict between the first aim and any of the others, greater weight is given to the first aim (as set out in Section 9(6) of the 2000 Act).

Securing a green recovery on a path to net zero: climate change plan 2018 – 2032 – update

The document provides an update to the 2018 Climate Change Plan. Since that Plan Scottish Government have set new ambitious targets to end its contribution to climate change by 2045. Scottish Government have committed to reduce emissions by 75% by 2030 (compared with 1990) and to net zero by 2045. As Scotland emerged from COVID-19 the Government identified an opportunity to rebuild the economy in a

way that delivers a greener, fairer and more equal society. This Plan sets out the Governments approach to delivering a green recovery and sets out a pathway to deliver its climate change targets. In line with the 2018 plan, the focus is on the period up to 2032.

The Plan sees nature-based solutions, such as natural flood risk management, as a key element in Scotland's response to climate change and prioritises its delivery under the land use, land use change and forestry theme. The Plan also recognises the importance of nature-based solutions in achieving better water security.

Scottish National Adaptation Plan 2024 – 2029

The Scottish National Adaptation Plan sets out actions to build Scotland's resilience to climate change. The Adaptation Plan sets out a long-term vision and defines Scotland's priorities for action over the years 2024 – 2029.

Scottish Government's vision is for a resilient, inclusive and well-adapted Scotland as the climate continues to change. The Plan contains five outcomes, of which the following four are of direct relevance to flood risk and water management:

- Outcome One: Nature Connects (NC)
- Outcome Two: Communities (C)
- Outcome Three: Public Services and Infrastructure (PS)
- Outcome Four: Economy, Business and Industry (B)

Outcome One: Nature Connects (NC) supported by six objectives, of which the relevant ones are summarised here:

Objective: Nature-based solutions (NC1)
Action to increase resilience to the impacts of climate change is delivered through nature-based solutions including street trees, parks, raingardens, green roofs, improved walking, wheeling and cycling and water ways. Water resource planning to support drought and flooding resilience, improve water quality and quantity, and protect biodiversity is a key part of improving nature-based solutions. Actions include:

- Investment in blue and green infrastructure.
- A review of water industry policy, and a continual assessment on how water, sewerage and drainage services can adapt to the impacts of climate change to avoid water scarcity through future legislation (This is linked to Objective PS3).
- The preparation of a Scottish Flood Resilience Strategy (see page 20), that will set out what needs to be done to make Scotland's places more resilient to warmer, wetter winters and increased instances of storms and flash flooding. The Strategy

will encourage delivery partners to take a whole catchment approach and support interventions to increase resilience to river, coastal and surface water flooding. The Strategy will also out a role for nature-based solutions in helping to create flood resilient places.

Objective: Landscape scale approaches (NC2)
Working for climate resilience at a landscape scale involves land management. It involves bringing together interested actors working at a large scale, often around a catchment, estuary or other recognisable landscape unit. This is a scale at which natural systems tend to work best and where there is often most opportunity to deliver real and lasting benefits. In this way, it is possible to deliver environmental, social and economic benefits that are more difficult to achieve by managing small sites individually.

Collaborating across landscapes means land managers (public, private or third sector) can achieve greater success than working in isolation. Scotland's soils are at increasing risk from the impacts of climate change, including flooding and drought. As soils are found across different landscapes performing multiple ecosystem functions, a landscape scale approach to improving soil condition and quality is needed.

The key action with regards to flood risk and water management relates to the implementation of the River Basin Management Plan for Scotland 2021 – 2027. Further information on the Management Plan is provided on page 25 of this report.

Objective: Development planning (NC3)
Development planning (including Local Development Plans and associated delivery programmes) takes current and future climate risks into account and is a key lever in enabling places to adapt. The Adaptation Plan highlights the adoption of National Planning Framework 4 as a key driver for change and the current work local planning authorities are undertaking to prepare new local development plans.

Objective: Marine ecosystems and the blue economy (NC5)
This objective relates to marine and coastal environments. The Cairngorms National Park does not contain any of these and therefore the objective is not summarised here.

Objective: Nature Networks (NC4)
Nature Networks are highlighted as an effective tool for improving nature restoration, biodiversity, climate resilience and mitigating climate change, by improving ecological connectivity between habitats. Nature networks may support nature-based solutions to flood risk management, water quality and water security.

Objective: Natural Carbon Stores and Sinks (NC6)
Scotland's natural carbon stores can be broadly categorised into peatland, forestry and woodland, and blue carbon habitats, such as saltmarsh and seabed sedimentary carbon. Protecting, managing and restoring our natural carbon stores is crucial as part of our just transition to net zero – both for their carbon sequestration and storage potential, and for their multiple co-benefits such as flood resilience, water quality and water security.

Outcome Two: Communities (C) supported by six objectives, of which the relevant ones are summarised here:

Objective: Regional and place-based collaborations (C1)
The outcome recognises that challenges like flooding will increase in the future and that adaptation will be needed at a range of levels. This objective aims to improve how Scotland agrees its priorities regionally, designs adaptation locally, and takes priority actions at a greater pace and scale. This includes local place-based collaboration that may be facilitated by the local development plan, e.g. through community action plans and local place plans.

Objective: Locally-led adaptation (C2)
The objective recognises that every community is unique and so is how climate change impacts them. Through support and resources, this objective aims to enable all communities to build resilience and prepare for climate change and, at the same time, make places healthier, equitable, and more comfortable to live in.

Objective: Community resilience (C3)
Building community resilience to extreme weather is increasingly important. When emergencies happen, the best recoveries will involve learning and equip us to deal with future disruptions in a way that is equitable and protects people with more vulnerabilities. One of the key actions is to build community resilience to flooding, which includes:

- Delivering the Flood Resilience Strategy.
- Supporting the Scottish Flood Forum.
- Scottish Government working with the Scottish Environment Protection Agency, the Scottish Flood Forum and others to ensure that communication materials and advice on flooding are accessible and tailored to the specific needs of different vulnerable groups.

The objective also sets out how the Flood Risk Management (Scotland) Act 2009 will help deliver better resilience, through the responsibilities placed on Scottish Environment Agency and local authorities (see page 21 for further information).

Objective: New and existing buildings (C4)
Climate-resilient places need buildings that are adaptable to our changing climate. Buildings constructed today need to be designed for the future climate. Many of Scotland's existing buildings and wider built environment (such as streets and other urban spaces) will need to be adapted to projected increases in heavy rainfall, sea level rise and higher temperatures. The following relevant actions are identified:

- A review and update of the guidance to Standard 3.3 (Flooding and groundwater) within the Building Standards Technical Handbooks. A particular focus is on property flood resilience (PFR) for new buildings and new building work. Any updated guidance will be applicable to all future new buildings at flood risk.
- Developing national polices around property flood resilience through the Property Flood Resilience Development Group.
- Awareness raising on the benefits of property flood resilience and encourage property owners, the construction and insurance industries, and the public to implement property flood resilience measures.
- Scottish Government will continue to engage with Flood Re to ensure that flood insurance remains affordable for those at risk of flooding.

Outcome Three: Public Services and Infrastructure (PS) is supported four objectives, of which only one is relevant and summarised here.

Objective: Managing Scotland's water resources (PS3)
As the climate continues to shift, demand for water will continue to grow as the weather gets warmer and this will affect our crop management and food supply as well as putting pressure on our drinking water supply. More intense storms will increase the risk of sewer and surface water flooding in people's homes, businesses and other essential services which will impact the way we live.

It is recognised that there is a need to adapt the way in which we plan, deliver and use our essential water, sewerage and drainage services to cope with these changes now. This needs to be done alongside building community resilience to flood events, informed and supported by public sector action. This will ensure that water resources and drinking water is secured, our environment is protected, and rainwater is managed in a way that reduces the impact on society, for future generations. The Scottish Government is currently developing policy to build community flood resilience and adapt the way in

which we plan, deliver and use our essential water, sewerage and drainage services to cope with climate change.

The objective outlines a number of actions relating to Scottish Water's responsibilities for public drinking water and wastewater services. These include:

- The preparation of a Climate Change Adaptation Plan (see page 30 for further information)
- Maintaining drinking water quality
- Adapting the sewer network
- Managing water asset flooding and coastal erosion
- Preventing sewer and drain blockages
- Assessing the capability of our wastewater treatment works and networks
- Keeping operational resilience plans under review

The objective considers water resource and catchment management. Actions include those delivered through Scotland's national Water Scarcity Plan (see page 30).

Drinking water is also a consideration, with actions relating to developing further policy on drinking water and increasing resilience to drought, including for those with private water supplies.

Scottish Government are also working on developing policy for rainwater drainage networks. The aim of the policy is to improve the management of rainwater in those urban areas most exposed to this change in our climate. The policy will ensure that rainwater in urban areas is managed through a strategic drainage network designed for now and our future climate.

Behavioural changes are seen as key to building resilience. These are to be delivered through, actions such as the Water Is Always Worth Saving campaign and Scottish Environment Protection Agency working with authorised water abstractors to ensure water is used efficiently all year round.

Outcome Four: Economy, Business and Industry (B) supported by six objectives, of which the relevant ones are summarised here:

Objective: Increasing business understanding of climate risks and adaptation action (B1)
Scotland's changing climate poses growing risks to businesses across Scotland. This can include through physical damage to business premises or assets, health and safety

risks to employees and customers, disruption to supply chains, reduced access to finance or insurance coverage and increased risks to employee health and safety. In relation to this topic, the objective details policy aimed at supporting businesses and workers managing multiple climate risks – including flooding, coastal change, and water access.

Objective: Agriculture, forestry, fishing, and aquaculture sector support (B2)
The objective states that 'Scotland's agriculture, forestry, fishing, and aquaculture sectors are central to our nation's identity, and our economy'. These sectors rely on natural resources and as a result are particularly vulnerable to climate change and biodiversity loss. The objective highlights a range of policies designed to support he sector, including:

- Agricultural financial support for adaptation.
- Agricultural Reform Program (ARP) and support for climate hazards, including flooding and drought.
- Good Agricultural and Environmental Condition (GAEC).
- Supporting landscape-scale collaboration.
- Agri-Environment Climate Scheme.

The objective recognises that flooding and water shortages, caused by climate change, pose an immediate challenge to farmers and crofters. It states that Scottish Government and partner action across Scotland as set out in objectives B1 and PS3 will support the agriculture sector to minimise the impacts of flooding. With regards to water scarcity, it identifies the following actions:

- Scottish Environment Protection Agency engagement with farmer and crofters.
- Rural and Environment Science and Analytical Services (RESAS) research on water scarcity.

National Flood Resilience Strategy 2024

The Strategy is part of The Scottish National Adaptation Plan 2024 – 2029. The Strategy supports a flood resilient places approach, with a focus on building community flood resilience and resilient placemaking.

The Strategy sets out a vision for a flood resilient Scotland through to 2045 and beyond: 'Our people and places are prepared for increased flooding and we are adapting to a changing climate and creating sustainable resilient places in ways that are inclusive and fair'. It is structured around the themes of People, Places and Processes and sets out Scotland's Outcomes, the Guiding Principles and Priority Actions.

People Outcome
Creating flood resilient places involves Scotland's people and communities – Scottish Government will work with partners to explore how people and communities can be sufficiently informed and supported to be involved in flood resilience decision making and so contribute to their own flood resilience.

Places Outcome
Land management and placemaking decisions follow good practise for flood resilience. Scottish Government will work with partners to explore how Scotland's places can contribute to Scotland's flood resilience.

Process Outcome
Flood resilience is blended into Scotland's places at all scales; a broader range of actions are being delivered by a broader range of delivery partners – Scottish Government will work with partners to develop processes to improve Scotland's flood resilience.

The document sets out in the guiding principles that the focus of action will shift from 'fixing flooding problems' to creating flood resilient places. Flood resilience is part of community resilience and part of adapting to climate change.

The Proposed Plan should take the approach avoidance as a first principle. This also includes changing activities in areas that frequently flood. For example, if a community is exposed to frequent flooding, one option to improve its flood resilience in the long term may be to slowly withdraw from the flooded area over time. Many community action plans (see page 40) within the National Park identify priorities and actions relating to flood resilience and these may be supported through the development of the Proposed Plan.

Flood Risk Management (Scotland) Act 2009

The Flood Risk Management (Scotland) Act 2009 promotes a risk-based, plan-led approach to managing flood risk. It requires Scottish Environment Protection Agency and other designated responsible authorities to develop and implement Flood Risk Management Plans and Local Flood Risk Management Plans.

The Flood Risk Management Plans and Local Flood Risk Management Plans are prepared for geographical areas known as Local Plan Districts, which are based on whole river catchments. The following five Local Plan Districts intersect the Park Authority's administrative area (Figure 1):

- Local Plan District 1 Highland & Argyll

- Local Plan District 5 Findhorn, Nairn and Speyside,
- Local Plan District 6 North East
- Local Plan District 7 Tay Estuary and Montrose Basin
- Local Plan District 8 Tay.

Of these, only three Local Plan Districts intersect the National Park to any significant degree. These are the Findhorn, Nairn & Speyside District, which includes the River Spey and its tributaries, the North East District, which incorporates the catchments of the River Dee and the River Don and the Tay District, which contains the River Tay and its tributaries.

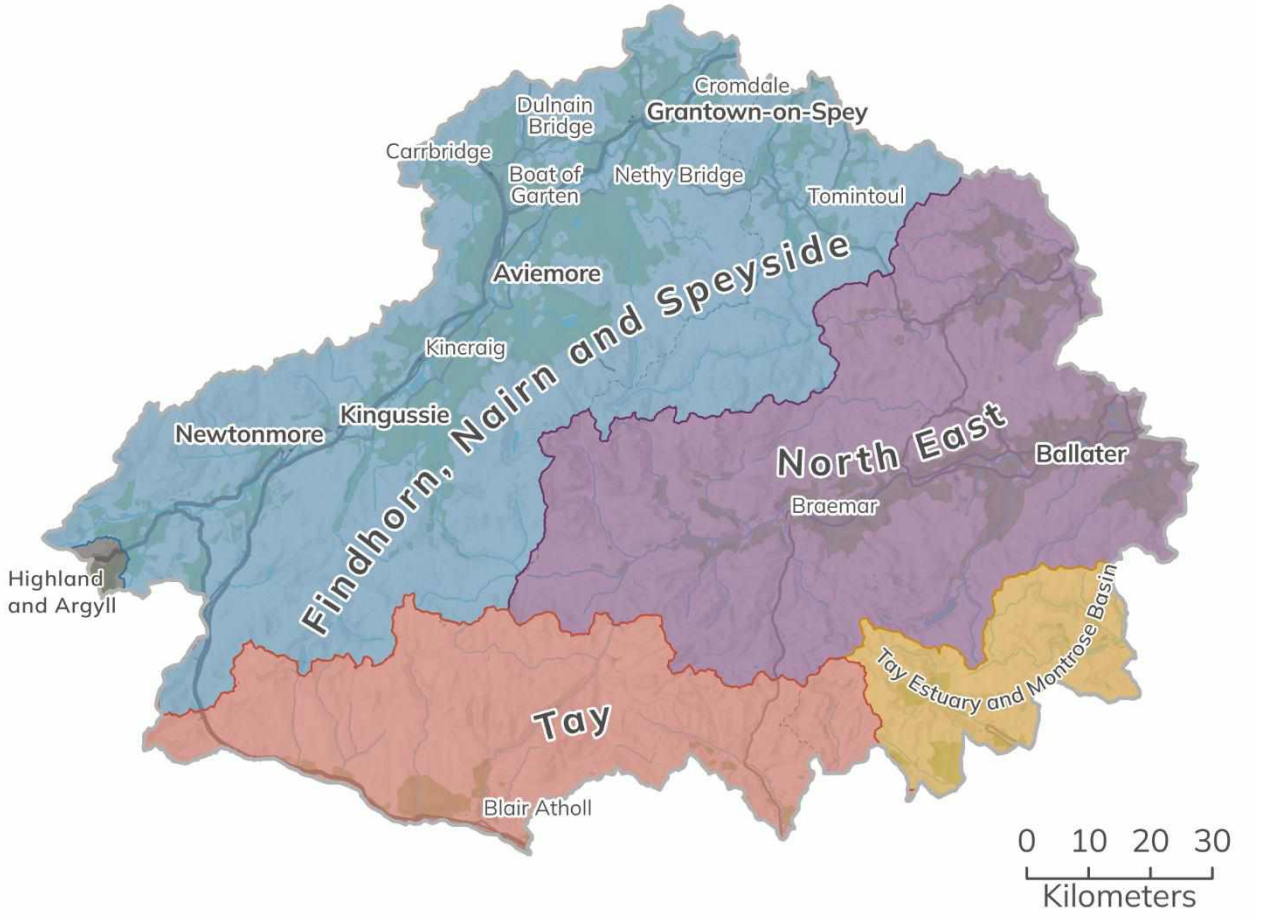

Figure 1 Local Plan Districts covering the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2024. Contains data © Scottish Environment Protection Agency 2024; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

The Flood Risk Management Plans and Local Flood Risk Management Plans outline objectives and actions for tackling flood risk at a Local Plan District wide level and within Potentially Vulnerable Areas. These are specifically defined areas where the risks

to property from flooding, and the estimated average annual damages occurring as a result of flooding, are greatest.

Flood risk management plans and local flood risk management plans

There are three key flood risk management plans and three key local flood risk management plans covering the National Park, which were published during Cycle 2 (2018 – 2027) flood risk management cycle. These are:

- Flood Risk Management Plan for the Findhorn, Nairn and Speyside Local Plan District
- Flood Risk Management Plan for the North East Local Plan District 2021
- Flood Risk Management Plan for the Tay Local Plan District 2021
- Findhorn, Nairn and Speyside Local Flood Risk Management Plan 2022 – 2028
- North East Local Flood Risk Management Plan 2022 – 2028
- Tay Local Flood Risk Management Plan 2022 – 2028.

The plans are published by the local authority nominated as the lead local authority for the Local Plan District – Moray Council, in the case of Findhorn, Nairn and Speyside Local Plan District; Aberdeenshire Council, in the case of the North East Local Plan District; Perth and Kinross in the case of the Tay Local Plan District.

Each district and local plans set out a number of actions. In summary, these fall under the following themes:

- Awareness raising
- Data to support climate resilience
- Emergency plans
- Flood forecasting
- Flood warning development framework
- Future flood risk management plans
- Guidance development
- Hazard mapping updates
- Land use planning
- Maintenance
- Natural flood management mapping
- National flood risk assessment
- National Surface water mapping
- Reservoirs
- Scottish flood defence asset database
- Self help

The plans also identify Potentially Vulnerable Areas, which are areas where significant flood risk exists now or is likely to occur in the future and they help those involved in flood risk management to understand and prioritise where work could benefit the most. The Potentially Vulnerable Areas are updated and published every six years as part of the flood risk management planning cycle. They were first identified in 2011 and were updated in 2018.

The local flood risk management plans explain in more detail how and when the actions set out in the flood risk management plans for 2022 to 2028, will be delivered.

In December 2024 (after the publication of the Strategic Flood Risk Assessment), Scottish Environment Protection Agency published a review of the National Flood Risk Assessment for Flood Risk Management in Scotland 2018. The National Flood Risk Assessment supports Scottish Environment Protection Agency's statutory duties under the Flood Risk Management (Scotland) Act 2009.

The 2024 review was primarily for the identification of Potentially Vulnerable Areas. The review concluded that overall, the National Flood Risk Assessment 2018 outputs remain the appropriate source of Scottish Environment Protection Agency's flood risk assessment information for the designation of Potentially Vulnerable Areas. The review process generated a list of communities where there was information to indicate a potential substantive change in the understanding of risk. None of these areas were within the Cairngorms National Park[1].

The outputs of the review will inform Cycle 3 of the flood risk management cycle (2028 – 2034), which covers the time period of the next local development plan. The Park Authority will need to engage with Scottish Environment Protection Agency during the preparation of the proposed plan to ensure that any emerging implications are accounted for.

The Town and Country Planning (Development Planning) (Scotland) Regulations 2023 state that local development plans need to reference the flood risk management plans and local flood risk management plans. For the purposes of the Evidence Report, these

[1] See https://consultation.sepa.org.uk/evidence-and-flooding/potentially-vulnerable-areas/results/public_consultation_report_final.pdf

have been used to inform the Strategic Flood Risk Assessment and are summarised within that report:

- https://cairngorms.co.uk/wp-content/uploads/2024/03/Cairngorms-Strategic-Flood-Risk-Assessment-2024.pdf

Key information from the Strategic Flood Risk Assessment is set out within this report; see page 46.

The River Basin Management Plan for Scotland 2021 – 2027

Scotland is covered by a system of River Basin Management Planning. This was introduced to apply the European Union Water Framework Directive. The objective of the Water Framework Directive is that water bodies should not decline and that they reach good or excellent environmental status over time. Scotland's third River Basin Management Plan was adopted in December 2021 and is operative until 2027.

The River Basin Management Plan uses information on the condition of the environment and prioritises actions for improvement. These priorities are:

- Action to create healthier and more resilient communities
- Water supply and wastewater
- Sustainable and resilient rural land use
- Removing barriers to fish migration

There is overlap between these priorities, and investment in the water environment may be beneficial under more than one of the River Basin Management Plan's actions for improvement. These are:

- Action to create healthier and more resilient communities: Work largely consists of installation and retrofitting of sustainable drainage features, linking to existing water environment features and realising the amenity and biodiversity benefits of sustainable drainage systems. The River Basin Management Plan is backed by a Scottish Environment Protection Agency administered Water Environment Fund but is likely to require commitment of other partners to bring projects to fruition.
- Water supply and wastewater: Work under this heading of relevance to the local development plan includes protection of raw water quality and redirection of excess rainwater from the sewers to surface based solutions.
- Sustainable and resilient rural land use: Activities to secure improvements relate

- mostly to faming practice in terms of abstraction of water, the addition of fertilisers to the land and the management of run-off. Most farming activities are licensed and regulated under separate regimes rather than through the planning system.
- Removing barriers to fish migration: This is particularly relevant to Cairngorms National Park where the main waterbodies, including the River Spey and River Dee, have Atlantic salmon among their qualifying features.

One of the key targets of the River Basin Management Plan is for 81% of the water environment being in a good or better condition by 2027 and 90% in the long-term once natural conditions have recovered. Figure 2 sets out the expected overall condition of river water bodies in the Cairngorms National Park as expected by the River Basin Management Plan. According to this it is expected that 92% of waterbodies will be in a good or better condition by 2027 and 94% in the long-term once natural conditions have recovered.

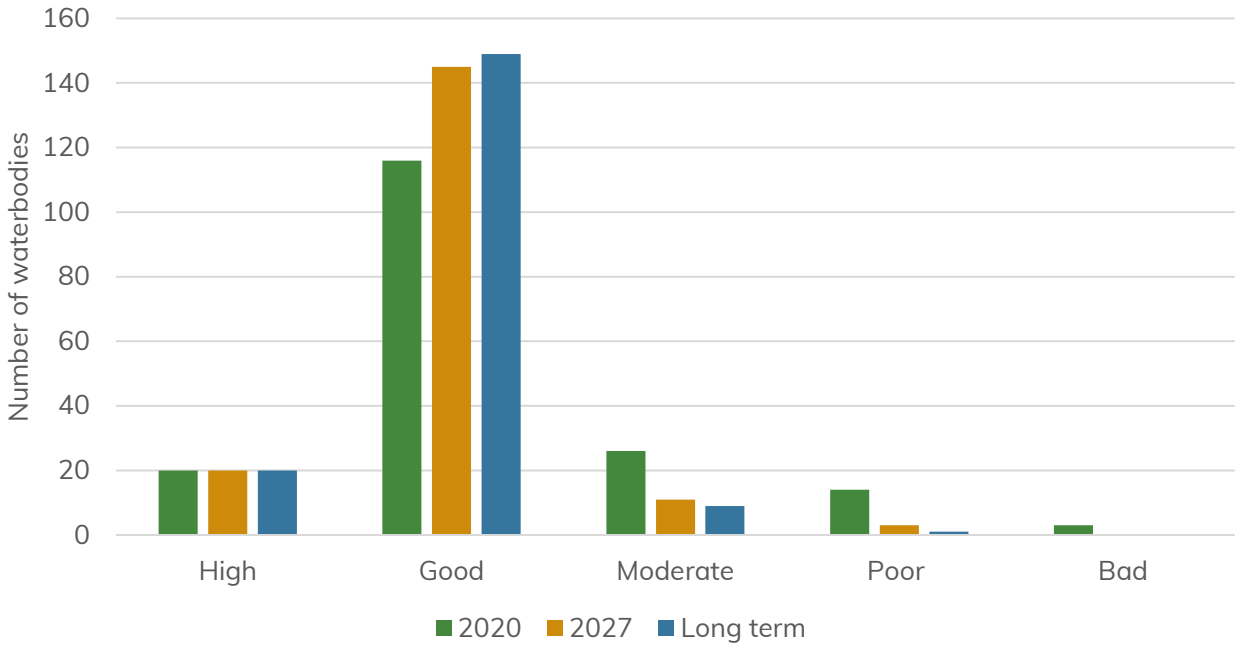

Figure 2 Projected overall condition of river waterbodies within the Cairngorms National Park according to The River Basin Management Plan for Scotland 2021 – 2027 (Source: Scottish Environment Protection Agency, 2025).

The Town and Country Planning (Development Planning) (Scotland) Regulations 2023 state that local development plans need to reference the River Basin Management Plan. Water quality in the National Park, including the latest recorded condition of water bodies, is given further consideration on page 62.

Water-Resilient Places: A Policy Framework for Surface Water Management and Blue – Green Infrastructure

Water Resilient Places focuses on addressing challenges presented by the current climate emergency, namely tackling surface water flooding. The framework focuses on actions to deliver surface water management and flood resilience in Scotland. Given the complexity of surface water management, the aim is to switch from the current position, where a few organisations are tasked with dealing with water issues to the position where the issues are supported by a broader range of organisations. The framework has identified six key elements which are required to deliver water resilient places:

- Decision makers in all sectors contribute to water resilience.
- Integrated flood risk management and drainage approach.
- Blue-green infrastructure – first approach and retrofit.
- Co-ordination of policy, standards, advice and support.
- Strategic drainage partnerships for towns and cities.
- Finance.

The proposed plan may support the delivery of the policy framework. Note, that blue-green infrastructure will be considered in a seperate topic paper to be engaged on later in 2025.

A National Mission with Local Impact: Infrastructure Investment Plan for Scotland 2021 – 2022 to 2025 – 2026

This Infrastructure Investment Plan sets out what Scottish Government are doing with capital funds spent on infrastructure. It provides a strategic picture of Scottish Government-wide priorities across the financial years from 2021 – 2022 until 2025 – 2026.

According to the Plan, in support of enhanced adaptation and climate resilience as part of a green recovery, Scottish Government will invest an extra £150 million in flood risk management. This uplift complements £42 million provided annually to Councils. This infrastructure funding is not within the gift of the Park Authority to allocated, however the proposed plan needs to account for the plans (i.e. the flood risk management plans and local flood risk management plans (see page 23 for information on these).

Our Sustainable Future Together: Long-term strategy

This is Scottish Water's long-term strategy, which is designed to ensure that Scotland's water and waste water services remain sustainable, resilient, and affordable for

generations to come. The Strategy contains three long term outcomes, designed to respond to the challenges of the climate crisis, population change and ageing assets. Each of these long-term outcomes is supported by a number of areas of focus. These are summarised as follows

Long-term outcome: Scotland's tap water remains a source of national pride and is valued as a precious resource
The outcome has the following focus areas:

- Ensuring excellent water quality
- Ensuring a continuous supply of water

Key objectives of this outcome for the local development plan are that Scottish Water is to:

- Work across their drinking water catchments to improve the resilience of the water environment, to help tackle the changes in raw water quality caused by climate change that can lead to unpleasant tastes and smells in drinking water.
- Reduce the amount of water abstracted and treated every day by 240 million litres, helping to make us more resilient to the worst drought Scotland has experienced.
- Consider localised solutions to reduce demand and maximise the water available from their existing sources in areas at risk of water scarcity, before developing new sources.
- Improve connectivity of their existing systems to increase flexibility to move water around and improve resilience in times of drought.

Long-term outcome: The quality of our rivers and seas has improved, and our communities are protected from sewer flooding, through collaboration with others
The outcome has the following focus areas:

- Managing rainwater to reduce the discharges from our sewers
- Protecting and enhancing our water environment

Key objectives of this outcome for the local development plan are that Scottish Water is to:

- Accelerate our approach to place-based solutions to manage rainwater, using a mixture of engineered and nature-based solutions to increase the resilience of our network and reduce pollution for localised and strategic drainage issues.
- Introduce a community fund to support smallscale, localised initiatives like planters and rain gardens in community buildings such as church halls, community halls, libraries and schools.

- Increase our emphasis on partnerships – ensuring they work with public, private and third sector organisations, and involve householders and local communities – to change how we manage rainwater, creating place-based solutions which will help to increase the resilience of our sewer networks and reduce demand on treated water.
- Continue to work with stakeholders to ensure our approach to protecting the water environment focuses on improving the overall health of waterbodies in Scotland
- Implement continuous improvement in the capability of their waste water treatment work assets to deal with changing demand and minimise our impact on the environment.
- Improve the resilience of their waste water systems so they can cope with expected climatic changes over the next 25 years, for example, changes in rainfall and sea level rise.

Scottish Water has played a key role in enabling Scotland's sustainable economic and housing growth

The outcome has the following focus areas:

- Supporting economic growth
- Connecting new customers

Key objectives of this outcome for the local development plan are that Scottish Water is to:

- Engage with the Scottish Government, local authorities and developers to encourage development in areas where there is existing capacity at their water sources and treatment works, and seek to support developments using their existing assets and infrastructure where possible.
- Encourage the development of water efficient homes and businesses and provide developers with standard, low-carbon infrastructure, to make connecting to our assets easy and efficient for everyone involved.
- Continue to encourage the development of homes and businesses which capture rainwater for reuse, and keep rainwater on the surface through sustainable drainage systems (SuDS) and blue-green rainwater management systems, and the use of permeable materials for driveways and car parks.

Scottish Water Strategic Plan – A sustainable future together

The Strategic Plan focuses on how Scottish Water will meet their customers' current and future expectations. It contains areas that Scottish Water have identified as being in need of transformation as well as those they aim to continually improve. Key areas for transformation include:

- Eliminating the net emissions associated with Scottish Water's activities.
- Scottish Water's approach to investment planning and the long-term management of their assets.
- The robustness of water supply systems.
- The management of surface water.
- Embracing the circular economy.
- Activities whose cost can be transformed through simplification and technology.
- The way in which Scottish Water and supply chain partners work to deliver their services.

In addition, Scottish Water will continue to innovate and improve activities, including:

- How Scottish Water deliver their water and waste water services.
- The quality of services Scottish Water provide to their customers.
- Scottish Water's support for new housing development and economic growth.
- The efficiency of all Scottish Water activities.

Scottish Water Climate Change Adaptation Plan 2024

The Plan outlines the efforts it will take to make services and infrastructure more resilient to extreme weather. With growing impacts on assets and services from more extreme weather events locally and nationally, the Plan highlights the steps that must be taken to go further and faster in adapting assets and services to ensure they remain reliable, resilient and sustainable. The Plan focuses on areas which are likely to face further disruption unless action is undertaken. It describes the consequences on water supplies, water quality, sewer systems, infrastructure and the environment without adaptation. The Climate Change Adaptation Plan outlines several issues, including:

- Drought
- Deteriorating water quality
- Customer flooding and environmental pollution
- Waste water and environmental quality

The plan also outlines a range of scenarios as to how services for customers can be protected through adaptation and working with others and outlines projections for impacts on water and wastewater services to 2050 and 2080.

Scotland's National Water Scarcity Plan 2020

Scotland's National Water Scarcity Plan sets out how water resources will be managed prior to and during periods of prolonged dry weather. This is to ensure the correct

balance is struck between protecting the environment and providing resource for human and economic activity. It sets out:

- The high level principles
- What steps we and others are currently taking in preparation for periods of water scarcity
- What assessment methods we will use to determine the most appropriate response to water scarcity
- What action we will take during a period of water scarcity
- What action we expect others to take.

There are no specific actions for the Proposed Plan, however the Plan highlights the need for planning to consider the risk of water scarcity in the development of its spatial strategy.

Scottish Biodiversity Strategy to 2045: Tackling the Nature Emergency in Scotland

The Scottish Biodiversity Strategy sets out actions for addressing the twin crises; Global Climate Emergency and Nature Emergency. These priorities seek to halt the loss of biodiversity and help Scotland reach the goal of 'Nature Positive' by 2030 and to have restored and regenerated biodiversity across the county by 2045.

The Strategy's outcome for rivers, lochs and wetlands by 2045 is as follows:

- The extent of restored catchments and improvements in ecological status of rivers, lochs and wetlands will have increased with waterbodies in good condition.
- Riparian woodland will have expanded reducing the average temperature of our rivers and burns, leading to increases in freshwater fish species and other wildlife.
- A substantial, widespread and ongoing programme of peatland restoration will have led to the majority of Scotland's peatlands being in good condition, a net sequester of carbon with thriving wildlife and biodiversity.
- The extent, condition, connectivity and resilience of wetlands, including floodplain wetlands and pond habitats will have significantly improved.
- Beavers, salmon recovery and riparian woodland will be established as key ecological components of restored rivers and wetlands.

Further information and implications of the Strategy are contained within the natural heritage evidence paper[2].

[2] See https://cairngormsldp.commonplace.is/en-GB/proposals/v3/natural-heritage-survey?step=step1

National Park Partnership Plan 2022 – 2027

The National Park Partnership Plan is the overarching management plan for the Cairngorms National Park. The Partnership Plan is also the regional land use framework for the National Park and is aligned with Scottish Government's commitment to trialling the regional land use partnership and framework approach as a route to achieving land use change that contributes to Scotland and the United Kingdom's climate change targets. It contains a number of objectives that support flood management activities, particularly in relation to natural flood management. These are:

- Objective A2 Woodland expansion: Increase the amount of woodland in the National Park to support larger, more natural woodlands, expanding in places up to a natural treeline, providing connections across river catchments and around the central core of the mountains.
- Objective A3 Peatland restoration: Restore and manage peatland within the National Park to reduce carbon emissions and improve biodiversity.
- Objective A4 Deer and herbivore impacts: Reduce the negative impacts of red deer and other herbivores across the National Park to enable woodlands to expand, heather loss to be reversed, peatlands to recover and wider biodiversity and landscape enhancements to take place.
  Increase the sustainability of moorland management in the National Park to ensure greater species and structural diversity in moorland areas.
- Objective A8 Farming: Work with farms in the National Park to reduce their carbon footprint, conserve soil carbon, encourage sustainable production and deliver increased biodiversity on in-bye land.
- Objective A9: Freshwater systems: Restore and connect rivers to thriving wetlands and floodplains as part of a wider restoration of the National Park's freshwater systems, helping mitigate the impacts of climate change.
- Objective A10 Ecological network: Connect habitats and ecosystems across all different types of land use in the National Park to create an ecological network, which will bring wider landscape, biodiversity and people benefits.
- Objective A11 Ecological restoration: Improve ecosystem functionality and resilience across the National Park by increasing the area of land managed principally for ecological restoration.
- Objective A13 Species recovery: The Cairngorms National Park attracts an increasing amount of green finance per annum for projects that deliver multiple benefits (carbon, biodiversity, flood mitigation, community).

Dee Catchment Management Plan

The Dee Catchment Management Plan:

- Describes the condition of the Dee catchment in terms of water quality, they type and extent of habitats and species in the catchment and important land management activities.
- Discusses the main impact of the catchment's water environment.
- Suggest the measures necessary to protect and improve the quality of the catchment's waters and their associated habitats and species.

A central feature of the management plan is a set of 37 Action Cards, which addresses one of the 37 objectives listed in the management plan. Each action card:

- States the objective.
- Summarises the background to the objective.
- List the man issues.
- Summarises existing and recent initiatives.
- Stats the actions required for the objectives to be achieved.
- Suggests the partners most appropriate to carry out these actions.
- List the relevant legislation and guidelines.

These cards can be accessed via the Dee Catchment Partnership's website:

- https://www.deepartnership.org/our-work/spreading-the-word/publications/

The objectives of the management plan are summarised here.

Water quality

1. Improve water quality in rural areas by making planned and coordinated reductions in diffuse agricultural pollution.
2. Ensure agricultural pesticides and sheep dip are stored, used and disposed of in accordance with regulations.
3. Encourage and promote good environmental practice for woodland expansion and management in order to protect and enhance water quality and biodiversity.
4. Promote best management practice for dealing with road and access track drainage.
5. Manage surface water drainage sustainably, taking account of water quality, habitat and flood risk.
6. Ensure existing foul and surface water drainage infrastructures are satisfactory and those serving new developments are planned sustainably.
7. Improve effluent quality from private sewage treatment systems to ensure compliance with the requirements of the SAC interests.

8. Control the storage and application of organic fertilisers to avoid direct and indirect water pollution.
9. Control operational agricultural waste landfill sites to avoid pollution of watercourses.
10. Limit the environmental impact of existing and closed landfill sites. Identify and remediate Contaminated Land.
11. Improve water quality in Aberdeen's heavily modified urban watercourses.
12. Ensure good bathing water quality at Aberdeen beach.
13. Reduce the impact of activities linked to Aberdeen harbour on water quality.

Water resources

14. Regulate abstraction to prevent harm to SAC interests and ecological status, especially during low flow periods.
15. Manage the land so as to attenuate rates of runoff (thereby reducing the severity of floods and droughts).
16. Coordinate flood alleviation schemes in the catchment. Seek to prevent new flooding problems.

Development and engineering works

17. Promote environmentally sustainable engineering works to the river channel and banks in order to maintain SAC interests and the biodiversity of the river.
18. Remove or redesign man-made obstacles in order to facilitate fish passage.
19. Ensure that changes of land use do not impact adversely on riverine habitats and species.

Habitats

20. Encourage re-creation of lost lowland wetland habitats.
21. Encourage re-creation of lost upland wetland habitats.
22. Reinstate the functionality of active floodplains.
23. Support the restoration of degraded areas of wet and riparian woodland and encourage their expansion through planting or regeneration on appropriate sites.
24. Identify species-rich bankside grasslands and promote positive management to maintain their diversity.
25. Manage the habitat of urban watercourses sustainably.

Species

26. Conserve and enhance the population, distribution and range of genetic sub-populations of Atlantic salmon Salmo salar across the naturally accessible parts of the catchment.

27. Implement measures to achieve agreed targets for the Dee freshwater pearl mussel Margaritifera margaritifera population.
28. Maintain the population and current distribution of otter Lutra lutra throughout the river catchment.
29. Control invasive non native plant species such as giant hogweed, Japanese knotweed, Himalayan balsam.
30. Control American mink in the Dee catchment.
31. Manage fishing ponds sustainably.
32. Establish and implement a programme for monitoring and reporting the status of all fish species in the Dee.

Access and recreation

33. Ensure the catchment's water environment is protected from the impacts of recreational activity.

Sub-catchment management

34. Improve water and habitat quality in the Tarland burn.
35. Improve water and habitat quality in Loch Davan.
36. Improve the water quality of the Loch of Skene.
37. Improve the water and habitat quality of the Elrick burn.

The proposed plan may the objectives that are relevant to the National Park, either directly or indirectly.

Dee Catchment Partnership Delivery Plan 2022 – 2027

This Delivery Plan 2022 – 2027 sets out the blueprint for achieving restoration in the river Dee catchment over the 5 years of the plan. It sets a framework for Partnership projects that focus on benefits for climate, nature and people. The purpose of the Delivery Plan to restore naturally functioning river ecosystems in the Dee catchment. It is looking to achieve restoration at scales that will:

- Increase the quality, diversity, and extent of habitats for wildlife.
- Contribute to achieving net zero (carbon storage in peatlands, wetlands, floodplains, woodlands, grasslands).
- Increase climate resilience (floods and droughts) and opportunities for climate adaptation (movement of species).
- Support sustainable growth (agriculture, development, communities, tourism).
- Boost community wellbeing by creating a more natural and diverse landscape and providing opportunities to be more involved with the river environment.
- Contribute to the evidence for restoration techniques and projects.

Its priorities over the plan period are three interlinked areas of activity:

- A. Outreach: to increase support and involvement amongst communities, landowners and partner organisations.
- B. Restoration: to develop and deliver restoration projects and support land managers in implementing sustainable land management.
- C. Evidence: to establish the evidence base for undertaking effective river restoration and provide an exemplar for effective catchment management.

Each priority is supported by a range of objectives. These are summarised as follows.

A. Outreach: to increase support and involvement amongst communities, landowners and partner organisations

- A.1 Strengthen understanding catchment-wide of the need for, and benefits of, river restoration projects.
- A.2 Raise awareness among land managers of the importance of river restoration and opportunities.
- A.3 Create opportunities for people to contribute to the development, management and monitoring of restoration projects.

B. Restoration: to develop and deliver restoration projects and support land managers in implementing sustainable land management.

- B.1 Strengthen partner understanding, support and involvement.
- B.2 Target and design restoration projects for maximum multiple benefits.
- B.3 Deliver restoration projects and support others in doing so.

C. Evidence: to establish the evidence base for undertaking effective river restoration and provide an exemplar for effective catchment management.

- C.1 Share knowledge with others undertaking river restoration.
- C.2 Develop restoration techniques.
- C.3 Evaluate effectiveness of restoration projects.

The proposed plan may support all of these priorities, either directly or indirectly.

Spey Catchment Management Plan

Throughout the Spey catchment there are many organisations involved in river management or related activities, each with its own remit for delivery. This revised Catchment Management Plan brings together the activities of partner organisations and sets out priorities for 2023 to 2030, building on previous successes and incorporating lessons learnt. The plan has been produced by the members of the Spey Catchment

Initiative Steering Group as shown below, with input from consultation with partners, stakeholders, communities and the public. The Plan is intended to be a working document which will be regularly reviewed and updated to reflect important changes during the period.

Contains eight priority themes with associated objectives to guide activities in the Spey catchment up to 2030:

- Water quality, quantity and environment
- Flood and drought management
- Biodiversity
- Land management
- Fisheries management
- Forestry and woodland
- Economic development
- Communities, education and engagement.

Each priority theme is supported by a range of objectives. These are summarised as follows.

Water quality, quantity and environment

- W1 Maintaining water status – continue to maintain and enhance River Basin Management Plan water status in the Spey catchment.
- W2 Improving water status – improve the status of water bodies failing to meet Good River Basin Management Plan status by 2027. Identify and address issues in 'un-named water bodies'.
- W3 Water quality – address issues degrading water quality throughout the Spey catchment.
- W4 Water quantity – manage abstractions to protect biodiversity and river functioning and improve resilience.

Flood and drought management

- FM1 Sustainable flood management – implement sustainable flood management via restoration of a more natural flooding regime and delivery of the Findhorn, Nairn and Speyside Local Flood Risk Management Plan.
- FM2 Natural Flood Management – promote the use of natural flood management techniques at appropriate locations to contribute to flood management.
- FM3 Drought management – increase awareness of the effects of droughts and promote the use of nature based solutions to mitigate them.

Biodiversity

- B1 Riparian, river and wetland habitats – halt habitat loss, and restore and improve degraded habitats to enable biodiversity to thrive.
- B2 Designated species – protect and enhance the Atlantic salmon, sea lamprey, Freshwater pearl mussel, and otter populations of the catchment, and improve the condition of water and wetland designated sites.
- B3 Other species – conserve and enhance key animal and plant species in the Spey Catchment and support carefully managed re-introduction of 'missing' species where appropriate.
- B4 Invasive Non Native Species – eradicate existing Invasive Non Native Species and prevent the introduction of new INNS within the catchment.

Land management

- L1 Diffuse pollution – reduce the impact of diffuse agricultural pollution on the surface and ground water quality of the Spey catchment.
- L2 Slowing the flow – explore appropriately funded Nature-based Solutions to manage water flows on land.
- L3 Re-naturalising rivers – improve natural functioning of watercourses through farmland to benefit ecosystems, restore natural processes and contribute to natural flood management.
- L4 Farm wetlands – retain, expand and enhance wetlands and natural ponds for their natural flood management and biodiversity benefits.
- L5 Peatland restoration – promote peatland restoration as a crucial component of catchment management.

Fisheries management

- F1 Fish stocks – maximise the number of Atlantic salmon and sea trout smolts reaching the sea from the River Spey catchment.
- F2 Habitat quality – restore and enhance riparian and instream habitat quality and diversity to optimise fish breeding and survival.
- F3 Barriers to fish migration and research – further research impacts and implement effective practical river management strategies to ensure the conservation, protection and enhancement of Atlantic salmon and trout stocks.
- F4 Sustainable angling – develop sustainable fisheries, maximising the economic value of angling and its role as a valuable form of outdoor recreation.

Forestry and woodland

- FW1 Woodland expansion – deliver appropriate expansion of riparian and catchment woodland whilst contributing towards the objectives of integrated catchment management.
- FW2 Woodland habitats and biodiversity – improve and expand riparian habitat and biodiversity through appropriate woodland design and management, and improve woodland habitat connectivity.
- FW3 Woodland and flow management – expand and enhance riparian, floodplain and wider catchment woodland to reduce run off rates and sediment input and aid bank stabilisation.
- FW4 Forestry management – encourage and promote best environmental practice for forest management in order to protect and enhance water quality and biodiversity.

Economic development

- ED1 Built development – balance economic growth with appropriate environmental protection and mitigation measures.
- ED2 Tourism – realise the tourism potential of the River Spey whilst protecting the natural environment on which it depends.
- ED3 Natural capital and carbon – support and facilitate use of emerging carbon and natural capital finance where it can provide opportunities for catchment management interventions with multiple benefits.

Communities, education and engagement

- C1 Flood and drought preparedness – increase community resilience to the effects of flood and drought conditions.
- C2 Access and recreation – promote responsible access on and beside rivers and lochs, with a focus on enhancing the experience and linking recreation to understanding and valuing the special qualities of the catchment.
- C3 Knowledge, awareness and skills – increase knowledge and understanding of the natural river environment, support specialist career opportunities in all aspects of catchment management, and increase volunteer participation.
- C4 Cultural heritage – promote and support research, recording and celebration of the history and culture of the River Spey.

The proposed plan may support all of these thematic priorities, either directly or indirectly.

Community action plans

Many communities within the National Park are involved in preparing community action plans. These are important documents that set out the aspirations of the local communities and will continue to be taken into account in the preparation of the proposed plan. The following action plans identified issues and / or priorities relating to flood risk and water management.

Advie and Cromdale Community Action Plan 2013

The community action plan sets out the shared priorities and practical steps for improving life within the community. Such priorities being improving both digital / physical infrastructure as well as promoting local identity and thus drawing trade via tourism. Key highlights from the report include.

- Improvements to the Speyside way, such as improved surfacing and signage at the Cromdale end as well as clearer signage towards Grantown are requested to boost usability for both pedestrians/cyclists and visitor experience. Trails and pathways often suffer from poor drainage. Any improvements could integrate water management (e.g., sustainable drainage systems).

It is intended that this community action plan us reviewed and updated later in 2025.

Aviemore, Rothiemurchus and Glenmore Community Action Plan Looking to 2030

In 2024 the communities of Aviemore, Rothiemurchus and Glenmore came together to review common progress made on the previous plan and to analyse emerging challenges, such as post pandemic recovery, volunteer fatigue and climate pressures. Highlighting the communities focus across infrastructure, environment, tourism and wellbeing.

- Organise a River Spey clean up group.
- Stop over development of green/open spaces. Pertaining to flood lands and wetlands which if built over can cause flooding down stream due to drainage areas being developed upon.
- Repair the footbridge on the west bank of the river tilt, adjacent to the caravan park.

Ballater and Crathie Community Action Plan 2023

The community action plan aims to focus on improving the resilience of the community to 'cope, withstand and protect us from environmental threats of flood, drought, fire and storms…'. It contains to develop workstreams on flooding and drought to:

- Better ensure preservation of life.
- Improve take up and installation of property level protection.
- Ensure that support for Option 3A by Aberdeenshire Council is withdrawn.

- Put in place short term local protection for Ballater against lower level more frequent flooding.
- Develop realistic alternatives for medium term local protection.
- Explore upstream storage options.

Further information on community level action in the locality is contained within the Strategic Flood Risk Assessment 2024[3].

Blair Atholl Community Action Plan: Looking to 2030
The community action plan aims to update priorities and shape a shared vision for the village through to 2030. The process is focused on inclusive engagement. A community-wide survey, targeted outreach, and a final community event helped identify key social, environmental, and economic goals. The result is a refreshed, community-owned action plan designed to guide sustainable development and support a thriving future.

- Replace / repair footbridge on west bank of River Tilt, adjacent to caravan park
- Resolve the Lade issue by rebuilding the weir: Collaborate with the Estate and Perth and Kinross Council to apply pressure on Scottish environment protection agency for necessary approvals and support.
- Promote local biodiversity at Bridge of Tilt: Allow a section of the grass verge to grow naturally with wildflowers and grasses to create a habitat for pollinators and support ecological diversity.

Breamar Community Action Plan 2017
The action plan contains the following priorities and actions that relate to water management:

- to construct a footbridge over the River Dee and associated paths to connect with the existing network. To improve the range of pedestrian and cycle routes to promote Braemar as a sustainable visitor destination by being a hub for walking and cycling.
- Building of the Corriemulzie Hydro scheme to capitalise on local hydropower within the Mar Estate any income generated from the project will then be made available for local projects.

Carrbridge Community Action Plan: Looking to 2030
The action plan contains the following priorities and actions that relate to water management:

[3] See https://cairngorms.co.uk/wp-content/uploads/2024/03/Cairngorms-Strategic-Flood-Risk-Assessment-2024.pdf

- A designated campervan site is planned, prioritising waste disposal, with facilities for bins, water, and grey/brown water waste.
- Build up Carrbridge resilience plan to cope with extreme weather conditions such as flooding, snow, fire.
- A potential hydro power project using the River Dulnain is proposed, inspired by community led renewable energy models like Fintry. This would involve exploring environmental feasibility, water flow management, and technical viability, with the aim of generating local energy and income for the village

Dalwhinnie Community Action Plan: Looking to 2030
Dalwhinnie Community Action Plan: Looking to 2030 contains a priority to address planning issues for the village to help proposed business and residential development in and around A889. These issues relate to flooding from the River Truim.

In 2023 the Dalwhinnie Flood Resilience Group was established by members of the Dalwhinnie community to:

- Investigate ways of protecting the houses and businesses directly along the river Truim within Dalwhinnie from flooding,
- Locate funding for investigations to enable the group to establish the need for mitigation works to prevent flooding as we have been identified by Scottish Environment Protection Agency as a high-risk flood area,
- To address conservation of the river Truim floodplain within the village, to protect vulnerable species such as water rats, wading birds and rare plants, and
- To ultimately, secure the future security from severe flooding and protect the delicate riverbank area.

The group have been granted funds by the Cairngorm Trust to commission a flood survey. It is intended that the survey will inform future decisions and the preparation of flood and community resilience plans. An application for funding to the National Centre for Resilience's Third Sector, Community and Practice Project Fund has been made which will, if successful, will enable this work to be completed.

Dulnain Bridge Community Action Plan: Looking to 2030
The action plan does not contain any priorities or actions that relate to flood risk or water management, however the need for public toilets was raised during the community survey.

Kincraig and locality Community Action Plan: Looking to 2030
The action plan contains the following priorities and actions that relate to water management:

- Investigate the use of the Community Hall toilets for visitors in summer months.
- Increase size of disabled toilet in Community Hall to include wheelchair access.

In addition, one of the issues raised during the engagement on the action plan was to create a public toilet on the Brae intersection of Speyside Way and village.

Laggan Community Action Plan: Looking to 2030
The action plan contains the following priorities and actions that relate to water management:

- The community seeks to improve the standards of the local public toilets as well as looking at alternative methods of grey water disposal and waste management over discharge points.
- Seeking SSE funding for development, care and maintenance of said toilets with the possibility of installing paddle gate in order to generate revenue which would in turn be funnelled into maintenance / upkeep.
- The community also expressed the desire to elevate the villages appearance by means of cleaning up the pond area as well as the surrounding woodland.

Nethy Bridge Community Action Plan: Looking to 2030
The action plan contains the following priorities and actions that relate to water management:

- The community expressed the desire to carry out / update the current flood prevention audit to reduce the flood risk as well potential impact of a risk / blocked bridge that could be caused by debris. The audit would have a keen focus on;
    - Clearing gravel, silt, dead trees from river
    - Maintain the banks
    - Manage fallen and falling trees on riverbanks, if creating a hazard. Otherwise leave for wildlife habitat.
    - Enhancing and Suring up the riverbank and opposing walls
    - The implementation of a flood defence barrier on station road to mitigate flood water damage.
- The community also expressed interest in looking into a hydro-electric scheme as trailed by other villages within the area.

Newtonmore Community Action Plan: Looking to 2030

The action plan identifies the following as a priority and actions that relate to water management:

- The community expressed the desire to speak with Cairngorms National Park Authority for support with possible hydro project using the Calder or Allt Laraidh and also community wind turbines. With profits being invested within the community to further drive growth.

Strathdon Area Community Action Plan 2016

The action plan identifies the following as a priority and actions that relate to water management:

- The community expressed a desire to develop a coordinated approach to fishing permits for the River Don by identifying lead stakeholders and supporting local sporting estates and tourism initiatives

The Strathdon Community Action Plan is currently being reviewed and an update will be published later in 2025.

Baseline of flood risk and water management matters

This section provides baseline information on the following matters:

- Flood risk (river, surface and small watercourses)
- Potentially vulnerable areas
- Reservoir inundation
- Beaver translocation
- Flood defences
- Surface water management
- Natural flood management
- Water quality (surface and groundwater)
- Scottish Pollutant Release Inventory
- Nitrates
- Water sensitivity to sewage discharges
- Bathing waters
- Protected sites
- Water scarcity
- Abstraction
- Water Treatment Works capacity
- Waste Water Treatment Works capacity
- Private water supplies
- Public conveniences
- Water refill locations.

There are links between this policy area and climate change[4], landscape[5], natural heritage[6], blue and green infrastructure[7], land use, soil and resources[8], economic development[9], housing[10], living well locally[11], and heating and cooling[12].

[4] See https://cairngormsldp.commonplace.is/en-GB/proposals/v3/climate-change?step=step1
[5] See https://cairngorms.co.uk/wp-content/uploads/2024/07/Topic-paper-Landscape-Engagement-version.pdf
[6] See https://cairngormsldp.commonplace.is/en-GB/proposals/v3/natural-heritage-survey?step=step1
[7] A topic paper on blue and green infrastructure will be engaged on later in 2025.
[8] See https://cairngorms.co.uk/wp-content/uploads/2024/11/Land-use-soil-and-resources-Engagement-version.pdf
[9] See https://cairngormsldp.commonplace.is/en-GB/proposals/v3/economic-development-survey?step=step1
[10] Topic papers on climate change, open space and play sufficiency, living well locally, blue and green infrastructure and housing will be engaged on later in 2025.
[11] See https://cairngormsldp.commonplace.is/en-GB/proposals/v3/local-living-and-20-minute-neighbourhoods?step=step1
[12] See https://cairngorms.co.uk/wp-content/uploads/2024/11/Topic-Paper-Heating-and-cooling-Engagement-version.pdf

Flood risk

Detailed information on flood risk is contained within the Strategic Flood Risk Assessment for the National Park. Scottish Environment Protection Agency have confirmed that the Strategic Flood Risk Assessment is sufficient[13]. This section will summarise the findings of the Strategic Flood Risk Assessment, which may be accessed via the following link:

- https://cairngorms.co.uk/wp-content/uploads/2024/03/Cairngorms-Strategic-Flood-Risk-Assessment-2024.pdf

The Strategic Flood Risk Assessment was published in April 2024 and uses Version 2.1 of Scottish Environment Protection Agency's flood hazard maps. On March 11 2025 Scottish Environment Protection Agency published a public beta of Version 3.0 of the maps, which extends the range of information available to include the publication of a new surface water and small watercourses flood hazard map, and a new dataset which shows the potential effects of climate change on surface water flooding. The Park Authority recognises Scottish Environment Protection Agency's desire that the operational use of the new mapping by planning authorities be fully effective by the end of May 2025 and is committed to using the latest available data in the preparation of the Proposed Plan. Scottish Environment Protection Agency have confirmed that they are content with this approach[14].

Flood risk in the Cairngorms National Park

The Cairngorms National Park has no coastline but encompasses the headwaters of three of Scotland's major rivers as well as many smaller ones. Many of the rivers and their tributaries as well as lochs and wetlands are designated as European sites and Sites of Special Scientific Interest. The rivers are also important, providing water for business and people within and outwith the National Park, as they flow downstream towards the sea. Significant events include the Great Muckle Spate, destroying several bridges in the Spey catchment in 1829 and more recently, Storm Frank, in December 2015, when the River Dee was reported as having burst its banks causing damages to Ballater Caravan Park and local businesses.

[13] See https://cairngorms.co.uk/wp-content/uploads/2025/04/PCS-20000559-SEPA-Response-to-CNPA-Draft-Strategic-Flood-Risk-Assessment_Redacted.pdf
[14] See https://cairngorms.co.uk/wp-content/uploads/2025/04/RE_-Cairngorms-evidence-report-version-3_0-flood-hazard-maps.pdf

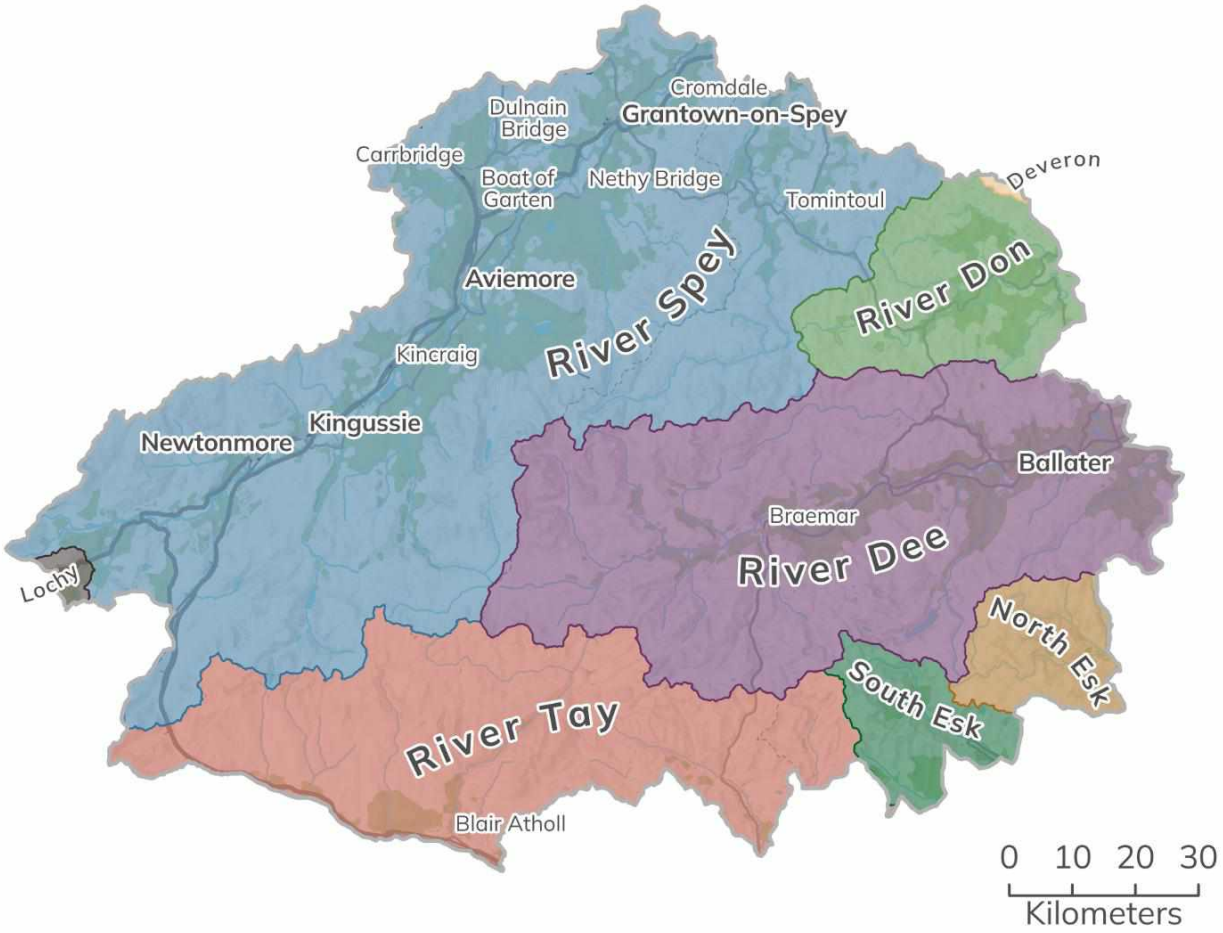

Figure 3 River catchments within the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025 Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

All of the rivers and watercourses within the Cairngorms National Park have the potential to flood to some degree. Most concern is generated along the National Park's main straths and glens, as when the rivers and tributaries that flow along these, namely the Spey, Dee, Don and Tay, break their banks they often result in economic and occasionally human cost. Small watercourses also represent a risk but are often poorly understood with respect to the severity of the flood hazard that can be generated on a catchment scale (Figure 3). Furthermore, in some areas surface water flooding, which can arise for a number of reasons, is a significant risk.

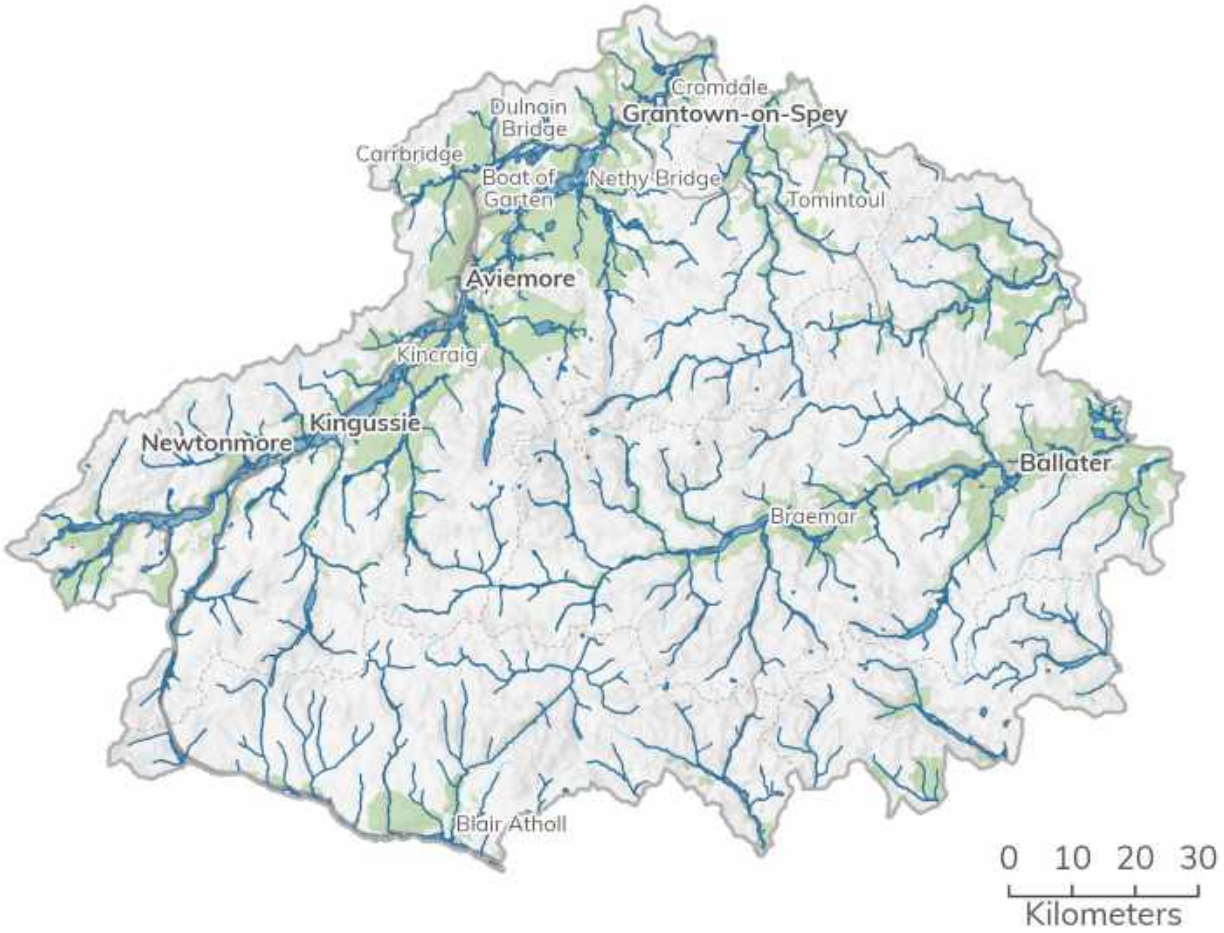

Figure 4 Future river flood extents (medium flood risk (0.5% annual exceedance probability) by 2080) in the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

The area of Cairngorms National Park in the 0.5% annual exceedance probability (AEP) zone for river flooding is 176 km^2, representing 3.9% of National Park's 4,528 km^2 land area. When comparing against the 0.5% annual exceedance probability plus climate change flooding zone (a zone identified by Scottish Environment Protection Agency in their flood risk maps, taking into account projected climate change) this area rises to 184 km^2 hectares, or 4.1% of land area (Figure 4). The number of properties (domestic and non-domestic) in the 0.5% annual exceedance probability zone is approximately 655 (out of approximately 13,762), representing 4.8% of the total. When compared against the 0.5% annual exceedance probability plus climate change river hazard zone there are approximately 1,137 properties or 8.3% of the total.

Version 3.0 of Scottish Environment Protection Agency's introduces a major update to surface water mapping. The update extends the range of information available to include small watercourses (with a catchment area smaller than 10km^2) and a climate change scenario for the medium probability flood event (0.5% annual exceedance probability). The climate change scenario shows the potential changes to surface water and small watercourse flooding for a 2070 high emissions scenario.

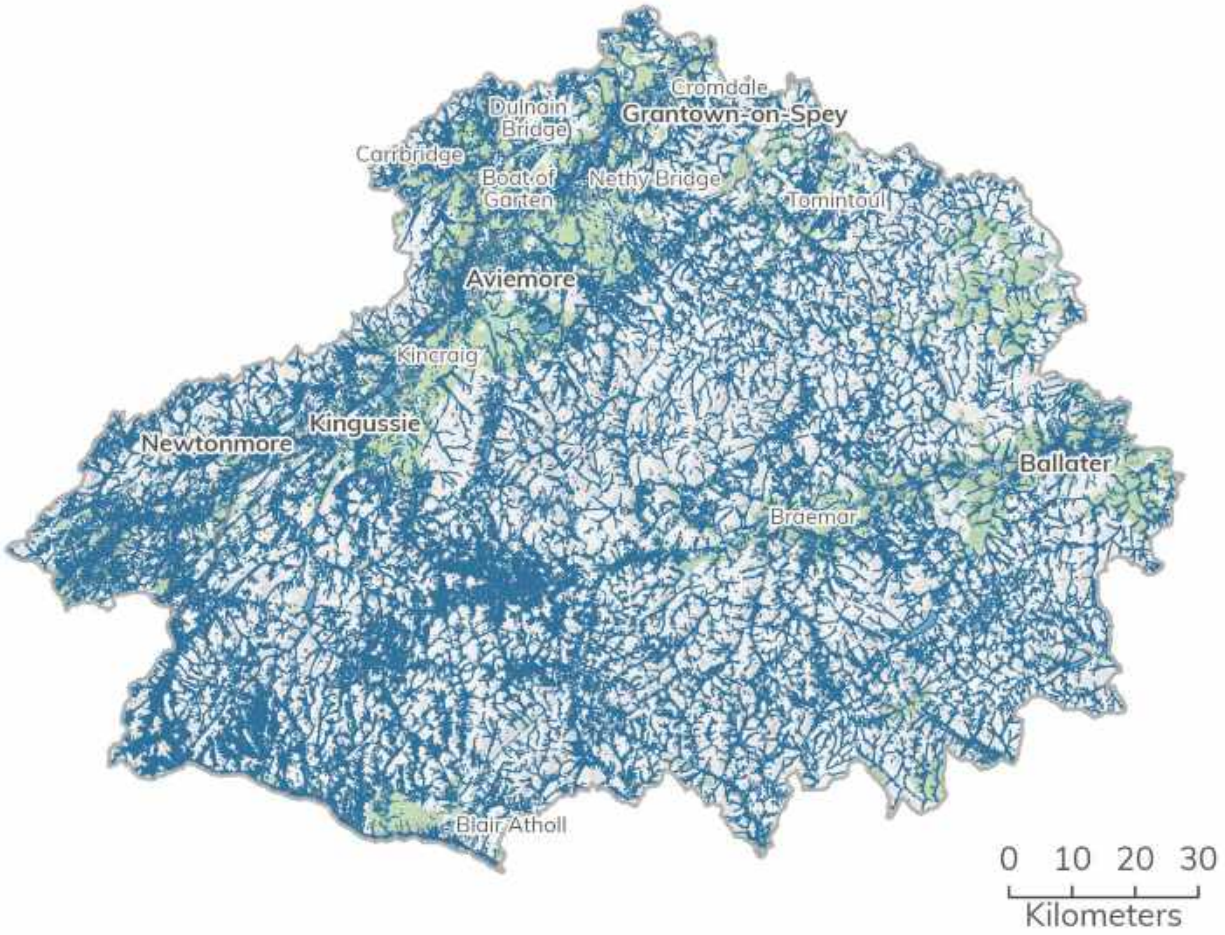

Figure 5 Future surface and small watercourse flood extents (medium flood risk (0.5% annual exceedance probability) by 2070) in the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

The area of Cairngorms National Park in the 0.5% annual exceedance probability zone for surface and small watercourse flooding is 187 km^2, representing 4.1% of National Park's 4,528 km^2 land area. When comparing against the 0.5% annual exceedance probability plus climate change flooding zone this area rises to 275 km^2 hectares, or 6.1% of land area (Figure 5). The number of properties (domestic and non-domestic) in the 0.5% annual exceedance probability zone is approximately 96 (out of approximately

13,762), representing 0.7% of the total. When compared against the 0.5% annual exceedance probability plus climate change surface water and small watercourse hazard zone there are approximately 206 properties or 1.5% of the total.

Table 3 provides a summary of this information.

Table 3 The geographical extent and estimated number of properties[15] at risk of flooding within the Cairngorms National Park according to Scottish Environment Protection Agency's river and surface water and small watercourses flood map datasets (version 3.0). Property estimates are based on Ordnance Survey National Geographic Database, 2025.

Flood map dataset	Scenario	Extent of flood risk zone	Proportion of National Park covered by extent of flood risk zone	Domestic properties within extent of flood risk zone	Proportion of domestic properties within extent of flood risk zone	Non-domestic properties within extent of flood risk zone	Proportion of non-domestic properties within extent of flood risk zone	All properties within extent of flood risk zone	Proportion of all properties within extent of flood risk zone
River	Medium probability[16]	176 km^2	3.9%	524	4.76%	131	5.4%	655	4.8%
	Medium probability + climate change 2080 – high emissions	184 km^2	4.1%	915	8.1%	222	9.2%	1,117	8.3%
Surface water and small watercourses	Medium probability	187 km^2	4.1%	82	0.7%	14	0.6%	96	0.7%
	Medium probability +	275 km^2	6.1%	170	1.5%	36	1.5%	206	1.5%

[15] Estimates are based on point data contained within Ordnance Survey's National Geographic Database. The proportional estimates are based on a total of 13,762 addressable domestic and commercial properties.
[16] Medium probability represents a 0.5% annual exceedance probability of flooding.

Flood map dataset	Scenario	Extent of flood risk zone	Proportion of National Park covered by extent of flood risk zone	Domestic properties within extent of flood risk zone	Proportion of domestic properties within extent of flood risk zone	Non-domestic properties within extent of flood risk zone	Proportion of non-domestic properties within extent of flood risk zone	All properties within extent of flood risk zone	Proportion of all properties within extent of flood risk zone
	climate change 2070 – high emissions								
Combined river and Surface water and small watercourses datasets	Medium probability	313 km^2	6.9%	597	5.3%	143	5.9%	740	5.4%
	Medium probability + climate change 2070 / 2080 – high emissions	403 km^2	8.9%	1,063	9.4%	254	10.5%	1,317	9.6%

The latest Scottish Environment Protection Agency's flood hazard maps will be a core evidence source in informing the Proposed Plan's spatial strategy and site assessment process. To meet National Planning Framework 4's definition of flood risk, the test for whether or not a proposed development is likely to be at risk will be its relationship to the 0.5% annual exceedance probability plus climate change extents for river, surface water and small watercourse flooding. As set out in National Planning Framework 4, the Park Authority will apply the avoidance of development in areas at flood risk as a first principle.

Potentially vulnerable areas

There are seven Potentially Vulnerable Areas identified within the National Park boundary (Figure 6) identified within the Cycle 2 flood risk management plans and local flood risk management plans, which cover years 2022 – 2028 (see page 23 for further information). Combined, there are approximately 1,760 people and 1,110 homes and businesses currently at risk from flooding within these areas. This is likely to increase to 2,570 people and 1,580 homes and businesses by the 2080s due to climate change (Table 4).

The objectives and actions for the Potentially Vulnerable Areas are set out within their relevant flood risk management plans and local flood risk management plans. These are summarised within the Strategic Flood Risk Assessment[17]. It is recognised that objectives and actions may changed through the Cycle 3 of the flood risk management cycle. The Proposed Plan will need to take account of the Potentially Vulnerable Areas in the formation of its spatial strategy, site selection and placemaking and the Park Authority will need to engage with Scottish Environment Protection Agency to ensure that any emerging changes can be accounted for.

[17] See https://cairngorms.co.uk/wp-content/uploads/2024/03/Cairngorms-Strategic-Flood-Risk-Assessment-2024.pdf

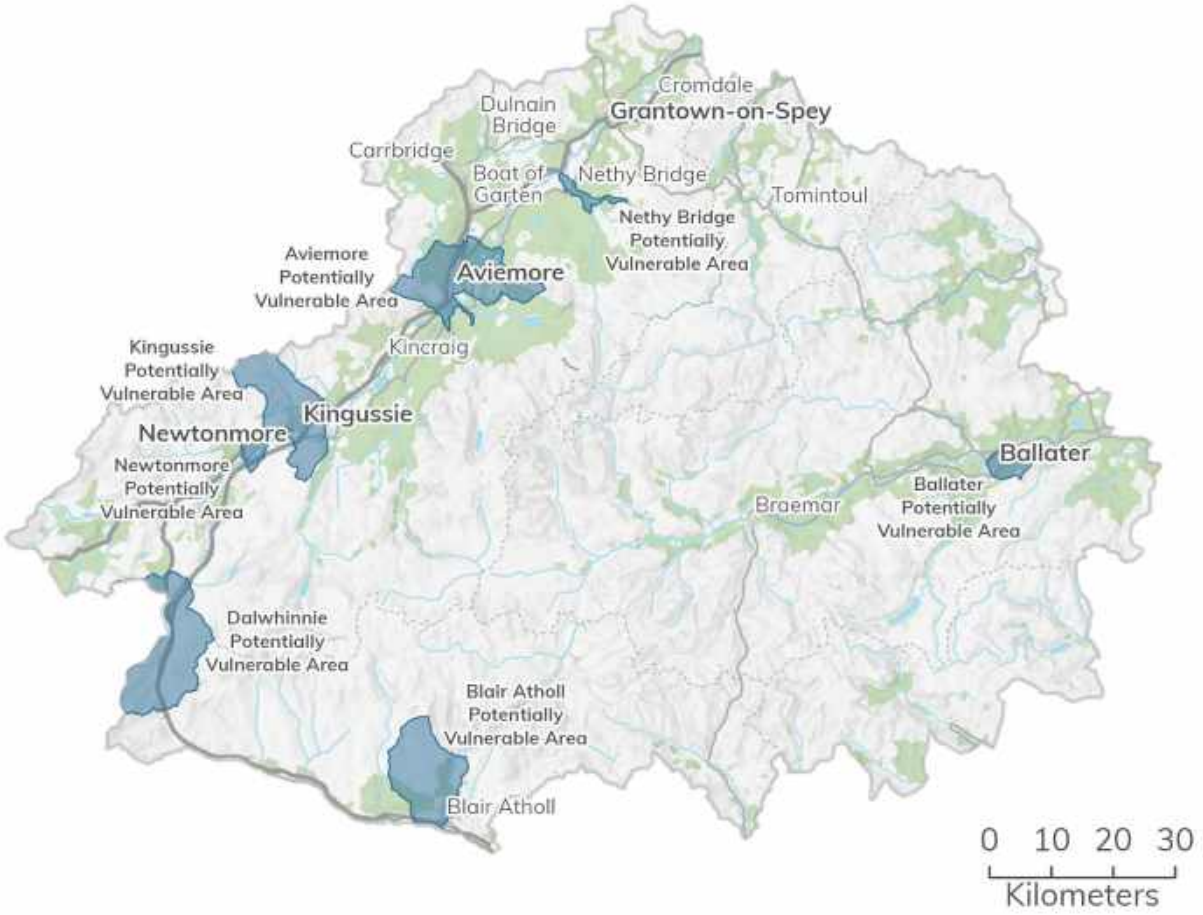

Figure 6 Potentially Vulnerable Areas within the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

Table 4 Number of people and homes and businesses within Potentially Vulnerable Areas within the Cairngorms National Park.

Area	River catchment	Number of people at risk	Number of homes / business at risk	Number of people at risk by 2080	Number of people at risk by 2080
Aviemore	Spey	430	240	490	270
Ballater	Dee	670	370	1,300	720
Blair Atholl	Tay	50	70	80	100
Dalwhinnie	Spey	30	30	30	30
Kingussie	Spey	270	180	330	220
Nethy Bridge	Spey	180	120	200	130

Area	River catchment	Number of people at risk	Number of homes / business at risk	Number of people at risk by 2080	Number of people at risk by 2080
Newtonmore	Spey	130	100	140	110

Reservoir inundation

Due to licensing limits, Scottish Environment Protection Agency's data is not available to directly analyse against National Park Authority data using the Park Authority's Geographical Information Systems. However, it is available via Scottish Environment Protection Agency's online portal and is a useful source of information to consider should the Proposed Plan identify significant new development sites or new settlements. The Strategic Flood Risk Assessment identifies thirteen reservoirs that have the potential to inundate parts of the Cairngorms National Park (Table 5 and Figure 7).

Table 5 Reservoirs on the Controlled Reservoirs Register that have the potential to inundate parts of the Cairngorms National Park in the event of a dam breach. Information taken from the Controlled Reservoirs Register, 2024.

Reservoir name	River catchment	Risk designation[18]	Maximum cubic capacity of reservoir at top water level (m^3)
Loch An-t Seilich	Spey	High	4,500,000
Loch Cuaich	Spey	High	1,680,000
Loch Ericht	Spey	High	230,000,000
Loch Phoneis	Spey	High	200,000
Pattack Hydro Reservoir	Spey	High	195,916
Spey Reservoir	Spey	High	5,100,000
Pronie Loch	Don	High	75,000
Lochan on Bruar Water	Tay	Medium	40,000
Loch Garry Reservoir	Tay	High	1,880,000
Errochty Reservoir	Tay	High	32,500,000
Loch Tummel	Tay	High	36,400,000
Loch Garry Reservoir	Tay	High	1,880,000

[18] The risk designation categories are high, medium or low. Designations are based on the consequence of an uncontrolled release of water and the affect that this could have on the surrounding area below the reservoir. A high risk designation does not mean that the reservoir has a higher risk of flooding.

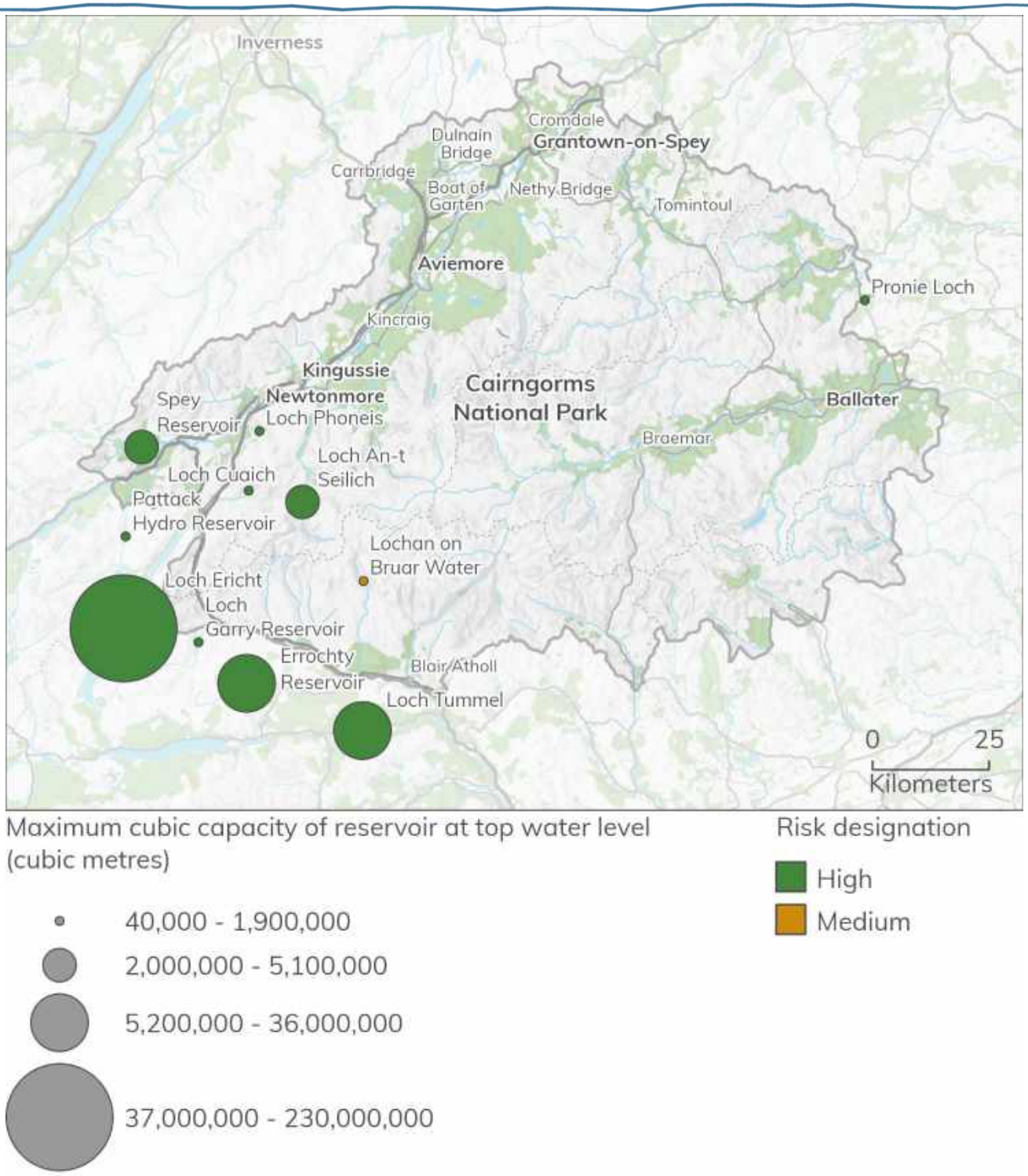

Figure 7 Reservoirs on the Controlled Reservoirs Register that have the potential to inundate parts of the Cairngorms National Park in the event of a dam breach. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains information © Scottish Environment Protection Agency 2025.

Beaver translocation

Recent changes by the Scottish Government offering protection and encouraging the expansion of beavers has allowed beaver to be identified within the Cairngorms Nature Action Plan as a priority species.

Extensive work on mapping the suitability of habitats within the upper reaches of the River Spey has been conducted to assess the best possible locations for the future translocation efforts (Figure 8). Currently, three proposed release sites for beavers have been identified; Rothiemurchus Estate, Wildland Ltd and the Royal Society for the Protection of Birds Insh Marshes Reserve. The release sites have been carefully chosen to minimise any potential negative impacts such as flooding from dams affecting transport routes, beavers foraging and damaging habitats within protected sites or damaging important riparian habitats.

On 5 December 2023 NatureScot approved the Park Authority's licence application to translocate Eurasian beavers to the Upper Spey catchment in the National Park. The first beavers were translocated a few weeks later with plans to translocate a maximum of 50 individuals over the next five years.

The translocation of beavers to locations within the catchment, and the projected growth and expansion of their population, presents a number of opportunities and risks for wetlands and their environment, some of which may impact on flood risk and land use planning. The main benefit of beavers comes from their dam building. Beaver dams impede the water flow (quantity and velocity) of water in a channel, which has multiple benefits, including increasing water storage and increasing the length of time taken for a flood to reach its peak and reduce the height of the peak and increasing water storage. According to Nature Scot, beavers have a potentially significant role in flood management and are advocating to Scottish Environment Protection Agency the opportunity for beavers to be part of natural flood management where appropriate.

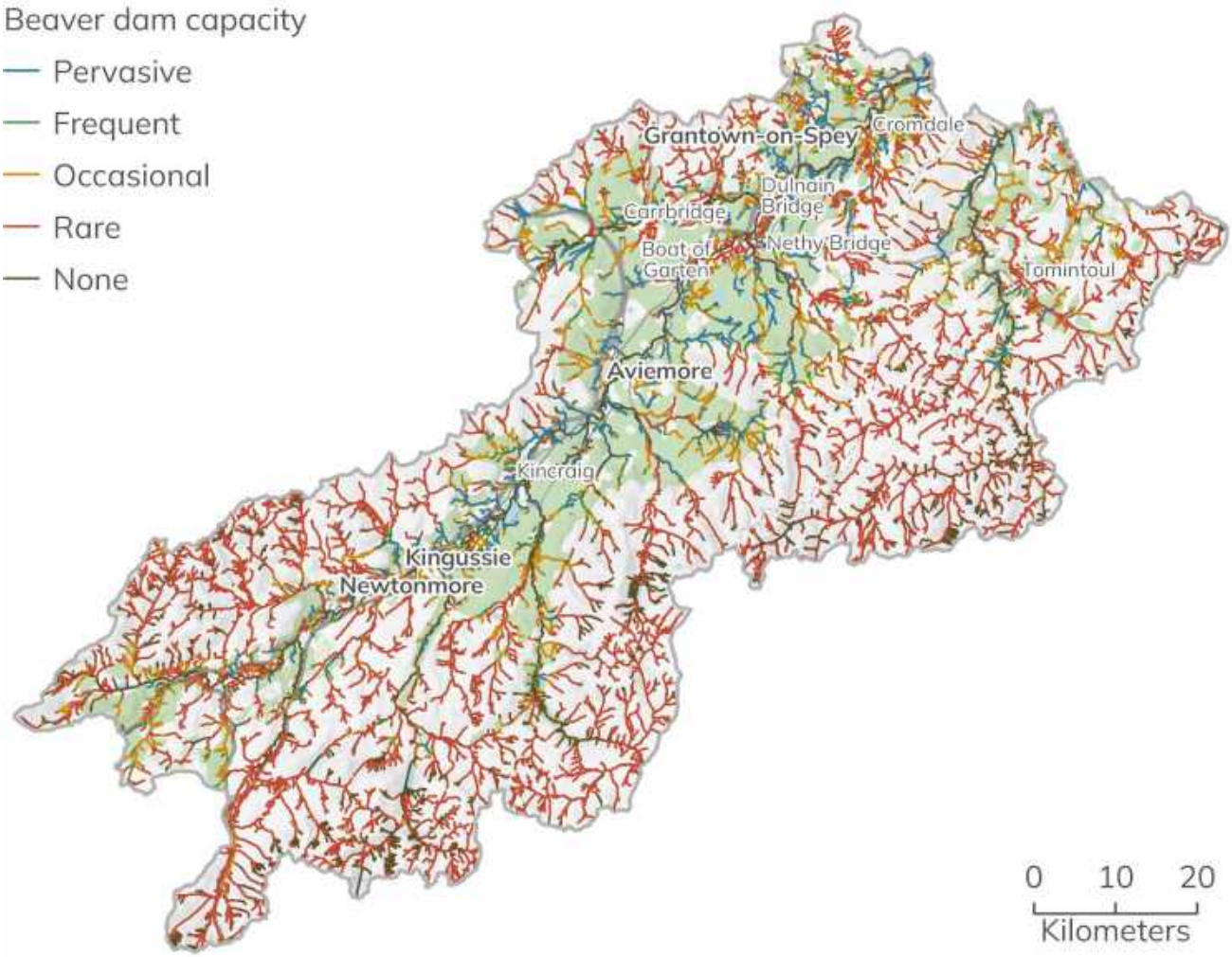

Figure 8 Capacity of waterbodies within the River Spey catchment for beaver dams. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Beaver Trust and University of Exeter 2025.

It is acknowledged that beaver activity may also present risk, including:

- Increased erosion of bare banks through burrowing and lack of structural support of riparian vegetation, along with the undermining of mature tree species which may fall into river pulling root bulb and bank.
- The undermining of riverbanks may damage buildings and / or infrastructure.
- Increased water levels from damming or blocking watercourses (Figure 8) or manmade structures such as culverts or bridges, may result in in damage to buildings and / or infrastructure.

The Park Authority has published a monitoring and mitigation plan, which includes a range of mitigation scenarios relating to matters including flood risk. These are set out in detail in Table 1 (page 17) of the plan:

- https://cairngorms.co.uk/wp-content/uploads/2023/12/Redacted-Appendix-14-Monitoring-and-Mitigation-Plan-2023.pdf

Due to the potential of beavers to use and block culverts and similar structures, which may be required as part of a development's access and egress arrangements and / or sustainable drainage system, consideration should be given to a policy or suite of site-specific requirements within the Proposed Plan that seek to reduce the risk of flooding resulting from beaver activity. For example, by requiring particular standards of construction for infrastructure within areas that have the potential to support a beaver population.

Further information on beaver and their implications is contained within the evidence paper on Natural heritage, which can be accessed here:

- https://cairngormsldp.commonplace.is/en-GB/proposals/v3/natural-heritage-survey?step=step1

Flood management

Flood management involves a range of strategies aimed at reducing the risk and impact of flooding, encompassing both preventing floods and mitigating their effects. This includes measures like building flood defences, managing land use, and implementing natural flood management techniques. The information contained within this section is a summary of the information within the Strategic Flood Risk Assessment[19].

Flood defences

Data held by the Scottish Flood Defence Asset Database and the local authorities that cover the National Park confirms that there are no formal flood defences within the Cairngorms National Park. There are locations where informal defences exist, which are considered where they are known and relevant to the Strategic Flood Risk Assessment; sources for this information include local authority flood management teams, the Ballater Flood Protection Study and Spey Catchment Initiative.

Surface water management

There are currently no surface water management plans covering the National Park. The Local Flood Risk Management for Findhorn, Nairn and Speyside contains an action for

[19] See https://cairngorms.co.uk/wp-content/uploads/2024/03/Cairngorms-Strategic-Flood-Risk-Assessment-2024.pdf

the Highland Council to produce a Highland wide surface water management plan. This plan is currently being development and has been narrowed down from the whole Highland area to focus on a number of hot spots where a short list of potential interventions will be identified. The plan may inform the Proposed Plan if completed prior to the site assessment process.

Scottish Water is responsible for the drainage of surface water from roofs and paved ground surfaces within a property boundary, where that property is connected to the public network. It is active in carrying out targeted customer engagement campaigns, such as 'Nature Calls', which highlights that around 80% of blockages are due to the wrong items, including wet wipes and sanitary products, being flushed down toilets and entering the sewer network.

Risk from the sewer network

Scottish Water also seeks though investment and planned capital maintenance, to protect properties from flooding caused by overflowing or blocked sewers, with Section 16 of the Flood Risk Management (Scotland) Act 2009 placing a duty on Scottish Water to assess flood risk from sewerage systems. Mapping of this risk exists for two settlements within the National Park – Ballater and Newtonmore. The data largely mirrors Scottish Environment Protection Agency's pluvial flood hazard maps (particularly for bigger return periods), so this data can only be used by authorities for an internal sense check to identify areas of misalignment, which could be worthy of further investigation. This data cannot be published externally, due to the data sharing agreements in place, and therefore, while it has been considered as part of the Strategic Flood Risk Assessment, it is not featured in in the report. The Park Authority will continue to engage with Scottish Water over the risks posed by flood risk from sewerage systems through the preparation of the Proposed Plan.

Natural flood management

Natural flood management involves techniques that aim to work with natural hydrological and morphological processes, features and characteristics to manage the sources and pathways of flood waters. These techniques include the restoration, enhancement and alteration of natural features and characteristics, but exclude traditional flood defence engineering that works against or disrupts these natural processes.

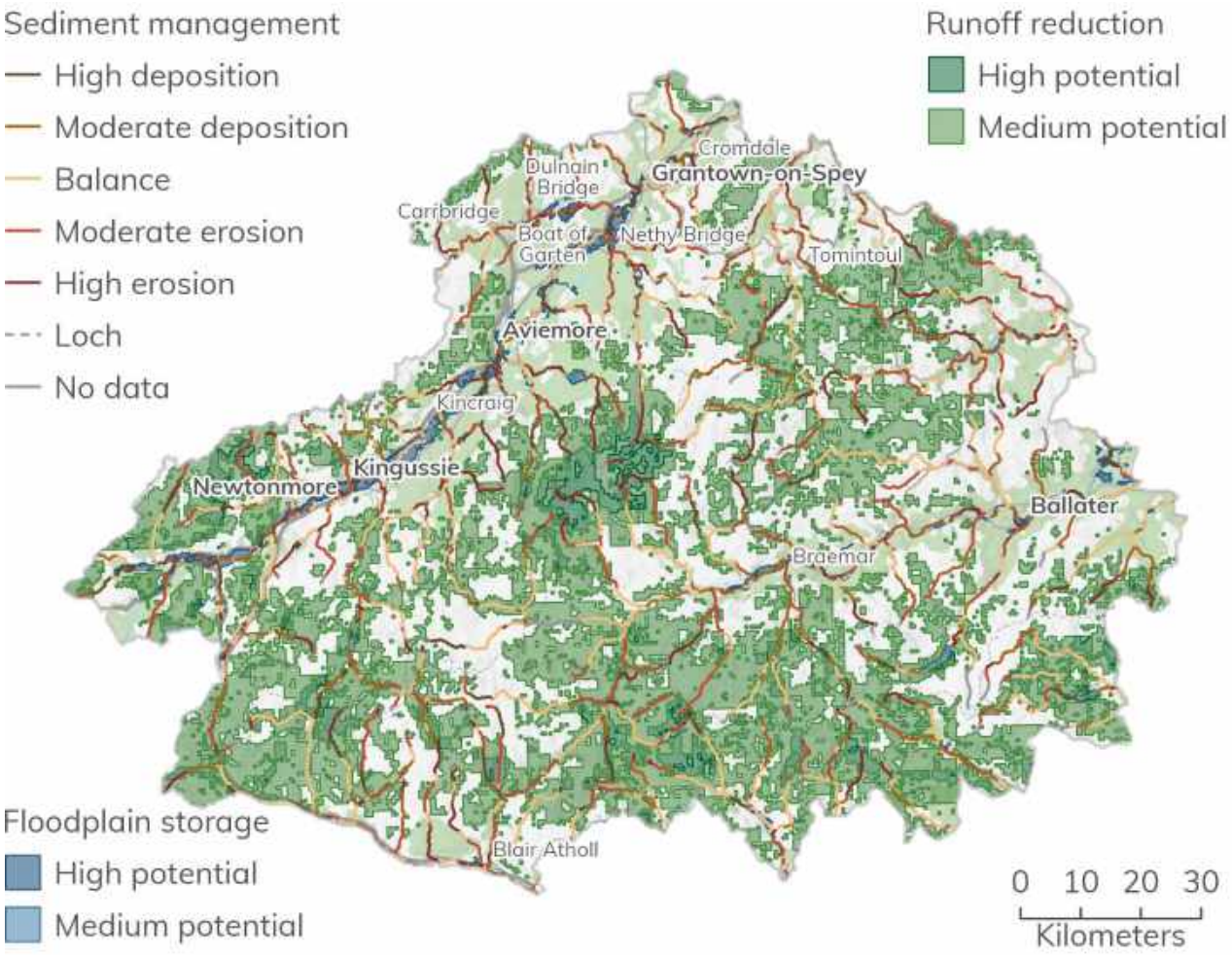

Figure 9 Opportunity areas for natural flood management within the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Environment Protection Agency and database right 2025. All rights reserved.

Scottish Environment Protection Agency's natural flood management data indicates areas where land use change to restore nature could reduce flood risk (Figure 9). As the Cairngorms National Park lacks a coastline it has not been necessary to consider estuarine surge attenuation or wave energy dissipation opportunities. Further information on potential natural flood management opportunities is available from the Ballater Flood Protection Study, while records of past and current interventions have been provided by the Spey Catchment Initiative, Dee District Salmon Fishery Board / River Dee Trust and Dee Catchment Partnership.

Further information on catchment and Potentially Vulnerable Area level natural flood management opportunities within the National Park is presented within the Strategic Flood Risk Assessment[20].

It is recognised that the identification and protection of blue and green infrastructure and nature networks, and improving the connectivity between them, may play a part in delivering natural flood management. The Park Authority's approach to nature networks is contained within the evidence paper on Natural heritage[21]. Detail on blue and green infrastructure will be covered in a separate evidence paper to be engaged on later in 2025.

Water quality

The condition of the water environment is monitored Scottish Environment Protection Agency and accessible through the Water Classification and Environment Hubs. Data was extracted 28 November 2024 when the latest available data was for the year 2023. Information on all the waterbodies is provided in the following supporting document:

- https://cairngorms.co.uk/wp-content/uploads/2024/12/Cairngorms-National-Park-waterbody-information.pdf

Surface water quality

Scottish Environment Protection Agency identify 157 waterbodies within and overlapping the National Park boundary. These are used in the Evidence Report as the basis for a proportional baseline for the National Park's area.

Water quality within the Cairngorms National Park is generally very high and is on a trend of improvement. In 2023 around 98% of waterbodies were calculated as having high or good status, with only one waterbody, River Muick – Allt an Dubh Loch (ID number 23354), classified as poor. No waterbodies were classified as bad (Figure 10). Most waterbodies therefore meet the Water Framework Directive objective of good status.

[20] See https://cairngorms.co.uk/wp-content/uploads/2024/03/Cairngorms-Strategic-Flood-Risk-Assessment-2024.pdf
[21] See https://cairngormsldp.commonplace.is/en-GB/proposals/v3/natural-heritage-survey?step=step1

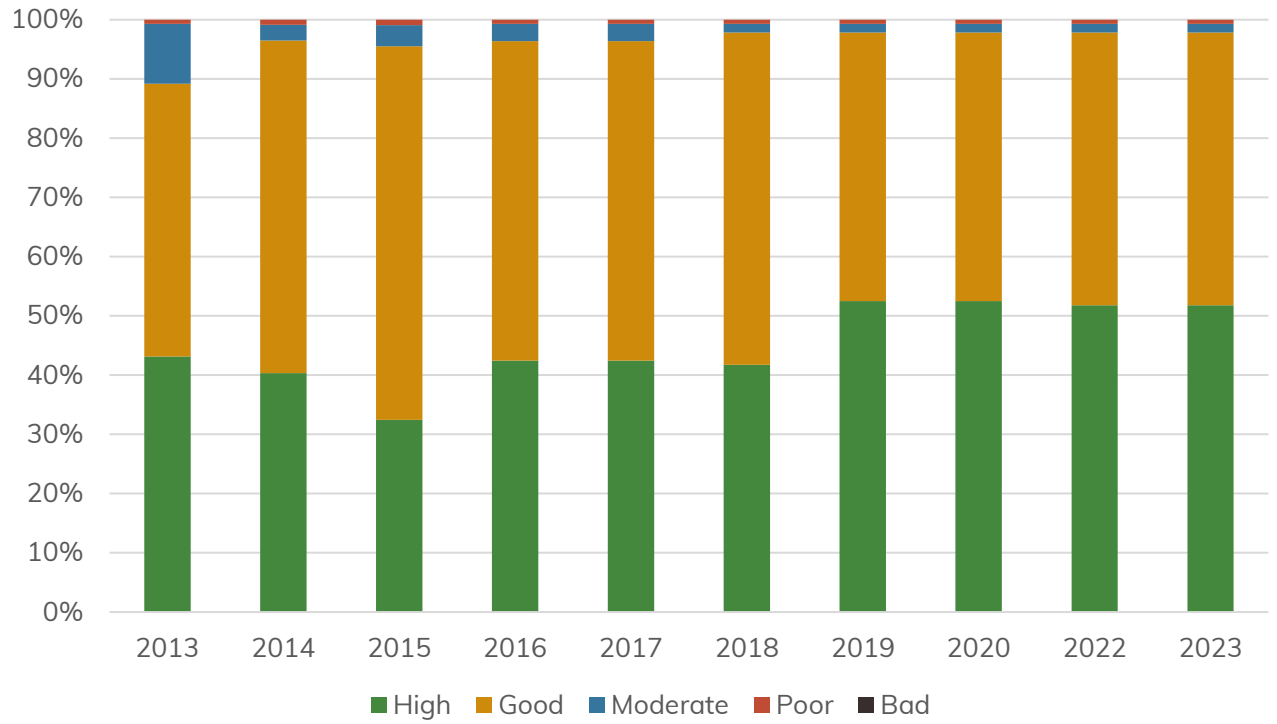

Figure 10 Proportion of waterbodies by water quality in the Cairngorms National Park, 2013 – 2023[22] (Scottish Environment Protection Agency, 2024).

The pressure identified by Scottish Environment Protection Agency on Allt an Dubh Loch, which is a tributary to the River Muick and is within the River Dee Catchment area, is acidification from the burning of fossil fuels, for example through acid rain and the acidification of soils. Scottish Environment Protection Agency record that action has been completed to address the pressure, but it is expected that ecological recovery will take longer.

[22] Data for 2021 is not available.

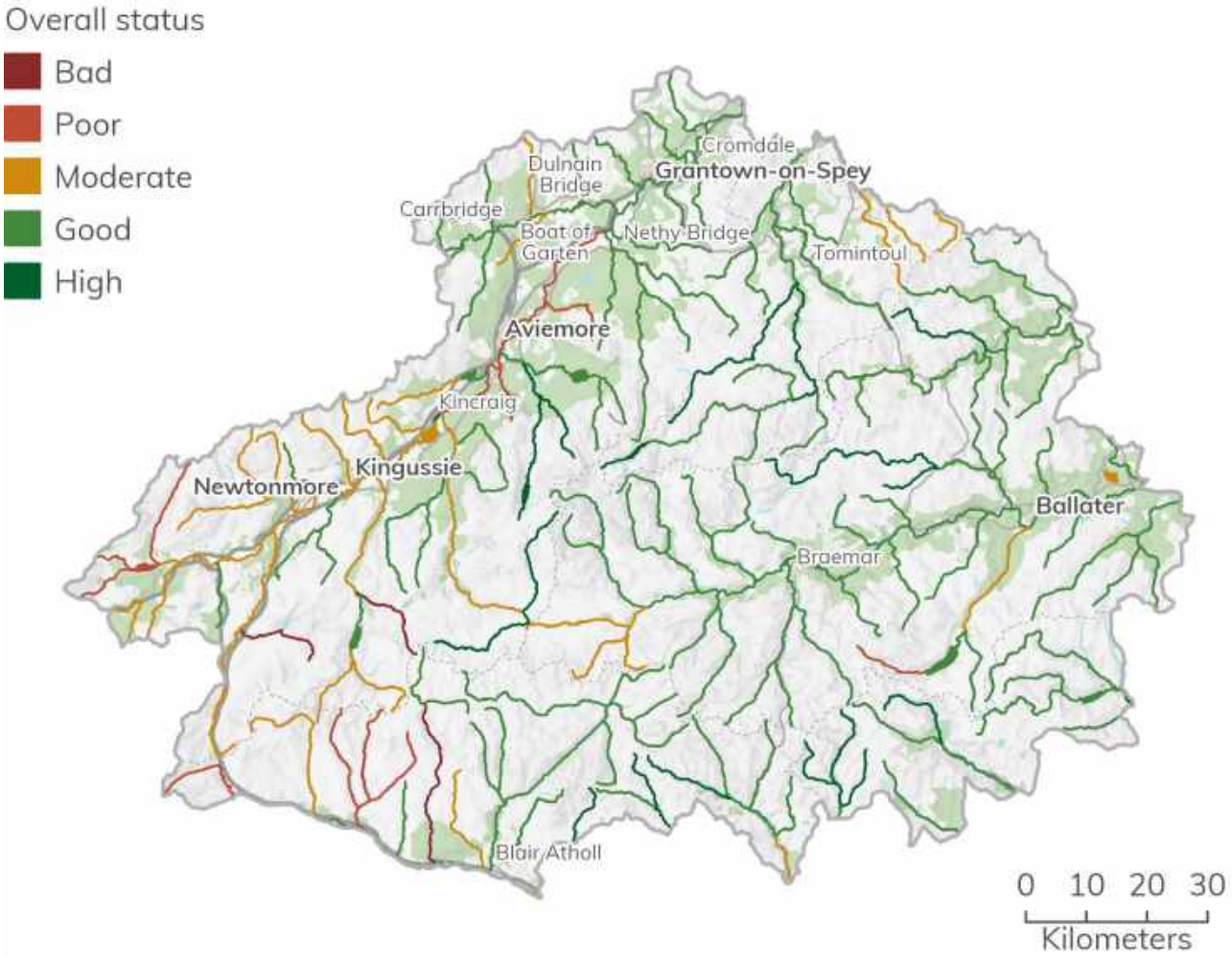

Figure 11 Overall status of surface waterbodies within the Cairngorms National Park in 2023. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

Water quality is however but one criterion used by Scottish Environment Protection Agency in coming to an overall designation for the overall status of waterbodies. Furthermore, Scottish Environment Protection Agency use a 'one out-all out' approach to designation, so if a waterbody performs poorly under one criterion (Figure 13), that will set its overall classification.

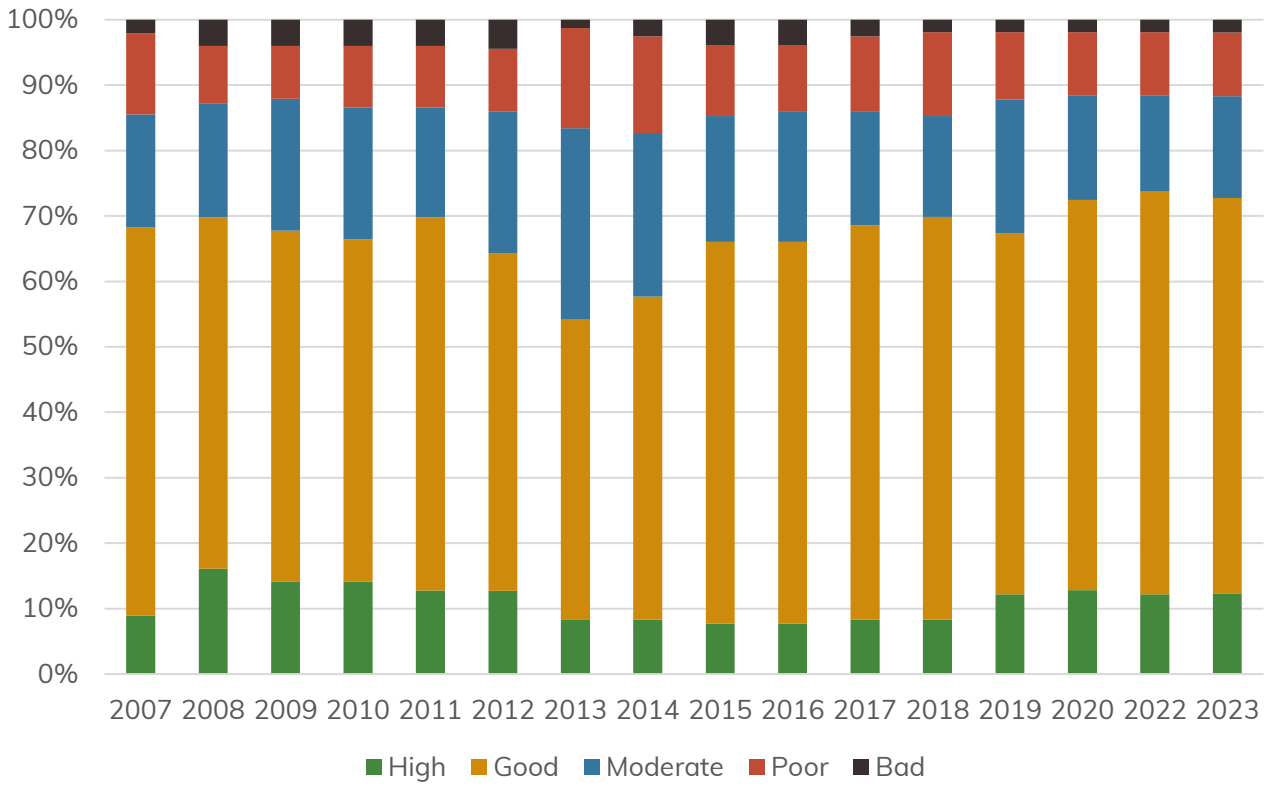

Figure 12 Proportion of waterbodies by overall status in the Cairngorms National Park, 2013 – 2023[23] (Scottish Environment Protection Agency, 2024).

The overall status of waterbodies within the Cairngorms National Park quality is relatively good, with around 73% calculated to have achieved high or good status in 2023. This has varied in recent years, with a high point of around 74% in 2022 and a nadir of around 54% in 2013. The proportion of waterbodies with a poor or bad status was around 12% in 2023, down from a high of around 17% in 2013 (Figure 12). The main reasons for waterbodies not achieving overall good status is the presence of a large number of barriers to fish and pressure on water flows and levels. Hydro electricity generation is the main cause of both pressures (Figure 14 and Figure 15).

[23] Data for 2021 is not available.

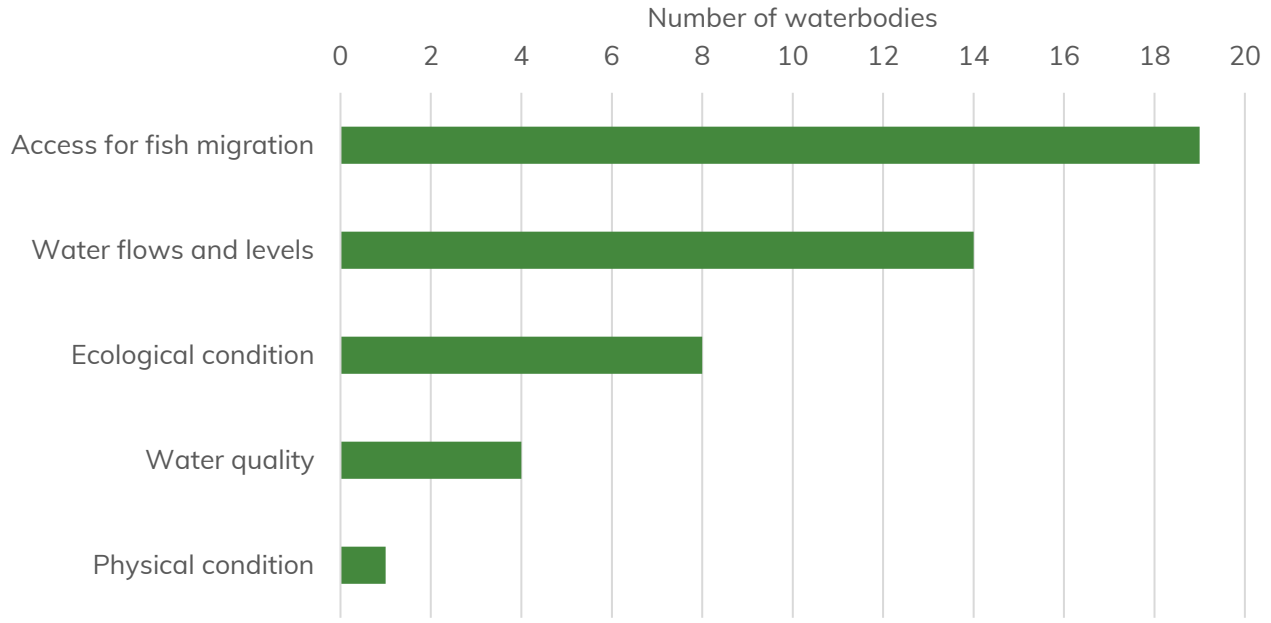

Figure 13 Impacted condition of waterbodies not achieving overall good status in the Cairngorms National Park (Scottish Environment Protection Agency, 2024).

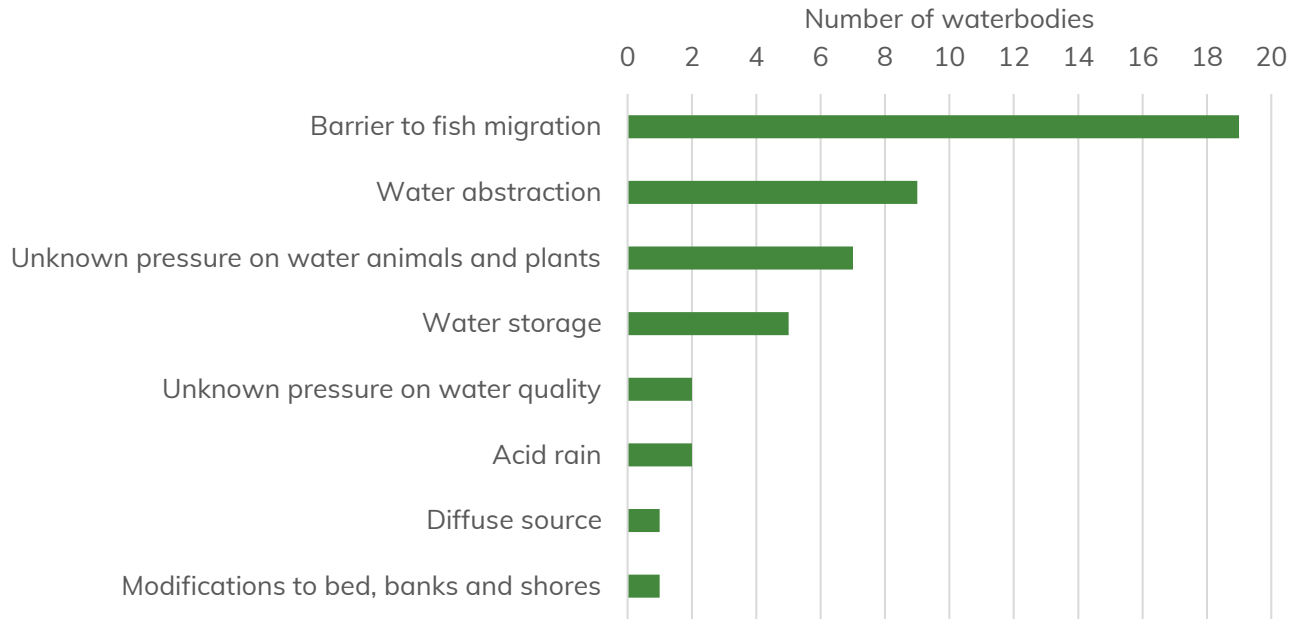

Figure 14 Pressures responsible for waterbodies not achieving overall good status in the Cairngorms National Park (Scottish Environment Protection Agency, 2024).

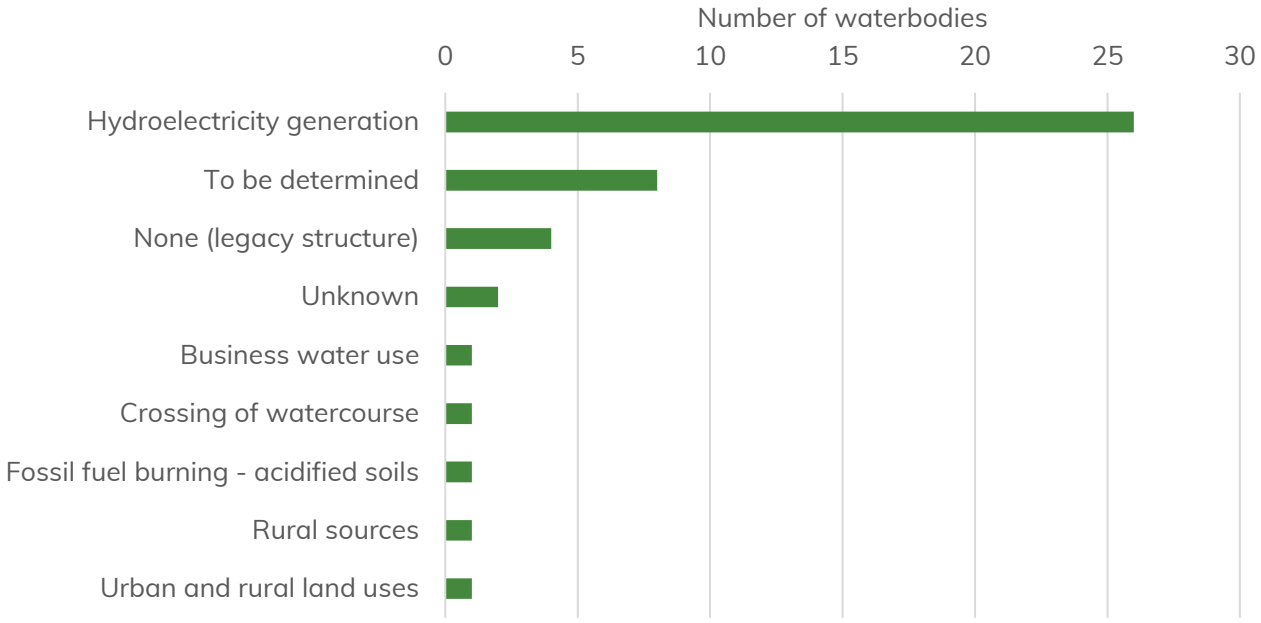

Figure 15 Activities responsible for pressures responsible for waterbodies not achieving overall good status in the Cairngorms National Park (Scottish Environment Protection Agency, 2024).

Table 6 Information on surface water bodies with a poor or bad overall condition within and overlapping the Cairngorms National Park, including actions set out to address them through the River basin management plan for Scotland 2021 – 2027. Where actions are identified they are to be delivered during the 2021 – 2027 timeframe of management plan. For full details see https://informatics.sepa.org.uk/RBMP3/

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
6605	River Bruar	Bad	Bad	Good	Good	Water flows and levels	Water abstraction	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the responsible business
							Water storage			
6608	Allt Anndeir	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the responsible business
						Water flows and levels	Water abstraction	Hydroelectricity generation	No action planned	
							Water storage			
6610	Allt Coire Dhomhain	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the responsible business
6912	River Garry from Loch Garry to Garry Intake	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Water flows and levels	Water abstraction	Hydroelectricity generation	Regulation	Scottish Environment

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
										Protection Agency and the business responsible
23097	River Spey - R. Feshie to R. Nethy	Poor	Poor	Poor	Poor	Physical condition	Farming	Action not planned		
						Water storage	Water abstraction	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
23118	Craigowrie Burn	Poor	Poor	Poor	Good	Physical condition	Modification to bed, banks and shores	Farming	Partnership working	Scottish Environment Protection Agency, other public bodies, voluntary organisations and land mangers
23123	Burn out of Loch an Eilein	Poor	Poor	Good	Good	Access to fish migration	Barrier to fish migration	None (legacy structure)	Partnership working	Scottish Environment Protection Agency and voluntary organisations working with businesses and local community
						Ecological condition	Unknown pressure on water animals and plants	Unconfirmed	To be determined	To be determined

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
23124	Burn into Loch an Eilein	Poor	Poor	Moderate	Moderate	Access for fish migration	Barrier to fish migration	None (legacy structure)	working	Scottish Environment Protection Agency and voluntary organisations working with businesses and local community
						Physical condition	Modifications to bed, banks and shores	Action not planned		
23150	Markie Burn	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
23151	River Spey - Garva to Spey Reservoir	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
23354	River Muick - Allt an Dubh Loch	Poor	Poor	Poor	Good	Water quality	Acid rain	Fossil fuel burning – acidification of soils	Action has been completed but it is expected that ecological recovery will take longer	

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
23639	Allt Cuaich	Bad	Bad	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Water flows and levels	Water abstraction			
23641	Allt Bhran	Bad	Bad	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Water flows and levels	Water abstraction			
23913	Modified channel between Spey Reservoir and Loch Crunachdan	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Physical condition	Modifications to bed, banks and shores	Hydroelectricity generation	No action planned	
						Water flows and levels	Water storage	Hydroelectricity generation	No action planned	
23914	Allt Crunachdain	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
100183	Loch an Eilein	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	None (legacy structure)	Partnership working	Scottish Environment Protection Agency

Reference number	Name	Overall status		Future objectives: overall status		Impacted condition	What pressures are responsible?	What activity is responsible?	How will the pressure be addressed?	Who will address the pressure?
		2020	2023	2027	Long term					
										and voluntary organisations working with businesses and local community
100195	Spey Reservoir	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Ecological condition	Unknown pressure on water animals and plants	Unconfirmed	To be determined	To be determined
						Physical condition	Modification to bed, banks and shores	Hydroelectricity generation	No action planned	
100349	Loch Garry	Poor	Poor	Good	Good	Access for fish migration	Barrier to fish migration	Hydroelectricity generation	Regulation	Scottish Environment Protection Agency and the business responsible
						Physical condition	Modification to bed, banks and shores	Hydroelectricity generation	No action planned	
						Water flows and levels	Water abstraction	Hydroelectricity generation	No action planned	

Specific consideration for the ecological status of waterbodies is set out within the Natural heritage evidence paper[24].

Groundwater quality

Twenty four groundwater waterbodies have been identified within or overlapping the Cairngorms National Park (Figure 16). A number of these, namely Aberlour (150666), Cabrach (150627), Clachnaben (150705), Craigevar Castle (150642), and Northern Highlands (150701), cover very little of the National Park's geography relative to their size. They have however been considered within the Evidence Report for the sake of completeness.

Only one groundwater waterbody had an overall classification that did not achieve good status in 2023, namely Aberlour (150666), of which only a small part is located within the National Park. Pressures relating to salt water interaction are the cause, with the waterbody given an overall status of poor.

[24] See https://cairngormsldp.commonplace.is/en-GB/proposals/v3/natural-heritage-survey?step=step1

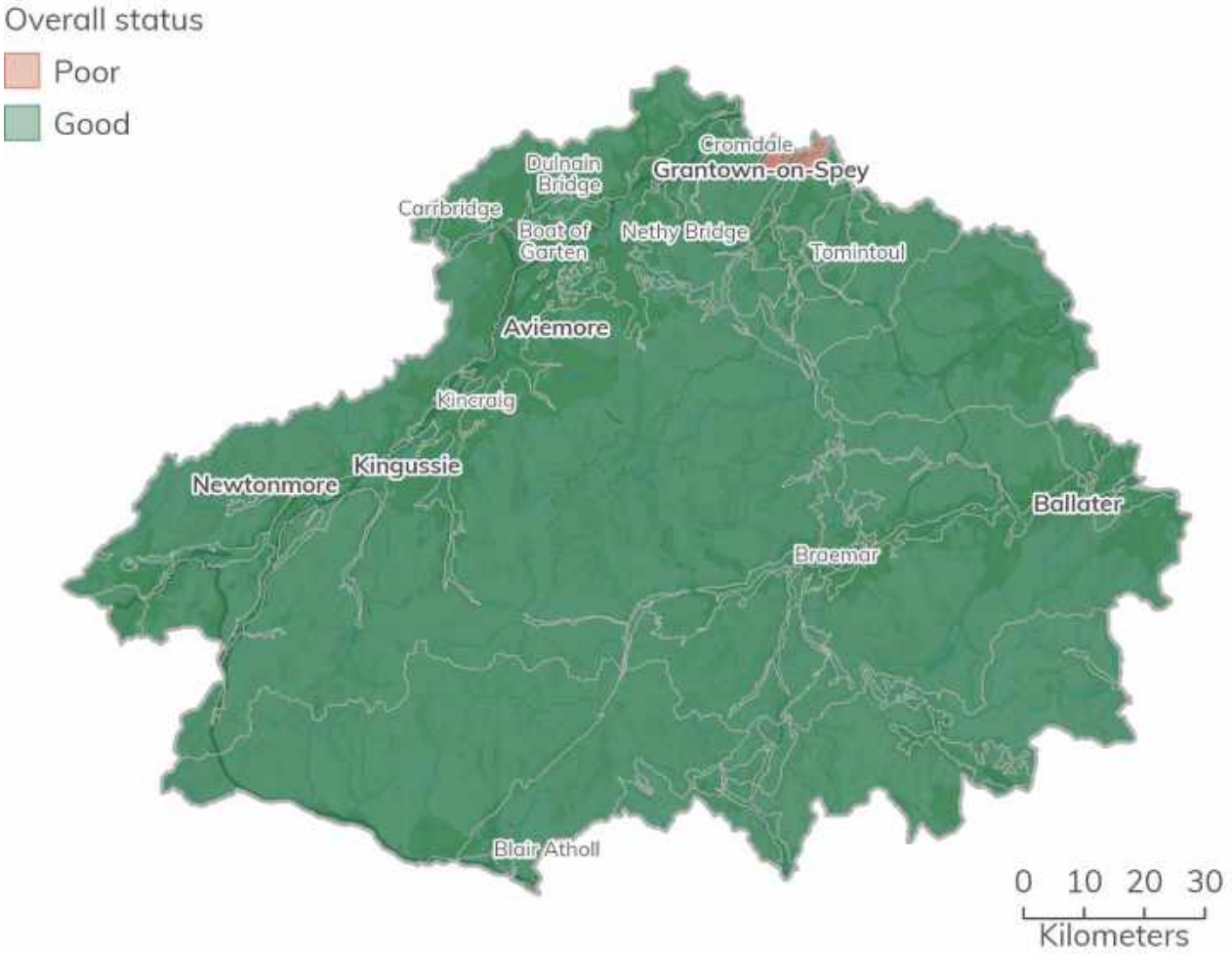

Figure 16 Overall status of groundwater waterbodies within the Cairngorms National Park in 2023. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

Scottish Pollutant Release Inventory water releases

The Scottish Pollutant Release Inventory is a Pollutant Release and Transfer Register and has the primary purpose of making publicly available officially reported annual releases of specified pollutants to air[25] and water from Scottish Environment Protection Agency regulated industrial facilities. It also provides information on off-site transfers of waste and waste-water from these facilities.

Operators of sites carrying out specific activities (67 activities covering 10 major sectors) above defined capacity thresholds are obliged to report to Scottish Pollutant Release

[25] Information relating to air pollution from Scottish Pollutant Release Inventory sites is contained within the health and safety evidence paper. See: https://cairngormsldp.commonplace.is/en-GB/proposals/v3/health-and-safety-survey?step=step1

Inventory an annual basis. The activities and thresholds are largely determined by European reporting requirements but some thresholds have been lowered to be relevant to pollutant releases in the UK and Scotland.

There are three Scottish Pollutant Release Inventory sites within the Cairngorms National Park (Table 7). None of these sites reported any water releases between 2007 and 2023, the latest year of reporting.

Table 7 Scottish Pollutant Release Inventory in the Cairngorms National Park.

National Identity Code[26]	Site name	Company name	Activity
2293	Granish Recyclg Ctr/TS, Granish Farm, Aviemore	David Ritchie and Sons Limited	Installations for the disposal of non-hazardous waste
99	Highland Coun, Granish L/F, Aviemore, Inverness	The Highland Council	Installations for the disposal of non-hazardous waste
2250	Tayside Contracts, Blair Atholl Roads Depot TS	Tayside Contracts	Installations for the disposal of non-hazardous waste

Nitrates

Agricultural activity can pollute water with nitrates, which are harmful to both humans and the environment. Areas where groundwaters have nitrate concentrations of more than 50mg/l, or are thought to be at risk of nitrate contamination, are known as Nitrate Vulnerable Zones. The Cairngorms National Park is not covered by any Nitrate Vulnerable Zones and therefore there no implications for the proposed plan[27].

Waters sensitive to sewage discharges

In accordance with the Urban Waste Water Treatment (Scotland) Regulations 1994, as amended, Scottish Government fund Scottish Environment Protection Agency to review environmental waters every four years to determine whether they are sensitive to the effects of sewage discharges. According to the most recently published data, there are

[26] The unique identifier for Scottish Pollutant Release Inventory sites.
[27] Maps of Nitrate Vulnerable Zones can be found here: https://www.data.gov.uk/dataset/e69a50e8-2419-43f2-97d3-80ed0cf5c0f9/nitrate-vulnerable-zones

no areas identified within the Cairngorms National Park as sensitive. There are therefore no specific implications for the proposed plans in relation to this matter. However, the proposed plan will need to consider the capacity of wastewater treatment works in the development of its spatial strategy (see page 90 for further information on wastewater treatment work capacity).

Bathing waters

Scotland has over 80 designated bathing waters where Scottish Environment Protection Agency monitor water quality from 15 May to 15 September and publish the sampling results and classification online[28]. The classification describes the general water quality condition for each location – excellent, good, sufficient and poor – based on four years of monitoring data. These classifications are calculated at the end of one season for display during the following season.

There is only one designated bathing water in the Cairngorms National Park, which is at Loch Morlich (Figure 17), which is one of only three inland bathing waters in Scotland. For all monitoring years reported by Scottish Environment Protection Agency, 2017 – 2024 (current), the classification has been 'excellent'.

Loch Morlich's bathing water is at risk of short-term pollution following heavy rainfall and bathing is not advised during or 1 – 2 days after heavy rainfall due to the risk to bathers' health from water pollution.

Due to its location, it is unlikely that the proposed plan's spatial strategy will have an adverse effect on the water quality at Loch Morlich. However, it should consider the potential impacts of any development proposed within its catchment, particularly with regard to waste water treatment. This is due to sewage in the catchment being treated at Glenmore wastewater treatment works before being discharged to the Allt Mor watercourse. According to information provided by Scottish Water, the capacity of this treatment works is currently below 10 residential properties (see page 90 for further information on wastewater treatment work capacity).

[28] See https://bathingwaters.sepa.scot/locations-and-results/

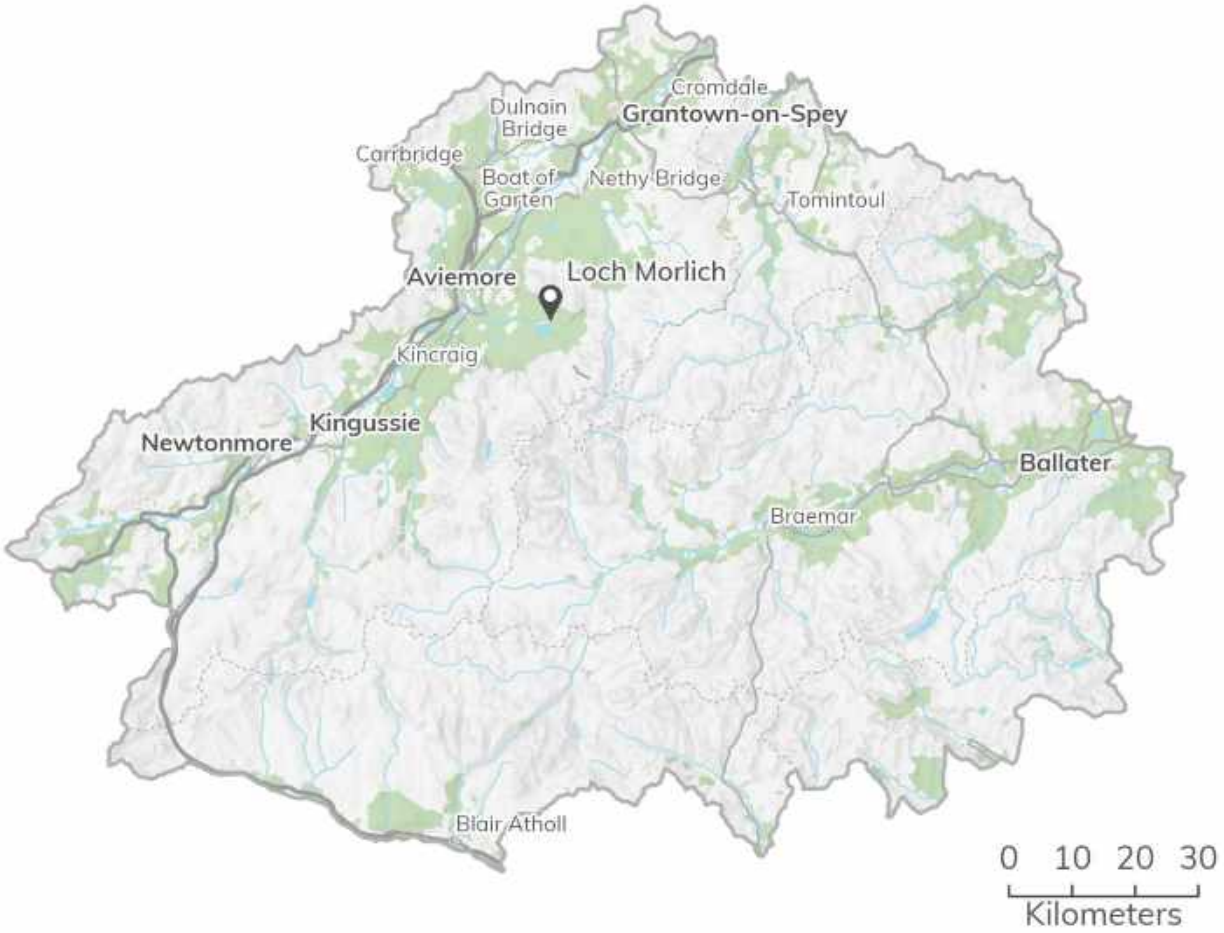

Figure 17 Map showing the location of Loch Morlich designate bathing water. Contains Ordnance Survey data © Crown copyright and database right 2025 Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

Protected sites

Around 52% of the Cairngorms National Park is protected by some form international or national nature designation, a number of have freshwater or wetland features. These are:

- Sites of Scientific Interest
- Special Areas of Conservation
- Ramsar sites.

In the case of Ramsar sites, they are specifically designated to conserve and protect wetlands. Table 8 contains details of protected sites within the Cairngorms National Park that have freshwater or wetland features.

Table 8 Sites of Special Scientific Interest, Special Areas of Conservation and Ramsar sites within the Cairngorms National Park that have freshwater habitat and wetland features.

Site name	Designation	Feature name	Feature category	Summary condition
Abernethy Forest	Site of Special Scientific Interest	Basin fen	Wetlands	Favourable
		Raised bog	Wetlands	Favourable
Alvie	Site of Special Scientific Interest	Hydromorphological mire range	Wetlands	Favourable
Caenlochan	Site of Special Scientific Interest	Dystrophic loch	Freshwater habitats	Favourable
Cairngorms	Site of Special Scientific Interest	Dystrophic and oligotrophic lochs	Freshwater habitats	Not Assessed
Creag nan Gamhainn	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Unfavourable
Eastern Cairngorms	Site of Special Scientific Interest	Dystrophic and oligotrophic lochs	Freshwater habitats	Favourable
Fodderletter	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Favourable
Glen Callater	Site of Special Scientific Interest	Oligotrophic loch	Freshwater habitats	Favourable
Glen Fender Meadows	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Recovering
Loch Brandy	Site of Special Scientific Interest	Oligotrophic loch	Freshwater habitats	Favourable
Loch Moraig	Site of Special Scientific Interest	Mesotrophic loch	Freshwater habitats	Favourable
		Springs (including flushes)	Wetlands	Favourable

Site name	Designation	Feature name	Feature category	Summary condition
Morrone Birkwood	Site of Special Scientific Interest	Basin fen	Wetlands	Favourable
Muir of Dinnet	Site of Special Scientific Interest	Hydromorphological mire range	Wetlands	Favourable
		Oligo-mesotrophic loch	Freshwater habitats	Favourable
River Spey - Insh Marshes	Site of Special Scientific Interest	Flood-plain fen	Wetlands	Favourable
		Mesotrophic loch	Freshwater habitats	Favourable
Cairngorms	Special Area of Conservation	Acid peat-stained lakes and ponds	Freshwater habitats	Favourable
		Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	Favourable
Creag Meagaidh	Special Area of Conservation	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	Favourable
Insh Marshes	Special Area of Conservation	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	Favourable
Muir of Dinnet	Special Area of Conservation	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Freshwater habitats	Favourable
		Degraded raised bog	Wetlands	Favourable
River Tay	Special Area of Conservation	Clear-water lakes or lochs with aquatic vegetation and poor	Freshwater habitats	Favourable

Site name	Designation	Feature name	Feature category	Summary condition
		to moderate nutrient levels		
Abernethy Forest	Site of Special Scientific Interest	Basin fen	Wetlands	Favourable
		Raised bog	Wetlands	Favourable
Alvie	Site of Special Scientific Interest	Hydromorphological mire range	Wetlands	Favourable
Caenlochan	Site of Special Scientific Interest	Dystrophic loch	Freshwater habitats	Favourable
Cairngorms	Site of Special Scientific Interest	Dystrophic and oligotrophic lochs	Freshwater habitats	Not Assessed
Creag nan Gamhainn	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Unfavourable
Eastern Cairngorms	Site of Special Scientific Interest	Dystrophic and oligotrophic lochs	Freshwater habitats	Favourable
Fodderletter	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Favourable
Glen Callater	Site of Special Scientific Interest	Oligotrophic loch	Freshwater habitats	Favourable
Glen Fender Meadows	Site of Special Scientific Interest	Springs (including flushes)	Wetlands	Recovering
Loch Brandy	Site of Special Scientific Interest	Oligotrophic loch	Freshwater habitats	Favourable
Loch Moraig	Site of Special Scientific Interest	Mesotrophic loch	Freshwater habitats	Favourable
		Springs (including flushes)	Wetlands	Favourable

Site name	Designation	Feature name	Feature category	Summary condition
Morrone Birkwood	Site of Special Scientific Interest	Basin fen	Wetlands	Favourable
Muir of Dinnet	Site of Special Scientific Interest	Hydromorphological mire range	Wetlands	Favourable
		Oligo-mesotrophic loch	Freshwater habitats	Favourable
River Spey - Insh Marshes	Site of Special Scientific Interest	Flood-plain fen	Wetlands	Favourable
		Mesotrophic loch	Freshwater habitats	Favourable
Cairngorm Lochs	Ramsar	Oligotrophic loch	Freshwater habitats	Favourable
River Spey - Insh Marshes	Ramsar	Flood-plain fen	Wetlands	Favourable
		Mesotrophic loch	Freshwater habitats	Favourable

Special Protection Areas may, which are designated for birds, may also cover freshwater and wetland habitats. Table 9 provides details on the Special Protection Areas that primarily cover freshwater and wetland habitats.

Table 9 Special Protection Areas within the Cairngorms National Park that primarily cover freshwater and wetland habitats.

Site name	Feature name	Summary condition
Loch Vaa	Slavonian grebe (Podiceps auritus), breeding	Unfavourable
Muir of Dinnet	Greylag goose (Anser anser), non-breeding	Unfavourable
	Waterfowl assemblage, non-breeding	Unfavourable
River Spey – Insh Marshes	Hen harrier (Circus cyaneus), non-breeding	Favourable
	Osprey (Pandion haliaetus), breeding	Favourable
	Spotted crake (Porzana porzana), breeding	Favourable
	Whooper swan (Cygnus cygnus), non-breeding	Favourable
	Wigeon (Anas penelope), breeding	Unfavourable
	Wood sandpiper (Tringa glareola), breeding	Favourable

Information on the condition of all protected sites is contained within the following supporting document:

- https://cairngorms.co.uk/wp-content/uploads/2025/01/Cairngorms-National-Park-protected-site-information.pdf

Detailed consideration of protected sites and the implications for the Proposed Plan, including those listed in Table 8 and Table 9, are set out within the Natural heritage evidence paper:

- https://cairngormsldp.commonplace.is/en-GB/proposals/v3/natural-heritage-survey?step=step1

Water scarcity

Climate change is likely to bring more uncertainty and may exert pressure in areas that have not yet experienced water scarcity[29],[30]. According to a study by the Centre of Expertise for Waters[31], Scotland's supply of natural water resource is becoming increasingly variable and there is evidence that meteorological and hydrological droughts have become more frequent. There is evidence that water demand in the future may increase in areas, and at times of the year, where supply is projected to decrease. Behavioural responses to the extreme events associated with the climate crisis may serve to exacerbate this if not managed.

Scottish Water have modelled the impact of a moderate climate change scenario on the supply demand balance across Scotland's water supply network[32]. It is estimated that the combined deficits of the 189 Scottish water resources zones could amount to 240 Megalitres per day by 2050. This estimate uses a scenario for a 1 in 150 year return period drought with no additional leakage reduction, no reduction in consumption per person and with a population increase to 5.6 million[33].

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[29] The broader implications of climate change are considered within the climate change topic paper: https://cairngormsldp.commonplace.is/en-GB/proposals/v3/climate-change?step=step1

[30] This section is informed by Scottish Environment Protection Agency's Planning Advice Note for Planning Authorities: Local Development Plan Evidence Gathering: Water Scarcity. See: https://www.sepa.org.uk/media/op5dcbka/pan-for-water-scarcity-evidence-3.docx

[31] See https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2022_07%20Main%20report%20and%20appendices_2024_04_15_V3_FINAL.pdf

[32] See https://storymaps.arcgis.com/stories/f9bc4491b0a6409aa7cd1aa757bac6cb

[33] See page 93 for the risk presented to private water supplies.

Further research by the Centre of Expertise for Waters highlights the potential impact of water scarcity on distilleries and agricultural abstractors[34]. Much of the National Park's land is within agricultural use[35] and there are also a number of distilleries[36], notably in the River Spey catchment.

According to the study, observed shifts from water surpluses to water deficits in late summer and early autumn are the main drivers of the degree of exposure of most land cover types to climatic stress, depending on their spatial distribution in relation to west vs east geographical gradient. For cultivated land, arable land (of which there is little in the National Park), and to a lesser extent improved grasslands were found to be most exposed to climatic water stress. The impacts on all types of agricultural abstractions were similar to those for arable land, although a greater proportion of agricultural abstractions fell into areas under future climatic water balance deficit in April and September than was the case for arable land alone.

For distilleries, which require large quantities of water for cooling process during whisky production, the study found that based on observed data for the recent 1990 – 2019 period, 20% and 88% of distillery abstractions in Scotland were in water deficit in March and August, respectively, while almost all distillery abstractions were in continuous water stress between April to July. For the future period 2020 – 2049, these statistics ranged from no change to almost universal water surplus in March and 95% deficit in August, depending on the specific climate model scenario.

Given the importance of these two sectors to the national Park's economy, it is likely that water scarcity presents a risk to the wellbeing of the National Park's population.

Scottish Environment Protection Agency publishes data that identifies areas which are currently at risk of water scarcity / drought. This includes water scarcity seasonal reports and a Drought Risk Assessment Tool. This information is short term and provides a snapshot of current water scarcity / drought risk levels across Scotland which can provide some indication of areas already susceptible to water scarcity.

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[34] See https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2023_05_Main_report_and_appendices_FINAL_V2.pdf

[35] See the Land use, soil and resources topic paper for more information: https://cairngorms.co.uk/wp-content/uploads/2024/11/Land-use-soil-and-resources-Engagement-version.pdf

[36] See the Tourism topic paper for more information: https://cairngorms.co.uk/wp-content/uploads/2024/11/Topic-paper-Tourism-Engagement-version.pdf

At time of writing (16 April 2025) water scarcity levels in all hydrometric areas in Scotland were flagging an early warning of scarcity, while one recording station within the National Park, at Feshie Bridge was flagged as having low river follows for a period of 1 – 9 days. The tool can be accessed here:

- https://www2.sepa.org.uk/drought-risk-assessment-tool

In order to provide information for the management of water resources, Scottish Environment Protection Agency monitor water levels at 20 sites within the Cairngorms National Park, as well as at a number of locations just outside the National Park boundary. Water levels are converted to flow at most river gauging stations.

The trends can be used as an indicator of climate change or as an identifier of potential risks such as water scarcity or flooding. Figure 18 and Figure 19 show the average gauged daily flows within given calendar years for monitoring stations on the River Spey and the River Dee. Figure 20 and Figure 21 represent the series of annual maximum flows within a given water year (October to September).

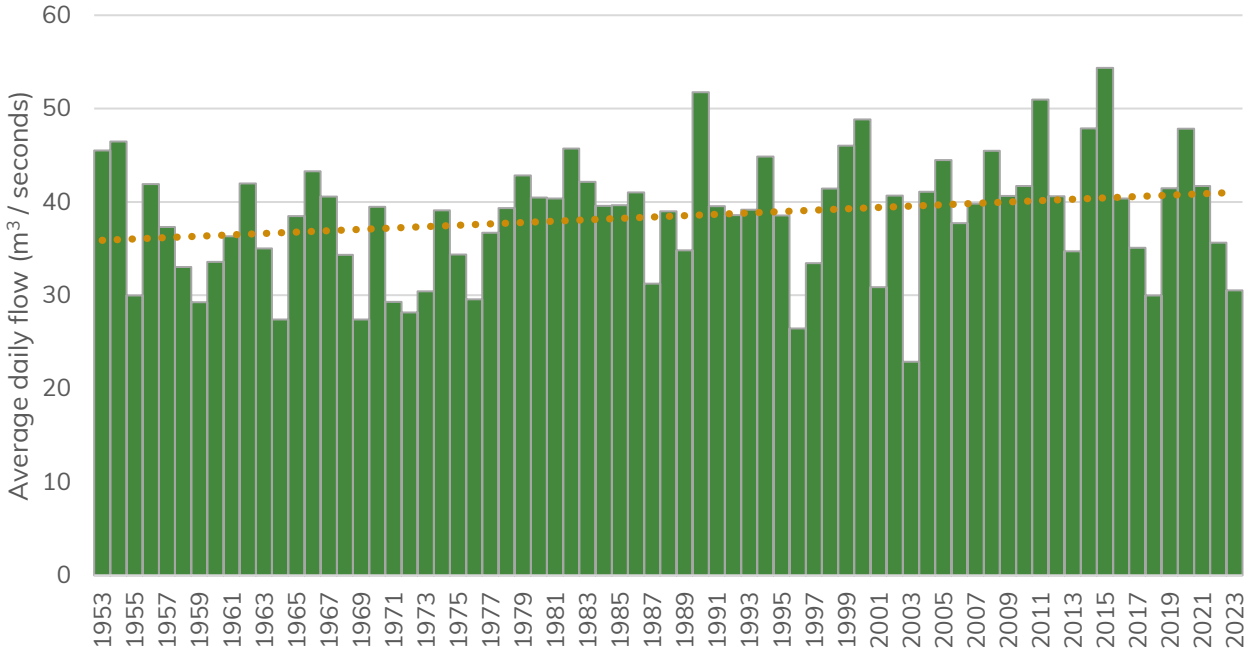

Figure 18 Average gauged daily flows (m^3 / seconds) at trend for the River Spey from the Grantown-on-Spey monitoring station (8010) between 1953 and 2023 (Scottish Environment Protection Agency 2025).

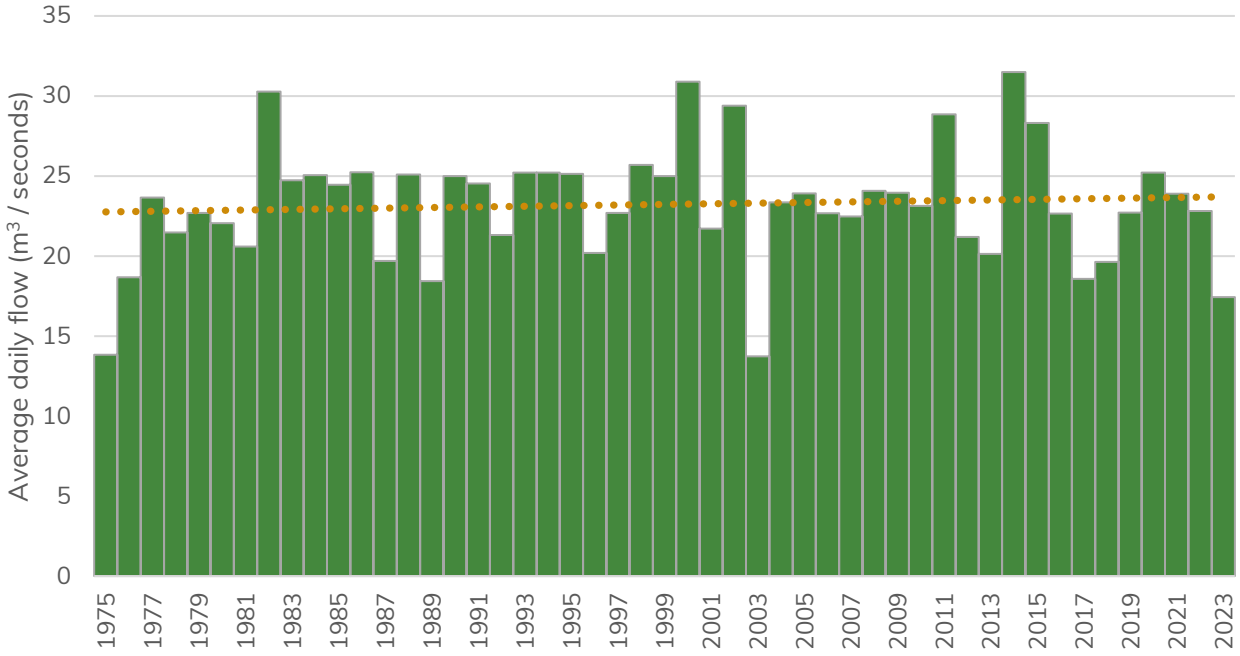

Figure 19 Average gauged daily flows (m³ / seconds) at trend for the River Dee from the Polhollick monitoring station (12003) between 1975 and 2023 (Scottish Environment Protection Agency 2025).

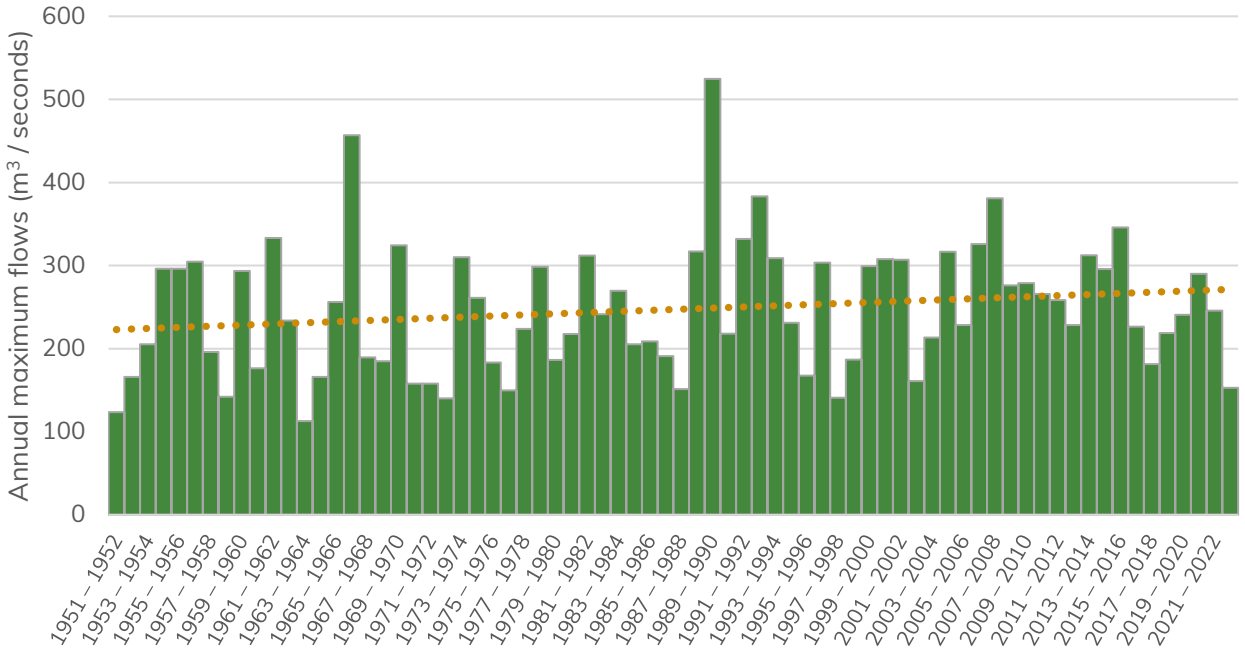

Figure 20 Annual maximum flows (m³ / seconds) at trend for the River Spey from the Grantown-on-Spey monitoring station (8010) between 1951 and 2023 (Scottish Environment Protection Agency 2025).

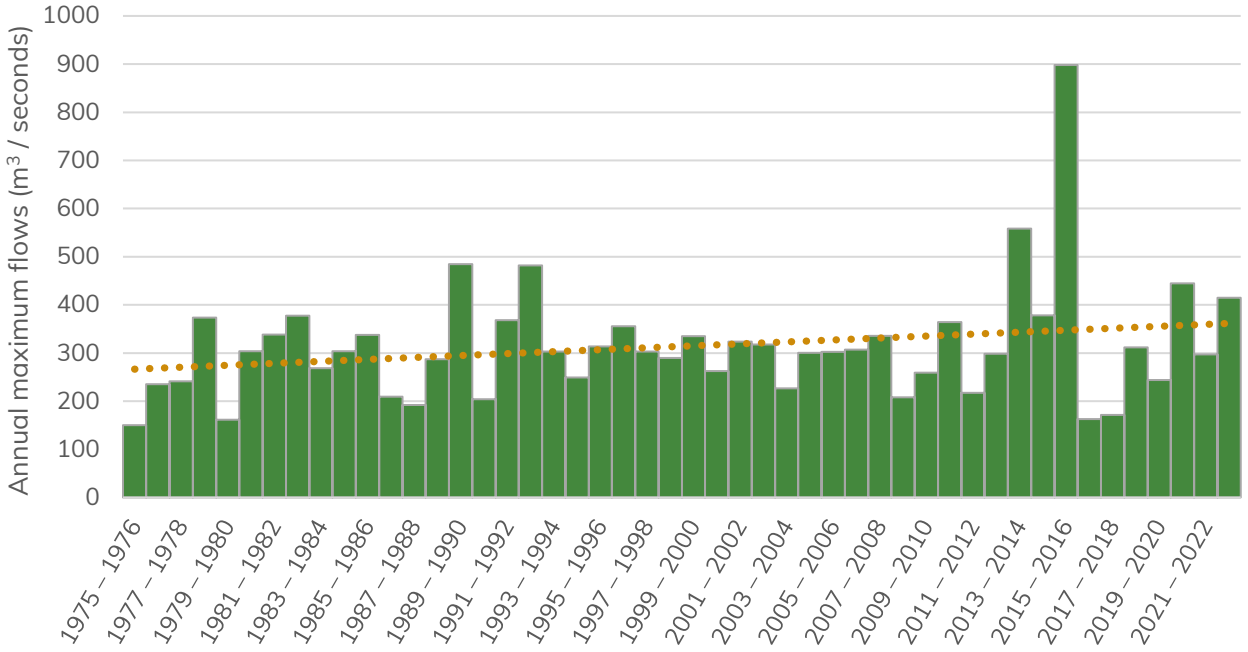

Figure 21 Annual maximum flows (m3 / seconds) at trend for the River Dee from the Polhollick monitoring station (12003) between 1975 and 2023 (Scottish Environment Protection Agency 2025).

The data from both stations shows a general trend for higher average daily flows and annual maximums across the monitoring period. This trend is indicative of an increase in rainfall and extreme weather events, which are expected as a result of climate change. It does not however indicate that water scarcity will not be an issue in the future, as this is combination of both supply and demand. As a result, the need for development to make efficient use of water is something the proposed plan should take into account.

Abstraction

Scottish Water abstractions are designated as Drinking Water Protected Areas under Article 7 of the Water Framework Directive. The Protected Areas are categorised as surface water or groundwater. The entire National Park is covered by groundwater Drinking Water Protected Areas (the areas are the same as those shown in Figure 16) and large areas of the Spey, Tay, Dee, Don, South Esk and North Esk catchments are covered by surface water Drinking Water Protected Areas (Figure 22)[37].

[37] Maps of all Drinking Water Protection Areas are available here: https://www.gov.scot/publications/drinking-water-protected-areas-scotland-river-basin-district-maps/

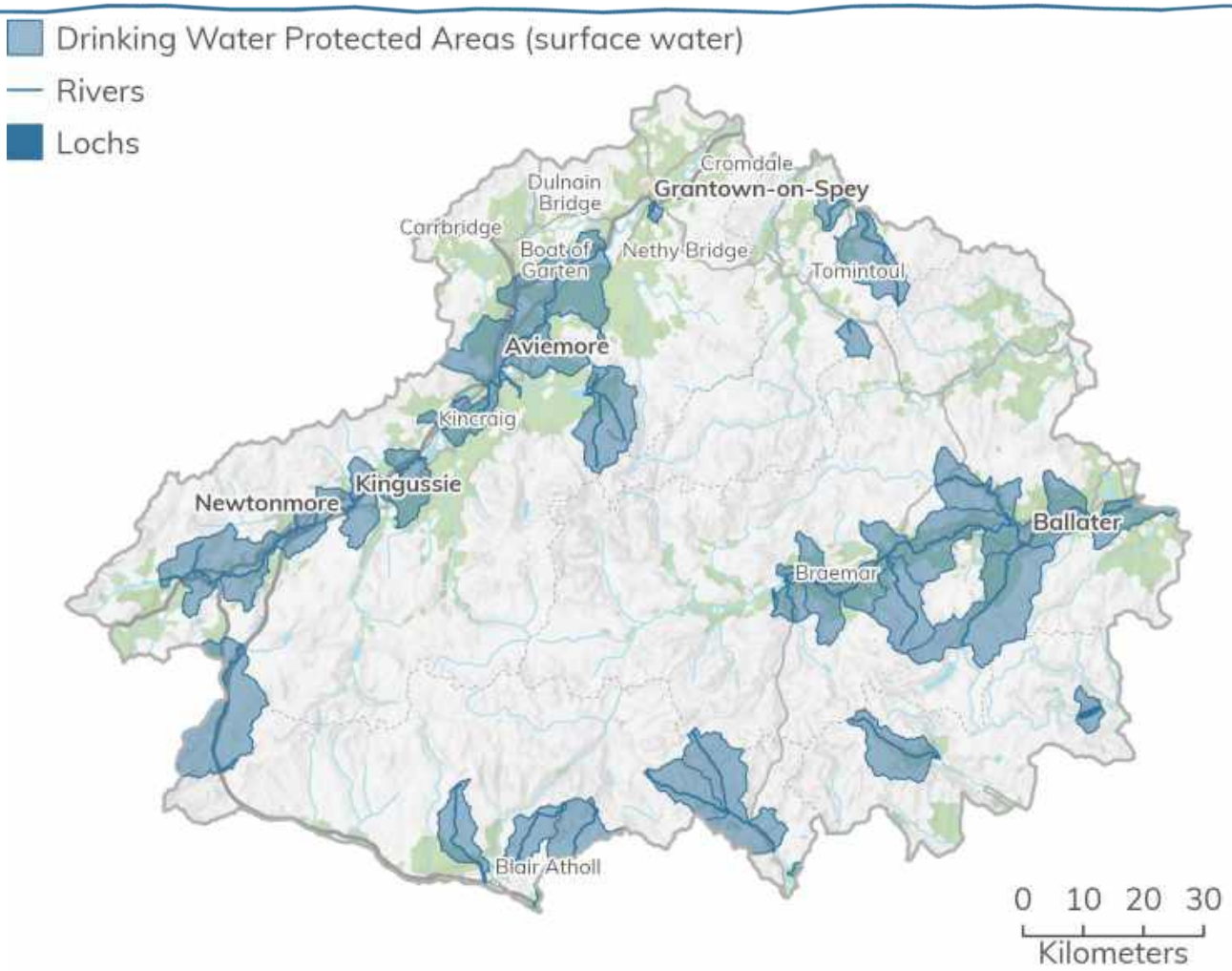

Figure 22 Surface water Drinking Water Protected Areas in the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025 Contains data © Scottish Environment Protection Agency 2025; this Scottish Environment Protection Agency product is licenced under the Open Government Licence 3.0.

In order to protect the quality of water within these areas, Scottish Water recommend that households and businesses:

- Store all detergents, oils, fuels and chemicals securely, do not leave any potential contaminants such as organic matter, biosolids, fertilisers manure or feedstuff next to watercourses as rainfall could wash them into ditches, streams, burns, rivers and lochs.
- Ensure vehicles and equipment that use oils, chemicals and fuels are maintained and any leaks or spillages are cleaned up and contained.
- Try to avoid driving through, or working in watercourses, where possible provide alternative drinking points for animals, and if unavoidable follow Scottish Environment Protection Agency guidelines.

- Make sure septic tanks / waste water treatment works, household oil tanks, slurry and drains are operated and maintained correctly and do not leak into the environment and watercourses.
- Take particular care and follow instructions if using chemicals, pesticides and fertilisers such as weed killers and slug treatments.
- Dispose of all animal remains (including deer) as directed by Scottish Government stock disposal guidelines. If recovery is impossible, at least 50m away from, and down slope from watercourses.

A number of the National Park's settlements are located within surface water Drinking Water Protected Areas, including Aviemore, Ballater, Kingussie and Newtonmore. While Scottish Water set out specific precautions developers must take in developing sites, in line with the Public Water Supplies (Scotland) Regulations 2014, as amended, the proposed plan will need to take account of these areas in the development of its spatial strategy and site selection process. The proposed plan may also support the protection of drinking water by supporting development that delivers sustainable drainage systems.

Water infrastructure

Scottish Water have a requirement to identify and provide new strategic capacity for water and wastewater to meet demand of all new housing development and the domestic requirements of commercial and industrial development. Factors such as the total number of proposed developments, their scale and their distance from the treatment works may affect Scottish Water's ability to service them and therefore there is the potential that future growth investment may be required.

Scottish Water have provided information on the capacity of their water and waste water treatment works serving properties within the Cairngorms National Park. Scottish Water state that it is important to emphasise that they are funded to provide growth at their treatment facilities to meet the demands of domestic development and the domestic demands of non-domestic development. Irrespective of which capacity status apples to a treatment works, Scottish Water will work with developers to manage any development as it comes forward and agree build out rates and operational factors, to allow development to occur whilst any investment is delivered.

The one key factor in making this arrangement work successfully is open and early engagement, to allow all parties to maximise time to plan and any financial investment streams efficiently. This will support the shared aims of delivering sustainable growth

for Scotland. Therefore, the Park Authority is committed to engaging with Scottish Water in the preparation of the Proposed Plan.

Water treatment works capacity

Scottish Water is responsible for the provision of public water services across Scotland and supplies the majority of drinking water to buildings within the Cairngorms National Park. The majority of the populated areas within the National Park, including all settlements identified by the National Park Partnership Plan's spatial strategy, are served by Scottish Water's public water supply network.

Scottish Water have provided capacity information for the water treatment works serving properties in the Cairngorms National Park (Table 10). Because of the ever-changing nature of capacity at Scottish Water's treatment works, a static numerical value can often distract or can lead to misinterpretation. For that reason, capacity indicators are presented at a very high-level. Capacity information will be more robustly detailed as and when a Pre Development Enquiries or formal Applications to Connect In are received by Scottish Water. The following descriptors apply in this instance:

- Capacity currently available
- Limited capacity available.

The 'limited capacity availability' descriptor indicates that some proposals / planning applications, depending on size, will need more investigation / additional information as part of any formal assessment.

Table 10 Scottish Water water treatment works capacity within the Cairngorms National Park (Source: Scottish Water, 2025).

Local authority area	Water treatment works reference	Water treatment works name	Settlements served by the works	Capacity status
Aberdeenshire	WTW000578	Ballater	• Ballater • Dinnet	Capacity currently available
Aberdeenshire	WTW000744	Braemar	• Braemar	Capacity currently available
Aberdeenshire	WTW000490	Lumsden	• Strathdon	Capacity currently available
Aberdeenshire	WTW000577	Crathie	• Crathie	Capacity currently available
Angus	WTW000582	Whitehillocks	• No settlements	Capacity currently available

Local authority area	Water treatment works reference	Water treatment works name	Settlements served by the works	Capacity status
Highland	WTW000762	Aviemore	• Aviemore • Grantown on Spey • Kingussie • Newtonmore • Boat of Garten • Carrbridge • Cromdale • Dulnain Bridge • Insh • Kincraig • Nethy Bridge	Limited capacity currently available
Highland	WTW000552	Dalwhinnie	• Dalwhinnie	Capacity currently available
Highland	WTW000748	Laggan Bridge	• Laggan	Capacity currently available
Moray	WTW000470	Tomnavoulin	• Glenlivet • Tomnavoulin	Limited capacity currently available
Moray	WTW000472	Blairnamarrow	• Tomintoul	Limited capacity currently available
Perth and Kinross	WTW000563	Killiecrankie	• Blair Atholl • Calvine • Killiecrankie • Pitagowan	Limited capacity currently available

Wastewater treatment works capacity

The treatment of wastewater relates to anything that flows through a sewer, including household and industrial waste. It is treated at wastewater treatment works, to remove contaminants and pollutants to clean the remaining water (called effluent) so that it can be safely returned to the water environment, such as rivers, lochs, or the sea. The amount of treatment depends on the number of people who live in a catchment area that the treatment works serve and the sensitivity / classification of the water body where the treated water will be discharged.

Scottish Water have provided capacity information for the waste water treatment works serving properties in the Cairngorms National Park (Table 11). Because of the ever-changing nature of capacity at Scottish Water's treatment works, a static numerical value can often distract or can lead to misinterpretation. For that reason,

capacity indicators are presented at a very high-level. Capacity information will be more robustly detailed as and when a Pre Development Enquiries or formal Applications to Connect In are received by Scottish Water. The following descriptors apply in this instance:

- Capacity currently available
- Potential future investment required.

The 'Potential future investment required' descriptor indicates that some proposals / planning applications, depending on size, will need more investigation / additional information as part of any formal assessment.

Table 11 Scottish Water wastewater treatment works capacity within the Cairngorms National Park (Source: Scottish Water, 2025).

Local authority area	Waste water treatment works reference	Waste water treatment works name	Settlements served by the works	Capacity status
Aberdeenshire	STW001757	Ballater	• Ballater	Potential future investment required
Aberdeenshire	STW001735	Balnault Cotts	• No settlements	Potential future investment required
Aberdeenshire	STW001713	Braemar	• Braemar	Potential future investment required
Aberdeenshire	STW001772	Dinnet	• Dinnet	Potential future investment required
Aberdeenshire	STW001740	Fergach Cottages	• Crathie (part)	Potential future investment required
Aberdeenshire	STW001360	Poldhulie Cottages	• Strathdon (part)	Capacity currently available
Highland	STW002317	Aviemore	• Aviemore	Potential future investment required
Highland	STW003727	Boat of Garten	• Boat of Garten	Capacity currently available
Highland	STW001289	Carrbridge	• Carrbridge	Capacity currently available
Highland	STW001320	Cromdale	• Cromdale	Capacity currently available
Highland	STW001269	Dalnavert Lower	• No settlements	Potential Future Investment Required
Highland	STW001268	Dalnavert Upper	• No settlements	Potential future investment required

Local authority area	Waste water treatment works reference	Waste water treatment works name	Settlements served by the works	Capacity status
Highland	STW001658	Dalwhinnie	• Dalwhinnie	Potential future investment required
Highland	STW001305	Dulnain Bridge	• Dulnain Bridge	Potential future investment required
Highland	STW003753	Glenmore	• Glenmore	Potential future investment required
Highland	STW001309	Grantown	• Grantown-on-Spey	Potential future investment required
Highland	STW001311	Grantown	• Grantown-on-Spey	Potential future investment required
Highland	STW001252	Insh	• Insh	Potential future investment required
Highland	STW001263	Kincraig	• Kincraig	Capacity currently available
Highland	STW003752	Kingussie	• Kingussie	Capacity currently available
Highland	STW001657	Laggan Bridge	• Laggan	Potential future investment required
Highland	STW001246	Lynchat	• No settlements	Potential future investment required
Highland	STW001299	Nethy Bridge	• Nethy Bridge	Capacity currently available
Highland	STW003471	Newtonmore	• Newtonmore	Capacity currently available
Moray	STW001342	Braes of Glenlivet	• Glenlivet	Potential future investment required
Moray	STW001330	Tomintoul	• Tomintoul	Capacity currently available
Moray	STW001338	Tomnavoulin	• Tomnavoulin	Potential future investment required
Perth and Kinross	STW001677	Blair Atholl	• Blair Atholl	Potential future investment required
Perth and Kinross	STW001682	Killiecrankie	• Killiecrankie	Potential future investment required
Perth and Kinross	STW001670	Pitagowan	• Pitagowan	Potential future investment required

Private water supplies

As a rural area, many properties within the Cairngorms National Park are served by private water supplies.

The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 came into force in October 2017 and are regulated and enforced by Local Authorities. The main objective of the Regulations is to ensure the provision of clean, safe drinking water and to deliver significant health benefits to those using private water supplies.

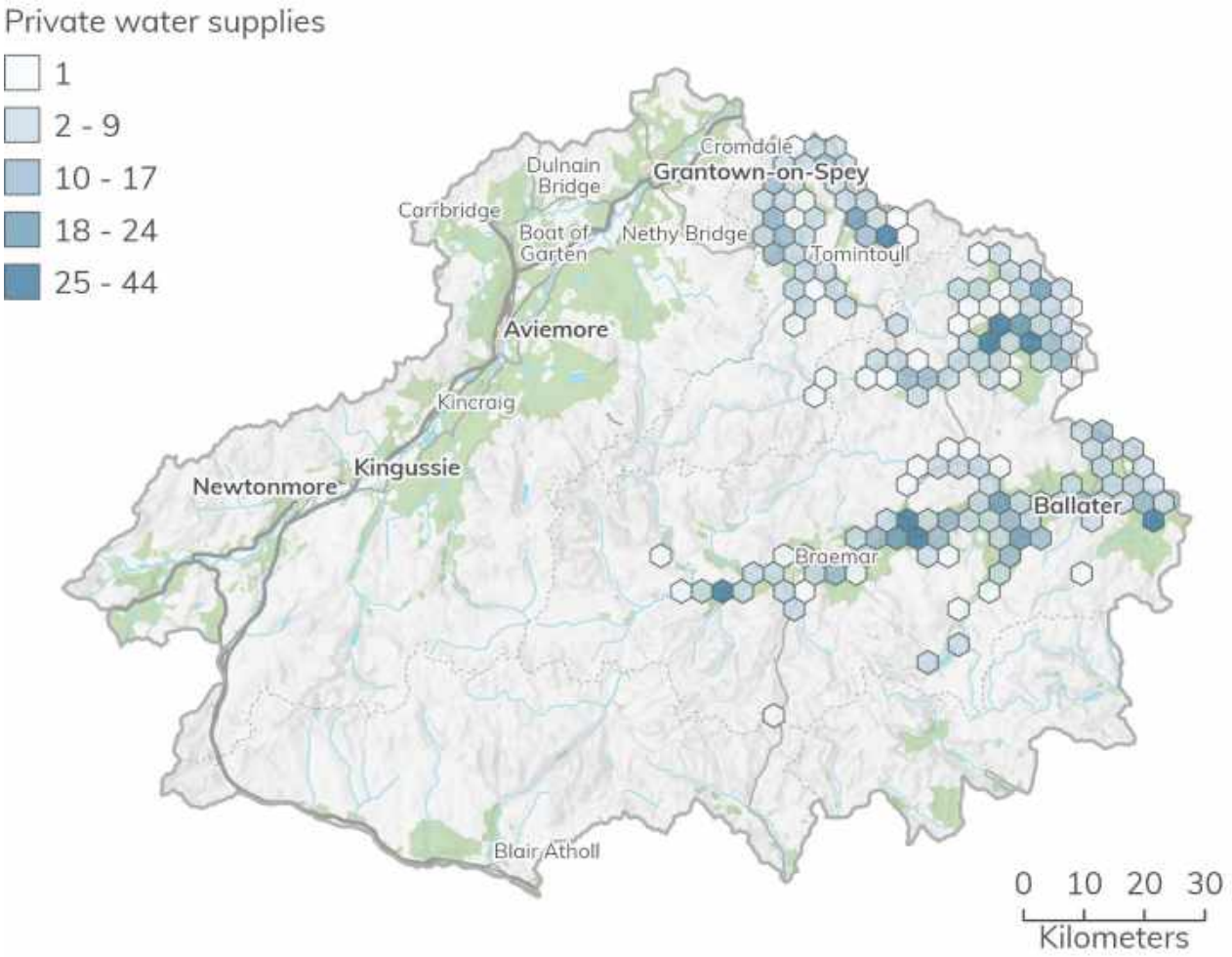

Figure 23 Addresses served by private water supplies within Aberdeenshire and Moray areas of the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Government.

Currently, information on the location of addresses served by private water supplies in the Cairngorms National Park is only available for Aberdeenshire and Moray local

authority areas (Figure 23). Even within these areas, it is not necessarily complete, but should be a dataset of properties which are not charged for the Sewerage Element.

In 2020 the Centre of Expertise for Waters published a study on the likely impacts of climate change on private water supplies in Scotland. In particular, the study looked at the consequences on their resilience to water shortages in order to assess changes in vulnerability of private water supplies due to reduced quantity of water as a result of climate change.

The study indicates that the private water supplies in the National Park are mostly at low to moderate risk. However, there are localised areas, in particular within Badenoch and Strathspey and Deeside, where the risk is high. This means developments, especially in these areas could conflict with Policy 22 if the private water connection is not resilient to periods of water scarcity. The data is presented in Figure 15, on page 36, of the Centre of Expertise for Waters report:

- https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CRW2018_05_report_FINAL.pdf

National Planning Policy 4 Policy 22 d presumes against the use of private water supplies unless these are sourced from a sustainable water source that is resilient to periods of water scarcity. Therefore, the ability of development to connect to a mains water supply does influence the spatial strategy of the proposed plan, but there is uncertainty as to whether this would sufficiently mitigate the risk of water scarcity. The Cairngorms National Park gets much of its water from its major rivers (known as abstraction), which are also affected by climate change (e.g. fluctuating seasonal rains), and this could affect how drinking water is consumed and stored in the future. As a result, reducing the need for drinking water in the home by capturing and using of rainwater for gardening etc. is very important.

Septic tanks

As a rural area, many properties within the Cairngorms National Park are served by septic tanks. The purpose of a septic tank is to treat waste water from properties that are generally not connected to the public waste water system.

Under section 79 of the Environmental Protection Act 1990 and Under part 6, section 37 of the Water Resources (Scotland) Act 2013 Scottish Environment Protection Agency, Scottish Water and local Authorities all have a responsibility for the registration, management and compliance of septic tanks within Scotland. The Scottish Assessors

also currently identifies 678 septic tanks. These are tanks that serve more than one dwelling. Those that serve just one dwelling may be treated as an appurtenance of the dwelling i.e. they are classified as domestic and treated as being reflected in the council tax band.

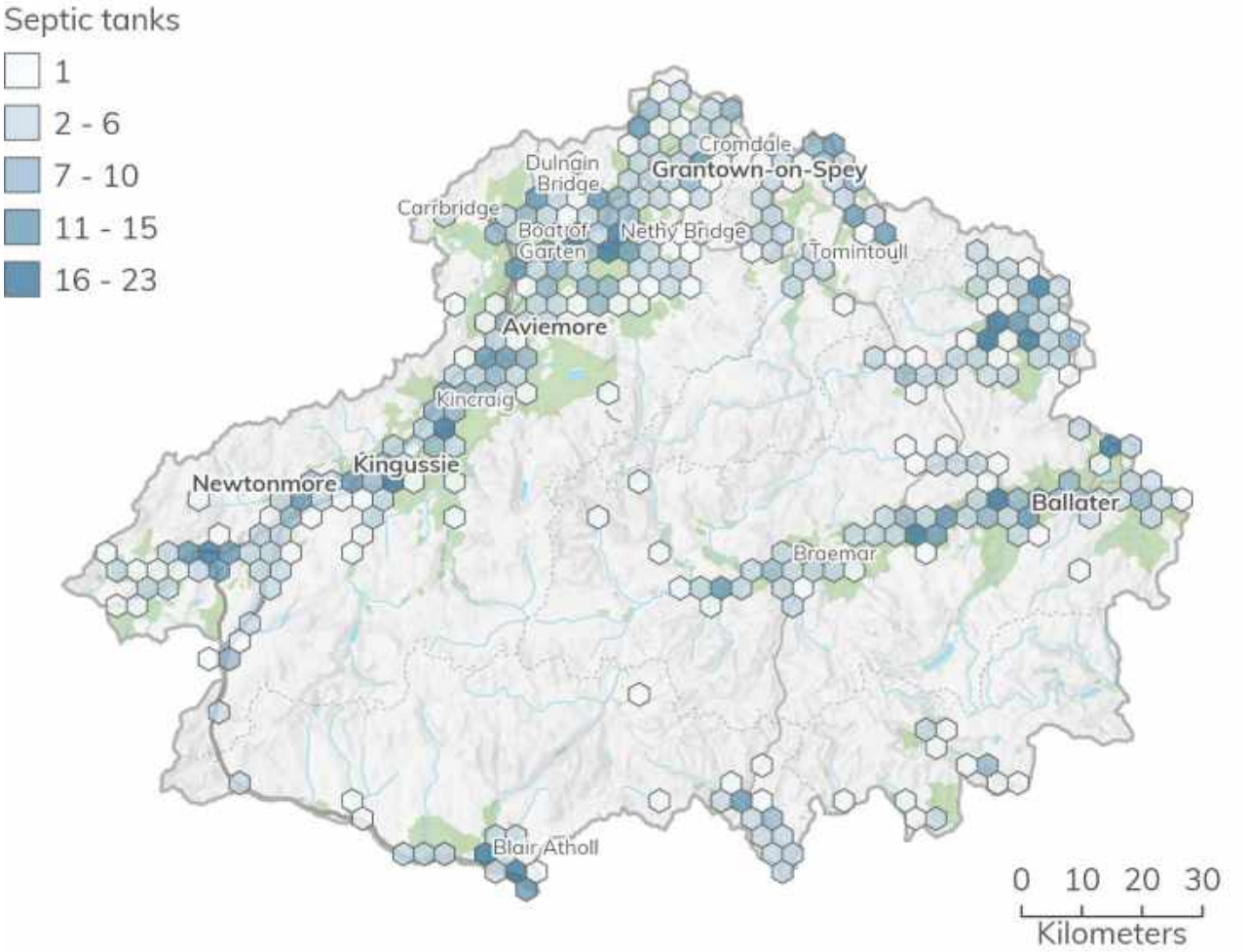

Figure 24 A map of addresses served septic tanks within the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Government.

This dataset presented in Figure 24 is an amalgamation of licenced Scottish Environment Protection Agency, Scottish Water, Scottish Assessors and some local authorities Septic Tanks in Scotland.

Scottish Environment Protection Agency have approximately a quarter of the septic tanks mapped as it has only been a requirement since 2012 that when buying or selling a house that these get licenced. Scottish Water have partial information and the Scottish Assessors collect some as well. Scottish Environment Protection Agency, local authorities, Scottish Water and Scottish Assessors are keen to combine data to create a

complete and comprehensive view of all Septic Tanks in Scotland, although this work is not yet competed.

The location of existing septic tanks does not have an impact on the spatial strategy of the proposed plan. However, the ability of development to connect to a public waste water system does influence the spatial strategy and therefore the data is indicative of areas where connection is not possible or investment is required.

Public conveniences

In line with the Town and Country Planning (Scotland) Act 1997, as amended, the Proposed Plan will need to include a statement of the planning authorities' policies and proposals regarding the provision of public conveniences. There are approximately 32 public conveniences within the Cairngorms National Park (Figure 25 and Table 12). This data is collated form information held by the Park Authority, local authorities, and internet scrape. Further public conveniences may exist. The Park Authority will seek to identify any additional locations through the preparation of the proposed plan, in particular, through engagement on placemaking within settlements identified in the spatial strategy.

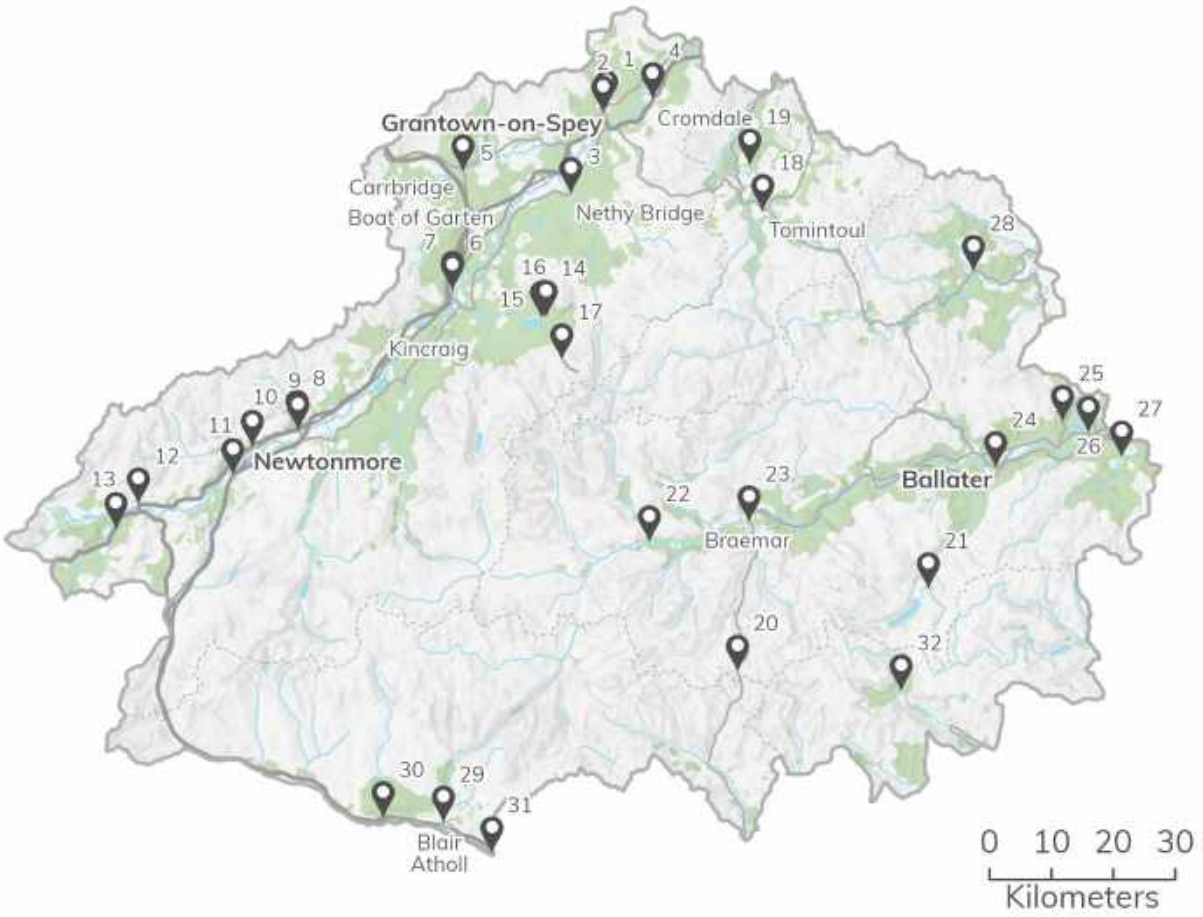

Figure 25 Public conveniences identified within the Cairngorms National Park. See Table 12 for names and locations of public conveniences. Contains Ordnance Survey data © Crown copyright and database right 2025.

Table 12 List of public conveniences within the National Park that are identified in Figure 25.

Map reference	Name	Settlement / location
1	Burnfield Avenue car park	Grantown-on-Spey
2	High Street car park	Grantown-on-Spey
3	Nethy Bridge Community Centre	Nethy Bridge
4	Cromdale sports pavilion and public toilets	Cromdale
5	Carrbridge car park	Carrbridge
6	Grampian Road car park	Aviemore
7	Aviemore Station	Aviemore
8	Ardvonie car park	Kingussie
9	Kingussie Station	Kingussie
10	Main Street public toilets	Newtonmore

Map reference	Name	Settlement / location
11	Ralia	Newtonmore
12	Picnic site and public toilets	Laggan
13	Laggan Wolftrax Centre	Laggan
14	Glenmore public toilets	Glenmore
15	Glenmore beach toilets	Glenmore
16	Glenmore Visitor Centre	Glenmore
17	Cairngorm Mountain	Cairngorm
18	Tomintoul - back lane car park	Tomintoul
19	Bike Glenlivet	Glenlivet
20	Glenshee Ski centre	Glenshee
21	Spittal of Glenmuick	Glenmuick
22	Linn of Dee car park	Linn of Dee
23	Braemar car park	Braemar
24	Ballater car park	Ballater
25	Muir of Dinnet Visitor Centre	Dinnet
26	Clarack car park	Dinnet
27	Glen Tanar Visitor Centre	Glen Tanar
28	Strathdon public toilets	Strathdon
29	Blair Atholl Visitor Centre	Blair Atholl
30	House of Bruar	Blair Atholl
31	Killiecrankie Visitor Centre	Killiecrankie
32	Glen Doll Ranger Centre	Glen Clova

Water refill locations

In line with the Town and Country Planning (Scotland) Act 1997, as amended, the Proposed Plan will need to include a statement of the planning authorities' policies and proposals regarding the provision of water refill locations. Figure 26 shows the location of Scottish Water Top up Taps in the National Park. Further water refill locations may exist, however it is not possible to identify these without significant investigation. The Park Authority will seek to identify any additional locations through the preparation of the proposed pan, in particular, through engagement on placemaking within settlements identified in the spatial strategy.

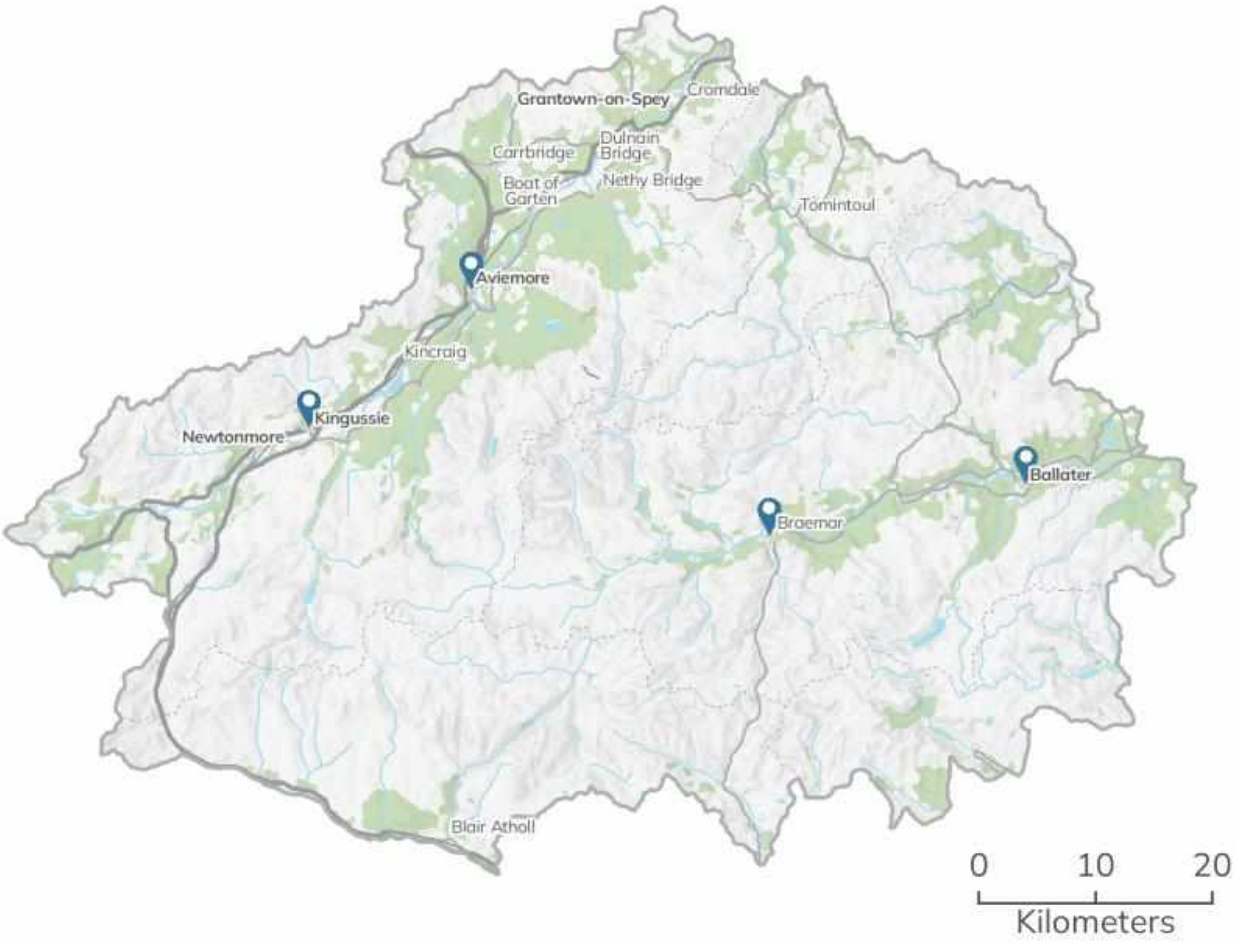

Figure 26 Location of Scottish Water Top up Taps in the Cairngorms National Park. Contains Ordnance Survey data © Crown copyright and database right 2025. Contains data © Scottish Water 2025.

Detailed information on the location of the Top up Taps can be found on Scottish Water's website:

- https://www.yourwateryourlife.co.uk/find-my-nearest-tap/

Summary of implications for proposed plan

The proposed plan needs to be prepared in accordance with:

- The four aims of the National Park as set out in The National Parks (Scotland) Act 2000).
- The spatial strategy and principles of National Planning Framework 4.

The proposed plan should have regard for:

- The River Basin Management Plan for Scotland 2021 – 2027
- Flood Risk Management Plan for the Findhorn, Nairn and Speyside Local Plan District
- Flood Risk Management Plan for the North East Local Plan District 2021
- Flood Risk Management Plan for the Tay Local Plan District 2021
- Findhorn, Nairn and Speyside Local Flood Risk Management Plan 2022 – 2028
- North East Local Flood Risk Management Plan 2022 – 2028
- Tay Local Flood Risk Management Plan 2022 – 2028
- Any updates to the plans listed above.

The proposed plan should include a statement of the planning authority's policies and proposals as to the provision of:

- Public conveniences
- Water refill locations.

In its preparation the proposed plan should seek to:

- Strengthen resilience to flood risk by promoting avoidance as a first principle and reducing the vulnerability of existing and future development to flooding.
- Strengthen community resilience to the current and future impacts of climate change.
- Take into account the probability of flooding from all sources and make use of relevant flood risk and river basin management plans for the area.
- Take a precautionary approach, regarding the calculated probability of flooding as a best estimate, not a precise forecast.
- Consider alternative sustainable land use in areas where climate change is likely to result in increased flood exposure that becomes unmanageable.
- Protect land that provides multiple benefits, including nature networks and blue and green infrastructure that supports natural flood management measures.
- Encourage and support the use of natural flood management measures, which can include nature networks and blue and green infrastructure, on land that does not currently provide multiple benefits, recognising that multiple benefits for both people

and nature can be realised through applying natural flood risk management measures.

- Support the delivery of community action plan and local place plan priorities and actions to help build local resilience against the risk of flooding and water scarcity through the placemaking process.
- Consider the need for a policy or suite of site-specific requirements that seek to reduce the risk of flooding potentially arising from beaver activity. For example, by requiring particular standards of construction for infrastructure within areas that have the potential to support a beaver population.
- Protect water quality, including drinking water, and support development that improves water quality, for example by removing barriers to fish migration.
- Support proposals that deliver sustainable drainage systems as a part of the development.
- Take an infrastructure first approach to planned development.
- Support development where a connection to an existing mains water supply and public waste water system can be made.
- Engage with Scottish Water and Scottish Environment Protection Agency on the need for developer contributions to help deliver new water management infrastructure.
- Promote design that makes efficient use of water, including consumption and capture.
- Support the provision of new public conveniences.
- Support the provision of new water refill locations.