

PLANNING

Cairngorms National Park Local Development Plan

POLICY 10 - RESOURCES
Non-statutory Planning Guidance

Cairngorms National Park Local Development Plan Policy 10 – Resources Non-statutory Planning Guidance

This non-statutory Planning Guidance provides further information and detail on how to comply with **Policy 10 – Resources** in the Cairngorms National Park Local Development Plan 2015.

This document is available in large print on request. Please contact the Cairngorms National Park Authority on 01479 873535. It is also available to view at www.cairngorms.co.uk

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Policy 10 Resources Planning Guidance

Policy Requirements	Information Required
Water resources	Construction and operation method statements fulfilling best practice requirements
	Appropriate supporting statements – justification of requirement of works, relevant technical documentation
	Type and scale of proposals, construction and operation methods, details of any mitigation proposed and any measures to reduce impact on water resources
	Drainage Assessment including foul drainage and surface water drainage showing sustainable drainage systems (SuDS)
	A statement on water use and requirements including minimisation, demand management and a risk assessment for private water supplies if required
	A hydrology survey covering both surface and groundwater including wetland habitats and natural flow regime, water quality with reference to existing Water Framework Directive classification status, existing public and private water supplies from abstractions and springs and amenity and recreational water use if required
Flooding	Proximity to area at potentially significant risk of flooding (0.5% or 1:200 year probability) as shown on SEPA's Indicative Flood Map
	Flood Risk Assessment if required
	Details of flood risk management measures if required
Connection to sewerage	Confirmation of connection to public system, or
	• Justification of need for private system, and demonstration that this will be to an adoptable standard if required
Waste management and minimisation	Demonstration of measures taken to minimise waste generation during construction and in operational phases of the development
	Details of all waste management and recycling measures included in the proposal
	Demonstration of best practice in design
	A Site Waste Management Plan (SWMP) if required
	• For waste management facilities, details of method in which you accord with the Zero Waste Plan and the role of the development in delivering national need for waste management facilities

Policy Requirements	Information Required
Minerals	Where your proposal affects a mineral reserve: • Identify all viable reserves affected by the proposal and detail how they will be protected
	If this is not possible, a method statement detailing how the mineral will be extracted prior to the start of the development
	Where your proposal exploits a mineral reserve: • Details of the market for the material and an explanation of the benefits of exploiting a reserve
	What alternative sites have been considered
	How the development will further conservation and restoration of the landscape affected
Carbon sinks and stores	Determine if your proposal affects a carbon sink or store
	Confirmation that site selection is located to avoid areas of high carbon sinks and stores
	If unavoidable, identify the likely impacts and measures in place to minimise the impacts
	Demonstrate best practice in construction and reinstatement
Contaminated land	Assessments to clarify any risk – this should include the development site, and also the surrounding area
	• Further risk assessments where initial screening shows there to be a significant risk
	Clear information on all remedial actions to be taken framed against the aims of the National Park and its special qualities – remedial actions may also be required on surrounding land
Landfill	Details of all future restoration measures
	Measures to secure self sufficiency
	Recycling and waste treatment measures and waste minimisation measures

Meeting the requirements of the Policy Water resources

- I. The water environment is a key part of the National Park; its lochs, burns, rivers. wetlands and groundwater contribute to its special qualities, including the sense of wildness, amenity and distinctive places. It also provides valuable habitat and is important as a water supply for industries in the National Park such as distilleries and salmon fishing.
- 2. The National Park's water environment is in a good, natural condition and is mostly considered to be of excellent quality. However, there are a number of significant risks posed to our water environment including diffuse pollution, river modification, catchment processes and flood management. The availability of water for consumption must be ensured and the impacts of recreation and water abstraction considered.
- 3. Any works on or near the water environment can impact on water quantity and quality and change its natural behaviour and/or the habitat it can provide. It is important that the nature and scale of any impacts which may arise from proposed development are considered and assessed. Watercourses and their catchments are dynamic systems and in a state of constant change, for example flow and rate may change and rivers often need room to move position within their natural floodplains. Any development needs to ensure that it does not cause degradation of a watercourse or exacerbate bank erosion or deposition. Groundwater and wetlands are also important and impacts on these should

- also be fully considered, including the impact of development on water levels. Further guidance can be found in the Groundwater Protection Policy for Scotland at: www.sepa.org.uk.
- 4. Where engineering activities in the water environment are required, appropriate mitigation measures should be provided with an application. Where possible this should include the removal of redundant structures and the return of water bodies to their natural state.
- 5. There are a number of statutory and regulatory controls in addition to planning permission, such as the European Union Habitats Directives and the Water Environment (Controlled Activities) (Scotland) Regulations which need to be considered. The latter deals with engineering activities, pollution, water flow, quality and quantity. River Basin Management Plans provide information regarding the ecological status of watercourses and should be taken into consideration through the planning process. The granting of planning permission does not remove the need to ensure other licences, permissions or authorisations are in place, which is the developer's responsibility.
- 6. When considering your planning applications, you must take into account the direct and cumulative effects of the proposed development on the water environment. It must be demonstrated that any impacts on river hydrology, sediment transport and erosion, nature conservation, ecological status or ecological potential, fisheries, water quality and quantity and flow rate, recreational landscape, amenity and

economic or social impact can be adequately mitigated. You should utilise opportunities for enhancement and restoration, or other remedial works, wherever possible. Such works may be included in developer contributions and/ or provision of open space associated with appropriate development proposals.

- 7. Your planning application must be accompanied by sufficient information on the following aspects in relation to the water environment:
 - construction and operation method statements detailing mitigation measures and pollution prevention including enhancement and restoration or other remedial works which meet best practice requirements;
 - details of and justification for proposals and nature and scale of potential impacts including direct and cumulative;
 - Drainage Assessment;
 - SuDS or Surface Water Drainage Statement;
 - Flood Risk Assessment (if required);
 - Risk Assessment for water supplies (if required).
- 8. For larger or more complex developments, it is recommended that you discuss your proposals with the Cairngorms National Park Authority and other relevant bodies in advance of submitting your planning application.

Surface water

- 9. CAR regulations require all surface water from new development to be treated by SuDS before it is discharged into the water environment, except for single houses. The aim of SuDS is to mimic natural drainage, encourage infiltration and slow down both the speed of rainwater runoff and reduce pollutant impacts to minimise adverse impacts on people and the environment. In addition to reducing pollution, SuDS also plays a role in flood alleviation.
- 10. Your development proposal should incorporate SuDS to the appropriate level and should also demonstrate how these systems will be maintained in perpetuity. The level of SuDS treatment required is dependent on the nature of the proposed development and the environmental risk which it poses. You should consult the Scottish Environmental Protection Agency (SEPA) website (www.sepa.org.uk) for the most up-to-date information on the levels of treatment required for your specific development proposal.
- II. Surface water drainage measures proposed as part of a planning application should have a neutral or better effect on the risk of flooding both on and off the site. Where flooding is an issue, SuDS should be designed to mitigate the adverse effects of a storm inflow into the watercourse or sewer. The SuDS do not prevent on-site flooding from watercourses, although some SuDS, such as detention ponds, can slow the rate of runoff by temporarily storing the water.

12. For detailed guidance on design criteria for SuDS please see Sewers for Scotland 2nd Edition and SuDS Manual C697 (Construction Industry Research and Information Association, 2007) www.ciria.org.

Water Supply

- 13. Your development proposal should have no significant adverse impact on public or private water supplies. The EC Drinking Water Directive sets the standards for drinking water quality at the tap (including microbiological, chemical and organoleptic parameters). Private water can be supplied from surface water (rivers, burns, lochs) and this will normally need some form of treatment before being suitable for consumption, or from groundwater (springs, boreholes or wells) which can provide very clean sources of water.
- 14. If you intend to install a new private supply for your development this should be indicated as part of the planning application. You will need to carry out a risk assessment of the likely private water source to identify any real or potential contamination risks i.e. micro-organisms and chemicals and identify steps or measures to remove or reduce the risks. You should contact the relevant local authority's environmental health department for further advice on private water supplies.
- 15. New development must not have significant adverse effects on water resources. In designing your development you must therefore:

- ensure your proposal minimises water use and prevents pollution of the water environment;
- puts in place satisfactory systems for foul and surface water drainage and ensures that an allowance for any land-take required for this has been made;
- identifies the source of any proposed water supply (public or private); and
 - establishes whether a flood risk assessment is required, and if so ensure that appropriate information is submitted with your planning application.
- 16. If your proposed development is in an area served by a public sewer you should connect to the public sewer for foul drainage. Whilst it is preferable that a public water supply and drainage system should be used, in many rural areas this is not always possible. Proposals for new houses in the wider rural area which cannot connect to a public service must be accompanied by adequate evidence to demonstrate that private facilities for water supply and drainage are available. This may require you to undertake survey work to test a water supply or a soakaway drainage system and demonstrate it is technically feasible to proceed with the proposal.

Water quantity

17. Minimising the need for water abstraction will help reduce the impacts of development on the water environment. This can be achieved by improving water efficiency through the conservation, re-use and reclamation of water such as the collection and recycling of water, the use of water efficient appliances, promotion of rainwater harvesting and sustainable

- drainage systems (SuDS). Under the Controlled activities (CAR) regulations there is a duty for all abstractors to take reasonable steps to secure the efficient and sustainable use of water.
- 18. Your planning submission should demonstrate how you have sought to minimise water resource use and ensure that there is no deterioration in the quality of the National Park's water resource. This means managing the demand for a continuing supply of good quality water whilst balancing the needs of wildlife and the environment which rely on sufficient river flows.
- 19. Permission will not normally be granted which would result in the deterioration of the current or potential ecological status of a waterbody or which could have an adverse effect on the integrity of a Natura site. You must therefore demonstrate that the proposed works will not have an adverse effect on the integrity of a waterbody such as its natural flow regime, including low flow and drought conditions and impact on any habitats. You should also demonstrate how demand management has been taken into account.

Water quality

20. Your planning application should demonstrate how you have addressed water quality issues, including pollution prevention. This should include method statements for any development which is proposed within or near to a watercourse which should explain how SEPA's pollution prevention guidelines will be adhered to during construction and operation of the site, including the

- management of surface water runoff from construction. Engineering activities in the water environment such as water crossings, bridges and culverts will require a licence under CAR which is regulated by SEPA.
- 21. Your development proposal should demonstrate that it prevents or limits the input of pollutants, including sediment, into watercourses and groundwater so that it does not result in the deterioration of the current or potential ecological status or prejudice the ability of restoration to achieve such status.
- 22. Pollution leading to the deterioration of water quality can be from one of two sources; point source or diffuse source. Point source pollution is associated with discharges from pipe systems such as industrial discharges and sewerage works. Diffuse sources of pollution include runoff from roads, houses and commercial areas, runoff from farmland and seepage into groundwater from developed landscapes of all kinds. Diffuse sources are often individually minor, but collectively significant. Diffuse pollution from both rural and urban sources is one of the major causes of poor water quality in Scotland today.
- 23. Your development proposal should not result in the deterioration of the current or potential hydromorphological status of a water body, i.e. the physical characteristics of the shape, boundaries and its content.
- 24. The ecological classification system required under the Water Framework Directive describes hydromorphological elements as 'supporting the biological elements'. These consist of the hydrological regime (quantity and dynamics of flow, connection to

- groundwater); continuity (ability of sediment and migratory species to pass freely up/down rivers and laterally within the floodplain); morphology (ie physical habitat compositions of substrate, width/depth variation, structure of bed, banks and riparian zone).
- 25. Almost all of the National Park lies within the catchments of five major rivers – the Don, Dee, South Esk, Spey and Tay. The latter four are designated as Special Areas of Conservation (SACs) under the EU Habitats Directive for their internationally important populations of protected species. The River Spey is also a Site of Special Scientific Interest (SSSI). In addition to this there are a number of other designations in place including Special Protection Areas (SPAs) and Ramsar sites. There are also a number of other SACs and SSSIs within the National Park with freshwater interests.
- 26. Proposals that could affect a SAC or SPA such as water abstraction and wastewater treatment must comply with the requirements of the Conservation (Natural Habitats) etc Regulations. In some instances this means that the Cairngorms National Park Authority, as the planning authority, will need to carry out an Appropriate Assessment on your development proposal to identify and assess its impacts on the conservation objectives and qualifying interests of the SAC.
- 27. River and other watercourse corridors with their associated bankside borders and vegetation can provide valuable habitats for a wide range of flora and fauna. The sustainable management of these areas as riparian zones to conserve or enhance water quality, habitat and

- species diversity is encouraged. Such management may also provide suitable alternatives to hard engineering solutions, for bank reinforcement for example.
- 28. The provision of buffer strips in all developments which are adjacent to, or contain a waterbody is encouraged. The provision of buffer strips around or along water bodies can have multiple benefits including allowing for the maintenance of watercourses, reducing the risk of flooding, mitigating diffuse water pollution, providing valuable wildlife corridors and providing space for lateral movement of watercourses. They can also help to reduce soil erosion and help adaptation to climate change and flood risk. You should consider the inclusion of buffer strips within your application and provide reasoning for your proposal where this option has been discounted.

Drainage requirements

- 29. You may be required to submit a Drainage Assessment. You can confirm this requirement by consulting Drainage Assessment A Guide for Scotland. A drainage assessment is site-specific and intended to clearly outline the impact that the proposed development has in both surface water and foul drainage terms. It should also consider flood risk where appropriate.
- 30. You will need to make appropriate provision for the collection, treatment, decontamination and disposal of all surface and foul water arising from your proposed development and the site within which it sits. Separate systems must be employed for the treatment of surface water and foul drainage. Adequate consideration must also be given to the impact of the proposed development on the drainage catchment area.

Flooding

- 31. Flooding is usually a natural process which can occasionally be hazardous to people, property and infrastructure. All watercourses are susceptible and functional floodplains should be expected to flood periodically. Development pressures often arise on vulnerable, low lying areas, which are prone to flooding, or where development could exacerbate problems which exist elsewhere within the same water catchment area. Some locations are already at risk of intermittent flooding, and climate change is expected to worsen that situation. In general, development should avoid flood risk. However, in exceptional circumstances, where the risk cannot be avoided, appropriate mitigation/ alleviation measures will be required. It should be noted that flood risk cannot be eliminated, only managed or avoided.
- 32. Flooding is a material planning consideration, and the probability of flooding from all sources - coastal, fluvial (watercourses) and pluvial (surface water) – and the risks must be taken into account when determining your planning application. Scottish Planning Policy (2014) states that 'Development which would have a significant probability of being affected by flooding or would increase the probability of flooding elsewhere' should be prevented. A precautionary principle must therefore be taken in decisions when flood risk is an issue. A piecemeal reduction of the floodplain must be avoided because of the cumulative effects of reducing flood storage capacity.

- The management of floodplains is one of the key issues in the National Park, as parts of many rivers have been cut off from their river systems by flood walls. This results in flow being channelled in a much more intensive way than is natural, leading to erosion of river beds and loss of finer sediments. It also leads to the loss of wetland habitats that help to support the diversity and viability of the river systems. Flood waters that cannot spread out in the upper catchments can cause severe flooding downstream.
- 34. Likelihood of a site flooding is measured in terms of probabilities per annum, which range from little or no risk (less than 0.1 per cent probability) to Medium to High risk (annual probability is greater than 0.5%). For planning purposes the functional floodplain will generally have a greater than 0.5 per cent (1:200 year) probability of flooding in any year.
- 35. Development which would have a significant probability of being affected by flooding (i.e. is within or adjoining the 1:200 year probability area), or would increase the probability of flooding elsewhere, will not be permitted. Any development which requires measures (such as land raising or under-building) to address flood risk is only likely to be acceptable outside or adjoining these areas.

Flooding: what you need to consider

36. Alterations and small-scale extensions are generally outwith the scope of this requirement, provided they are unlikely to have a significant effect on the storage capacity of the functional floodplain or affect local flooding problems.

- 37. You should consult SEPA's Flood Risk maps to determine what action you need to take and whether you will be required to submit a Flood Risk Assessment in support of your planning application: www.sepa.org.uk.
- 38. These maps show indicative flood risk areas that should be avoided wherever possible. Whilst not an accurate information base about the likelihood of flooding on individual sites, they provide a guide and assist in identifying areas where more detailed information is required.
- 39. You must consult SEPA and the local flood prevention authority (typically the local authority) for proposals for new development within identified or adjacent to, potential flood risk areas. If the planning authority is considering approving an application contrary to the advice of SEPA, or the local flood prevention authority, the application will be notified to Scottish Ministers.

Undertaking a Flood Risk assessment

- 40. If any part of the proposed development site lies within or adjacent to SEPA's indicative flood map, you must commission a Food Risk Assessment (FRA) to be carried out by a qualified professional. This should be done as early as possible in the process to inform the proposed development and identify constraints which may impact on:
 - the developable area;
 - achievable capacity;
 - economic feasibility;
 - layout, scale and design.

Flood Risk Guidance for Stakeholders, is available from SEPA www.sepa.org.uk

41. The Flood Risk Assessment should adhere to the Technical Flood risk Guidance for Stakeholders, available from Preliminary or scoping studies may be undertaken prior to a fuller assessment. In exceptional circumstances, supporting information that demonstrates that the site is free from flood risk can be accepted. Discussions with the planning authority and SEPA prior to this are recommended, to advise on prevention and alleviation measures such as flood defences. You will need to include this detail with your planning submission.

Flood risk management measures

- 42. Flood protection measures are designed to protect against a specified height of flood water. The measures can reduce the probability of flooding in a particular area but cannot eliminate it entirely.
- 43. A development which requires additional flood protection measures will normally only be acceptable outside or adjoining the boundary of medium to high risk areas. Where flood protection measures are needed, a thorough justification, including an examination of alternative options, should be provided. Elevated buildings on structures such as stilts are unlikely to be acceptable
- 44. Flood risk management measures should target the sources and pathways of flood waters and the impacts of flooding.

 Where possible, natural features including woodland and trees and characteristics of catchments should be restored to slow, reduce or otherwise manage flood waters. Flood risk management measures should avoid or minimise detrimental effects on the ecological status of the water environment. In all cases, opportunities for habitat restoration or enhancement should be sought.

- 45. Land raising, which involves permanently elevating a site above the functional floodplain, may have a role in some circumstances where other alternatives are not practical. Proposals for landraising should be linked to the provision and maintenance of compensatory flood water storage. This should replace the lost capacity of the functional floodplain and have a neutral or better effect on the probability of flooding elsewhere.
- 46. Once complete, the land created by landraising will no longer be part of the functional floodplain. Engineering operations for landraising are a controlled activity under the Water Environment and Water Services (Scotland) Act 2003 and approval is required from SEPA before works can commence.

Connection to sewerage

- Where the proposed development is in, 47. or close to an area where there is a public sewerage system, foul drainage from the development should be directed to that system. If the system has insufficient capacity, you should contact Scottish Water to identify any programmed works which will address the issue(s). Alternatively, Scottish Water may advise on network mitigation and investment required by you as the developer. Further information on Scottish Water's Delivery and Investment Plan can be found at: www.scottishwater.co.uk.
- 48. Development which is not connected to the public sewerage system will only be permitted if it is not possible or is unreasonable to connect, due to lack of capacity or other constraints within the public system. Alterative or

- interim measures may be permitted if they comply with best practice and relevant standards. This is relevant in larger settlements (population equivalent over 2,000) where connection is currently constrained but is within the Scottish Water investment programme and in small settlements (population equivalent under 2,000) where there is no, or a limited public system. In these cases a private or interim system may be permitted where it does not pose or add to a risk of detrimental effect, including cumulative, to the natural and built environment, surrounding uses, or the amenity of the area. Systems must be designed and built to a standard to allow connection to the public sewer and/or adoption by Scottish Water at a later date.
- 49. If your proposal is for a large-scale development in an area already constrained or is otherwise problematic, your Drainage Assessment should include a comprehensive section on waste water drainage. This should examine the availability, both in terms of location and capacity, of public sewers and their ability to carry wastewater from the development. Where a public sewer is not available you should discuss with Scottish Water the possibility of providing a public sewer to carry wastewater to an existing wastewater treatment plant. Otherwise you will need to consider the provision of infrastructure for adoption. If you propose to make private drainage arrangements then you should consult SEPA in relation to authorisation of discharges of sewage effluent to land or controlled waters (a watercourse or loch).

Waste management and minimisation

Sustainable waste management in all new development

- 50. Waste management and recycling should be built into all new development to ensure that waste minimisation, efficiency of collection services and waste recycling are considered at the development design stages. You must include appropriate provision for recycling facilities for the collection and storage of all recyclable materials and/or composting facilities in your development proposal. This may include provision for kerbside collection and/or centralised minirecycling centres and composting facilities.
- 51. In designing your proposal you must:
 - demonstrate that you have sought to minimise the generation of waste during construction and operational phases of the development through the preparation and implementation of a Site Waste Management Plan (SWMP); and
 - include appropriate provision for recycling facilities, for the collection and storage of all recyclable materials, and/ or composting facilities; and
 - consult the relevant local authority waste management department to ensure that your proposal meets with their requirements.
- 10.52 You must demonstrate that the requirements to provide for waste minimisation and sustainable waste management practices have been met. You must therefore show that:
 - facilities are sited in an accessible and convenient location;

- provision is made for the separation of wastes for recycling;
- impacts on neighbouring properties have been considered;
- facilities are secure: and
- negative visual impacts on the street scene and local landscape quality have been minimised through good design.

Site Waste Management plans (SWMp)

- 53. A SWMp should be submitted for all applications for major development (as defined in Circular 5 2009: Hierarchy of Developments. The SWMp should contain the following information:
 - waste expected to be produced and how materials will be recycled/reclaimed;
 - steps to minimise waste and maximise the use of recyclates;
 - management practices for waste on-site and leaving the site;
 - relevant evidence of waste carrier/ waste transfer.
- 54. Additional information is contained in PAN 63 and at www.wrap.gov.uk

Waste management facilities

55. The provision of waste facilities necessary to meet the requirements of the Zero Waste Plan and its waste hierarchy which favours prevention over reuse, recycling, recovery of energy then final disposal of waste, needs to be planned for. The Grainish and Grantown-on-Spey waste management facilities along with the sites identified on the proposals maps within the Local Development Plan are to be safeguarded from incompatible neighbouring development to ensure that they are protected for the long-term provision of waste management facilities.

- 56. In applications for new waste management facilities the proposal will be assessed against the national need for facilities as set out in Annex B of the Zero Waste Plan.
- 57. If your proposal is for a waste management facility you will need to identify in your planning submission;
 - how your development proposal accords with the Zero Waste Plan and;
 - the role which it will play in delivering the national need for waste management facilities.
- 58. SEPA's Waste Infrastructure Maps and Waste Data Digests contain further information on existing waste management facilities and their capacities.

Minerals

- 59. Mineral reserves are effectively finite and extremely limited. Those which are viable for future extraction must be protected or have been exploited prior to development occurring. You must consider:
 - how best to protect a viable reserve for the future; or
 - how best to extract the reserves for the wider benefit of the National Park and its aims, prior to the start of development.
- 60. Where your proposal exploits a mineral reserve you must consider:
 - the benefits of exploiting that reserve; and
 - alternative sites which may be appropriate; and
 - how the development will further conservation or restoration of that landscape character affected.

- 61. Applications that affect mineral reserves will be assessed on how they will protect the reserve for future exploitation. You must therefore:
 - identify any viable mineral reserves affected by your proposal and show how you are protecting it for the future; or
 - where this is not possible, how the minerals will be extracted prior to the start of development and that this is done in a way that delivers the aims of the National Park.
- 62. Where your proposal exploits a mineral reserve you must:
 - provide information on the market for the material to be extracted and the social or economic benefit secured as a direct result of the proposal; and
 - detail the alternative sites you have considered and provide information as to why these are not appropriate; and
 - consider how the works involved will further the conservation or restoration of that landscape character affected.

Carbon sinks and stores

63. The planning system can help increase resilience to climate risks by managing carbon rich soils in a way that ensures they remain as carbon sinks rather than becoming carbon sources. Associated with this the sensitive management of development, the restoration of degraded moorland, woodland and wetlands to create carbon sinks and stores, where appropriate is also encouraged.

- 64. Development proposals must therefore take into account the impacts on recognised carbon sinks and stores. Some types of development may adversely affect carbon sinks and stores through the disturbance of soils, particularly peat. This is particularly relevant to certain types of development:
 - hill tracks and access roads, mineral and peat extractions, infrastructure, and telecommunications equipment;
 - carbon capture and storage (engineering works specifically not land use change);
 - wind turbine foundations or bases and hardstandings, and hydro power schemes;
 - any other engineering works.
- 65. This list is indicative, not exhaustive, and you must determine whether your development will affect carbon sinks and stores. If it affects woodland, moorland, wetland or carbon-rich soils it is likely that carbon sinks and/or stores will be affected.
- 66. Developments should not cause irreversible damage to carbon sinks and stores. The most effective mechanism to achieve this is to ensure that development is located to avoid such areas. If your proposal is likely to impact on carbon sinks and stores you must demonstrate in the first instance how you have located your proposed development in order to avoid areas with high carbon sinks and stores (peat, mature woodland).
- 67. If such disturbance is unavoidable, then you must identify the likely impacts of activities on carbon sinks and stores. Your planning submission should also demonstrate how you will adopt and follow best practice guidance during site construction and reinstatement.

Defining carbon emissions, sinks and stores

- 68. Carbon emissions are broadly defined as carbon dioxide (CO2) that enters the atmosphere as a result of human activity, especially the burning of carbon-based fuels. Carbon dioxide is the most common greenhouse gas. These emissions are likely to have far-reaching and potentially adverse changes on our climate.
- 69. Your development should be designed and located so as to avoid disturbance of carbon sinks and stores. 'Carbon sinks' refer to the active form of carbon sequestrated in soils, healthy peatland and vegetation while 'carbon stores' relate to older forms of carbon stock in geological formations, oceans, deep peat and mature vegetation biomass. Peat bogs, soils and woodland effectively 'lock in' and store carbon and prevent it from being released into the atmosphere. These deposits represent a substantial store for new sequestrated carbon and a huge deposit of older carbon. Both are significant in terms of climate.
- 70. Moorland and peatland (particularly areas of deep peat) are important carbon sinks and stores and cover more than half the area of the National Park. Blanket bogs are an extremely valuable, active carbon sink. While blanket bog covers extensive areas of the National Park, peat accumulates very slowly under conditions of water-logging or exposure. Thus, once any damage or exploitation happens, it is a very slow and difficult process to restore this habitat. This sensitive habitat cannot be recreated or restored in the same way as others.
- 71. Carbon-rich soils such as peat and peaty soils commonly associated with seminatural vegetation hold significantly more carbon than cultivated soils, and as such are a valuable resource in mitigating the impacts

- of climate change. The National Park is exceptional because of its unusually large extent of rare, undisturbed soils compared to other areas of Scotland. However, these soils are particularly vulnerable. Soils on development sites can also be easily damaged during various stages of construction, leading to often substantial and irreversible loss of soil functionality and potential land contamination. You should follow good practice for the sustainable use of soil on-site. Commercial peat cutting raises particular environmental concerns, and new operations will not be permitted in the National Park.
- 72. Forests and woodlands are an important resource in addressing climate change. The extensive forests of the National Park can make a significant contribution to the storage of carbon. Forests can help mitigate climate change by off-setting carbon emissions through carbon sequestration. You should avoid removing trees and woodlands as part of your development proposal. Compensatory planting may be required in cases where removal of trees or woodland is justified.

Protecting carbon sinks and stores

73. All development proposals must demonstrate sound management practices of moorland, forestry, woodland and wetland, soil and woodland habitats to take account of carbon storage, alongside the biodiversity importance of the habitats. This should include outlining the pollution prevention and environmental management practices for the site during construction, operational and decommissioning stages of development. It may include for example avoiding woodland clearance, not altering active bogs and putting in place a pollution prevention plan.

- 74. All proposals should protect and enhance carbon sinks and stores including moorland, soils and woodland. This should be achieved through measures to conserve and improve, as well as reduce, any adverse impacts, through sensitive design, layout and construction of developments. These measures follow a hierarchy based on the three principles of avoid, minimise, compensate.
 - Avoid in all cases, development proposals must demonstrate a commitment to reducing carbon emissions by avoiding disturbance of carbon sinks and stores from initial design stages through to construction methods, operation and maintenance. The preferred approach is for development to avoid all areas that are recognisable as carbon sinks or stores and site development elsewhere. Developments which are time-limited must demonstrate sensitive decommissioning, site restoration and revegetation strategies are in place.
 - Minimise in the event that an area recognisable as a carbon sink or store cannot be avoided, e.g. due to locational constraints of the proposed development or an overriding need has been demonstrated, you will be required to demonstrate a positive 'carbon balance and payback' for the development and minimise any impacts upon peat, hydrology and peat stability. Any proposal which impacts on carbon sinks and stores must demonstrate how the proposals will reduce waste of soil and soil carbon as by-products of site development. Further guidance is available from SEPA, Scottish Natural Heritage and The Macaulay Land Use Research Institute on this issue.

- 75. If the development cannot demonstrate a positive balance and payback, but the locational need is established, you must identify sufficient mitigation to minimise its impact by appropriate siting, layout and design; re-use of removed soil or peat on-site by careful storing to prevent decomposition; and re-use it in a way that maintains its carbon content.
 - Compensate where mitigation would be insufficient to avoid significant effects on carbon sinks or stores, off-site offsetting will be required as an integral part of the development proposal. This will normally be secured by a Section 75 Legal Agreement and may involve physical offsetting or payment into an appropriate fund, which is used to reduce carbon emissions.

Contaminated Land

- 76. Although the National Park does not contain a lot of contaminated land, it is still very important to consider it when developing your proposal.

 Assessments may be required where there is any risk that contamination exists. This applies not only to the development site, but also to the surrounding area.
- 77. Where assessments show there to be a significant risk, the appropriate risk assessments must be carried out and the results included with the application.
- 78. Remedial actions may be appropriate and where this is the case you must consider their impacts on the special qualities of the National Park, doing so in a way that looks at both the development site and the surrounding area.

- 79. You must include with your application:
 - assessments to clarify any risk. This should include the development site, and also the surrounding area;
 - further risk assessments where initial screening shows there to be a significant risk;
 - clear information on all remedial actions to be taken framed against the aims of the National Park and its special qualities. Remedial actions may also be required on surrounding land.

Landfill

80. Where you propose any form of landfill, or your proposal affects an existing landfill site you must consider future site restoration; what self sufficiency measures are included in terms of the capacity of the site; the location to deal with its function as a landfill site; and the facilities that it will include to allow recycling and waste treatment, making clear efforts to minimise the volume of waste going to the landfill area.