

Perth and Kinross LDP3 2027 - Evidence Report

TOPIC PAPER NO. 5: BIODIVERSITY AND NATURAL PLACES



July 2024



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1 Introduction

1. Under Section 16(B) of the Act ¹, planning authorities are required to prepare an Evidence Report that contains sufficient information to enable the planning authority to move on to the next stage and prepare their Local Development Plan (LDP).
2. The purpose of an Evidence Report is to provide the local authority's interpretation of the evidence it has gathered and the likely implications of that evidence for the preparation of the LDP. The Report will provide a summary of what the evidence means for the plan, rather than contain all the detail of evidence collected.

1.1 Biodiversity and Natural Places

3. This topic paper sets out the key information relating to Biodiversity and Natural Places which will be covered by the Perth and Kinross Local Development Plan 3, as required under the provisions of Section 16B of the Act 2. It will, alongside a range of other topic papers, contribute

towards the preparation of the Council's Evidence Report, which is programmed to be submitted to the Scottish Government's Planning and Environmental Appeals Division during November 2024 for the 'Gatecheck' process.

4. In developing our LDP3 it is crucial to recognise that it will also be prepared within the context of the Council's Corporate Plan. The current [Perth and Kinross Council Corporate Plan 2022-2027](#) sets out the Council's vision for a Perth and Kinross 'where everyone can live life well, free from poverty and inequality.'
5. The Corporate Plan identifies 7 Priorities delivered through a range of Key Actions. The Principles include "Tackling climate change and supporting sustainable places" along with the Key Action to "To conserve and enhance the biodiversity of our natural environment.
6. Developing our Local Development Plan 3 in alignment with National Planning Framework 4, should help support the delivery of all of the Corporate Plan's Priorities, with the exception of 'Protecting and caring

¹ [The Town and Country Planning \(Scotland\) Act 1997, as amended by the Planning \(Scotland\) Act 2019](#)

for our most vulnerable people’ which is not within the remit of the land use planning system.



Figure 1: Perth and Kinross Council Corporate Plan Priorities

1.1 In November 2022 the Council declared a Climate and Biodiversity Emergency and is a signatory to the Edinburgh Declaration on the post 2020 Global Biodiversity Framework. In December 2021 the Council adopted its first [PKC Climate Change Strategy and Action Plan \(CCSAP\)](#). It sets out the next steps and an initial route map to take us

to a net zero carbon and climate resilient Perth and Kinross. Further detail on the CCSAP is available in Topic Paper 004 Tackling the Climate and Nature Emergency.

1.2 The Strategy contains 27 Council Commitments which are needed to achieve the outcomes guided by Six Overarching Climate Change Strategy Principles which include, as relevance to biodiversity and natural places, resilience and enhancing biodiversity. The [Action Plan](#) sets out the measures being undertaken. Further information is available in Topic Paper 004 Tackling the Nature and Climate Emergencies.

1.2 Relevant Policies

7. This topic is covered by the following policies in National Planning Framework 4:
 - Policy 3: Biodiversity
 - Policy 4: Natural Places
8. Local Development Plan Policies 38 and 41 are compatible with NPF4 but are largely superseded by it except where providing local colour.
9. Local Development Plan Policies 45, 46 and 47 address the catchments of Protected Areas Loch Leven, River Tay and the Lunan Lochs (Dunkeld-Blairstown SAC). These policies are compatible with NPF4 Policy 4 and provide local detail.

10. The topic directly complements other relevant policy areas in National Planning Framework 4 including:

- Policy 1: Climate and Nature Crises
- Policy 5: Soils
- Policy 6: Trees and Woodland

11. The topic paper also addresses landscape issues beyond those designations currently addressed in Local Development Plan Policy 39. This policy is compatible with NPF4 Policy 4(a).

1.3 Legal and National Policy Requirements and Expectations

12. In line with the requirements of the Act, this paper will provide important background information for the Plan area regarding the:

- Principal and environmental characteristics of the district in relation to protected areas.
- Principal physical and environmental characteristics of the district in relation to biodiversity
- Principal physical and environmental characteristics of the district in relation to landscape

13. In addition Perth & Kinross Council is under a duty set out in the Nature Conservation (Scotland) Act 2004 s 1 “It is the duty of every public body and office holder, in exercising any functions, to further the conservation of biodiversity so far as it is consistent with the proper exercise of those functions”

14. This topic paper also provides information relating to biodiversity and natural places as contained in the ‘Local Development Planning Guidance’ . This includes information relating to the NPF4 Policy Advice and considerations referenced in the Evidence Report Guidance for the policy topics of Natural Places and Biodiversity.

15. This information will help to provide an overview of evidence relating to natural places and biodiversity within the Perth and Kinross area, setting the context within which LDP3 should be prepared.

16. NPF4 Policy 4 expects LDPs to:

- Identify and protect locally, regionally, nationally and internationally important natural assets, on land and along coasts.
- Safeguard these assets taking into account their objectives and level of protected status when allocating land for development.
- Better connect nature rich areas by establishing and growing nature networks to help protect and restore the biodiversity, ecosystems and natural processes in the area.

17. The natural assets covered by Policy 4 include those sites that are designated for their landscape, wildness, geological, ecological and/or recreational value. In the adopted Local Development Plan (LDP2) landscape is a key asset recognised and valued through policy 39. This is regardless whether the landscape is protected or not. This is intended to be the approach in LDP3 supported by the general statement in NPF4 Policy 4(a) that:

18. “Development proposals which by virtue of type, location or scale will have an unacceptable impact on the natural environment, will not be supported.”

19. NPF4 Policy 3 expects LDPs to:

- protect, conserve, restore and enhance biodiversity in line with the mitigation hierarchy.
- promote nature recovery and nature restoration across the development plan area.
- facilitate the creation of nature networks and strengthen connections between them to support improved ecological connectivity.
- restore degraded habitats or create new habitats.
- incorporate measures to increase biodiversity, including populations of priority species.

2 Natural Places: Landscape, Wild Land and Geodiversity

2.1 Information Sources and Implications

20. Important landscapes are currently identified by national and local designations. Perth & Kinross covers a wide range of landscapes from lowland straths and glens to the moors and uplands of the Highlands. Our landscapes are largely shaped by the underlying geology. While the Local Authority Area includes the Cairngorms and Loch Lomond and the

Trossachs National Parks the Planning Authority area excludes these. A large part of the Council area is covered by National Parks, other national designations for landscape and local landscape designations. Site specific geological features are covered by Geological Conservation Review sites and the current programme to designate Local Geodiversity Sites.

21. **National Parks:** Both the Cairngorms and Loch Lomond and the Trossachs National Parks cross into the Perth & Kinross Local Authority Area. National Parks are designated for their value including recreation, ecological value and landscape. National Parks have their own planning authorities. There is however a need for co-operation on the boundaries of these particularly with regards to viewsheds of larger initiatives such as windfarms and Nature Networks.

22. **National Scenic Areas:** There are four NSAs within the Planning Authority Area. These are:

- Loch Rannoch & Glen Lyon (part)
- Loch Tummel
- River Earn (Comrie to St. Fillans)
- River Tay (Dunkeld)

23. A report on the [Special Qualities of the National Scenic Areas](#) was produced in 2010 following a resurvey. This will inform implications of development allocated in the area.

24. **Wild Land Areas:** The [NatureScot \(2014\) Wild Land Areas Map and Descriptions](#) identifies five WLAs partly within Perth and Kinross Planning Authority Area.

- 10. Breadalbane-Schiehallion
- 11. Lyon-Lochay
- 12. Ben Lawers
- 14. Rannoch-Nevis-Mamores-Alder
- 15. Cairngorms

25. These also largely overlap with National Scenic Areas and Local Landscape Areas. By their remote and wild nature they are not expected to come under pressure from built development. However renewable energy developments are not excluded from these areas and it is necessary to identify these areas as sensitive in spatial strategies including for renewables. Impacts outside the boundaries receive limited consideration under NPF4 and [NatureScot \(2023\) Assessing impacts on Wild Land Areas – technical guidance](#).

26. **Local Landscape Areas:** These areas were identified in a comprehensive review in 2014 using (as was) SNH and Historic Scotland guidance. These receive a lighter level of protection through NPF4 but are still expected to be protected from built development and receive consideration through the Forest & Woodland, Renewables and Nature Networks spatial strategies. LLAs and their qualities are identified in [PKC \(2019\) Landscape guidance](#)

27. An update of the Local Landscape Area boundaries and qualities will be conducted to inform the development of the Proposed Plan.

28. **Landscape Character Types.** [NatureScot \(2019\) Landscape Character Assessment in Scotland](#) produced a [map of Landscape Character Types](#) for the whole of Scotland. These include general descriptions of the character types with statements covering the specific areas including the perception of these landscapes. These are useful in assessing any changes to settlement boundaries or significant allocations to both the impacts and enhancement opportunities.

29. **Big Place Conversation Feedback.** Some feedback was received during the Big Place Conversation regarding landscape features of importance in particular settlements and comments of relevant to landscape in general such as lighting in rural areas, and the importance of surrounding nature and rural context. This information will support discussions with communities around development allocations and access and views to the surrounding landscape.

30. **Sites of Scientific Interest (Geological and Mixed).** These includes sites of at least national importance designated for their geodiversity value. These are available on [SiteLink](#). These are primarily outside settlements but are of significance to other spatial strategies including Forest & Woodland Strategy, Renewables and Green Infrastructure. Threats to these sites may come from rural development or renewable applications. The main benefit of these sites however is for scientific

study, historical significance and public education. Therefore there are potential implications from rural development on access to these sites.

31. Proposed Local Geodiversity Sites. The Council is in the final stages of assessing Local Geodiversity Sites with assessment, landowner feedback and adoption to be completed by July 2025. All Proposed LGS are available to the public at www.pkc.gov.uk/ldp2naturesites. Implications for the plan are as with SSSIs for geodiversity discussed above although noting that the protections through NPF4 for local sites are more limited, particularly from renewable energy applications.

32. Geological Conservation Review Sites. GCRs are nationally and internationally important sites for geological and geomorphological value. Further information is available on [NatureScot's webpage on GCRs](#). The boundaries are available on [SiteLink](#). The majority of these are covered by Sites of Scientific Interest (SSSI) but around 20% are not. These remaining GCRs or parts of GCR sites not covered by SSSIs have been surveyed and reviewed through the Local Nature Conservation Site programme in consultation with NatureScot. Where assessed to be of at least local importance these have been identified as proposed Local Geodiversity Sites.

33. Scottish Geology Trust Monitoring Database. The project led by the SGT provides a central database for volunteers to monitor the condition of geologically important sites currently looking at GCRs. The Council has access to this database and contributes to it. This

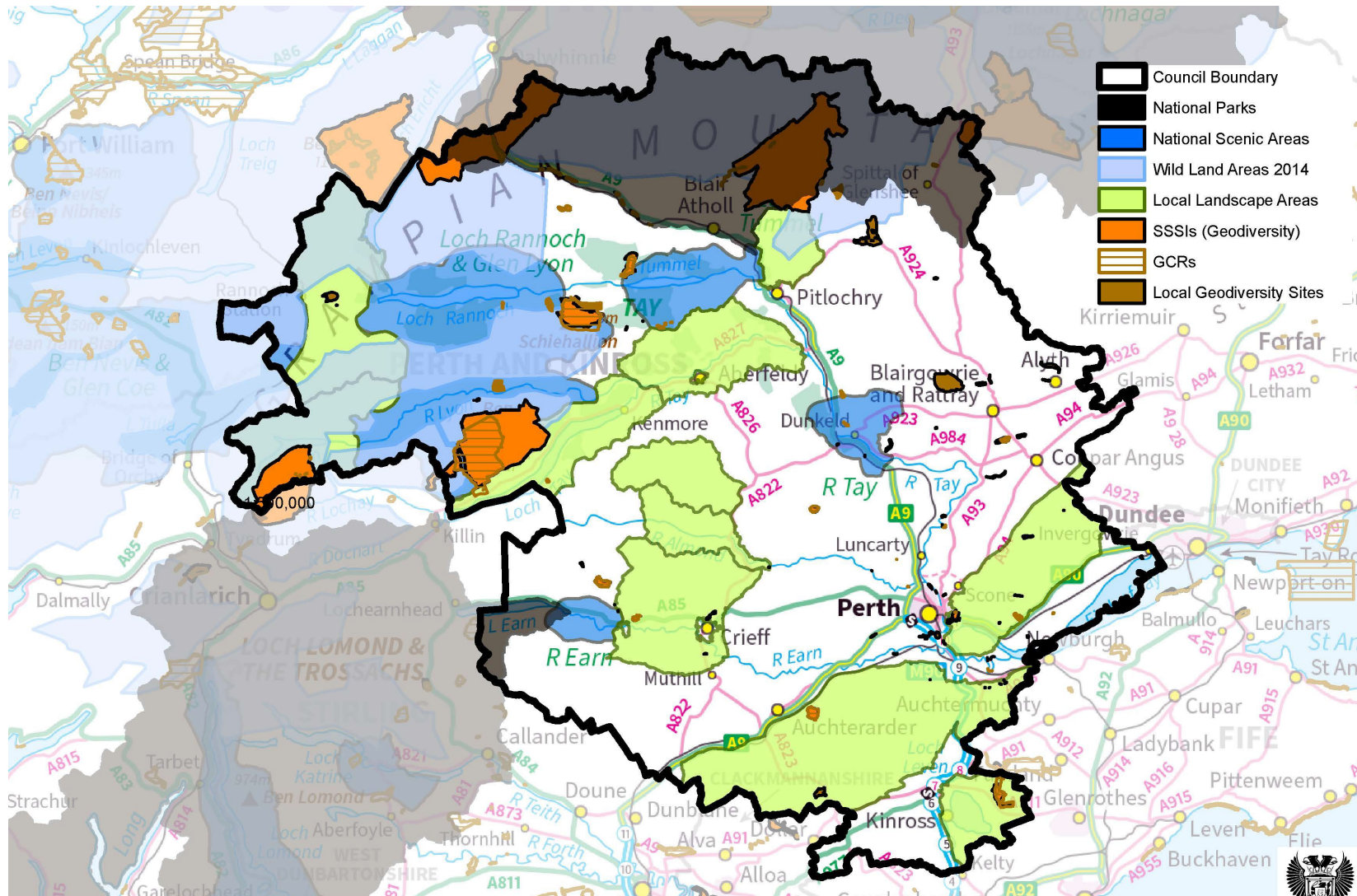
information will help to identify condition, threats and recommended management of GCR sites where affected by site allocations, boundary changes or spatial strategies.

Box 1: Summary of Importance of Evidence for LDP3: Landscape and Geodiversity

NPF4 expects LDP3 to identify and protect natural assets at all levels and safeguard those assets when allocating land for development. Landscape and landscape features that communities are part of, inform the identity and sense of place of settlements, local regions and the Perth & Kinross area as a whole. Existing landscape of national importance is already identified and will be taken into account in developing spatial strategies. Locally identified landscape and geological features can provide some safeguard of areas of at least local importance and will be taken into account during the Proposed Plan preparation.

Figure 3 shows the main landscape and geodiversity designations.

Figure 3: Landscape and Geodiversity Designations



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2.2 Gaps, Uncertainties and Key Issues Raised

34. General attitudes towards landscape issues such as those addressed in Policy 39 are not covered by the data sources given above. NPF4 does not contain a landscape policy and it receives limited consideration in the 6 qualities of place. Perth & Kinross communities have a strong relationship with their surrounding landscape regardless of official designations. The importance of continuing a localised landscape policy along the lines of Policy 39 will need to be explored. The Place Standard Tool used during the Big Place Conversation addresses access to natural places but does not specifically address views to or experience of the landscape. Further engagement will be necessary to update on attitudes to landscape and can be carried out as part of Development Plan engagement on policies and the Local Landscape Area update.
35. There is currently no policy which covers GCR sites in NPF4 or LDP3. GCRs that are not already SSSIs have been reviewed as part of the Local Geodiversity Sites programme and in some instances are included only partially. There remains a question whether the remaining parts of sites although not of sufficient quality to justify a designation should nonetheless be protected through policy based on the original surveys and status.

2.3 Engagement

36. Consultation on Proposed Local Geodiversity Sites will occur in 2025 following engagement with landowners and finalisation with the project's expert panel.
37. Opinion is sought on whether we have sufficient information to inform landscape and geodiversity interests to develop the Proposed Plan.

3 Natural Places: Biodiversity and Protected Species

3.1 Information Sources and Implications

38. To protect and conserve biodiversity, the most valuable areas, species and habitats need to be identified. This includes protected areas but also includes habitats of importance for protected species. This will inform where development can occur, the delineation of settlement boundaries and designation of open space along with potential local policies to protect or enhance locally important areas, species and habitats.
39. **State of Nature Partnership (2023) State of Nature 2023**. This [report](#) which sets out the trends for species including plants. The Scotland specific summary contains commentary on protected areas, woodlands and peatland, the impacts of land use activities, and climate change. This includes:
- A 15% decline in species abundance

- A 15% increase in distribution of invertebrates due to climate change
- 11% of species in Scotland are now classified as threatened with extinction
- 57% decrease in plant and lichen distributions

40. These declines are measured since 1994 so do not include earlier declines through habitat loss. The declines (and increases) overall in some species does not reflect that there are large differences in individual species or species groups. 43% of terrestrial and freshwater species showed a strong or moderate decline over the last 10 years with 36% of species showing an increase. Moths for example have declined 18% since 1970 with the majority of that decline occurring over the last 10 years. Priorities from this report include:

- Vascular plants
- Bryophytes and lichens
- Species associated with arable farmland and semi-natural grassland
- Upland birds
- Wading birds
- Wintering waterbirds

41. Other concerns include:

- 7% contraction in red squirrels range between 1993-2016
- Significant decline in critically endangered pine hoverfly due to habitat loss

- 36% of vertebrates are threatened in Scotland
- 31% of Amphibians and reptiles are threatened UK wide

42. Awareness of these species will help prioritise the actions taken – and avoided – to protect and conserve these species through spatial strategies and policies.

43. **The Tayside Local Biodiversity Action Plan (2016-2026).** The [Tayside LBAP](#) contains a list of priority species, habitats and areas along with actions to address those priorities. The action plan includes actions for pollinators, swifts, hedgehogs, bats, amphibians and more. Some of these actions are already reflected in [PKC \(2020\) Planning for Nature](#) guidance. The actions will all be taken into account when preparing local policies and development site allocations.

44. **Scottish Government (2013) Scottish Biodiversity List.** This [list](#) contains species and habitats in Scotland of international, UK or Scotland level concern. These include the UKBAP listed species and habitats. While the conservation status of some of these species have changed the [JNCC Conservation Designations for UK Taxa update](#) provides up to date information on these.

45. **NBN Atlas.** The [NBN Atlas](#) provides records of species on a geographical basis which can be used together with the status spreadsheets above to help identify areas that may be affected by allocations and settlement boundary choices.

46. **NatureScot (2024) Priority Species Heat Mapping.** New mapping in development from NatureScot may help us with identifying - and avoiding impacts on or delivering support for – priority and protected species when considering allocations and settlement boundary choices.

47. **Special Areas of Conservation, Special Protection Areas and RAMSAR.**

These internationally important protected areas are available on [SiteLink](#) and are important for their habitats, birdlife and wetland habitats (respectively). These will be taken into account during development of the Proposed Plan including the Habitats Regulations Appraisal and Strategic Environmental Assessment. Through NPF4’s promotion of Nature Networks there is an increased emphasis on supporting these core areas through buffers and connectivity. This will shape spatial strategies as well as policies regarding our most important and vulnerable sites. Note that RAMSAR sites in Perth and Kinross area are covered by SSSI or higher designations.

48. **Sites of Special Scientific Interest (Biodiversity and Mixed).** These are nationally important sites for biodiversity (mixed sites also have a geodiversity interest). As with SACs, SPAs and RAMSAR sites these are available on [SiteLink](#). The Strategic Environmental Assessment (SEA) of any spatial strategies or site allocations will include consideration of the value of these sites.

49. [SiteLink](#) contains the latest monitoring results of the conservation status national and internationally designated sites. SiteLink will be

used to assess whether these sites should be targeted for particular measures for protection or enhancement. The overall conservation status of a site is a result of an aggregation of the status of its qualifying features so further examination may be necessary. Monitoring may also have not occurred for some time. The requirement in NPF4 Policy 4 to take a precautionary approach to these sites is therefore important to bear in mind. For example Loch Leven SSSI, RASMAR and SPA an overall favourable status but features including breeding tufted duck, wetlands and the loch itself are unfavourable recovering.

50. **SEPA water classification hub.** The [hub](#) has a more up to date picture of water bodies and water courses and although this is a different measure of the quality of a site to the official conservation status for protected areas it can give an indication of whether such a site is improving or in decline since its last assessment.

51. Currently LDP2 has special policies and guidance for select protected areas. Assessment of these areas will affect the policies and strategies in the Plan including a precautionary reallocation of housing numbers in Kinross-shire to protect Loch Leven. Subject to the assessments precautionary measures may continue to be implemented for the following protected areas, their catchments and qualifying interests:

- River Tay SAC
- Dunkeld- Blairgowrie SAC (Lunan Lochs)
- Loch Leven SPA, NNR, RAMSAR and SSSI

52. All features of the **River Tay SAC** are classified as favourable on SiteLink although the latest visit was in 2012 for otters, 2011 for salmon and earlier for other fish species. On the SEPA water classification hub the majority of the Tay SAC is shown as moderate to good although some sections including the River Tummel to River Isla section, and the River Bruar are poor to bad.

53. The **Lunan Lochs** show an unfavourable picture (excluding otters) on SiteLink but an improving picture on the water classification hub.

54. **Loch Leven** on SiteLink is overall favourable for the majority of features associated with the site but unfavourable recovering for the eutrophic loch itself. This was last reviewed in 2008. The water classification hub shows a worsening picture for phosphorus input – the main concern in the loch.

55. **Lochs and Climate Change research.** The CREW partnership including the UK Centre for Ecology & Hydrology (CEH) has carried out [two recent studies](#) into the impacts on Climate Change on freshwater Lochs in the UK. The first looking at the effect of climate change on lochs and the second looking at solutions. These include the use of Loch Leven as a case study. Changes to land use, changing rainfall patterns and rising temperatures are impacting lochs. The main solution to the input of phosphorus into lochs are measures to prevent erosion and run off. The planning system has little control over sustainable land management practices but erosion and runoff from rural development

can be controlled as can the Forest and Woodland strategy and incentives through the identification of nature networks and potential use of offsite enhancement from NPF4 policy 3.

56. **Lower South Queich Restoration Project.** A further study was commissioned by the Council to scope the requirements for a reduction in erosion on the South Queich. The completed report from the Forth Rivers Trust provides information on how this intervention could remove a barrier to fish migration and reduce loss of soil with a significant consequent drop in phosphorus entering the loch. It will help inform development of local policy to tackle loch pollution.

57. **Loch Leven Natural Flood Management Study.** This report produced for the South Kinross Flood Management Scheme contains a comprehensive set of costed proposals to reduce flooding further downstream. The cost/benefit analysis resulted in no NFM measures being pursued at the time but with a recommendation that they be brought forward when possible. It is that potential interventions are not impacted by development and that options are explored for the contribution of development to this through the [Loch Leven Lens](#) project currently under development. This also has implications for the Forest & Woodland Strategy and Nature Networks.

58. **Loch Leven Nutrient Load and Source Apportionment Study** published by and available from [NatureScot](#) in 2017 set out the sources of phosphorus into the loch (the main source of algal blooms) and

informed the development of LDP2. An updated study is due in 2025 which will also address the impacts of combined sewer overflows into the Loch. The report and updated data from the new study will inform consideration of and preparation of policy and spatial implications for development in Kinross and Milnathort.

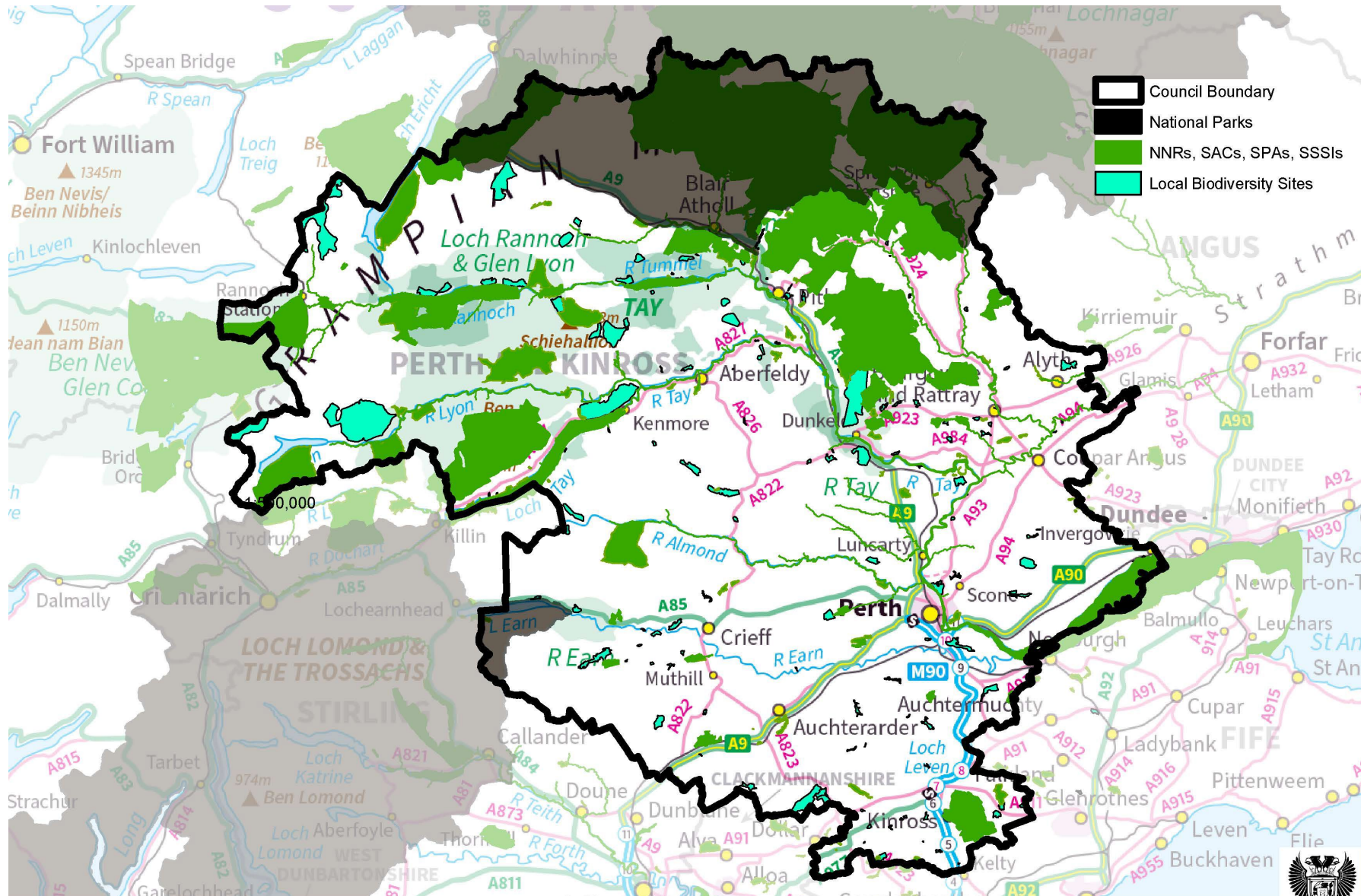
Proposed Local Biodiversity Sites. Proposed Local Nature Conservation Sites for Biodiversity have been identified through a combination of Scottish Wildlife Trust records, valued sites from expert NGOs and NatureScot. Further information is available on the [Local Nature Conservation Sites webpage](#). Final surveys are being carried out in summer 2024 with assessments to follow. These sites are largely outwith settlements but may be affected by countryside development, forestry and renewable applications. Sites will be finalised mid 2025.

Box 2: Summary of Importance of Evidence for LDP3: Biodiversity

The evidence for priority habitats, species and protected areas will help develop spatial strategies by the identification of important areas to avoid but also where development can support interventions for habitats and species through policy development and site specific enhancement in allocations or overall approaches in settlements or areas. A review of status of SPAs and SACs will help inform whether continued or additional interventions are necessary and how they should be implemented.

Figure 4 shows the main nature conservation designations

Figure 4: Nature Conservation Designations



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3.2 Gaps, Uncertainties and Key Issues Raised

59. The status of protected areas is subject to the capacity of NatureScot to complete assessments. Many of these are currently out of date. To assess whether some protected areas needed further protection in policy will depend on an analysis of whether the current summary condition assessment of these sites is reliable.
60. Protected species information and trends at a national level are not collated at Council level. Perth & Kinross is also disadvantaged by not having a records centre, although Kinross-shire as part of the Fife and Kinross vice county is covered by Fife Nature.
61. The Tayside Biodiversity Partnership Local Biodiversity Action Plan runs until 2026. This is likely to be in the middle of the proposed plan engagement period. We will work closely with the partnership to ensure the Proposed Plan and Nature Networks are complementary to the ambitions of the forthcoming LBAP.
62. Local Biodiversity Sites have not all been assessed and therefore cannot be taken as the final position. The current evidence however shows that the sites proposed are of value to biodiversity and should be at least assessed following a precautionary approach if they are to be adversely affected. Sites will be adopted in time for the proposed Plan consultation and to be incorporated into associated work.

3.3 Engagement

63. Early engagement has taken place with NatureScot, SEPA the Tayside Biodiversity Partnership as well as the Climate Change team, and the Tree/Biodiversity Officer within the Council on the contents of this topic paper.
64. Initial discussions with the Loch Leven Management Board and local Councillors took place in 2022 to explore potential options for policy change and subsequently with Scottish Water and Perth & Kinross Flood team. Work will continue with stakeholders on this policy throughout preparation of the Proposed Plan.
65. The process for identifying Local Biodiversity sites is ongoing. This work is closely co-ordinated with the BSBI and NatureScot with further input from relevant NGOs. All landowners have been contacted where possible and further engagement will be carried out in summer to publicise the sites alongside Nature Networks engagement described in the next section.

4 Biodiversity: Nature Networks, Compensation and Enhancement.

4.1 Information Sources and Implications

66. NPF4 requires LDPs to spatially identify Nature Networks. NPF4 also requires development to protect and deliver Nature Networks, along with biodiversity compensation and enhancement following the mitigation hierarchy. Information sources are identified that will inform the development of Nature Networks and other potential priorities for protection and delivery of restoration through compensation and enhancement including offsite measures.

67. **AECOM Strategic Corridors Maps:** This Scottish Government funded project has identified strategic corridors for nature to be used as a basis for developing nature networks. These [maps](#) will also be accompanied by a project optimiser tool which may help identify the value of specific proposed interventions but can also help shape the corridors themselves. This work will be supplemented by engagement to identify other nature valuable sites for inclusion and the principles on which local nature networks should be based.

68. **AECOM Wildlife Movement Map.** Developed to inform the AECOM Strategic Corridors map, this will be used to inform the development of the Council's own nature networks map where shifts to the existing

corridors, or new corridors, are considered necessary as a result of further engagement and mapping work.

69. **Existing Nature Rich Areas (proxy OECMs).** OECMs are Other Area Based Conservation Measures. These are sites rich for nature and managed for nature which are expected to be core components of Nature Networks. There is an international definition of these areas including a requirement for a long term management plan. NatureScot is tasked with identifying and assessing these areas which will take time. For the purposes of establishing Nature Networks we need to at least recognise and incorporate areas that can be reasonably assured to be managed for nature and will function to support nature through inclusion in Nature Networks. These may often be sites on private land that have not been identified through the Local Nature Conservation Site programme. Note that all RSPB and SWT reserves are covered by other designations, and Woodland Trust sites are being reviewed as part of the Local Nature Conservation Site programme. Additional proxy OECMs could include sizeable (i.e. 2ha):

- Community Woodlands
- National Trust for Scotland natural sites
- Areas of estates managed exclusively for nature

70. **Existing restoration projects.** A significant amount of work is already being carried out across Perth and Kinross to improve land and water for nature. An understanding of these projects, their future impact and how they function will help draw together Nature Networks. Ongoing

projects also provide an opportunity for enhancement delivered by offsite enhancement where this meets rigorous tests of additionality, validation, evaluation and monitoring. These projects include:

- Riverwoods: Upper Tay Catchment Communities and The River Ericht Catchment Regeneration Initiative
- Loch Leven LENS
- Nature Restoration Fund Projects: Both NatureScot and PKC funded projects
- Northwoods Rewilding Network sites
- Peatland Restoration fund projects
- Woodland Carbon Code ??[can these be separated out into biodiversity/native woodlands??]
- Projects recorded in the PKC 2023 Biodiversity Duty Report
- Restoration and habitat creation as a result of development.
- Biodiversity Villages initiatives
- Wildlife Accredited Estates [looking to get mapped]

71. **Investment Ready Projects.** Some of the projects above including Riverwoods and Loch Leven LENSs may be appropriate for offsite enhancement as the Council develops its approach to NPF4 policy 3(b). Further engagement and discussion will be needed with these projects to develop local policy guidelines to deliver positive effects for biodiversity.

72. **Natural Flood Management Studies.** There are existing NFM studies which were carried out as part of flood prevention schemes throughout Perth & Kinross. These will provide opportunities for intervention for blue/green infrastructure, nature networks and will help inform the development of local policy to deliver offsite enhancement for policy 3(b). Studies have been carried out for:

- Aberfeldy
- Blackford
- Comrie
- Invergowrie
- South Kinross

73. **Forest and Woodland Strategy.** The current FWS is currently under review. The existing FWS will be taken into account when developing nature networks and will be informed by studies as it progresses.

74. **NatureScot (2022) Habitat and LandCover Map of Scotland Eunis 2 .** This landcover map available on [NatureScot's open data website](#). It will be used to help shape Nature Networks and identify land where development and forestry should not occur including Scottish Biodiversity List priority habitats where these align with EUNIS level 2 or at least a wider category within which the SBL habitats sit, to allow for further investigation on a site by site basis.

75. **NatureScot Mountain Woodland Restoration Areas.** The NatureScot dataset for [Mountain Woodland Restoration](#) shows area of mountain

restoration of woodland across Scotland where deer have been excluded including areas in Perth & Kinross namely:

- East Schiehallion
- Dun Coillich
- East Morenish, Edramucky and Craig an Lockhart at Ben Lawers

These sites are known restoration areas which will benefit and be benefited by inclusion in Nature Networks.

76. **SEPA Wetlands Inventory** . This [map](#) and associated data provides information on Scotland’s wetlands including non-designated sites. Healthy wetlands are a rich resource for biodiversity and for water resilience. This will be taken into account in Nature Network mapping in support of Green / Blue Infrastructure mapping.

77. **SEPA Water Classification Hub**. The [SEPA Water Classification Hub](#) gives an up to date picture of the state of the majority of water courses and water bodies in Scotland. As well as identifying which protected areas required additional support through policy, the data will help identify potential restoration opportunities for offsite enhancement and nature networks.

78. **SEPA Riparian Vegetation Planting Opportunities** . This map will support development of nature networks and opportunity mapping for Blue/Green Infrastructure.

79. **SEPA Geomorphic Risk Buffer**. This map identifies areas at risk of erosion where positive interventions will have the most positive impact on downstream sedimentation affecting aquatic habitats and loch health.

80. **SEPA River Recovery Potential**. This data layer identifies the ability of rivers to be restored following identification of need. Rivers with higher energy are identified as having greater opportunity for restoration.

81. **SEPA Obstacles to Fish Migration**. This data layer identifies fish barriers which impact the migration of species which spawn in upper catchments. Where there is suitable habitat upstream and the transfer of inappropriate species can be managed removal or management of these barriers can be an effective way to support these species by increasing their available range with a simple step. Identifying these may lead to interventions through off site enhancement or targeting through nature networks.

82. **SEPA Flood Hazard Maps**. A range of flood extent maps are available from [SEPA Environmental Data website](#). Because development is required to avoid flooding, these areas (excluding important areas for food growing) are therefore available for enhancement associated with nature networks.

83. **SEPA Recommended Riparian Buffer**. This new map available on the [SEPA Environmental Data website](#) will provide a recommended riparian offset to allow rivers to adapt to changes in flood frequency. As well as

being relevant to the location of development it will also be valuable in identifying nature networks and blue/green infrastructure to support wildlife and the benefits that riparian vegetation can bring.

84. **SEPA Water Environment Framework Projects.** This layer available from the [SEPA Environmental Data website](#) sets out the locations of potential, existing and completed projects for improvement of the water environment. For nature networks this will help identify improved areas for
85. **Inventory of Raised Bogs.** This dataset derives from the R Lindsay and P Immirzi (1996) [An Inventory of Lowland Raised Bogs in Britain](#). Raised bogs are a priority habitat and are valuable habitats for biodiversity and carbon sequestration. The data will be used to help identify priorities for intervention and inclusion within nature networks. There are a significant number of bogs on the inventory in Kinross-shire, some of which are covered by other designations.
86. **Invasive Non-Native Species.** Records for non-native invasive species particularly the priority plant species of Himalayan Balsam, Japanese Knotweed, Giant Hogweed, American Skunk Cabbage are recorded on [NBN Atlas](#). Hotspots for mink, grey squirrel and signal crayfish will also be considered. Many of these areas are already being tackled by the Scottish Invasive Species Initiative and Perth & Kinross Council working closely with SISI. Further identification of problem areas will help target intervention opportunities in Nature Networks.

87. **Peatland Action Mapping.** Data from the [peatland action mapping portal](#) provides information on current and completed peatland action restoration projects to inform the development of nature networks.

88. **Soils Maps.** A number of other soil maps will help inform restoration and nature network opportunities by providing information on active and degraded peat, underlying soil types to help identify the most relevant interventions and agricultural soils maps to identify constraints and restoration opportunities:

- [National Soil map of Scotland](#)
- [Carbon and Peatland 2016 map](#)
- [Land Capability for Agriculture map](#)

89. **Important Plant Areas.** These are areas identified as internationally important for plant assemblages particularly covering highland grasslands. Most areas are SSSIs and the ones that are currently not already protected will be surveyed as part of the Local Biodiversity Sites identification programme.

90. **Important Bird Areas.** This layer from [RSPB opendata](#) shows areas of importance for birds identified as part the BirdLife International IBA programme. These are a relevant consideration when considering routes for nature networks where not already under another protective designation.

91. **Ancient Woodland Inventory.** The AWI available on the Environment Web portal, provides data on Scotland’s woodlands providing different categories. The AWI covers a range of woodland beyond that addressed in the NPF4 definition but are still valuable or potentially valuable for biodiversity. By overlaying this with the Native Woodland Survey of Scotland data, current Ancient Semi Natural Woodland can be identified for inclusion in Nature Networks. Other categories such as PAWS and LEPO may be suitable for restoration.

92. **Native Woodland Survey of Scotland and Aerial Mapping.** Scotland’s Environment web mapping provide the Native Woodland Survey of Scotland data. This data is incorporated into the AECOM Strategic Corridors mapping tool. This data is dated and needs to be validated alongside aerial mapping and NatureScot Habitat Mapping to ensure the woods are still there but provides evidence for local identification of nature networks.

93. **Buglife B Lines.** The [BLines map](#) set out areas identified in Perth & Kinross for pollinator enhancement. The Strathmore section of these have received active restoration work with support from Tayside Biodiversity Partnership and BugLife. These are existing identified nature networks and the Planning Authority supports delivery of these to be included as already established within the local Nature Network mapping. These also provide clear opportunities for offsite delivery.

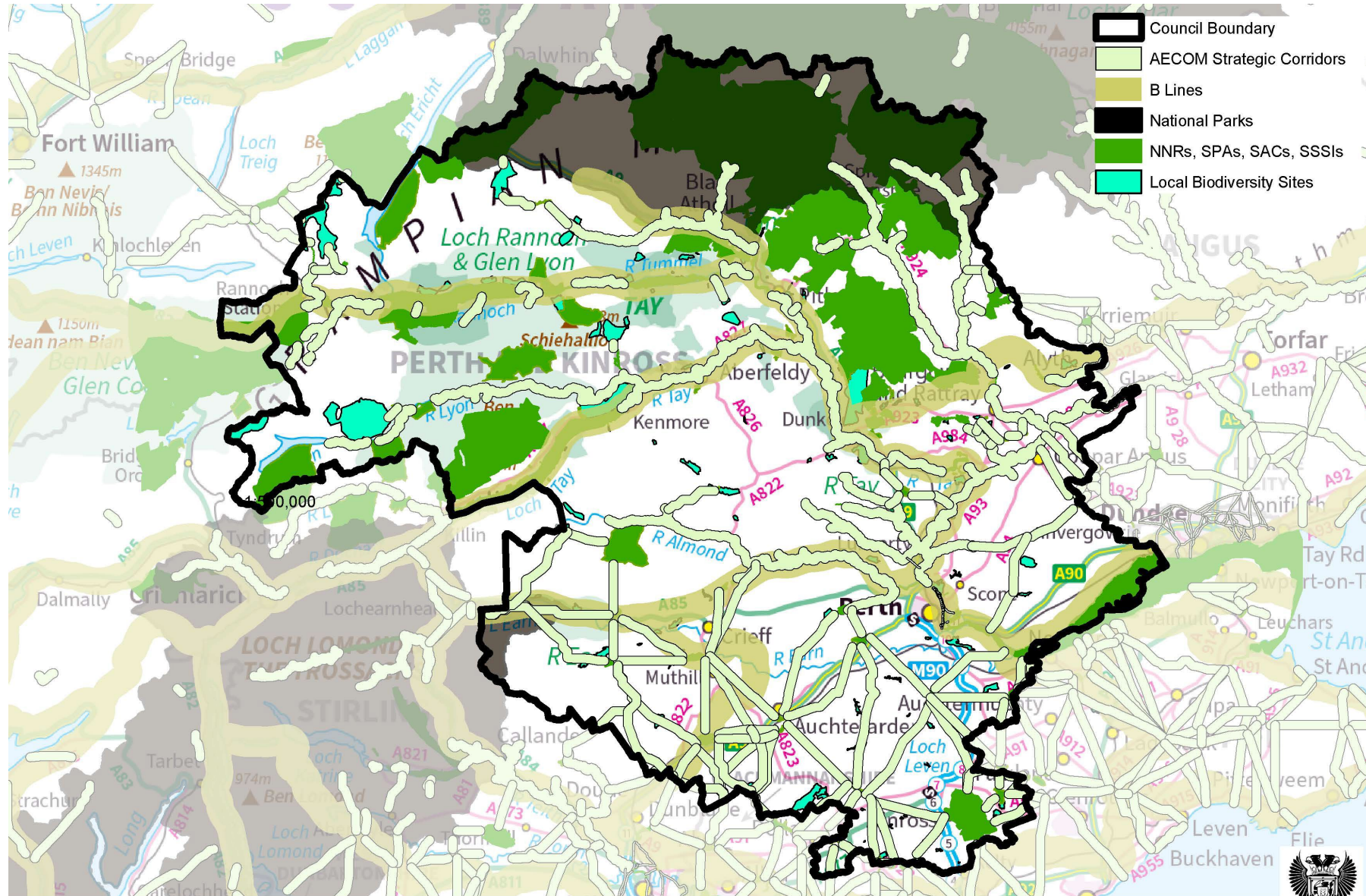
94. **Butterfly Conservation Priority Butterfly Records.** These records for 4 priority species (in house data provided by Butterfly Conservation) will provide hotspots and existing corridors to help develop nature networks.

Box 3: Summary of Importance of Information for LDP3: Nature Networks, Compensation and Enhancement.

Nature Networks provide a strategic route for protection and restoration of nature to ensure species and genetic movement between nature rich sites. This will promote resilience of species in the face of climate change with additional ecosystem benefits such as flood mitigation and erosion protection. As the Council develops its approach to offsite mitigation and enhancement identification of Nature Networks also enables the identification of opportunities for strategic interventions as a result of developments which cannot deliver full compensation or enhancement on site.

Figure 5 shows the AECOM strategic corridors for nature which given an indication of what Nature Networks may look like – note these are subject to consultation and further analysis. The map also shows the existing BugLife BLines which as an existing initiative will be supported through the Nature Networks mapping exercise.

Figure 5: Example of Nature Network mapping



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4.2 Gaps, Uncertainties and Key Issues Raised

95. **Nature Networks** are a new feature with tools still in production. Potential opportunities are identified in the sources above but further information is still required to identify local priorities and restoration projects and opportunities which will ensure best value is delivered from the final nature network that is delivered as part of LDP3.
96. **Scottish Biodiversity Metric.** The lack of a biodiversity metric hinders the development of an approach to ensuring that development is complying with the mitigation hierarchy and providing the expected compensation and enhancement. Interim measures will be introduced but as the national metric will not be delivered until January 2025 at the earliest other interim approaches will need to be explored to ensure that compensation and enhancement is measurable.
97. **A mechanism for offsite biodiversity compensation and enhancement.** There are established principles for delivery of the mitigation hierarchy as set out in the Council's [Planning for Nature](#) guidance. Compensation for biodiversity or habitat loss will always be expected onsite except in limited and justified circumstances. Scottish Government guidance on NPF4 Policy 3 also expects onsite delivery of biodiversity enhancement in the first instance. This ensures development that provides for nature and the benefits this brings to the communities living there. In limited justified circumstances where onsite enhancement is not possible an offsite solution for securing

NPF4 requirements may be required. A robust mechanism that secures long term measures is under consideration but is likely to still be in a state of development at the time of submission of the evidence report. Engagement accompanying this topic paper will help inform the interim approach and the development of local policy for LDP3.

4.3 Engagement

98. **The Big Place Conversation** engagement in 2023 issues raised included natural areas of value to communities as well as areas identified for natural flood management. A number of communities are affected by increased run off from nearby fields providing an opportunity for both natural flood management and biodiversity enhancement to factor into opportunity mapping.
99. **Climate Change Engagement** carried out in 2020-2021 is set out in Topic Paper 4. This provides information on local priorities for the purposes of protecting and enhancing biodiversity.
100. **Nature Networks Engagement** will be taking place during the summer of 2024 with relevant groups and stakeholders to help inform nature networks. While the AECOM nature networks tool provides a nationally consistent picture it requires adjustment to ensure it reflects on the ground realities and local priorities. This includes identification of proxy OECMs and existing restoration projects discussed above. Engagement will also identify priorities and principles for the nature

networks to be protected and delivered in Perth & Kinross. The questions around these principles relate to:

- The habitats or species that should receive priority for inclusion in Nature Networks
- What factors should influence where Nature Networks go including cost of restoration, maintaining food growing, and access for people.

101. **Offsite Compensation and Enhancement Engagement.** Along with the Nature Networks engagement we will be gathering views from on the priorities and mechanisms for compensation and enhancement, including, where appropriate, offsite measures. As offsite measures will be a last resort it is expected that delivery of Nature Networks and other environmental enhancement will be through other funding. However there will be benefit in identifying investment ready restoration projects, or other landowners willing to have enhancement delivered on their land. Principles for compensation and enhancement requiring consideration are:

- In what circumstances should offsite, 3rd party compensation and enhancement be acceptable.
- How offsite enhancement should relate to the development in terms of the amount, type of habitat, and distance from the development site.