

DMRB Stage 2 Scheme Assessment Report

Volume 1 – Main Report

Part 6 – Appendices

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DMRB Stage 2 Scheme Assessment Report

Part 6: Appendices

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Appendix A7.1: Policies and Plans

Table 1: Scottish Planning Policy (2014)

Subject	SPP Paragraph	Summary
Introductory Sections	Paragraph i – v and 1 - 57	The introductory sections of the SPP set out a brief statement on the purpose of planning and details the following outcomes which should be achieved in order for planning to make a positive difference: 1. a successful, sustainable place; 2. a low carbon place; 3. a natural, resilient place; and 4. a more connected place. Overall, planning should take a positive approach to enabling high quality development and making efficient use of land to deliver long-term benefits for the public while protecting and enhancing natural and cultural resources.
Sustainability	Paragraph 24 – 35	SPP introduces a presumption in favour of sustainable development. The planning system should support economically, environmentally and socially sustainable places by enabling development that balances the cost and benefits of a proposal over the longer term. The overall aim is to achieve development in the right place rather than at any cost. The planning systems should therefore: • give due weight to net economic benefit; • respond to economic issues, challenges and opportunities as outlined in local economic strategies; • support good design, • make efficient use of existing capabilities of land, buildings and infrastructure including supporting town centre and regeneration priorities; • support delivery of accessible development and infrastructure; • support climate change mitigation and adaptation including taking account of flood risk; • improve health and well-being by offering opportunities for social interaction and physical activity; • have regard for the principles of sustainable land use; • protect, enhance and promote access to natural heritage, including green infrastructure, landscape and the wider environment; • reduce waste; and • avoid over-development, protect the amenity of new and existing development
Valuing the Historic Environment	Paragraph 135 - 151	 and consider the implications of development for water, air and soil quality. The planning system should: promote the care and protection of the designated and non-designated historic environment and its contribution to sense of place, cultural identity social well-being, economic growth, civic participation and lifelong learning; and enable positive change in the historic environment which is informed by a clear understanding of the importance of the heritage assets affected and ensure their future use. Change should be sensitively managed to avoid or minimise adverse impacts on the fabric and setting of the asset, and ensure that its special characteristics are protected, conserved or enhanced.
Planning for Zero Waste	Paragraph 175 - 192	The planning system should: promote developments that minimise the unnecessary use of primary materials and promote efficient use of secondary materials: support achievement of Scotland's zero waste targets; and help deliver infrastructure at appropriate locations, prioritising development in accordance with the waste hierarchy.
Valuing the Natural Environment	Paragraph 193 - 218	 The planning system should: facilitate positive change while maintaining and enhancing distinctive landscape character; conserve and enhance protected sites and species, taking account of the need to maintain healthy ecosystems and work with the natural processes which provide important services to communities; promote protection and improvement of the water environment; protect and enhance ancient semi-natural woodland as an important and irreplaceable resource, together with other native or long-established woods, hedgerows and individual trees with high nature conservation or landscape value; seek benefits for biodiversity from new development where possible, including the restoration of degraded habitats and the avoidance of further fragmentation or isolation of habitats.



Subject	SPP Paragraph	Summary	
Maximising the benefits of Green Infrastructure	Paragraph 219 - 233	 The planning system should: consider green infrastructure as an integral element of places from the outset of the planning process; prevent fragmentation; and provide for easy and safe access to and within green infrastructure. 	
Managing Flood Risk and Drainage	Paragraph – 254 - 268	 The planning system should promote: a precautionary approach to flood risk from all sources; flood avoidance; by safeguarding flood storage and conveying capacity, and locating development away from functional floodplains and medium to high risk areas; flood reduction: assessing flood risk, where appropriate, undertaking natural and structural flood management measures, including flood protection, restoring natural features and characteristics, enhancing flood storage capacity, avoiding the construction of new culverts and opening existing culverts where possible; and avoiding increased surface water flooding through requirements for Sustainable Drainage Systems (SuDS) and minimising the area of impenetrable surface. 	
Promoting Sustainable Transport and Active Travel	Paragraph 269 - 291	 The planning system should: optimise the use of existing infrastructure; provide safe and convenient opportunities for walking and cycling for both active travel and recreation, and facilitate travel by public transport; and enable integration of transport modes. 	



Table 2: National Planning Guidance

Document	Title	Description
PAN 33	Development of Contaminated Land (2000)	Provides advice on the implications of the contaminated land regime for the planning system; and the development of, and approach to, contaminated land in development plans. It also contains guidance on the determination of planning applications when the site is, or may be, contaminated.
PAN 51	Planning, Environmental Protection and Regulation (Revised 2006)	Supports the existing policy on the role of the planning system in relation to the environmental protection regimes. This Planning Advice Note (PAN) also summarises the statutory responsibilities of the environmental protection bodies, as well as informing these bodies about the planning system.
PAN 1/2013	Environmental Impact Assessment (2013)	Provides new guidance to replace PAN 58 and contains advice on the integration of EIA procedures into the overall development management process. This PAN explains the role of individual planning authorities and that of the Consultation Bodies in EIA, as well as providing guidance on the ways in which EIA can be integrated into the overall development management process.
PAN 60	Planning for Natural Heritage (2000) (Paragraph 47 updated 2008)	Provides advice on how development and the planning system can contribute to the conservation, enhancement, enjoyment and understanding of Scotland's natural environment and encourages developers and planning authorities to be positive and creative in addressing natural heritage issues. It complements the SPP, with examples of good planning practice in relation to natural heritage drawn from across Scotland highlighted in a number of case studies.
PAN 61	Planning and Sustainable Urban Drainage Systems (2001)	Provides good practice advice for planners and the development industry on the implementation of Sustainable urban Drainage Systems (SuDS) (now referred to as Sustainable Drainage Systems in latest guidance) to aid the introduction of more sustainable developments.
PAN 63	Waste Management Planning (2002)	Provides advice on a sustainable approach and change of emphasis from waste disposal to integrated waste management. It also provides a basis for more informed consideration of development proposals for waste management facilities and provides advice for developers seeking planning permission for waste management facilities.
PAN 65	Planning and Open Space (2008)	Provides advice on the role of the planning system in protecting and enhancing existing open spaces and providing high quality new spaces. The advice relates to open space in settlements: villages, towns and major urban areas.
PAN 68	Design Statements (2003)	Explains what design statements are, when they are required and how they should be prepared and presented. It also seeks to ensure that local authorities and applicants are clear about the role and usefulness of design statements within the application process.
PAN 69	Planning and Building Standards Advice on Flooding (2004)	Provides background information and best practice advice in support of SPP7 (Planning and Flooding) (which has now been superseded by SPP (2014)), and the Technical Handbooks published by the Scottish Building Standards Agency that provide guidance for the Building (Scotland) Regulations 2004. This Advice Note focuses on the responsibilities of local authorities and developers in ensuring that future built development is not located in areas with a significant risk of flooding, including functional flood plains.
PAN 75	Planning for Transport (2005)	Aims to create greater awareness of how linkages between planning and transport can be managed. It highlights the roles of different bodies and professions in the process and points to other sources of information on the overlap of the two sectors.
PAN 78	Inclusive Design (2006)	Supports the government's aim of promoting more equality in the areas where we live and work. The PAN aims to explain the importance of inclusive design, identify the nature of the problems experienced in designing inclusive environments and describe the legislative context. It also outlines the roles of the different stakeholders in delivering inclusive design and identifies the particular challenges of applying inclusive design to the historic environment.
PAN 79	Water and Drainage (2006)	Clarifies the role of the planning authority in setting the direction of development to inform the planning and delivery of new water infrastructure in a coordinated way. It explains the roles of Scottish Water and SEPA and encourages joint working in order to ensure a common understanding of capacity constraints and agreement on the means of their removal. It advises on the appropriateness of private schemes and the handling of Scottish Water developments.



Document	Title	Description
PAN 3/2010	Community Engagement (2010)	This PAN provides advice to communities on how they can get involved and advice to planning authorities and developers on ways of effectively engaging with communities on planning matters. It advocates the use of 10 National Standards and provides detailed advice on each standard as follows: Involvement; Support; Planning; Methods; Working Together; Sharing Information; Working with Others; Improvement; Feedback; and Monitoring and Evaluation.
PAN 1/2011	Planning and Noise (2011)	This PAN promotes the principles of good acoustic design and a sensitive approach to the location of new development. It promotes the appropriate location of new potentially noisy development, and a pragmatic approach to the location of new development within the vicinity of existing noise generating uses, to ensure that quality of life is not unreasonably affected and that new development continues to support sustainable economic growth.
PAN2/2011	Planning and Archaeology (2011)	This PAN sits alongside SPP, Scottish Historic Environment Policy (SHEP, 2011) and the Managing Change in the Historic Environment Guidance Notes, which together set out the Scottish Ministers' policies for planning and the historic environment. This PAN is intended to inform the day-to-day work of a range of local authority advisory services and other organisations that have a role in the handling of archaeological matters within the planning process.
SHEP	Scotland's Historic Environment Policy - (December 2011)	This document has consolidated the previous SHEP series into one policy document. The SHEP sets out Scottish Ministers' policies for the historic environment, provides greater policy direction for Historic Scotland and provides a framework that informs the day-to-day work of a range of organisations that have a role and interest in managing the historic environment. The SHEP complements and has the same authority as the SPP series and other relevant Ministerial policy documents, and is a material document in the statutory planning, EIA and Strategic Environmental Assessment (SEA) processes.
Guidance Note Series	Managing Change in the Historic Environment	The series explains how to apply the policies contained in the Scottish Historic Environment Policy (2011) and the SPP (2010).
Circular 18/1987	Development involving Agriculture Land (1987)	This highlights key issues to be addressed in relation to development on agricultural land, including protection of prime agricultural land and mitigation of impacts related to land take, severance and disruption to farm infrastructure.



Table 3: Local and Regional Transport Policies and Strategies

Document Title	Published	Description
The Highland Council Local Transport Strategy 2010/11 – 2013/14	2010	The Local Transport Strategy (LTS) sets the direction for transport in the Highlands at a local level. The principal themes at the heart of the LTS relate to safety, sustainability, economic development and integration. The Highland Council LTS Vision is as follows: "Through its Local Transport Strategy, the Highland Council seeks to enable and facilitate sustainable development and economic growth; support, include and empower communities through transparent decision-making, and establish an integrated transport network which supports safe and sustainable environments in which people can live, work and travel." The LTS objectives include the following: Economy: Provide a transport network to enable sustainable economic growth, noting the very different conditions between urban and rural locations and addressing the remoteness factor facing Highland trips to the rest of the UK. Social Inclusion: Facilitate travel to enable economic/social involvement and improve access/travel choices to essential services for those without access to a private car. Environment: Manage/reduce the impacts of transport on the natural and built environment. Road Safety: Continue to improve road safety, addressing locations where road accidents are above average levels. Traffic reduction: Where appropriate consider targets for reducing traffic, although noting the variation in conditions and requirements between rural and urban areas.
HITRANS Regional Transport Strategy	2008	The Regional Transport Strategy (RTS) is a statutory document that sets out a framework for taking forward transport policy and infrastructure within The Highlands. The RTS outlines the objectives and programme of action to enhance transport in the HITRANS area: Moray, Argyll and Bute, Highland, Orkney and the Western Isles. The RTS was approved by the Scottish Government, following modifications, in 2008. The primary objective for the Strategy is "to improve the interconnectivity of the whole region to strategic services and destinations in order to enable the region to compete and support growth." Actions and investment to deliver the Strategy are focused on a range of themes including the following: active travel; congestion and urban issues; locally significant network and maintenance of the area's roads; cost of transport and travel; and



Table 4: Regional and Local Planning Policy

Policy Ref.	Title	Summary of Policy		
Highland-wide Local Development Plan 2012				
Policy 28	Sustainable Design	The Council will support developments which promote and enhance the social, economic and environmental well-being of the people of Highland. Among other criteria, proposed developments will be assessed on the extent to which they impact on the following resources, including pollution and discharges, particularly within designated areas: • habitats; • freshwater systems; • species; • marine systems; • landscape; • cultural heritage; • scenery; and • air quality. All development proposals must demonstrate compatibility with the Sustainable Design Guide Supplementary Guidance, which requires that all developments should: • conserve and enhance the character of the Highland area; • use resources efficiently; • minimise the environmental impact of development; and • enhance the viability of Highland communities. Compatibility should be demonstrated through the submission of a Sustainable Design Statement where required to do so by the Guidance. Where environmental and/or socioeconomic impacts of a proposed development are likely to be significant by virtue of nature, size or location, the Council will require the preparation of appropriate impact assessments. Developments that will have significant adverse effects will only be supported if no reasonable alternatives exist, if there is demonstrable overriding strategic benefit or if satisfactory overall mitigating measures are incorporated.		
Policy 29	Design Quality and Place- Making	Policy 29 provides that new development should be designed to make a positive contribution to the architectural and visual quality of the place in which it is located, where appropriate. Applicants should demonstrate sensitivity and respect towards the local distinctiveness of the landscape, architecture, design and layouts in their proposals. Proposals should also have regard to the historic pattern of development and landscape in the locality.		
Policy 30	Physical Constraints	Developers must consider whether their proposals would be located within area of constraints as set out in Physical Constraints Supplementary Guidance. The main principles of the guidance are: • to provide developers with up to date information regarding physical constraints to development in Highland; and • to ensure proposed developments do not adversely affect human health and safety or pose risk to safeguarded sites. Where a proposed development is affected by any of the constraints detailed within the guidance, developers must demonstrate compatibility with the constraint or outline appropriate mitigation measures to be provided.		
Policy 36	Development in the Wider Countryside	Outwith Settlement Development Areas, development proposals will be assessed for the extent to which they: • are acceptable in terms of siting and design; • are sympathetic to existing patterns of development in the area; • are compatible with landscape character and capacity; • avoid incremental expansion of one particular development type within a landscape whose distinct character relies on an intrinsic mix/distribution of a range of characteristics • avoid, where possible, the loss of locally important croft land; and • would address drainage constraints and can otherwise be adequately serviced, particularly in terms of foul drainage, road access and water supply, without involving undue public expenditure or infrastructure that would be out of keeping with the rural character of the area. Development proposals may be supported if they are judged to be not significantly detrimental under the terms of this policy. In considering proposals, regard will also be had to the extent to which they would help, if at all, to support communities in Fragile Areas (as defined by Highlands & Islands Enterprise) in maintaining their population and services by helping to re-populate communities and strengthen services.		
Policy 51	Trees and Development	The Council will support development which promotes significant protection to existing hedges, trees and woodlands on and around development sites. The acceptable developable area of a site is influenced by tree impact, and adequate separation distances will be required between established trees and any new development. Where appropriate a woodland management plan will be required to secure management of an existing resource. The Council will secure additional tree/hedge planting within a tree planting or landscape plan to compensate removal and to enhance the setting of any new development.		



Policy Ref.	Title	Summary of Policy
Policy 52	Principle of Development in Woodland	Applicants are required to demonstrate that a woodland site has capacity to accommodate any proposed development. There is a strong presumption in favour of protecting woodland resources and development resulting in their loss will only be supported where they offer clear and significant public benefit. Compensatory planting will usually be required where woodland will be removed.
Policy 53	Minerals	The Council will support the extraction of minerals from any reserves underlying a proposed development where it would be desirable to extract the minerals prior to development. The Council will also support borrow pits which are near to or on the site of associated development if it can be demonstrated that they are the most suitable source of material, are time limited and appropriate environmental safeguards are in place for the workings and the reclamation.
Policy 54	Mineral Waste	The Council encourages the minimisation and positive re-use/recycling of mineral, construction and demolition wastes.
Policy 55	Peat and Soils	Development proposals should demonstrate how they have avoided unnecessary disturbance, degradation or erosion of peat and soils. Unacceptable disturbance of peat will not be permitted unless it is shown that the adverse environmental effects of such disturbance are clearly outweighed by social, environmental or economic benefits arising from the development. Where development on peat is clearly demonstrated to be unavoidable then The Council may ask for a peatland management plan to be submitted which clearly demonstrates how impacts have been minimised and mitigated. Proposals must also demonstrate to the Council's satisfaction that extraction would not adversely affect the integrity of nearby Natura sites containing areas of peatland.
Policy 56	Travel	 Development proposals that involve travel generation must include sufficient information with the application to enable the Council to consider any likely on- and off- site transport implications of the development and should: be well served by the most sustainable modes of travel available in the locality from the outset, providing opportunity for modal shift from private car to more sustainable transport modes wherever possible, having regard to key travel desire lines; in particular, the Council will seek to ensure that opportunities for encouraging walking and cycling are maximised; be designed for the safety and convenience of all potential users; and incorporate appropriate mitigation on site and/or off site, provided through developer contributions where necessary, which might include improvements and enhancements to the walking/cycling network and public transport services, road improvements and new roads The Council will seek to ensure that locations with potential for introducing bus priority measures are protected from development. The Council will seek the implementation and monitoring of Green Travel Plans in support of significant travel generating developments. In assessing development proposals, the Council will also have regard to any implications arising from the relevant Core Paths Plan and will apply the terms of Policy 77: Public Access.
Policy 57	Natural, Built and Cultural Heritage	 All development proposals will be assessed taking into account the level of importance and type of heritage features, the form and scale of the development, and any impact on the feature and its setting in the context of the policy framework in Appendix 2 (defines the natural, built and cultural heritage features – international, national and local/regional importance). The following criteria will also apply: for features of local/regional importance we will allow development if it can be satisfactorily demonstrated that they will not have an unacceptable impact on the natural environment, amenity and heritage resources; for features of national importance we will allow development that can be shown not to compromise the natural environment, amenity and heritage resource. Where there may be any significant adverse effects, these must be clearly outweighed by social or economic benefits of national importance. It must be shown that the development will support communities in fragile areas who are having difficulties in keeping their population and services. For features of international importance developments likely to have a significant effect on a site, either alone or in combination with other plans or projects, and which are not directly connected with or necessary to the management of the site for nature conservation will be subject to an appropriate assessment. Where we are unable to ascertain that a proposal will not adversely affect the integrity of a site, the Council will only allow development if there is no alternative solution and there are imperative reasons of overriding public interest, including those of a social or economic nature. Where a priority habitat or species (as defined in Annex 1 of the Habitats Directive) would be affected, development in such circumstances will only be allowed if the reasons for overriding public interest relate to human health, public safety, beneficial consequences of primary importance for the environment, or other reasons sub

Policy Ref.	Title	Summary of Policy
Policy 58	Protected Species	Where there is good reason to believe that a protected species may be present on site or may be affected by a proposed development, the Council will require a survey to be carried out to establish any such presence and if necessary a mitigation plan to avoid or minimise any impacts on the species, before determining the application. Development that is likely to have an adverse effect, individually and/or cumulatively, on European Protected Species will only be permitted where: • there is no satisfactory alternative; • the development is required for preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment; and • the development will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range. Development that is likely to have an adverse effect, individually and/or cumulatively, on protected bird species will only be permitted where: • there is no other satisfactory solution; and • the development is required in the interests of public health or public safety. This will include but is not limited to avoiding adverse effects, individually and/or cumulatively, on the populations of the following priority protected bird species: • species listed in Annex 1 of the EC Birds Directive; • regularly occurring migratory species listed in Annex II of the Birds Directive; • species listed in Schedule 1 of the Wildlife and Countryside Act 1981 as amended; and • birds of conservation concern. Development that is likely to have an adverse effect, individually and/or cumulatively, on other protected animals and plants will only be permitted where the development is required for preserving public health or public safety. Development proposals should avoid adverse disturbance, including cumulatively, to badgers and badger setts, protected under the Protection of Badgers Act 1992
Policy 59	Other Important Species	The Council will have regard to the presence of and any adverse effects of development proposals, either individually and/or cumulatively, on the Other Important Species which are included in the lists below, if these are not already protected by other legislation or by nature conservation site designations: • species listed in Annexes II and V of the EC Habitats Directive; • priority species listed in the UK and Local Biodiversity Action Plans; and • species included on the Scottish Biodiversity List. The Council will use conditions and agreements to ensure detrimental impacts on these species are avoided.
Policy 60	Other Important Habitats and Article 10 Features	The Council will seek to safeguard the integrity of features of the landscape which are of major importance because of their linear and continuous structure or combination as habitat "stepping stones" for the movement of wild fauna and flora (Article 10 Features). The Council will also seek to create new habitats which are supportive of this concept. The Council will have regard to the value of the following Other Important Habitats, where not protected by nature conservation site designations (such as natural water courses), in the assessment of any development proposals which may affect them either individually and/or cumulatively: • habitats listed in Annex I of the EC Habitats Directive; • habitats of priority and protected bird species; • priority habitats listed in the UK and Local Biodiversity Action Plans; and • habitats included on the Scottish Biodiversity List. The Council will use conditions and agreements to ensure that significant harm to the ecological function and integrity of Article 10 Features and Other Important Habitats is avoided. Where it is judged that the reasons in favour of a development clearly outweigh the desirability of retaining those important habitats, the Council will seek to put in place satisfactory mitigation measures, including where appropriate consideration of compensatory habitat creation.
Policy 61	Landscape	New developments should be designed to reflect the landscape characteristics and special qualities identified in the Landscape Character Assessment of the area in which they are proposed. This will include consideration of the appropriate scale, form, pattern and construction materials, as well as the potential cumulative effect of developments where this may be an issue. The Council would wish to encourage those undertaking development to include measures to enhance the landscape characteristics of the area. This will apply particularly where the condition of the landscape characteristics has deteriorated to such an extent that there has been a loss of landscape quality or distinctive sense of place. In the assessment of new developments, the Council will take account of Landscape Character Assessments, Landscape Capacity Studies and its supplementary guidance on Siting and Design and Sustainable Design, together with any other relevant design guidance.

Policy	Title	Summary of Policy
Ref. Policy 62	Geodiversity	Development proposals that include measures to protect and enhance geodiversity interests of international, national and regional/local importance in the wider countryside, will be supported. The Council will also support improvement of accessibility and interpretation as an educational or geo-tourism resource, where it is possible to integrate sympathetically development, geodiversity and other existing interests.
Policy 63	Water Environment	The Council will support proposals for development that do not compromise the objectives of the Water Framework Directive (2000/60/EC), aimed at the protection and improvement of Scotland's water environment. In assessing proposals, the Council will take into account the River Basin Management Plan for the Scotland River Basin District and associated Area Management Plans and supporting information on opportunities for improvements and constraints.
Policy 64	Flood Risk	Development proposals should avoid areas susceptible to flooding and promote sustainable flood management. Development proposals within or bordering medium to high flood risk areas, will need to demonstrate compliance with SPP through the submission of suitable information which may take the form of a Flood Risk Assessment. Where flood management measures are required, natural methods such as restoration of floodplains, wetlands and water bodies should be incorporated, or adequate justification should be provided as to why they are impracticable.
Policy 66	Surface Water Drainage	All proposed development must be drained by Sustainable Drainage Systems (SuDS) designed in accordance with The SuDS Manual (CIRIA C697) and, where appropriate, the Sewers for Scotland Manual 2nd Edition. Planning applications should be submitted with information in accordance with Planning Advice Note 69: Planning and Building Standards Advice on Flooding paragraphs 23 and 24. Each drainage scheme design must be accompanied by particulars of proposals for ensuring long-term maintenance of the scheme.
Policy 72	Pollution	Proposals that may result in significant pollution such as air, noise or water will only be approved where a detailed assessment report on the levels, character and transmission and receiving environment of the potential pollution is provided by the applicant to show how the pollution can be appropriately avoided and if necessary mitigated. Major Developments and developments that are subject of Environmental Impact Assessment will be expected to follow a robust project environmental management process, following the approach set out in the Council's Guidance Note "Construction Environmental Management Process for Large Scale Projects" or a similar approach.
Policy 73	Air Quality	The Council states that development proposals which, individually or cumulatively, may adversely affect the air quality in an area to a level which could cause harm to human health and wellbeing or the natural environment must be accompanied by appropriate provisions, such as an Air Quality Assessment, (deemed satisfactory to the Local Authority and SEPA as appropriate) which demonstrate how such impacts will be mitigated. The Council will not approve proposals which would result in an unacceptable conflict with the existing land use to air quality impacts.
Policy 74	Green Networks	Green networks should be protected and enhanced. Development in areas identified for the creation of green networks should seek to avoid the fragmentation of the network and take steps to improve its connectivity, where this is appropriate. The detailed identification of green networks around regional and sub-regional centres will be carried out by the Council using the methodology described in the document "Green Networks: Supplementary Guidance". Pending identification by the Council of green networks, both within the study areas and elsewhere, developers should identify, protect and enhance the existing network of green spaces and green corridors which link built-up areas to the surrounding countryside, using the methodology in the supplementary guidance. The main principles of the guidance are to: • help promote greenspace linkages and to safeguard and enhance wildlife corridors in and around new and existing developments; • set out a methodology for identifying the Highland Green Network; • enable new development to take advantage of the outstanding landscape in the area while also preserving areas of significant landscape value; and • set out mechanisms for delivery of projects to maintain and enhance the existing green network.
Policy 75	Open Space	The Council's long term aim for open space provision is for: • the creation of sustainable networks of open space of high quality; • areas of local open space that are accessible by foot and linked to a wider network; • fit for purpose greenspaces and sports facilities that support and enhance biodiversity; and • open spaces that improve the quality of life of residents and visitors. Existing areas of high quality, accessible and fit for purpose open space will be safeguarded from inappropriate development and enhancement will be sought, where appropriate. All sites identified in the Highland Council's Audit of Greenspace will be safeguarded unless: • it can be suitably demonstrated that the open space is not fit for purpose; • substitute provision will be provided meeting the needs of the local area; or • development of the open space would significantly contribute to the spatial strategy for the area.



Policy Ref.	Title	Summary of Policy
Policy 76	Playing Fields and Sports Pitches	 Playing fields will be safeguarded from development and should not be redeveloped, except where: the proposed development is ancillary to the principal use of the site as a playing field; the proposed development involved a minor part of the playing field which would not affect its use and potential for sport and training; the playing field which would be lost would be replaced by a new playing field of comparable or greater benefit for sport in a location which is convenient for its users, or by the upgrading of an existing playing field to provide a better quality facility either within the same site or at another location which is convenient for its users and which maintain or improved the overall playing capacity in the area; or it can be clearly demonstrated that there is an excess of sports pitches to meet current and anticipated future demand in the area, and that the site could be developed without detriment to the overall quality of provision.
Policy 77	Public Access	 Where a proposal affects a route included in a Core Paths Plan or an access point to water, or significantly affects wider access rights, then The Council will require it to either: retain the existing path or water access point while maintaining or enhancing its amenity value; or ensure alternative access provision that is no less attractive, is safe and convenient for public use, and does not damage or disturb species or habitats. For a proposal classified as a Major Development, the Council will require the developer to submit an Access Plan. This should show the existing public, non-motorised public access footpaths, bridleways and cycleway on the site, together with proposed public access provision, both during construction and after completion of the development (including links to existing path networks and to the surrounding area, and access point to water).
Policy 78	Long Distance Routes	The Council will safeguard and seek to enhance long distance routes and their settings. Consideration will be given to developing/improving further strategic multi user routes both inland and along the coast with due regard to the impact on National Heritage features along these routes.
Nairnshir	e Local Plan 2000 (As continued in force April 2012)
General Policy S2	Housing	In the areas identified on the Proposals Map, the Council will safeguard the function and character of established residential areas, and encourage appropriate services, amenities and environmental enhancement.
General Policy S3	Business	In the areas identified on the Proposals Map, the Council will promote business/tourism.
General Policy S4	Industry	In the areas identified on the Proposals Map, the Council will promote industrial uses.
General Policy S5	Special Uses	In the areas identified on the Proposals Map, the Council will expect existing uses to be maintained unless stated.
Inverness	Local Plan 2006 (A	As continued in force April 2012)
General Policy A	Amenity	In the areas identified on the Proposals Map, the Council will safeguard areas from development not associated with their purpose and function.
General Policy B	Business	In the areas identified on the Proposals Map, the Council will maintain or promote business/tourism.
General Policy H	Housing	In the areas identified on the Proposals Map, the Council will safeguard the function and character of established residential areas and will encourage appropriate development.
General Policy I	Industry	In the areas identified on the Proposals Map, the Council will maintain or promote industrial uses.
General Policy S	Special Uses	In the areas identified on the Proposals Map, the Council will expect other uses mainly of a community, service or tourist related nature to be maintained or developed where stated.



Table 5: HwLDP Supplementary Guidance Notes

Supplementary Guidance Note	Adopted	Description
Sustainable Design Guide Supplementary Guidance	2013	This guide is intended to encourage high quality and sustainable development, which will minimise impacts on the natural environment, help counter the effects of climate change and also promote greater use of local and renewable materials
Highland Historic Environment Strategy	2013	The vision of this Strategy is to ensure that the future management of change to the historic environment within Highland is based on an understanding of its economic, social and cultural value and that all future decisions are based on informed consideration of the heritage assets to ensure that they are protected, conserved and preserved for existing and future generations.
Trees, Woodland and Development Supplementary Guidance	2013	This guidance emphasises that trees are of vital importance to the environment and widely appreciated for enhancing the rural and urban landscape. As public awareness of environmental issues becomes more influential there is an increasing need to focus attention on trees and woodland and their role in maintaining and enhancing their environmental benefits. Applicants seeking planning permission are required to effectively consider and subsequently manage existing trees and woodlands, as well as identify opportunities for planting and management of new trees and woodlands.
Green Networks Supplementary Guidance	2013	This Guidance seeks to promote green space linkages and to safeguard and enhance wildlife corridors in and around new developments. Green networks form important habitat and recreation opportunities. The purpose of the guidance is to put in place a means of identifying the Highland Green Network and a mechanism for the delivery of its enhancement, in line with Policy 74 of The Highland wide Local Development Plan.
Highland's Statutorily Protected Species Supplementary Guidance	2013	The guidance reflects the policy advice given in SPP, and supplements Policy 58 of The Highland Council's Highland wide Local Development Plan. It outlines the relevant legislation for protected species and identifies key principles for furthering of conservation of biodiversity.
Physical Constraints Supplementary Guidance	2013	This guidance reflects the policy advice given in SPP, and supplements Policy 30 of The Highland Council's Highland wide Local Development Plan. This guidance identifies the range of physical constraints which exist across Highland, provides a description of each and outlines why it should be taken into consideration. It has been produced to provide prospective developers with an up to date list of such constraints on development. It is important to note that such constraints do not necessarily preclude development, however where a proposed development is affected by any of the constraints listed, developers should demonstrate compatibility with the constraint or outline appropriate mitigation measures.
Flood Risk and Drainage Impact Assessment Supplementary Guidance	2013	This Guidance puts the Highland Council's general planning policy on flooding and development into detailed planning, construction and maintenance practice. This guidance aims to improve the design and implementation of developments and their related drainage arrangements.



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A9.1: Noise & Vibration - Technical Definitions

This appendix provides a definition of, or an explanation behind, some of the terms used in the noise and vibration chapter to aid understanding.

The sound wave travelling through the air is a regular disturbance in ambient atmospheric pressure. These pressure fluctuations, when of frequencies within the audible range, are detected by the human ear which passes nerve responses to the brain, producing the sensation of hearing. Noise has been defined in a variety of ways and is very much dependent on factors such as the listener's attitude to the source of the sound and their environment, but is essentially any sound that is unwanted by the recipient.

It is impossible to measure the degree of nuisance caused by noise directly, as this is essentially a subjective response of the listener, but it is possible to measure the "loudness" of that noise. Loudness is related to both the sound pressure level (the magnitude of the maximum excursion of the pressure wave around the ambient atmospheric pressure) and the frequency, both of which can be measured.

The human ear is sensitive to a wide range of sound levels; the sound pressure level of the threshold of pain is over a million times that of the quietest audible sound. In order to reduce the relative magnitude of the numbers involved, a logarithmic scale of decibels (dB) based on a reference level of the lowest audible sound is used.

Also, the response of the human ear is not constant over all frequencies. It is therefore usual to weight the measured frequency to approximate human response. This is achieved by using filters to vary the contribution of different frequencies to the measured level. The "A" weighting network is the most commonly used and has been shown to correlate closely to the non-linear and subjective response of humans to sound. The use of this weighting is denoted by a capital A in the unit abbreviation (i.e. L_{Amax} , L_{Aea} ,

Sound Pressure Level: The sound pressure level (LP or SPL) is the instantaneous acoustic pressure and is measured in decibels (dB). Since the ear is sensitive to variations in pressure, rather than source power or intensity, the measurement of this parameter gives an indication of the impact on people. The SPL is defined as:

$$SPL = 10\log_{10}\left(\frac{p^2}{p_{ref}^2}\right)_{OF} SPL = 20\log_{10}\left(\frac{p}{p_{ref}}\right)$$

where:

p is theroot mean square (rms) pressure of the sound in question (in pascals). pref is the reference sound pressure, defined as the limit of human audibility (2 x 10-5 Pa).

Sound Power Level: The sound power level (LW or PWL) is a measure of the acoustic energy output of a source and is a property of the source itself. The PWL is also measured in dB and is given by:

$$PWL = 10 \log_{10}\!\!\left(\frac{W}{W_0}\right) \label{eq:pwl}$$
 where:

W is the sound power of the source (in watts).

 W_0 is the reference sound power (10-12 watts).

 L_{eq} : The L_{eq} is defined as the equivalent continuous sound level and is the most widely used parameter for assessing environmental noise. Since this descriptor is a type of average level, it must by definition have an associated time period over which the measurement is referring to. This is often included in the abbreviation in the form L_{eq} , T, where T is the time period (i.e. L_{Aeq} , 5 min). The formula



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for calculating the L_{eq} is:

$$L_{eq} = 10\log_{10}\left(\frac{1}{t_2 - t_1} \int_{t_1}^{t_2} \frac{p^2}{p_{ref}^2} . dt\right)$$

In practice, since most modern sound level meters are digital and hence take periodic samples of the sound pressure level, the L_{eq} will be the logarithmic average of all the SPL samples taken in the measurement period.

 L_{max} : The L_{max} is defined as the maximum rms level recorded during a measurement period.

 L_n : The L_n is a statistical descriptor and refers to the level that is exceeded for n% of the time during a particular measurement period. Again, the measurement period that the descriptor refers to is often included in the abbreviation in the format L_n , T. Two of the most commonly used statistical descriptors used for environmental noise assessments are the L_{90} and the L_{10} . These are described in more detail below

 L_{10} : The L_{10} refers to the level exceeded for 10% of the measurement period and is commonly used in assessing road traffic noise as it has been found to give a good indication of the subjective human response to this type of noise.

 L_{90} : The L_{90} refers to the level exceeded for 90% of the measurement period and is widely considered to represent background noise, or the underlying noise in an area between noisy events (such as cars passing etc.).

Free-Field: The term "free-field" refers to noise levels that have been measured or predicted in the absence of any influence of reflections from nearby surfaces. In practice, a measurement is considered to be free-field if it was taken at a distance of over 3.5m from any reflecting surfaces.

Façade Level: Façade levels refer to levels taken at a distance of between 1 and 3.5m of the façade of a building. The difference between the façade and free-field level will depend on the distance from the reflecting surface, but is generally accepted to be approximately 2.5 dB(A).

 L_{night} : The L_{night} is a façade noise index derived from the $L_{A10,18h}$ index using TRL conversion method.

 $L_{night,outside}$: The $L_{night,outside}$ is defined as the free-field A-weighted long-term average sound level of the 8-hour night-time period determined over all nights of a year outside a property.



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A10.1: Landscape Impact Assessment

Table 1: Impact Assessment for Local Landscape Character Areas – Enclosed Farmed Landscapes (Inverness to Gollanfield)

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Enclosed Farmed Landscapes	Medium	All Options	Introduction of realigned Smithton Junction including underbridge and associated carriageway embankments into the existing open and flat landscape.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	Where possible grade out earthworks to assist in integrating junction into existing surrounding landform and allow potential return to agriculture.
		All Options	Loss of mature deciduous woodland from characteristic watercourse woodland belts due to introduction of Smithton Junction. Slight alteration of existing landscape patterns due to removal of existing vegetation.	Permanent	Direct	Negative	Medium	Moderate	Protection and retention of existing mature woodland in close proximity to construction where possible. Inclusion of woodland planting using species found in the surrounding landscape and located to integrate scheme with landscape pattern.
		All Options	Introduction of infrastructure associated with Smithton Junction through agricultural land bounded by a combination of stone walls, hedgerows and fence lines.	Permanent	Direct	Negative	Low/ Medium	Slight/ Moderate	Construction of stone walls, hedgerows or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
		1C, 1C (MV) 1D, 1D (MV)	Loss of agricultural land and disruption and fragmentation of existing field pattern east of Smithton Junction.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.

Overall Impact - Enclosed Farmed Landscapes:

- Option 1A, 1A (MV), 1B, 1B (MV) Moderate
- Option 1C, 1C (MV), 1D, 1D (MV) Moderate/Substantial

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Table 2: Impact Assessment for Local Landscape Character Areas – Inverness Urban Fringe and Culloden (Inverness to Gollanfield)

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Inverness Urban Fringe and Culloden	Medium	1A, 1A (MV) 1B, 1B (MV)	Introduction of the realigned Smithton Junction and associated earthworks into adjacent LLCA farmland and through characteristic mature woodland belts located in close visible proximity. Alteration of wider views towards the Firth and relationship between the adjacent coastline and agricultural character areas.	Permanent	Indirect	Negative	Medium	Moderate	Where possible grade out earthworks to assist in integrating junction into existing landform and allow potential return to agriculture. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Inclusion of woodland planting using species found in the surrounding landscape and located to integrate scheme with landscape pattern.
		1C, 1C (MV) 1D, 1D (MV)	Introduction of the realigned Smithton Junction and realignment of main carriageway and associated earthworks into adjacent LLCA farmland and through characteristic mature woodland belts located in close visible proximity. Alteration of wider views towards the Firth and relationship between the adjacent coastline and agricultural character areas.	Permanent	Indirect	Negative	Medium/ High	Moderate/ Substantial	As above.

Overall Impact - Inverness Urban Fringe and Culloden:

- Option 1A, 1A (MV), 1B, 1B (MV) Moderate
- Option 1C, 1C (MV), 1D, 1D (MV) Moderate/Substantial

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Table 3: Impact Assessment for Local Landscape Character Areas – Enclosed Firth (Inverness to Gollanfield)

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Enclosed Firth	Medium/ High	All Options	Introduction of realigned Smithton Junction including underbridge and associated carriageway embankments into the existing open, flat landscape located in close visible proximity to the coastal LLCA.	Permanent	Indirect	Negative	Medium	Slight/ Moderate	Where possible grade out earthworks to assist in integrating junction into existing surrounding landform. Allow potential return to agriculture. Introduction of additional planting to assist in screening of junction/infrastructure.
		1A, 1A (MV) 1B, 1B (MV)	Fragmentation of field pattern due to introduction of section of local road in cutting.	Permanent	Direct	Negative	Low	Slight/ Moderate	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Protection and retention of vegetation in close proximity to construction where possible.

Overall Impact - Enclosed Firth LLCA:

- Option 1A, 1A (MV), 1B, 1B (MV) Moderate
- Option 1C, 1C (MV), 1D, 1D (MV) Slight/Moderate

Table 4: Impact Assessment for Local Landscape Character Areas – Coastal Lowlands Intensive Farming (Inverness to Gollanfield)

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Coastal Lowlands Intensive Farming	Medium	All Options	Introduction of mainline carriageway, at grade, in cutting and on embankment across flat open rural landscape. Introduction of associated local roads on embankment, in cutting and at grade with associated structures.	Permanent	Direct	Negative	Medium	Moderate	Where possible grade out earthworks to assist in integrating carriageway into existing surrounding landform and allow potential return to agriculture.
		All Options	Introduction of Newton Junction A, Newton Junction B, and Newton Junction C on embankment with associated structures and local roads into a shallow undulating open rural landscape.	Permanent	Direct	Negative	Medium / High	Moderate/ Substantial	Where possible grade out earthworks to assist in integrating junctions into existing surrounding landform. Introduction of planting to assist in screening and integrating the scheme into the surrounding landscape.
		1A, 1A (MV) 1C, 1C (MV)	Loss of agricultural land and disruption and fragmentation of existing field pattern, particularly east of Culblair.	Permanent	Direct	Negative	Medium	Moderate	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
		1A, 1A (MV) 1C, 1C (MV)	Loss of a corner of coniferous plantation south of Milton of Gollanfield.	Permanent	Direct	Negative	Low/ Medium	Slight	Protection and retention of adjacent plantation woodland in close proximity to construction where possible.
		All Options	Introduction of Brackley Junction on embankment with associated structures and local roads into a shallow undulating open rural landscape.	Permanent	Direct	Negative	Medium	Moderate	Where possible grade out earthworks to assist in integrating junctions into existing surrounding landform. Introduction of planting to assist in screening and integrating the scheme into the surrounding landscape.

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
		1B, 1B (MV) 1D, 1D (MV)	Introduction of Mid Coul Junction B on embankment with associated structures and local roads into a shallow undulating open rural landscape.	Permanent	Direct	Negative	Medium	Moderate	Where possible grade out earthworks to assist in integrating junctions into existing surrounding landform. Introduction of planting to assist in screening and integrating the scheme into the surrounding landscape.
		1A, 1A (MV) 1C, 1C (MV)	Introduction of Mid Coul Junction A on embankment with associated structures and local roads into a shallow undulating open rural landscape.	Permanent	Direct	Negative	Medium	Moderate/ Substantial	Where possible grade out earthworks to assist in integrating junction into existing surrounding landform. Introduction of planting to assist in screening and integrating the scheme into the surrounding landscape.
		1B, 1B (MV) 1D, 1D (MV)	Loss of agricultural land and disruption and fragmentation of existing field pattern along stretches of realigned carriageway.	Permanent	Direct	Negative	Low/ Medium	Slight/ Moderate	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
		1B, 1B (MV) 1D, 1D (MV)	Loss of coniferous plantation due to widening of existing carriageway alignment south of Milton of Gollanfield.	Permanent	Direct	Negative	Low	Negligible/ Slight	Protection and retention of adjacent plantation woodland in close proximity to construction where possible.

Overall Impact - Coastal Lowlands Intensive Farming:

Option 1A, 1A (MV),1B, 1B (MV), 1C, 1C (MV),1D, 1D (MV) – Moderate

Table 5: Impact Assessment for Local Landscape Character Areas – Coastal Lowlands Forest Edge Farming (Inverness to Gollanfield)

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Coastal Lowlands Forest Edge Farming	s dge	1A, 1B 1C, 1D	Loss of mature vegetation at Morayston, including an area of established Scots Pine.	Permanent	Direct	Negative	Medium	Slight/ Moderate	Protection and retention of adjacent woodland in close proximity to construction where possible. Inclusion of mixed scrub and woodland planting were appropriate to assist with screening and integration of the scheme into the surrounding landscape.
		All Options	Loss of predominately coniferous plantation woodland as carriageway passes through Tornagrain Wood mostly at grade. Also loss of mature deciduous woodland on fringes.	Permanent	Direct	Negative	Medium	Slight/ Moderate	Protection and retention of adjacent plantation woodland in close proximity to construction where possible.
		1A, 1B 1C, 1D	Introduction of a mainline carriageway at grade and on embankment across flat farmland adjacent to the existing A96, through Tornagrain Wood. Introduction of local roads on embankment with associated structures.	Permanent	Direct	Negative	Medium/ High	Moderate	Where possible grade out earthworks to assist in integrating alignment into existing surrounding landform. Introduction of planting to assist in screening and integrating the scheme into the surrounding landscape.
		All Options	Introduction of local roads on embankment with associated structures.	Permanent	Direct	Negative	Medium	Moderate	Where possible grade out earthworks to assist in integrating local roads into existing surrounding landform. Introduction of planting to assist in screening and integrating the scheme into the surrounding landscape.
		1A (MV) 1B (MV)	Introduction of Newton Junction C on embankments into open, sloping and widely visible rural landscape. Woodland backdrop screens alignment to the south.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	Where possible grade out earthworks to assist in integrating junction into existing surrounding landform.

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
		1A (MV) 1B (MV) 1C (MV) 1D (MV)	Loss of a section of mixed woodland shelter belt planting a dominant linear element within the existing landscape.	Permanent	Direct	Negative	Medium	Moderate	Protection and retention of adjacent existing vegetation in close proximity to construction where possible. Planting proposed to assist in replacing loss of liner tree line in landscape.
		1A (MV) 1B (MV) 1D (MV)	Loss of a section of mature mixed woodland and scrub planting to the east of Newton Junction C. Although clumps of vegetation are a key component of the landscape only minor amounts would be lost.	Permanent	Direct	Negative	Medium	Moderate	Where possible existing mature trees should be protected. If they have to be removed then a similar type of replacement planting along new cuttings should be introduced in order to blend the proposal with existing planting.
		1A (MV) 1B (MV) 1C (MV) 1D (MV)	Introduction of carriageway alignment sweeping through existing open rectilinear field pattern south of Morayston.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.

Overall Impact - Coastal Lowlands Forest Edge Farming :

- Option 1B, 1D Slight/Moderate
- Option 1A, 1C, 1D (MV), 1C (MV) Moderate
- Option 1A (MV), 1B (MV) Moderate/ Substantial

Table 6: Impact Assessment for Local Landscape Character Areas – Coastal Lowlands Intensive Farming (Nairn Bypass)

LLCA	Sensitivity	Route Option	Description Of Impact	Permanent Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Coastal Lowlands Intensive Farming	ands sive	2A, 2B, 2C, 2D	Introduction of Nairn West Junction A including overbridge and associated carriageway embankments leading to loss of existing Delnies Wood.	Permanent	Direct	Negative	Medium	Moderate	Protection and retention of existing mature woodland in close proximity to construction where possible. Inclusion of woodland planting using species found in the surrounding landscape and located to integrate scheme with landscape pattern.
		2E, 2F, 2G, 2H, 2I	Introduction of Nairn West Junction B including overbridge and associated carriageway embankments and cuttings leading to loss of areas of scrub woodland. Located in gravel pit.	Permanent	Direct	Negative	Low/ Medium	Slight/ Moderate	As above.
		2A, 2E, 2H	Introduction of mainline carriageway north of Auldearn, at grade and in cutting across open rural landscape with shallow undulations. Introduction of associated local roads on slight embankment.	Permanent	Direct	Negative	Medium	Moderate	As above.
		2A, 2E, 2H	Loss and fragmentation of existing agricultural land and disruption and field pattern north of Auldearn.	Permanent	Direct	Negative	Medium	Slight/ Moderate	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
		2B, 2C, 2D	Alteration of existing road corridor through the widening of mainline carriageway corridor and introduction of adjacent local roads. Loss of woodland adjacent to existing A96.	Permanent	Direct	Negative	Low	Slight	Protection/retention of existing mature woodland in close proximity to construction. Construction of stone walls, hedgerows, or fence lines along realigned boundaries using construction techniques and materials found in the adjacent landscape. Limit grading out of cuttings/embankment.

LLCA	Sensitivity	Route Option	Description Of Impact	Permanent Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
		2E, 2F, 2G, 2H, 2I	Introduction of main alignment adjacent to existing A96 in cutting with associated overbridge at Blackcastle Cottage.	Permanent	Direct	Negative	Low	Slight	Protection and retention of existing mature woodland in close proximity to construction where possible. Inclusion of woodland planting using species found in the surrounding landscape and located to integrate scheme with landscape pattern. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.

Overall Impact - Coastal Lowlands Intensive Farming:

Option 2B, 2C, 2D, 2F, 2G, 2I – Slight/Moderate

Option 2A, 2E, 2H - Moderate

Table 7: Impact Assessment for Local Landscape Character Areas – Coastal Lowlands Forest Edge Farming (Nairn Bypass)

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Coastal Lowlands Forest Edge Farming	Lowlands Forest Edge	2A, 2B, 2C, 2D	Introduction of mainline carriageway at grade, on embankment and in cutting through agricultural farmland and plantation woodland. Introduction of local roads and associated structures on embankment.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	Where possible grade out earthworks to assist in integrating carriageway into existing surrounding landform and allow potential return to agriculture.
		2E, 2F, 2G, 2H, 2I	Introduction of mainline carriageway at grade, on embankment and in cutting through open, flat agricultural farmland and plantation woodland particularly south of Moss-side. Introduction of local roads and associated structures on embankment.	Permanent	Direct	Negative	High	Substantial	As above.
		2A, 2E	Introduction of realigned Nairn East Junction A including underbridge and associated carriageway embankments into the existing open and flat landscape.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	As above.
		2B, 2F	Introduction of realigned Nairn East Junction B including underbridge and associated carriageway embankments into the existing open and flat landscape.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	As above.
		2H	Introduction of realigned Nairn East Junction C including underbridge and associated carriageway embankments into the existing open and flat landscape.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	As above.

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
		2G	Introduction of realigned A939 Junction A and Nairn East Junction D including structures and associated carriageway embankments introduced into the existing open agricultural landscape and through established woodland plantation.	Permanent	Direct	Negative	High	Substantial	Where possible grade out earthworks to assist in integrating junction into existing surrounding landform and allow potential return to agriculture. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Protection and retention of adjacent plantation woodland in close proximity to construction where possible.
		2A	Loss and fragmentation of existing agricultural land and disruption to field pattern, particularly at Lochdhu Farm, Blackpark and north of Auldearn.	Permanent	Direct	Negative	Medium	Moderate	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
		2B	Loss and fragmentation of existing agricultural land and disruption to field pattern, particularly at Lochdhu Farm and Blackpark.	Permanent	Direct	Negative	Medium	Moderate	As above for Option 2A.
		2C	Loss and fragmentation of existing agricultural land and disruption to field pattern, particularly at Lochdhu Farm, Blackpark and north of Newmill.	Permanent	Direct	Negative	Medium	Moderate	As above for Options 2A.
		2D	Loss and fragmentation of existing agricultural land and disruption to field pattern, particularly east of Howford and south of Newton of Park and Craig's Wood.	Permanent	Direct	Negative	Medium	Moderate	As above for Option 2A.



LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
		21	Loss and fragmentation of existing agricultural land and disruption to field pattern, particularly south of Moss-side, east of Howford, south of Newton of Park and Craig's Wood.	Permanent	Direct	Negative	Medium	Moderate/ Substantial	As above for Option 2A.
		2E	Loss and fragmentation of existing agricultural land and disruption to field pattern, particularly south of Moss-side, Blackpark and north of Auldearn.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	As above for Option 2A.
		2F	Loss and fragmentation of existing of agricultural land and disruption to field pattern, particularly south of Moss-side and at Blackpark.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	As above for Option 2A.
		2G	Loss and fragmentation of existing of agricultural land and disruption to field pattern, particularly south of Moss-side, Blackpark and north of Newmill.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	As above for Option 2A.
		2H	Loss and fragmentation of existing agricultural land and disruption to field pattern, particularly south of Moss-side, and north of Auldearn.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	As above for Option 2A.
		2C, 2G	Loss and fragmentation of existing estate landscape and policy belts at Kinsteary House.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	Protection and retention of adjacent plantation woodland in close proximity to construction where possible. Reinstatement of estate boundary through additional woodland planting.
		2D, 2l	Loss and fragmentation of existing estate landscape and policy belts at Kinsteary House. Introduction of realigned local road and associated structure on embankments.	Permanent	Direct	Negative	High	Substantial	Protection and retention of adjacent plantation woodland in close proximity to construction where possible. Reinstatement of estate boundary through additional woodland planting.



LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
		2A, 2B, 2C, 2E, 2F, 2G	Loss and severance of coniferous plantations (e.g. Delnies Wood, Bognafuaran Wood and Russell's Wood) due to introduction of carriageway alignment.	Permanent	Direct	Negative	Low/ Medium	Slight/ Moderate	Protection and retention of adjacent plantation woodland in close proximity to construction where possible.
		2A, 2B, 2E, 2F, 2H	Loss of mixed woodland shelter belt planting at a number of locations within the existing landscape.	Permanent	Direct	Negative	Low/ Medium	Slight/ Moderate	Protection and retention of adjacent existing vegetation in close proximity to construction where possible. Planting proposed to assist in replacing loss of liner tree line in landscape.
		2C, 2G	Loss of mixed woodland shelter belt planting at a number of locations within the existing landscape, particularly at Newmill policy belts.	Permanent	Direct	Negative	Medium	Moderate	Protection and retention of adjacent existing vegetation in close proximity to construction where possible. Planting proposed to assist in replacing loss of liner tree line in landscape.
		2D, 2I	Loss of mixed woodland shelter belt planting at a number of locations within the existing landscape, particularly at Lochdhu, Howford and Newmill.	Permanent	Direct	Negative	Medium/ High	Moderate/ Substantial	Protection and retention of adjacent existing vegetation in close proximity to construction where possible. Planting proposed to assist in replacing loss of liner tree line in landscape.
		2C, 2D, 2I	Introduction of realigned A939 Junction A, A939 Junction B and Nairn East Junction D including structures and associated carriageway embankments introduced into the existing open agricultural landscape and through established woodland plantation.	Permanent	Direct	Negative	High	Substantial	Where possible grade out earthworks to assist in integrating junctions into existing surrounding landform and allow potential return to agriculture. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Protection and retention of adjacent plantation woodland in close proximity to construction.



LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
		2D, 2H, 2I	Introduction of River Nairn bridge crossing at Howford on extensive embankment. Loss of mature river bank woodland. Located in close proximity to existing Howford Bridge which is recognised as a non-designated cultural heritage asset.	Permanent	Direct	Negative	High	Substantial	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Protection and retention of woodland in close proximity to construction where possible.

Overall Impact - Coastal Lowlands Forest Edge Farming:

Option 2A, 2B – Moderate

Option 2C, 2E, 2F, 2G - Moderate/Substantial

Option 2D, 2H, 2I – Substantial

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Table 8: Impact Assessment for Local Landscape Character Areas – Auldearn (Nairn Bypass)

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Auldearn Low/ Medium		2A, 2E, 2H	Loss of mature deciduous planting along roadside due to widening of existing road corridor at Auldearn.	Permanent	Direct	Negative	Low	Negligible/ Slight	Protection and retention of adjacent existing vegetation in close proximity to construction. Planting to assist in replacing loss of liner tree line.
		2B, 2F	Loss of mature deciduous planting and open grassland along roadside due to realignment and widening of existing road corridor at Auldearn.	Permanent	Direct	Negative	Low	Slight	As above.

Overall Impact - Auldearn:

Option 2A, 2E, 2H - Negligible/Slight

Option 2B, 2F - Slight

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Table 9: Impact Assessment for Local Landscape Character Areas – Nairn (Nairn Bypass)

LLCA	Sensitivity	Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance	Potential Mitigation
Nairn	Low/ Medium	2A, 2B, 2C, 2D	Loss of plantation woodland and agricultural land adjacent to roadside due to widening of existing road corridor on the outskirts of Nairn.	Permanent	Direct/ Indirect	Negative	Low	Negligible/ Slight	Protection and retention of adjacent existing vegetation in close proximity to construction where possible. Planting proposed to assist in replacing loss of liner tree line in landscape.

Overall Impact - Nairn:

Option 2A, 2B, 2C, 2D - Negligible/Slight

DMRB Stage 2 Route option Assessment Report

Part 6: Appendices

A10.2: Visual Impact Assessment – Built Receptors

Note - Route options which have a negligible impact or no impact on a receptor are not listed in the tables below.

Table 1: Visual Impact on Built Receptors (Inverness to Gollanfield)

Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
1 Glenbeg	1C, 1C (MV), 1D, 1D (MV)	Dwellings (3)	High	Rural, road, vehicles, urban. High Importance.	Road, vehicles, lighting.	Medium	Moderate	Route options would interrupt expansive view over wide, open, good quality agricultural landscape with clumps of woodland dispersed amongst the landscape. Rectilinear field pattern would be altered. Significance of impacts limited by surrounding screen planting.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate.
	1A, 1A (MV), 1B, 1B (MV)	Dwellings (3)	High	Rural, road, vehicles, urban. High Importance.	Road, vehicles, lighting.	Low	Slight	Route option alignment and widening of carriageway would decrease viewing distance of road elements and existing road corridor. Significance of impacts limited by surrounding screen planting.	As receptor 1.
2 Houses along Caulfield Road and footpath	1C, 1C (MV), 1D, 1D (MV)	Dwellings (20+)	High	Rural, road, vehicles, urban, sea. High Importance.	Road, vehicles, lighting, embankment.	Low/ Medium	Slight/ Moderate	Route options would interrupt expansive view over wide, open, good quality agricultural landscape with clumps of woodland dispersed amongst the landscape. Rectilinear field pattern would be altered.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
2 Houses along Caulfield Road and footpath	1A, 1A (MV), 1B, 1B (MV)	Dwellings (20+)	High	Rural, road, vehicles, urban, sea. High Importance.	Road, vehicles, embankment, lighting.	Low	Slight	Route option alignment and widening of carriageway would decrease viewing distance of road elements and existing road corridor. Significance of impacts limited by surrounding screen planting.	As receptor 1.
3 Milton of Culloden Smallholdings	1C, 1C (MV), 1D, 1D (MV)	Dwellings (7)	High	Rural, road, vehicles, urban, sea. High Importance.	Road, vehicles, embankment, lighting.	Medium/ High	Moderate/ Substantial	Route options would interrupt expansive view over wide, open, good quality agricultural landscape with clumps of woodland dispersed amongst the landscape. Rectilinear field pattern would be altered. Existing mature woodland limits views to other route options.	As receptor 1.
	1A, 1A (MV), 1B, 1B (MV)	Dwellings (7)	High	Rural, road, vehicles, urban, sea. High Importance.	Road, vehicles, embankment, lighting.	Low/ Medium	Slight/ Moderate	Route option alignment and widening of carriageway would decrease viewing distance of road elements and existing road corridor. Existing mature woodland limits views to route options.	As receptor 1.
4 Allanfeam	1A, 1A (MV), 1B, 1B (MV)	Dwellings (3)	High	Rural, road, vehicles, urban, sea. High Importance.	Road, vehicles, embankment, lighting.	High	Substantial	Route options would interrupt expansive view over wide, open, good quality agricultural landscape. Rectilinear field pattern would be altered. Local road on embankment contrast with existing flat topography. Route options are in close proximity to receptors.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
4 Allanfearn	1C, 1C (MV), 1D, 1D (MV)	Dwellings (3)	High	Rural, road, vehicles, urban, sea. High Importance.	Road, vehicles, embankment, lighting.	High	Substantial	Considerable interruption to existing field structure as route option runs through an open agricultural landscape on embankment. Route option in close proximity to receptors.	As receptor 1.
5 Hazel Avenue	1C, 1C (MV), 1D, 1D (MV)	Dwellings (20+)	Medium/ High	Rural, road, vehicles, sea. High Importance.	Road, vehicles, embankment, lighting.	High	Substantial	Receptors would experience an expansive view over wide, open, good quality agricultural landscape with clumps of woodland dispersed amongst the landscape. The Moray Firth and Northern Highlands mountain range beyond would form the backdrop. The view would be considerably interrupted by the route option alignment. Mature shelterbelts would be broken, altering the limited vertical elements within the landscape.	As receptor 1.
	1A, 1A (MV), 1B, 1B (MV)	Dwellings (20+)	Medium/ High	Rural, road, vehicles, sea. High Importance.	Road, vehicles, embankment, lighting.	Low	Slight	Views towards route option alignment screened by intermediate topography and boundary field vegetation.	As receptor 1.
6 Blackhill	1A, 1A (MV), 1B, 1B (MV)	Dwelling (1)	High	Rural, railway, Moray Firth. High Importance.	Road, vehicles, embankment, local road.	Medium	Moderate	Local road on embankment alters existing rectilinear field pattern. Route option alignment screened by existing topography.	As receptor 1, but with limited opportunity for screen planting.
7 Redhill	1A, 1A (MV), 1B, 1B (MV)	Dwelling (1)	High	Rural, railway Moray Firth. High Importance.	Road, vehicles, embankment, local road.	Low	Slight	Local road on embankment alters existing rectilinear field pattern. Route option alignment screened by existing topography.	As receptor 1, but with limited opportunity for screen planting.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
8 Lower Cullernie	1A, 1A (MV), 1B, 1B (MV)	Dwellings (2)	High	Rural, road, vehicles, railway. Medium Importance.	Road, vehicles, embankment, local road, overbridge.	High	Substantial	Route option alignment cuts through open, high grade, landscape, altering existing field pattern. Local road on embankment and associated overbridge contrast existing rolling topography.	As receptor 1. In relation to screen planning, shrub and scrub planting could be introduced along roadside for screening purposes. Hedgerows could be used to match field existing boundaries.
	1C, 1C (MV), 1D, 1D (MV)	Dwellings (2)	High	Rural, road, vehicles, railway. Medium Importance.	Road, vehicles, possibly junction.	Low	Slight	Distant views as route option alignment cuts through open agricultural field north of Balloch. Existing road corridor and distance of view would limit significance of impacts.	As receptor 1, but with limited opportunity for screen planting.
9 Upper Cullernie Farm	1C, 1C (MV), 1D, 1D (MV)	Dwellings (13)	High	Rural, road, vehicles, sea, mountains. High Importance.	Road, vehicles, embankment, lighting, junction.	High	Substantial	Road and particularly Newton Junction B would interrupt expansive view over wide, open, good quality agricultural landscape with a backdrop of the Moray Firth and Northern Highlands mountain range beyond. Route option alignment would alter existing field pattern. Earthworks and overbridge would contrast with natural topography. Existing route corridor limits significance of impact.	As receptor 1.
	1A, 1B	Dwellings (13)	High	Rural, road, vehicles, sea. High Importance.	Road, vehicles, embankment, lighting, junction.	Medium/ High	Moderate/ Substantial	Route option alignment interrupts existing field pattern. Newton Junction A, embankments, and overbridge interrupt scenic views over open agricultural landscape.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
	1A (MV), 1B (MV)	Dwellings (13)	High	Rural, road, vehicles, sea. High Importance.	Road, vehicles, embankment, lighting.	Medium	Moderate	Route option alignment in cutting interrupts existing, rectilinear field boundary.	As receptor 1.
10 Balmachree	1A, 1B	Dwelling (1)	High	Rural road, vehicles. High Importance.	Road, vehicles, embankment, junction.	Medium	Moderate/ Substantial	Introduction of route option alignment and Newton Junction A would interrupt field and existing views of rural landscape. Local road on embankment would alter field pattern.	As receptor 1, but with limited opportunity for screen planting.
	1A (MV), 1B (MV)	Dwelling (1)	High	Rural road, vehicles. High Importance.	Road, vehicles, embankment, cutting.	Low	Slight	Distant views of route option alignment introduced into rural landscape character. Route option alignment would also alter field pattern.	As receptor 1, but with limited opportunity for screen planting.
	1C, 1C (MV), 1D, 1D (MV)	Dwelling (1)	High	Rural road, vehicles. High Importance.	Road, vehicles, cutting, embankment, lighting, local roads.	Medium	Moderate	Views of route option alignment introduced into rural landscape character. Newton Junction B would be screened by existing topography.	As receptor 1, but with limited opportunity for screen planting.
11 Newton House	1A, 1B	Dwelling (1)	High	Rural, railway, road, vehicles. High Importance.	Road, vehicles, embankment, junction, lighting, local road.	High	Substantial	Introduction of Newton Junction A into existing view of rural landscape. Route option alignment interrupts field pattern.	As receptor 1, but with limited opportunity for screen planting.
	1A (MV), 1B (MV)	Dwelling (1)	High	Rural, railway, road, vehicles. High Importance.	Road, vehicles, embankment, junction, lighting, local road.	High	Substantial	Introduction of Newton Junction C into existing view of rural landscape. Route option alignment interrupts field pattern.	As receptor 1, but with limited opportunity for screen planting.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
11 Newton House	1C, 1C (MV), 1D, 1D (MV)	Dwelling (1)	High	Rural, railway, road, vehicles. High Importance.	Road, vehicles, embankment.	Medium	Moderate	Introduction of route option alignment into open agricultural landscape. Route options would be further away from receptor than existing A96 corridor.	As receptor 1, but with limited opportunity for screen planting.
12 Newton of Petty Cottages	1A, 1B, 1C, 1D	Dwellings (4)	High	Rural, railway, road, vehicles. High Importance.	Road, vehicles, embankment.	High	Substantial	Introduction of route option alignment in close proximity to receptors. Increased impacts experienced when viewed adjacent to existing A96.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform. Limited opportunity for screen planting.
	1A (MV), 1B (MV)	Dwellings (4)	High	Rural, railway, road, vehicles. High Importance.	Road, vehicles, embankment, junction, overbridge.	High	Substantial	Introduction of Newton Junction C into existing view of rural landscape. Route option alignment interrupts field pattern. Loss of existing mature woodland adjacent to receptors.	As receptor 1.
	1C (MV), 1D (MV)	Dwellings (4)	High	Rural, railway, road, vehicles. High Importance.	Road, vehicles, embankment.	Medium	Moderate	Introduction of route option alignment into open agricultural landscape. Route options would be further away from receptor than existing A96 corridor, but would be viewed in combination with it.	As receptor 1, but with limited opportunity for screen planting.
13 Wester Dalziel, Burnside Cottages	1A (MV), 1B (MV), 1C (MV), 1D (MV)	Dwellings/ Farm (5)	High	Rural, vehicles, industrial. Medium/ High Importance.	Vehicles, lighting, possible junction.	Low/ Medium	Slight/ Moderate	View over rolling, agricultural and forested landscape would generally be unaffected by route options due to pine plantation north of Norbord Factory and by extensive shelterbelt planting connecting the B9039 to the A96. Possible slight view of Newton Junction B or C.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
14 Morayston Farm	1A, 1B, 1C, 1D	Dwellings/ Farm (9)	Medium/ High	Rural, road, vehicles, industrial. High Importance.	Road, vehicles, embankment, lighting.	Medium/ High	Moderate/ Substantial	Generally follows alignment of existing A96 corridor. Local road on embankment introduced into extremely open, expansive field with overbridge clearly visible. Norbord Factory and existing screen planting would limit significance of impacts.	As receptor 1.
	1A (MV), 1B (MV)	Dwellings/ Farm (9)	Medium/ High	Rural, road, vehicles, industrial. High Importance.	Road, vehicles, embankment, lighting, junction.	Medium/ High	Moderate/ Substantial	Route option alignment on embankment considerably interrupts field pattern. Local road on embankment introduced into extremely open, expansive field with overbridge clearly visible. Possible views of Newton Junction C. Norbord Factory and extensive garden planting would limit significance of impacts.	As receptor 1.
	1C (MV), 1D (MV)	Dwellings/ Farm (9)	Medium/ High	Rural, road, vehicles, industrial. High Importance.	Road, vehicles, embankment, lighting.	Medium	Moderate	Route option alignment on embankment considerably interrupts field pattern. Local road on embankment introduced into extremely open, expansive field with overbridge clearly visible. Norbord Factory and extensive garden planting would limit significance of impacts.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
15 Morayhill	1A, 1B, 1C, 1D	Dwelling (1)	Medium/ High	Rural, road, vehicles, industrial. High Importance.	Road, vehicles, embankment, lighting.	Medium/ High	Moderate/ Substantial	Generally follows alignment of existing A96 corridor. Local road on embankment introduced into extremely open, expansive field with overbridge clearly visible. Norbord Factory and existing screen planting would limit significance of impacts.	As receptor 1.
	1A (MV), 1B (MV)	Dwelling (1)	Medium/ High	Rural, road, vehicles, industrial. High Importance.	Road, vehicles, embankment, lighting, junction.	Medium	Moderate/ Substantial	Route option alignment on embankment considerably interrupts field pattern. Local road on embankment introduced into extremely open, expansive field with overbridge clearly visible. Possible views of Newton Junction C. Norbord factory and extensive garden planting would limit significance of Impacts.	As receptor 1.
	1C (MV), 1D (MV)	Dwelling (1)	Medium/ High	Rural, road, vehicles, industrial. High Importance.	Road, vehicles, embankment, lighting.	Medium	Moderate	Route option alignment on embankment considerably interrupts field pattern. Local road on embankment introduced into extremely open, expansive field with overbridge clearly visible. Norbord Factory and extensive garden planting would limit significance of Impacts.	As receptor 1.
16 Easter Dalziel	All Options	Dwellings (4)	High	Rural, vehicles, industrial. High Importance.	Vehicles, lighting.	Low	Slight	View over rolling, agricultural and forested landscape would generally be unaffected by route options due to established woodland and pine plantation. Norbord factory further limits impacts.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
17 Kerrowaird	1A, 1C	Dwellings (4)	Medium	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, lighting, overbridge.	Medium	Moderate	Alignment of route options would lead to loss of woodland planting. Local road on embankment and associated overbridge introduced into extremely open, expansive field. Local road on south side of route option alignment severs existing field boundaries. Norbord Factory and extensive garden planting would limit significance of impacts.	As receptor 1, but with limited opportunity for screen planting.
	1B, 1D	Dwellings (4)	Medium	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, lighting, overbridge.	Medium/ High	Moderate/ Substantial	Options 1B and 1D would have the same route option alignment as route 1A and 1C except in closer proximity to receptors, increasing significance of impacts.	As receptor 1, but with limited opportunity for screen planting.
	1B (MV), 1D (MV)	Dwellings (4)	Medium	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, lighting, overbridge.	High	Substantial	Route option alignment on embankment considerably interrupts field pattern. Although the local road on embankment that reconnects the existing A96 is introduced into extremely open and expansive field, much of its eastern half is hidden behind existing woodland east of Tornagrain Wood. Norbord Factory and extensive garden planting would limit significance of impacts.	As receptor 1, but with limited opportunity for screen planting.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
17 Kerrowaird	1A (MV), 1C (MV)	Dwellings (4)	Medium	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, lighting, overbridge.	High	Substantial	Route option alignment on embankment considerably interrupts field pattern and overbridge is clearly visible. Norbord Factory extensive garden planting and screening from existing woodland east of Tornagrain Wood would limit significance of impacts.	As receptor 1, but with the limited opportunity for screen planting.
18 Dalcross	1A, 1A (MV), 1C, 1C (MV)	Dwellings (3)	High	Rural, road, vehicles, industrial. High Importance.	Vehicles, lighting, junction.	Low	Slight	Existing view of rolling agricultural land and a dense forest backdrop would be interrupted by Mid Coul Junction A and road. Receptor surrounded by dense pine plantation to north, emphasising importance of south facing view.	Earthworks should be gently graded in order to allow return to agriculture. Shrub and scrub planting could be introduced along roadside for screening purposes as this would complement shelterbelt elements within landscape.
19 Dalcross Industrial Estate and Inverness Airport	1A, 1A (MV), 1C, 1C (MV)	Industrial (5)	Low	Rural, road, vehicles, industrial. High Importance.	Vehicles, lighting, junction.	Low	Slight/ Negligible	Existing view of rolling agricultural land and a dense forest backdrop would be interrupted by Mid Coul A Junction and road. Sensitivity of receptors limited because of industrial use and proximity to airport.	As receptor 1.

Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
20 Tornagrain	1A, 1A (MV), 1C, 1C (MV)	Dwellings (10+)	High	Rural, road, vehicles, industrial, sea. High Importance.	Road, vehicles, embankment, lighting, overbridge.	High	Substantial	View of forested agricultural landscape and Moray Firth beyond would be interrupted by route options. Local road and overbridge contrast with open, flat fields. Raised nature of receptors would allow for a more extensive view. Existing road corridor and dominant nature of Norbord Factory within view would limit significance of impacts.	As receptor 1. In relation to screen planting shrub, scrub and tree planting could be introduced as a screening method as they would be characteristic of the surrounding landscape and tie in with existing Tornagrain Wood.
	1B, 1D	Dwellings (10+)	High	Rural, road, vehicles, industrial, sea. High Importance.	Road, vehicles, embankment, lighting, overbridge.	High	Substantial	Very similar to Options 1A and 1C except in closer proximity to receptors. Local road to east runs along field boundary, although views generally focussed in north/west direction.	As receptor 1. In relation to screen planting shrub, scrub and tree planting could be introduced as a screening method as they would be characteristic of the surrounding landscape and tie in with existing Tornagrain Wood.
	1B (MV), 1D (MV)	Dwellings (10+)	High	Rural, road, vehicles, industrial, sea. High Importance.	Road, vehicles, embankment, lighting, overbridge.	High	Substantial	Same route option alignment as Options 1A and 1C except in closer proximity to receptors. Additional local road re-connecting existing A96 increases significance of impact.	As receptor 1. In relation to screen planting shrub, scrub and tree planting could be introduced as a screening method as they would be characteristic of the surrounding landscape and tie in with existing Tornagrain Wood.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
21 Mid Coul Cottages	1A, 1A (MV), 1C, 1C (MV)	Dwellings (3)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, junction, overbridge.	Medium/ High	Moderate/ Substantial	Views of rolling agricultural landscape to the north would be interrupted by road and junction on embankment. Overall significance of impacts would be limited by close proximity of existing road corridor and surrounding screen planting. Substantial earthworks, overbridge and junction infrastructure possibly visible at Mid Coul Junction A.	As receptor 1.
	1B, 1B (MV), 1D, 1D (MV)	Dwelling (2) one dwelling demolished.	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, junction, overbridge.	High	Substantial	Route options predominantly aligned with existing A96 limiting visual impacts. Substantial earthworks, overbridge and junction infrastructure visible at Mid Coul Junction B.	As receptor 1.
22 Mid Coul	1A, 1A (MV), 1C, 1C (MV)	Dwelling/ Farm (1)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, junction, overbridge.	Medium	Moderate	Views of rolling agricultural landscape and distant views towards the Moray Firth would be interrupted by road and Mid Coul Junction A on embankment. Impacts limited by extensive existing garden planting around property, limiting extents of view, and by existing roundabout and overbridge.	As receptor 1. Screening could be utilised around junction as it would be located amongst existing pine plantation.
	1B, 1B (MV), 1D, 1D (MV)	Dwelling/ Farm (1)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, junction, overbridge.	High	Substantial	Route options predominantly aligned with existing A96 limiting visual impacts. Substantial earthworks, overbridge and junction infrastructure visible at Mid Coul Junction B. Impacts limited by existing garden screening.	As receptor 1. Screening could be utilised around junction to tie in with existing Tornagrain Wood to west and aid screening process.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
Culblair 1	1A, 1A (MV), 1C, 1C (MV)	Dwelling/ Farm (1)	High	Rural, road, vehicles, urban, industrial. High Importance.	Road, vehicles, embankment, junction, overbridge.	High	Substantial	Route options and associated embankments would greatly interrupt existing field pattern and wider views of rolling farmland and to the Moray Firth beyond. Route options are in close proximity to receptors. Overbridge and junction infrastructure visible at Mid Coul Junction A. Impacts limited by close proximity to rail line and airport, and dense shelterbelt planting to the south.	As receptor 1.
	1B, 1B (MV), 1D, 1D (MV)	Dwelling/ Farm (1)	High	Rural, road, vehicles, urban, industrial. High Importance.	Road, vehicles, embankment, junction, overbridge.	Medium/ High	Moderate/ Substantial	Route options predominantly aligned with existing A96 limiting visual impacts. Substantial earthworks, overbridge and junction infrastructure possibly visible at Mid Coul Junction B. Impacts limited by existing roundabout and overbridge in proposed location.	As receptor 1.
24 Milton of Gollanfield	1A, 1A (MV), 1C, 1C (MV)	Dwelling (1)	High	Rural, road, vehicles, industrial, sea. Medium Importance.	Road, vehicles, lighting, embankment.	High	Substantial	Route options and associated embankments would greatly interrupt existing field pattern and wider views of rolling farmland. Receptor sensitivity limited due to proximity to railway. Local roads are on slight embankment, but follow field boundaries limiting impact.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
24 Milton of Gollanfield	1B, 1B (MV), 1D, 1D (MV)	Dwelling (1)	High	Rural, road, vehicles, industrial, sea. Medium Importance.	Road, vehicles, lighting, embankment.	Medium	Moderate	Route options predominantly aligned with existing A96. Local roads are on slight embankment, but follow field boundaries limiting impact.	As receptor 1.
25 Drumine Farm	1A, 1A (MV), 1C, 1C (MV)	Dwellings (2)	High	Rural, road, vehicles, unimportant.	Road, vehicles, embankment.	Low	Slight/ Moderate	Substantial screening from surrounding trees and small stand of woodland to north of existing A96 would limit significance of impacts. Route option to east follows that of existing A96, reducing amount views are altered.	As receptor 1. Existing screen planting should be protected, while any existing trees that are lost should be replaced where practical.
	1B, 1B (MV), 1D, 1D (MV)	Dwellings (2)	High	Rural, road, vehicles, unimportant.	Road, vehicles, embankment.	Low	Slight/ Moderate	View would not be greatly interrupted as much of route option that would be visible follows existing route of A96. Substantial screening from surrounding trees and close proximity of existing road corridor would limit significance of impacts.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Existing screen planting should be protected, while any existing trees that are lost should be replaced where practical.
26 Benavoue Cottage	1A, 1A (MV), 1C, 1C (MV)	Dwellings (2)	High	Rural, road, vehicles, wind farm. High Importance.	Road, vehicles, lighting, embankment.	High	Substantial	Route options and associated embankments would greatly interrupt existing field pattern and wider views of rolling farmland. Receptor sensitivity reduced due to proximity to rail line.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
26 Benavoue Cottage	1B, 1B (MV), 1D, 1D (MV)	Dwellings (2)	High	Rural, road, vehicles, wind farm. High Importance.	Road, vehicles, lighting, Embankment.	Medium	Moderate	Route options predominantly aligned with existing A96. Local roads are on embankment but follow field boundaries limiting impacts.	As receptor 1.
27 Polfalden	1A, 1A (MV), 1C, 1C (MV)	Dwellings (2)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, junction, overbridge.	Medium/ High	Substantial	Route options would run through open fields on slight embankment to the west. This would interrupt agricultural setting and views. Local road on embankment, but follows field boundaries limiting impact. Possible view of Brackley Junction with embankments, overbridge and junction infrastructure.	As receptor 1. In relation to screen planting, shrub and scrub planting could be introduced along roadside for screening purposes as this would complement shelterbelt elements within landscape.
	1B, 1B (MV), 1D, 1D (MV)	Dwellings (2)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, embankment, junction, overbridge.	Medium	Moderate/ Substantial	Route options predominantly aligned with existing A96. Local roads are on embankment but follow field boundaries limiting impact. Possible view of Brackley Junction with embankments, overbridge and junction infrastructure.	As receptor 1. In relation to screen planting, shrub and scrub planting could be introduced along roadside for screening purposes. Hedgerows could be used to match field existing boundaries.
28 Brackley	All Options	Dwellings (2), Cafe (1)	High	Road, rural, vehicles. Medium Importance.	Road, vehicles, lighting, junction, earthworks, overbridge, local roads.	High	Substantial	Brackley Junction introduced into open landscape, altering existing rural views in very close proximity. Local roads would alter existing field pattern.	As receptor 1.



Receptor No Road Name/Area	Route Options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
29 Laurel Cottage	All Options	Dwelling (1)	High	Road, rural, vehicles. High Importance.	Road, vehicles, lighting, junction, earthworks, local roads.	High	Substantial	Elements of Brackley Junction introduced into open landscape, altering existing rural views in close proximity. Local roads would alter existing field pattern. Partial screening provided by existing woodland plantation.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate.
30 Drummond Lodge	All Options	Dwelling (1)	High	Road, rural, vehicles. Woodland plantation High Importance.	Road, vehicles, embankment.	Low	Slight	Route option alignment and widening of carriageway would decrease viewing distance of road elements and existing road corridor.	As receptor 1.
31 Multiple	All Options	Dwellings 20+	High	Road, rural, vehicles. High Importance.	None	Low	Slight/ Negligible	Upgrade of existing carriageway would not alter existing views gained by receptors.	No mitigation required.

Table 2: Visual Impact on Built Receptors (Nairn Bypass)

Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
32 Easter Glackton, Rowanhill, Brackadale	2A, 2B, 2C, 2D	Dwellings, Farm (7)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting, embankment.	Low/ Medium	Slight/ Moderate	Route options follow existing A96 corridor. Increased embankments in order to accommodate overbridge. Loss of scrub planting along road side.	As receptor 1.
	2E, 2F, 2G, 2H, 2l	Dwellings, Farm (7)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting, embankments, overbridge/s, junction.	Low/ Medium	Moderate	Route options follow existing A96 corridor then move into cutting and back to grade offline to the south of existing A96 through agricultural land towards Blackcastle Quarry. Potential distant visibility of Nairn West Junction B and overbridge at Blackcastle Cottage. Loss of scrub planting along road side and loss of mature tree belt and coniferous woodland.	As receptor 1.
33 Blackcastle	2A, 2B, 2C, 2D	Dwellings (2)	High	Road, rural, vehicles. Low Importance.	Road, vehicles, cutting.	Low	Slight	Route option alignment and widening of carriageway would decrease viewing distance of road elements and existing road corridor. Extension of existing cutting.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform.

Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
33 Blackcastle	2E, 2F, 2G, 2H, 2I	Dwellings (2)	High	Road, rural, vehicles. Low Importance.	Road, vehicles, lighting, embankments, cuttings overbridge/s, junction	High	Substantial	Route options follow existing A96 corridor then move into cutting and back to grade offline to the south of existing A96 through agricultural land towards Blackcastle Quarry. Potential visibility of Nairn West Junction B. Visibility of overbridge directly behind Blackcastle Cottage. Loss of scrub planting along road side and loss of mature tree belt and coniferous woodland.	As receptor 1.
34 Cockhill	2E, 2F, 2G, 2H, 2I	Dwellings, Farm (4)	Medium/ High	Rural, vehicles, train, industrial. Medium Importance.	Road, vehicles, lighting, junction embankment.	High	Substantial	Route option alignment in cutting through agricultural farmland directly in front of receptor. Views of Nairn West Junction B with substantial earthworks, overbridge, and junction infrastructure. View of overbridge near Blackcastle Cottage. Loss of mature scrub and coniferous woodland surrounding Blackcastle Quarry. Loss of mature tree belt at Blackcastle Cottage.	As receptor 1.
	2A, 2B, 2C, 2D	Dwellings, Farm (4)	Medium/ High	Rural, vehicles, train, industrial. Medium Importance.	Road, vehicles.	Low	Slight	Minor loss of mature scrub and coniferous woodland north of gravel pit due widening of road. New local road in cutting.	Where possible, grade out earthworks to assist in integrating with existing surrounding landform.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
35 New build at 600m west of Mardon House	2E, 2F, 2G, 2H, 2I	Dwellings (2)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting, overbridge, embankment, junction.	High	Substantial	Introduction of Nairn West Junction B would lead to loss of coniferous woodland surrounding Blackcastle Quarry and to the edge of Delnies Wood. Junction infrastructure, including earthworks and overbridge, introduced in relatively close proximity to receptors. Route option alignment on embankment interrupts field pattern and alters existing scenic view in close proximity to receptor.	As receptor 1.
	2A, 2B, 2C, 2D	Dwellings (2)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting.	Low	Slight	New local road in cutting. Route option alignment screened by existing woodland.	Where possible, grade out earthworks to assist in integrating with existing surrounding landform.
36 Drumdivan	2E, 2F, 2G, 2H, 2I	Dwellings (2)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting, overbridge, embankment, junction.	Medium/ High	Moderate/ Substantial	Introduction of Nairn West Junction B would lead to loss of coniferous woodland surrounding Blackcastle Quarry and to the edge of Delnies Wood. Junction infrastructure, including earthworks and overbridge, introduced in relatively close proximity to receptors. Route option alignment on embankment interrupts field pattern and alters existing scenic view in close proximity to receptor.	As receptor 1.
	2A, 2B, 2C, 2D	Dwellings (2)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting.	Low	Slight	New local road in cutting. Route option alignment screened by existing woodland.	Where possible, grade out earthworks to assist in integrating with existing surrounding landform.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
37 Woodside Cottages	2A, 2B, 2C, 2D	Dwellings (4)	Medium/ High	Road, rural, vehicles. Medium Importance.	Road, vehicles, lighting, overbridge, embankment, junction.	Medium/ High	Moderate/ Substantial	Major loss of Delnies Wood. Loss of existing caravan park. Nairn West Junction A infrastructure, including earthworks and overbridge, introduced in close proximity to receptors. Remaining coniferous woodland at Delnies provides screening. Close proximity to existing A96 and B9092 limits significance of impacts.	As receptor 1.
38 Moss Hall, Kildruim, Mardon House, Kildrummie Smithy, Davlyndon	2E, 2F, 2G, 2H, 2l	Dwellings (5)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting, underpass, embankment.	High	Substantial	Route option alignment on embankment introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interrupt field pattern, and alter scenic view.	As receptor 1.
	2A, 2B, 2C, 2D	Dwellings (5)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting.	Low	Slight	New local road in cutting. Route option alignment screened by existing woodland.	Where possible, grade out earthworks to assist in integrating with existing surrounding landform.
39 Mosshall	2E, 2F, 2G, 2H, 2I	Dwellings (5)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, lighting, Junction, Embankment.	Medium/ High	Moderate/ Substantial	Views of primary importance to receptor. Route option alignment on embankment and local roads introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interruption of field pattern, and alteration of scenic view. Possible glimpsed views of Nairn West Junction B.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
39 Mosshall	2A, 2B, 2C, 2D	Dwellings (5)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, embankment.	Medium	Moderate	Distant views of route option alignment on embankment, local roads on embankment, and overbridge introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interrupt field pattern, alter scenic view, and loss of shelterbelt planting.	As receptor 1. There is the opportunity of screen planting to integrate with existing shelterbelts.
40 Elim House	2E, 2F, 2G, 2H, 2I	Dwellings (1)	High	Road, rural, vehicles, train. High Importance.	Road, vehicles, lighting, junction, embankment.	High	Moderate/ Substantial	Views of primary importance to receptor. Route option alignment on embankment and local roads introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interruption of field pattern, and alteration scenic view. Possible glimpsed views of Nairn West Junction B.	As receptor 1.
	2A, 2B, 2C, 2D	Dwellings (1)	High	Road, rural, vehicles, train. Medium Importance.	Road, vehicles, embankment.	Medium	Moderate	Distant views of route option alignment on embankment, local roads on embankment, and overbridge introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interruption of field pattern, and alteration of scenic view.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
Little Logie, Croft House, Caskieben	2E, 2F, 2G, 2H, 2I	Dwellings (5)	High	Road, rural, vehicles, train. High Importance.	Road, vehicles, lighting, underpass, embankment.	High	Substantial	Views of primary importance to receptor. Route option alignment on embankment and local roads introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interrupt field pattern, and alter scenic view.	As receptor 1.
	2A, 2B, 2C, 2D	Dwellings (5)	High	Road, rural, vehicles, train. High Importance.	Road, vehicles, lighting, overbridge, embankment.	Low	Slight	Possible distant views of route option alignment on embankment, local roads on embankment, and overbridge introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interrupt field pattern, alter scenic view, and loss of shelterbelt planting.	As receptor 1.
42 Delnies	2A, 2B, 2C, 2D	Dwellings (2)	Medium/ High	Road, rural, vehicle, Low Importance.	Road, vehicles, lighting, embankment.	Medium	Moderate	Partial views of slip road on embankment. Loss of mature woodland amenity planting from gardens. Partial screening from remaining planting.	As receptor 1.
43 Meikle Kildrummie	2E, 2F, 2G, 2H, 2I	Dwellings (2)	High	Road, rural, vehicles, train. High Importance.	Road, vehicles, lighting, embankment.	High	Substantial	Route option alignment on embankment introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interrupt field pattern, and alter scenic view.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
43 Meikle Kildrummie	2A, 2B, 2C, 2D	Dwellings (2)	High	Road, rural, vehicles, train. High Importance.	Road, vehicles	Low	Negligible/ Slight	Possible distant views of route option alignment on embankment, local roads on embankment. Woodland screening limits significance of impacts.	As Receptor 1.
44 Moss-side	2A, 2B, 2C	Dwellings (10+)	High	Rural, vehicles, train. High Importance.	Road, vehicles, lighting, overbridge, embankment.	High	Substantial	Loss of Delnies Wood. Local road and overbridge on embankment introduced directly behind receptors into a high quality, flat, agricultural landscape. Route option alignment interrupts existing field pattern, severs shelterbelt, and alters view. Increased screening provided by retained shelterbelt.	As Receptor 1.
	2D	Dwellings (10+)	High	Rural, vehicles, train. High Importance.	Road, vehicles, lighting, overbridge, embankment.	High	Substantial	Loss of Delnies Wood. Local road and overbridge on embankment introduced directly behind receptors into a high quality, flat, agricultural landscape. Route option alignment interrupts existing field pattern, severs shelterbelt, and alters view. Increased visibility due to loss of shelterbelts.	As receptor 1.
	2E, 2F, 2G, 2H, 2I	Dwellings (10+)	High	Rural, vehicles, train. High Importance.	Road, vehicles, lighting, overbridge, embankment.	High	Substantial	Views of primary importance to receptor. Route option alignment on embankment and local roads introduced into an open, expansive, high quality agricultural landscape. Contrast with landscape character, interrupt field pattern, and alter scenic view.	As receptor 1, but not suitable for screen planting.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
45 Balnaspirach	2E, 2F, 2G, 2H, 2I	Dwellings (8)	High	Rural, vehicles, train. High Importance.	Road, vehicles, lighting, overbridge, embankment.	High	Substantial	Route option alignment introduced on embankment and local roads introduced into open, high quality landscape interrupting field pattern, altering views, and severing shelterbelts. Embankment and overbridge contrast flat topography. Existing private screen plating limits impacts slightly.	As receptor 1.
	2D	Dwellings (8)Dwellings (8)	High	Rural, vehicles, train. High Importance.	Road, vehicles, lighting, overbridge, embankment.	Medium/ High	Moderate/ Substantial	Route option alignment introduced into open, high quality landscape interrupting field pattern, altering views, and removing shelterbelts. Embankment and overbridge contrast flat topography. Existing private screen plating limits impacts.	As receptor 1.
	2A, 2B, 2C	Dwellings (8)	High	Rural, vehicles, train. High Importance.	Road, vehicles, lighting, overbridge, embankment.	Low/ Medium	Slight/ Moderate	Glimpsed distant views of sections of route option alignment on embankment. Screening provided by woodland and intervening shelterbelt.	As receptor 1.
46 Moss-side road	2A, 2B, 2C, 2D	Dwellings (12)	High	Urban, vehicles. Low Importance.	Road, vehicles, embankment.	Low/ Medium	Slight/ Moderate	Partial loss of existing woodland due to local road on embankment.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Screen planting should be utilised where appropriate.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
47 Lochdhu Farm	2A, 2B, 2C	Dwellings/ Farm (2)	Medium/ High	Rural, vehicles. Medium Importance.	Road, vehicles, lighting, overbridge, embankment.	High	Substantial	Route option alignment introduced in close proximity to receptors. Embankment introduced into flat agricultural landscape. Existing deciduous shelterbelts severed. Loss of mature woodland to north.	As receptor 1, with the opportunity for woodland screening to tie in with existing shelterbelt planting and woodland to north.
	2D	Dwellings/ Farm (2)	Medium/ High	Rural, vehicles. Medium Importance.	Road, vehicles, lighting, overbridge, embankment.	High	Substantial	Embankment introduced into flat agricultural landscape along field boundary. Existing deciduous shelterbelt lost.	As receptor 1, with replacement shelterbelt planting on west side of route option alignment.
	2E, 2F, 2G, 2H, 2I	Dwellings, Farm (2)	Medium/ High	Rural, vehicles. Medium Importance.	Road, vehicles, lighting.	Low	Slight	Glimpsed distant views of sections of route option alignment on embankment. Screening provided by woodland and intervening shelterbelt.	As receptor 1.
Dwellings at eastern end of Cawdor Road	2D, 2H, 2I	Dwellings, Farm (10+)	Medium/ High	Rural, road, vehicles. Medium Importance.	Vehicles, lighting. overbridge, embankment.	Medium/ High	Moderate/ Substantial	Local road directed through edge of field. Route option alignment in cutting leads to severance of shelterbelt. Existing rolling topography and remaining shelterbelt limit views of route option. Possible views of River Nairn crossing and associated embankments.	As receptor 1, with additional screen planting to tie in with shelterbelt.
49 Howford Farm	2D, 2H, 2I	Dwellings, Farm (10+)	High	Rural, road, vehicles, bridge. Medium Importance.	Vehicles, lighting, overbridge, embankment.	High	Substantial	Local road directed through edge of field. Route option alignment in cutting leads to severance of shelterbelt. Views of River Nairn crossing and associated embankments.	As receptor 1, with additional screen planting to tie in with shelterbelt and river bank vegetation.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
50 Broadley Garden Centre	2A, 2B, 2C, 2E, 2F, 2G	Commercial (1)	Low	Rural, road, vehicles, river. Medium Importance.	Road, vehicles, lighting, embankment.	Medium	Slight/ Moderate	Route option alignment in cutting runs across a high quality, flat agricultural landscape. Local road embankment in contrast with flat topography.	As receptor 1.
51 Broadley	2A, 2B, 2C	Dwellings/ Farm (1)	High	Rural, road, vehicles, river. Medium Importance.	Road, vehicles, lighting, overbridge, embankment.	High	Substantial	Route option alignment in cutting runs across a high quality, flat agricultural landscape. Local road embankment and overbridge in contrast with flat topography. Loss of river bank planting. Limited earthworks at new crossing.	As receptor 1.
	2E, 2F, 2G	Dwellings/ Farm (1)	Medium/ High	Rural, road, vehicles, river. Medium Importance.	Road, vehicles, lighting, overbridge, embankment.	High	Substantial	Route option alignment in cutting runs across a high quality, flat agricultural landscape. Local road embankment and overbridge in contrast with flat topography. Loss of river bank planting. Substantial embankment at new crossing.	As receptor 1.
52 Crook House, Crook Cottages	2E, 2F, 2G	Dwellings/ Farm (2)	High	Rural, road, vehicles. Medium Importance.	Vehicles, lighting, earthworks.	Low	Slight	Although route option alignment is in close proximity to receptor potential of existing mixed woodland should limit any view of route option. Route option alignment would lead to loss of woodland.	Screen planting should be utilised where appropriate. Ensure protection and retention of mixed woodland.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
53 Knocknagillan	2D, 2I	Dwellings (3)	High	Rural, vehicles. Medium Importance.	Vehicles, junction, lighting.	Medium	Moderate/ Substantial	A939 Junction B introduced into open, flat agricultural landscape. Earthworks in cutting and distance of views limit visual impacts. Main line alters field pattern in distance.	As receptor 1, with scrub planting to assist with screening and integrate route option with woodland to west.
	2H	Dwellings (3)	High	Rural, vehicles. Medium Importance.	Road, vehicles, lighting, embankment, structure.	High	Substantial	Local road on considerable embankment and associated overbridge introduced into flat agricultural landscape. Route option alignment on slight embankment also introduced in flat agricultural setting, altering exiting field patterns. Loss of Bognafuaran Wood.	As receptor 1.
	2C, 2G	Dwellings (3)	High	Rural, vehicles. Medium Importance.	Road, vehicles, junction, lighting, embankment, structure.	High	Substantial	A939 Junction A introduced extremely close to receptors and directly alters distant views. Considerable embankments and overbridge would result in some loss of Bognafuaran Wood and alteration to existing field pattern.	As receptor 1.
	2A, 2B, 2E, 2F	Dwellings (3)	High	Rural, vehicles. Medium Importance.	Road, vehicles, lighting.	High	Substantial	Route option alignment runs directly in front of receptors severing an open, agricultural field. Route options are in slight cutting, matching the rolling landscape character.	As receptor 1, but area is not an appropriate location for woodland screening.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
54 Househill Mains	2A, 2B, 2E, 2F	Commercial/ Farm (1)	Medium	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, lighting, embankments.	Medium/ High	Moderate/ Substantial	Local road on embankment and associated overbridge introduced into rolling agricultural landscape. Surrounding coniferous woodland south of Skene Park would partially screen earthworks. Route option alignment interrupts existing rectilinear field pattern.	As receptor 1.
	2C, 2G	Commercial/ Farm (1)	Medium	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, lighting, embankments.	Medium	Moderate	Local road on embankment introduced into rolling agricultural landscape. Surrounding coniferous woodland south of Skene Park would be lost due A939 Junction A infrastructure. Route option alignment on embankment would interrupt existing field pattern. Distance of views limits impacts on visual amenity.	As receptor 1.
	2H	Commercial/ Farm (1)	Medium	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, lighting, embankments.	Medium	Moderate	Local road on embankment creates loss of woodland and is introduced into rolling agricultural landscape. Surrounding woodland would partially screen earthworks. Route option alignment on embankment in close proximity to receptor. The fact that the route option alignment is at forest edge limits impact on existing field pattern and views.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Screen planting should be utilised where appropriate.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
55 Househill Mains Farmhouse	2A, 2B, 2E, 2F	Dwellings, Commercial, Farm (1)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, lighting, embankments.	Low	Slight/ Moderate	Substantial screening from planting within private garden greatly limits extents of views. Route option alignment running through open agricultural fields and local road on embankment may be visible at acute angle, particularly during winter when foliage is less dense.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
56 Househill Farm	2A, 2B, 2E, 2F	Dwellings, (1)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, lighting, embankments.	Medium/ High	Moderate/ Substantial	Local road on embankment and associated overbridge introduced into rolling agricultural landscape. Surrounding coniferous woodland south of Skene Park would partially screen earthworks. Route option alignment interrupts existing rectilinear field pattern.	As receptor 1.
	2C, 2G	Dwellings, (1)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, lighting, embankments.	Medium	Moderate	Local road on embankment introduced into rolling agricultural landscape. Surrounding coniferous woodland south of Skene Park would be lost due to junction infrastructure. Route option alignment on embankment would interrupt existing field pattern. Distance of views limits impacts on visual amenity.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
56 Househill Farm	2H	Dwellings, (1)	High	Rural, road, vehicles, industrial. Medium Importance.	Road, vehicles, lighting, Embankments.	Medium	Moderate	Local road on embankment creates loss of coniferous woodland south of Skene Park and is introduced into rolling agricultural landscape. Retained coniferous woodland would partially screen earthworks. Route option alignment on embankment in close proximity to receptor. The fact that route option alignment is at forest edge limits impact on existing field pattern and views.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Screen planting should be utilised where appropriate.
57 Woodlea, Skene Park Cottages	2D, 2I	Dwellings (3)	High	Rural, road, vehicles. Medium Importance.	Vehicles, junction, lighting.	Medium	Moderate/ Substantial	A939 Junction B introduced into open, flat agricultural landscape. Earthworks in cutting limiting visual impacts. Route option alignment alters field pattern in distance.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Scrub planting could be proposed to assist with screening and integrate route option with woodland to west.
	2H	Dwellings (3)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, embankment, structure.	Medium	Moderate/ Substantial	Local road on considerable embankment and associated overbridge introduced into flat agricultural landscape. Route option alignment on slight embankment also introduced in flat agricultural setting, altering exiting field patterns. Loss of Bognafuaran Wood.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
57 Woodlea, Skene Park Cottages	2C, 2G	Dwellings (3)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, junction, lighting, embankment, structure.	High	Substantial	A939 Junction A introduced extremely close to receptors and directly alters distant views. Considerable embankments and overbridge would result in some loss of Bognafuaran Wood and alteration to existing field pattern.	As receptor 1.
	2B, 2A, 2E, 2F	Dwellings (3)	High	Rural, road, vehicles. Medium Importance	Road, vehicles, lighting.	High	Substantial	Route option alignment runs directly in front of receptors severing an open, agricultural field. Route options are in slight cutting, matching the rolling landscape character.	As receptor 1, but not an appropriate location for woodland screening.
58 Foynesfield	2D, 2l	Dwellings, Farm (4)	High	Rural, road, vehicles, urban. Medium Importance.	Road, vehicles, junction, lighting, embankment, structure.	High	Substantial	A939 Junction B introduced into open, flat agricultural landscape in close proximity to receptor. Earthworks in cutting limiting visual impacts. Route option alignment and junction infrastructure alters field pattern.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Scrub planting could be proposed to assist with screening and integrate route option with deciduous woodland to west.
	2H	Dwellings, Farm (4)	High	Rural, road, vehicles, urban. Medium Importance.	Road, vehicles, lighting, embankment, structure.	Medium/ High	Moderate/ Substantial	Local road on considerable embankment and associated overbridge introduced into flat agricultural landscape. Route option alignment on slight embankment also introduced in flat agricultural setting, altering exiting field patterns. Loss of Bognafuaran Wood. Receptor views focused in opposite direction of route option.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
58 Foynesfield	2C, 2G	Dwellings (4)	High	Rural, road, vehicles, urban. Medium Importance.	Road, vehicles, junction, lighting, embankment, structure.	Medium	Moderate	A939 Junction A on embankment introduced in agricultural landscape. Considerable embankments and overbridge would result in some loss of Bognafuaran Wood and alteration to existing field pattern. Distance of views impacts upon receptor.	Woodland could aid screening of route option and replace much of the previously lost woodland. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
	2A, 2B, 2E, 2F	Dwellings (4)	High	Rural, road, vehicles, urban. Medium Importance.	Road, vehicles, lighting.	Low/ Medium	Slight/ Moderate	Route option alignment runs across agricultural field in distance. Route options are in slight cutting, matching the rolling landscape character. Local road on embankment would lead to loss of Bognafuaran Wood.	Woodland screening could be along embankments. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
59 Granny Barbours Road	2A, 2B, 2E, 2F	Industrial (2)	Low	Rural, road, vehicles, urban. Low Importance.	Road, vehicles, lighting, embankments, structure.	Low	Slight	Local road on embankment and associated overbridge introduced into rolling agricultural landscape. Western section of Bognafuaran Wood would partially screen earthworks. Route option alignment interrupts existing field pattern.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
59 Granny Barbours Road	2C, 2G	Industrial (2)	Low	Rural, road, vehicles, urban. Low Importance.	Road, vehicles, lighting, embankments, structure.	Low	Slight	Local road on embankment introduced into rolling agricultural landscape. Western section of Bognafuaran Wood would be lost due to A939 Junction A. Route option alignment on embankment would interrupt existing field pattern.	As receptor 1.
	2H	Industrial (2)	Low	Rural, road, vehicles, urban. Low Importance.	Road, vehicles, lighting, embankments.	Low	Slight	Local road on embankment creates loss of eastern edge of Bognafuaran Wood and is introduced into rolling agricultural landscape. Surrounding Bognafuaran Wood would partially screen earthworks. Route option alignment at forest edge limiting impact on existing field pattern.	As receptor 1.
60 Blackpark	2A, 2B, 2E, 2F	Dwellings, Farm (2)	Medium/ High	Rural, industrial, vehicles. Medium Importance.	Road, vehicles, lighting, embankments, structure.	High	Substantial	Local road on embankment and associated overbridge introduced into rolling agricultural landscape. Western section of Bognafuaran Wood would partially screen earthworks. Route option alignment interrupt existing field pattern and runs in very close proximity to front of dwellings.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
	2C, 2G	Dwellings, Farm (2)	Medium/ High	Rural, industrial, vehicles. Medium Importance.	Road, vehicles, lighting, embankments.	High	Substantial	Local road on embankment introduced into rolling agricultural landscape. Bognafuaran Wood would be lost due to junction infrastructure of A939 Junction A. Route option alignment on embankment would interrupt existing field pattern in close proximity to receptor. Existing location of A939 limits significance of impacts.	As receptor 1.
60 Blackpark	2H	Dwellings/ Farm (2)	Medium/ High	Rural, industrial, vehicles. Medium Importance.	Road, vehicles, lighting, embankments.	Medium/ High	Moderate/ Substantial	Local road on embankment creates loss of western section of Bognafuaran Wood and is introduced into rolling agricultural landscape. Surrounding woodland would partially screen earthworks. Route option alignment on embankment in close proximity to receptor. The fact that route option alignment is at forest edge limits impact on existing field pattern.	As receptor 1.
61 Park Farm and Park Cottages	2D, 2I	Dwellings/ Farm (6)	High	Rural, road, vehicles. Medium Importance.	Vehicles, junction, lighting.	Low/ Medium	Slight/ Moderate	Route option alignment and A939 Junction B on cutting introduced into open, rectilinear, agricultural landscape. Rolling topography considerably limits views from receptor.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
Newton of park, Bognafuaran	2D, 2l	Dwellings/ Farm (3)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, junction, lighting, cutting, structure	High	Substantial	A939 Junction B introduced into open, flat agricultural landscape in close proximity to receptor. Earthworks in cutting limiting visual impacts. Route option alignment runs directly behind houses, altering the existing field pattern.	As receptor 1.
	2H	Dwellings/ Farm (3)	High	Rural, road, vehicles. Medium Importance.	Vehicles, lighting, embankment, structure.		Moderate/ Substantial	Local road on considerable embankment and associated overbridge introduced into flat agricultural landscape. Route option alignment on slight embankment also introduced in flat agricultural setting, altering exiting field pattern. Loss of Bognafuaran Wood. Receptor views focused towards route option and woodland.	As receptor 1.
	2C, 2G	Dwellings/ Farm (3)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, junction, embankment, structure.	Medium	Moderate	A939 Junction A on embankment introduced in agricultural landscape. Considerable embankments and overbridge would result in loss of Bognafuaran Wood.	As receptor 1.
	2A, 2B, 2E, 2F	Dwellings (3)	High	Rural, road, vehicles. Medium Importance.	Vehicles, lighting.	Low	Slight	Route option alignment runs across agricultural field in distance. Route options are in slight cutting, matching the rolling landscape character. Local road on embankment generally screened by Bognafuaran Wood.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
63 Auchnacloich	2A, 2B, 2E, 2F, 2H	Dwellings/ Farm (2)	Medium	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, junction, earthworks, structure.	Medium	Slight/ Moderate	Potential view of Nairn East Junction A, Nairn East Junction B and Nairn East Junction C introduced into open, agricultural landscape. Rolling topography considerably limits views from receptor.	As receptor 1.
64 Grigorhill	2C, 2G	Dwelling (1)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, embankments, structure	Low	Slight	Local road on embankment introduced into extremely flat, high quality agricultural landscape, severing field boundaries. The fact that Knockoudie Wood and shelterbelts enclose route options, extensive garden planting around receptor, and the close proximity of receptor to existing B9101 limits significance of impacts.	As receptor 1.
65 Craggie Farm	2D, 2I	Dwellings/ Farm (1)	Medium/ High	Rural, vehicles. Medium Importance.	Vehicles, lighting.	Medium/ High	Moderate/ Substantial	Route option alignment on cutting interrupts existing, rectilinear, agricultural landscape. Rolling topography partially limits views from receptor.	As receptor 1. Clumps of woodland could be used to aid screening.
66 Kinnudie	2A, 2B, 2E, 2F	Dwellings/ Farm (3)	Medium	Rural, vehicles. Medium Importance.	Vehicles, lighting, junction.	Medium	Moderate	Nairn East Junction A and Nairn East Junction B introduced into flat, expansive agricultural landscape. Junction earthworks in cutting and natural rolling topography limit views. Route option alignment generally hidden by Russell's Wood and rolling topography.	As receptor 1, with clumps of woodland could be used to aid screening.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
66 Kinnudie	2H	Dwellings/ Farm (3)	Medium	Rural, vehicles. Medium Importance.	Vehicles, lighting, junction.	Medium	Moderate	Nairn East Junction C introduced into flat, expansive agricultural landscape. Junction earthworks in cutting and natural rolling topography limit views. Route option alignment interrupts existing rectilinear field pattern.	As receptor 1. Clumps of woodland could be used to aid screening.
	2C, 2G	Dwellings/ Farm (3)	Medium	Rural, vehicles. Medium Importance.	Vehicles, lighting.	Medium	Moderate/ Substantial	Local road on embankment introduced into extremely flat, agricultural landscape, severing field boundaries. Woodland and shelterbelts enclose route options, limiting significance of impacts.	As receptor 1. Clumps of woodland could be used to aid screening.
67 Waterloo	2A, 2E, 2H	Dwellings (3)	High	Rural, vehicles. Medium importance.	Vehicles.	Low	Slight	Possibility of view towards route options. Although in close proximity views would be considerably limited if not completely restricted due to natural topography.	Little mitigation required in this location. Where possible grade out earthworks to assist in integrating with existing surrounding landform.
68 Millhill	2A, 2E, 2H	Dwellings (4)	Medium/ High	Rural, lighting. Medium Importance.	Road, vehicles, lighting, earthworks.	High	Substantial	Route option alignment runs directly in front of receptor, considerably altering views and rectilinear field pattern. Route option alignment in cutting and local roads on embankment introduced into expansive, open agricultural landscape. Existing screen panting around house would limit visual impacts.	As receptor 1, with clumps of woodland used to aid screening.
69 Our House	2C, 2G	Dwelling (1)	High	Rural. Medium Importance.	Road, vehicles.	High	Substantial	Route options are in very close proximity to receptor, altering view of open agricultural landscape. Proximity to existing B9101 limits significance of impacts.	Increased woodland planting would reduce visual impact of route option upon receptor and tie in with surrounding shelterbelts.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
70 Newmill	2C, 2G	Dwellings (10+)	High	Rural. Medium Importance.	Road, vehicles, lighting, earthworks.	High	Substantial	Route option alignment runs directly behind receptors through an extremely flat agricultural landscape, dividing the initially large singular field. Natural rolling topography accommodates minor embankments.	As receptor 1, with potential for woodland screening to be introduced to tie in with surrounding shelterbelts, hedgerows and private garden screening.
70 Newmill	2D, 2I	Dwellings (10+)	High	Rural. Medium Importance.	Road, vehicles, lighting, Earthworks.	High	Substantial	Route option alignment runs directly in front of receptors on embankment through an extremely flat agricultural landscape, dividing the initially large singular field. Mature policy belt woodland would also be lost.	As receptor 1, with potential for woodland screening to be introduced to tie in with surrounding shelterbelts, hedgerows and private garden screening.
71 Drumduan	2A, 2E, 2H	Dwelling, Farm (1)	Medium/ High	Rural. Medium Importance.	Road, vehicles, lighting, earthworks.	Medium	Moderate	Views of local roads on embankment introduced into a rolling, open agricultural landscape. More open view of route option alignment in cutting. Route option alignment alters field pattern. Focus of views to south.	As receptor 1, with clumps of woodland used to aid screening.
72 Battle Hill	2C, 2G	Dwellings (3)	High	Rural, Road, Vehicles. Medium Importance.	Vehicles, Lighting.	Low	Slight	Route option alignment barely visible due to natural topography. Route option alignment introduced into open, agricultural landscape.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Possible opportunity for woodland planting to aid screening and tie into existing shelterbelts. Little mitigation required.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
73 East Lodge Cottage, Mill of Boath	2A, 2E, 2H	Dwellings (2)	High	Rural. Medium Importance.	Road, vehicles, lighting.	Medium/ High	Moderate/ Substantial	Route option alignment runs directly in front of receptor altering views and rectilinear field pattern. Route option alignment on embankment introduced into extremely expansive, open agricultural landscape. Existing screen panting around house and natural topography would limit visual impacts.	As receptor 1, but not an appropriate location for woodland screening.
74 Dalmore	2D, 2I	Dwellings (3)	High	Rural, Vehicles. Medium Importance.	Vehicles, lighting	Medium	Moderate	Distant view of route option alignment as it runs through agricultural fields in slight cutting. Predominantly woodland and agricultural view altered.	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
75 Kinsteary West, West Lodge, Dalmore Manse	2D, 2I	Dwellings (3)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, embankment, possible structure.	Medium/ High	Moderate/ Substantial	Local road on embankment in close proximity to receptors. Route option alignment alters existing rectilinear field pattern. Areas of deciduous policy belts lost or severed.	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Possible deciduous woodland to tie in with existing policy belts and aid screening process.

Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
76 Bogside of Boath	2A, 2E, 2H	Dwellings (2)	Medium/ High	Rural. Medium Importance.	Road, vehicles, lighting, Earthworks.	High	Substantial	Route option alignment runs directly in front of receptor, considerably altering views and rectilinear field pattern. Route option alignment in cutting and local roads on embankment introduced into extremely expansive, open agricultural landscape to some degree. Rolling topography limits visual impacts to some degree.	As receptor 1, but not an appropriate location for woodland screening.
77 Bogheads	2A, 2E, 2H	Dwellings, Farm (3)	High	Rural. Medium Importance.	Road, vehicles, lighting, earthworks.	Low/ Medium	Slight/ Moderate	Distant views of route option alignment in cutting and local roads on embankment introduced into a rolling, open agricultural landscape. Route option alignment alters field pattern. Focus of views to south. Existing mature scrub planting and shelterbelts limit extents of view.	As receptor 1, but not an appropriate location for woodland screening.
78 Bogside of Brodie	2A, 2E, 2H	Dwellings (2)	Medium/ High	Rural. Medium Importance.	Road, vehicles, lighting, earthworks.	Medium/ High	Moderate/ Substantial	Route option alignment in cutting and local roads on embankment introduced into a rolling, open agricultural landscape. Route option alignment alters field pattern. Focus of views to north rather than south and natural topography limits impacts on visual amenity.	As receptor 1, but not an appropriate location for woodland screening.
79 Broombank	2B, 2F	Dwellings (6)	High	Rural, road, vehicles. Medium Importance.	Lighting, Local road, embankment, vehicles.	Medium	Moderate	Widening of route option alignment on embankment and inclusion of local road away from receptor. Possible increase in visibility due to removal of existing vegetation.	As receptor 1, but not an appropriate location for woodland screening.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
80 Loch Garman	2C, 2D, 2G, 2I	Dwellings, Farm (10)	High	Rural, road, vehicles. Medium Importance.	Vehicles, lighting, embankment, structure, junction.	Medium	Moderate	Nairn East Junction D, including embankments and associated overbridge, introduced into open agricultural landscape raised above receptors. Route option alignment interrupts field pattern and removes woodland.	As receptor 1, but not an appropriate location for woodland screening.
	2B, 2F	Dwellings, Farm (10)	High	Rural, road, vehicles. Medium Importance.	Vehicles, lighting, embankment.	High	Substantial	Route option alignment runs alongside existing A96 directly behind receptors. Route option alignment would lead to loss of newly planted deciduous woodland north of receptors. Local road on embankment would be interrupt existing field pattern. Close proximity to existing road corridor would limit impact.	As receptor 1, but not an appropriate location for woodland screening.
81 Kinsteary House	2D, 2I	Dwelling (1)	High	Rural. Medium Importance.	Road, vehicles, lighting, embankment, structure.	High	Substantial	Route option alignment interrupts open, high quality agricultural landscape and severs surrounding mature deciduous woodland policy belts. Local road on embankment and overbridge leads to loss of mature deciduous woodland and contrast with surrounding landscape.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Deciduous woodland could be proposed in certain locations to aid screening of route option and tie in with existing clumps/ shelterbelts. Hedgerows should be used to reinstate field boundaries.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
	2C, 2G	Dwelling (1)	High	Rural. Medium Importance.	Road, vehicles, lighting, embankment, structure.	High	Substantial	Route options in considerable cutting would sever existing deciduous shelterbelts and interrupt existing high quality agricultural landscape. Overbridge in contrast with existing topography.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Deciduous woodland could be proposed in certain locations to aid screening of route option and tie in with existing clumps/ shelterbelts. Hedgerows should be used to reinstate field boundaries.
82 Upper Dalmore	2D, 2l	Dwelling (1)	High	Rural, vehicles. Medium Importance.	vehicles, lighting.	Low/ Medium	Slight/ Moderate		Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Possible hedgerow planting would help integrate route option with existing character.
83 Meadowfield	2C, 2D, 2G, 2I	Dwellings/ Farm (10)	High	Rural, road, vehicles. Medium Importance.	Vehicles, lighting, embankment, junction, structure	Medium/ High	Moderate/ Substantial	Nairn East Junction D, including embankments and associated overbridge, introduced into open agricultural landscape raised above receptors. Route option alignment interrupts field pattern and would lead to removal of woodland.	As receptor 1. Clumps of woodland could be used to aid screening.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
83 Meadowfield	2B, 2F	Dwellings/ Farm (10)	High	Rural, road, vehicles. Medium Importance.	Vehicles, lighting, embankment	Medium/ High	Moderate/ Substantial	Route option alignment runs alongside existing A96 directly behind receptors in close proximity. Local road on embankment would interrupt existing field pattern.	As receptor 1.Clumps of woodland could be used to aid screening.
84 Broombank Cottage	2B, 2F	Dwellings (4)	Medium/ High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks.	Medium	Moderate	Route options visible just south of the existing A96 and introduction of earthworks and local roads.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
	2C, 2D, 2G, 2l	Dwellings (4)	Medium/ High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, junction, earthworks.	High	Substantial	Nairn East Junction D introduced on embankments and in cutting into open, high quality, agricultural landscape in close proximity to receptor. Route option alignment would sever field boundaries and lead to loss of mature deciduous woodland.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
85 Cairnfield, Roundall Wood, Sylvan House	2B, 2F	Dwellings/ Farm (3)	Medium/ High	Rural, road, vehicles, urban. Medium Importance.	Road, vehicles, lighting, embankment, possible structure.	Medium	Moderate	Route option alignment including adjacent realigned access roads on embankment visible to dwellings in quite close proximity. Partial screening would possibly be provided by existing vegetation for one or two of the dwellings.	As receptor 1. Clumps of woodland could be used to aid screening.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
85 Cairnfield, Roundall Wood, Sylvan House	2C, 2D, 2G, 2I,	Dwellings/ Farm (3)	Medium/ High	Rural, road, vehicles, urban. Medium Importance.	Road, vehicles, lighting, embankment, possible structure.	High	Substantial	Route option alignment on embankment runs in close proximity to receptors resulting in loss of mature deciduous woodland planting and considerably interrupts pleasant agricultural view.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Clumps of woodland could be used to aid screening.
86 Penick, Inshoch Farm	2A, 2E, 2H	Dwellings/ Farm (4)	Medium/ High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks.	Medium	Moderate	Route option alignment in cutting and local roads on embankment introduced into a rolling, open agricultural landscape. Route option alignment alters field pattern considerably. Rolling character of landscape would limit visual impact of earthworks.	As receptor 1. Clumps of woodland could be used to aid screening.
87 Gallows Hill, Courage Cottage	2A, 2E, 2H	Dwellings (4)	Medium/ High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks.	High	Substantial	Route option alignment in cutting, grade and on embankment introduced into a rolling agricultural landscape in close proximity to receptors. Visibility of route option and existing alignment from receptor with no existing screening available.	.As receptor 1.
87 Gallows Hill, Courage Cottage	2B, 2F	Dwellings (4)	Medium/ High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks.	High	Substantial	Route options visible in closer proximity due to widening of carriageway and introduction of earthworks and local roads.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
	2C, 2D, 2G, 2l	Dwellings (4)	Medium/ High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, junction, earthworks.	High	Substantial	Nairn East Junction D introduced in embankments and cutting into open, high quality, agricultural landscape in close proximity to receptor. Route option alignment would sever field boundaries and lead to loss of mature deciduous woodland.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
88 Garblies	2A, 2E,2H	Dwellings (1)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, earthworks.	Low/ Medium	Slight/ Moderate	Short section of route option alignment on embankment and local road in cutting visible at a distance. Positioned on the backdrop of rolling agricultural farmland.	As receptor 1.
Garblies	2C, 2D, 2G, 2I	Dwellings (1)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, junction, earthworks.	High	Substantial	Nairn East Junction D introduced on embankments and in cutting into open, high quality, agricultural landscape in front of receptor. Route option alignment would sever field boundaries and lead to loss of mature deciduous woodland.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.

Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
	2B, 2F	Dwellings (1)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks	Low/ Medium	Slight/ Moderate	Route options visible in closer proximity to receptor due to repositioning of alignment and introduction of additional earthworks and local roads.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
89 Courage	2B, 2F	Dwellings (4)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting.	High	Substantial	Route options visible in closer proximity due to widening of carriageway and introduction of earthworks and local roads.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
89 Courage	2C, 2D, 2G, 2I	Dwellings (4)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks, junction.	High	Substantial	Nairn East Junction D introduced on embankments and in cutting into open, high quality, agricultural landscape in front of receptor. Route option alignment would sever field boundaries.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
	2A,2E, 2H	Dwellings (4)	High	Rural, road, vehicles. Medium Importance.	Road, vehicles, earthworks	High	Substantial	Route option alignment on embankment and local road in cutting located in very close proximity to properties. Close and wide range visibility of route option alignment through agricultural landscape in front and alongside receptor. No existing vegetation to provide screening.	As receptor 1. Introduction of planting or fencing to assist with screening.
90 Penick Farm Cottages	2A, 2E, 2H	Dwellings (2)	Medium	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks.	Medium	Moderate	Route option alignment on embankment introduced into a rolling, open agricultural landscape aligning next to existing A96 in close proximity to receptor. Route option alignment slightly alters field pattern. Rolling character of landscape slightly reduces visibility of route option alignment.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Woodland could be used to aid screening.
90 Penick Farm Cottages	2B, 2C, 2D, 2F, 2G, 2I	Dwellings (2)	Medium	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks.	Low	Slight/ Moderate	Route option alignment follows existing A96 corridor limiting impacts on visual amenity. Increased embankment earthworks have limited impact due to natural rolling topography.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Not an appropriate location for woodland screening.
91 Muirend	2A, 2E, 2H	Dwellings (1)	Medium	Rural, road, vehicles. Medium Importance.	Road, vehicles, lighting, earthworks.	Low	Slight	Route option alignment on embankment introduced into a rolling, open agricultural landscape. Route option alignment alters field pattern. Existing woodland limits impacts on visual amenity.	As receptor 1. Clumps of woodland could be used to aid screening.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
92 Western Hardmuir	2A, 2E, 2H	Dwellings/ Farm (1)	Medium	Rural, road, vehicles. Low/Medium Importance.	Road, vehicles, lighting, earthworks.	Medium	Moderate	Route options introduced adjacent to existing road slicing the edge of the woodland along the alignment of the existing A96. Garden vegetation surrounding dwelling provides partial screening.	As receptor 1. However screening woodland is not appropriate in this location.
	2B, 2C, 2D, 2F, 2G, 2I	Dwellings/ Farm (1)	Medium	Rural, road, vehicles. Low/Medium Importance.	Road, vehicles, lighting, earthworks.	Low	Slight/ Moderate	Route option alignment follows existing route of A96 limiting impacts on visual amenity. Embankments to accommodate local roads have limited impact due to natural rolling topography. In some locations coniferous woodland helps screen route options.	Where possible grade out earthworks to assist in integrating with existing surrounding landform. Addition woodland planting could be used for screening purposes and to tie in with surrounding coniferous plantations.
93 Montrose Avenue	2C, 2G	Dwellings (10+)	Medium/ High	Rural. Medium Importance	Road, vehicles, earthworks.	Low	Slight	Distant acute angle views of short section of route option alignment as it runs through agricultural fields in cutting. Screening provided by surrounding shelter / policy woodland belts	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction styles and materials found in the adjacent landscape. Woodland could be used to aid screening but should be planted to tie in with surrounding shelter/policy belts. Additional woodland planting along existing woodland policy belts to increase long-term screening potential.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (all adverse)	Visual Impact Description	Potential Mitigation
	2D, 2l	Dwellings (10+)	Medium/ High	Rural. Medium Importance	Road, vehicles, lighting, earthworks.	Low	Slight	Distant acute angle views of short section of route option alignment as it runs through agricultural fields on slight embankment. Glimpsed visibility through narrow break in existing woodland belt of local road overbridge	Woodland planting could be used for screening purposes and to tie in with surrounding estate woodland. Additional woodland planting along existing woodland policy belts to increase long term screening potential.

DMRB Stage 2 Scheme Assessment Report

Part 6: Appendices

A10.3 Visual Impact Assessment – Outdoor Receptor

Note - Route options which have a negligible impact or no impact on a receptor are not listed in the tables below.

Table 1: Visual Impact on Outdoor Receptors (Inverness to Gollanfield)

Receptor No Road Name/ Area	Route Option	Type and Number	Sensitivity	Importance of Existing View	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O1 A96	All Options	Road (1)	Low	Low	Vehicles, road surface, embankment, lighting, junction.	Low	Slight	Travellers gain a variety of views along the length of the road, with much of the road offering open views across the adjacent rolling farmland, with occasional views to the north across the Moray Firth. Views from several stretches of the road contained by woodland plantations, mature hedgerows or road cutting.	Where possible grade out earthworks to assist in integrating earthworks into existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate.
O2 Aberdeen to Inverness Railway Line and Core Path IN08.30 located at Seafield	All Options	Railway line and footpath (1)	Medium	Medium	Road, vehicles, embankment, lighting.	Low	Slight/ Moderate	The impacts on visual amenity vary depending on proximity of route option to the railway line and footpath. Significance of impacts is limited due to the majority of views towards routes being partially screened by cuttings and existing vegetation. The current proximity of the existing A96 to the receptors would also reduce their sensitivity.	As receptor 1.



Receptor No Road Name/ Area	Route Option	Type and Number	Sensitivity	Importance of Existing View	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O3 Barn Church Road	All Options	Road and footpath (1)	Low	Low	Road, vehicles, embankment, lighting, junction.	Low/ Medium	Slight	Views to west screened by mature deciduous woodland. Views to east partially screened by road side deciduous planting. Views predominantly of new Smithton Junction. Level of visual impact is reduced due to presence of existing A96 junction.	As receptor 1.
O4 Core Path IN08.05 and IN08.04	1D, 1D (MV), 1C, 1C (MV)	Footpath and access track (1)	Low	Medium	Vehicles, embankment, lighting.	Medium/ High	Slight/ Moderate	Existing view of Moray Firth to north and rolling high grade farmland punctuated with clumps of mature deciduous woodland would be altered by route options. Severance of core path IN08.05 at northern end. Impacts on north-western view limited by presence of existing A96.	As receptor 1. However, there is limited mitigation for visual impacts in relation to the severance of IN08.05.
	1A, 1A (MV), 1B, 1B (MV)	Footpath and access track (1)	Low	Medium	Vehicles, embankment, lighting.	Low	Slight	A96 alignment would be in closer proximity and more visible to receptor. Minor severance of core path IN08.05 at northern end.	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate.
O5 Core Path IN08.03 and IN08.15.	1D, 1D (MV), 1C, 1C (MV)	Road and footpath (1)	Medium/ High	Medium	Road, vehicles, embankment, lighting.	High	Moderate/ Substantial	Paths in close proximity to Culloden and Balloch. Distant views of route options to north along existing alignment. Deciduous shelterbelt to south-east severed. Core path IN08.15 severed by route options.	As receptor 1. However, there is limited mitigation for visual impacts in relation to the severance of path.



Receptor No Road Name/ Area	Route Option	Type and Number	Sensitivity	Importance of Existing View	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O5 Core Path IN08.03 and IN08.15.	1A, 1A (MV), 1B, 1B (MV)	Road and footpath (1)	Medium/ High	Medium	Road, vehicles, embankment, lighting.	Low	Slight	Views of route options running through rolling agricultural fields to northeast of receptor. Alignments only visible from northern end of receptor.	As receptor 1.
O6 Core Path IN08.16 and IN08.21.	1D, 1D (MV), 1C, 1C (MV)	Footpath (1)	Medium/ High	Low/ Medium	Road, vehicles, embankment, lighting.	High	Substantial	Paths in close proximity to Culloden and Balloch. A variety of publicly commissioned benches show community importance. Mature deciduous scrub and tree planting restricts much of wider view. High quality arable fields visible on all sides, with views towards Moray Firth and Culloden to west which would be altered. Core path IN08.16 severed by route options.	As receptor 1. However, there is limited mitigation for visual impacts in relation to the severance of path.
O7 Barn Church Road (E)	1C, 1C (MV), 1D, 1D (MV)	Road (1)	Low	Low/ Medium	Vehicles, embankment, lighting.	Medium	Moderate	Newton Junction B introduced into flat agricultural landscape. Junction interrupts views north towards Moray Firth.	As receptor 1.
	1A, 1B,	Road (1)	Low	Low/ Medium	Vehicles, embankment, lighting, junction.	Medium	Moderate	Newton Junction A located at further distance from Barn Church Road. Junction would remain visible due to natural rising topography. Junction introduced into open, arable landscape. Little screening provided by existing topography or vegetation.	As receptor 1. However, minimal opportunity for screen planting due to small volume of existing vegetation around junction.



Receptor No Road Name/ Area	Route Option	Type and Number	Sensitivity	Importance of Existing View	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O7 Barn Church Road (E)	1A (MV), 1B (MV)	Road (1)	Low	Low/ Medium	Vehicles, embankment, lighting.	Low	Negligible/ Slight	Route options visible in distance due to natural raised topography. Earthworks in cutting would reduce visual impact of route options.	As receptor1. However, minimal opportunity for screen planting due to small volume of existing vegetation around route option alignment.
O8 Core Path IN08.32	1C, 1C (MV), 1D, 1D (MV)	Road (1)	High	Low/ Medium	Vehicles, embankment, lighting, junction	Medium/ High	Moderate/ Substantial	Newton Junction B introduced into flat agricultural landscape. Junction interrupts views north towards Moray Firth and severs northern section of path.	As receptor 1. However, there is limited mitigation for visual impacts in relation to the severance of path.
	1A, 1B,	Road (1)	High	Low/ Medium	Vehicles, embankment, lighting, junction.	Medium	Moderate	Newton Junction A located at further distance from Barn Church Road. Junction would remain visible due to natural rising topography. Junction introduced into open, arable landscape. Little screening provided by existing topography or vegetation.	As receptor 1. However, minimal opportunity for screen planting due to small volume of existing vegetation around junction.
	1A (MV), 1B (MV)	Road (1)	High	Low/ Medium	Vehicles, embankment, lighting,	Low	Negligible/ Slight	Route option alignment visible in distance due to natural raised topography. Earthworks in cutting would reduce visual impact of route options.	As receptor 1. However, minimal opportunity for screen planting due to small volume of existing vegetation around route option alignment.
O9 B9039 (section south of railway bridge)	1A (MV), 1B (MV)	Road (1)	Low	Low/ Medium	Vehicles, embankment, lighting, junction.	Medium	Slight/Mod erate	Introduction of Newton Junction C and associated earthworks, local roads, roundabouts, and underpass into rolling agricultural setting. Existing landform, railways infrastructure, shrub and tree planting would reduce visibility of proposals.	As receptor 1.



Receptor No Road Name/ Area	Route Option	Type and Number	Sensitivity	Importance of Existing View	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O9 B9039 (section south of railway bridge)	1C, 1D	Road (1)	Low	Low	Vehicles, embankment, lighting.	Medium	Slight	Route option alignment introduced into an open, rolling agricultural landscape. Impacts limited by distance of views and existing A96.	As receptor 1. However, limited opportunity for plant screening due to open character of landscape.
	1C (MV), 1D (MV)	Road (1)	Low	Low/ Medium	Vehicles, embankment, lighting.	Medium	Moderate	Route option alignment introduced into an open, rolling agricultural landscape. Impacts are limited by distance of views and location of existing A96.	As receptor 1, with the possibility for woodland screening due to proximity of mature deciduous woodland clumps.
O10 Airport Access Road	1B, 1B (MV), 1D, 1D (MV)	Road (1)	Low	Low	Vehicles, road surface, embankment, lighting, junction.	Medium	Slight/ Moderate	Introduction of Mid Coul Junction B and associated earthworks, overbridge and local roads would lead to loss of agricultural landscape and mature coniferous plantation woodland.	As receptor 1, with the possibility for woodland screening to tie in with existing coniferous plantation.
	1A, 1A (MV), 1C, 1C (MV)	Road (1)	Low	Low	Vehicles, road surface, embankment, lighting, junction	High	Moderate	Route option alignment runs through high grade agricultural landscape and leads to loss of coniferous woodland plantation. Roundabouts, slip roads, and overbridge follows alignment of existing local road.	As receptor 1, with the possibility for woodland screening to tie in with existing coniferous plantation.
O11 Milton of Gollanfield	1A, 1A (MV), 1C, 1C (MV)	Road (1)	Low	Low	Vehicles, road surface, embankment, lighting.	Medium	Slight/ Moderate	Introduction of route option alignment in closer proximity to receptor than existing road corridor. Introduction of local road through adjacent agricultural land. Both proposals would be in views from receptor.	As receptor 1.



Receptor No Road Name/ Area	Route Option	Type and Number	Sensitivity	Importance of Existing View	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O11 Milton of Gollanfield	1B, 1B (MV), 1D, 1D (MV)	Road (1)	Low	Low	Vehicles, road surface, embankment, lighting.	Low/ Medium	Slight	Widening of existing A96 and introduction of local road through adjacent agricultural land in views from receptor.	As receptor 1.
O12 B9006 (East)	All Options	Road (1)	Low	Low	Vehicles, road surface, embankment, lighting, junction.	High	Moderate/ Substantial	Brackley Junction and associated roundabouts, embankments, overbridge, and local roads would be introduced into a landscape of improved grassland and arable fields. Minimal screening provided by existing vegetation.	As receptor 1. However, there is little opportunity for substantial woodland screening.
O13 B9090 (West)	All Options	Road (1)	Low	Low	Vehicles, road surface, embankment, lighting, junction.	High	Moderate	Brackley Junction and associated roundabouts, embankments, overbridge, and local roads would be introduced into a landscape an agricultural and wooded landscape. Possible screening from existing vegetation. Existing topography and presence of existing junction and busy café car park reduce significance of impacts.	As receptor 1, with the opportunity for scrub and woodland screening.

Table 2: Visual Impact on Outdoor Receptors (Nairn Bypass)

Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O1 A96	All Options	Road (1)	Low	Low	Vehicles, road surface, embankment, lighting, junction.	Low	Slight	Travellers gain a variety of views along the length of the road, with much of the road offering open views across the adjacent rolling farmland, with occasional views to the north across the Moray Firth. Views from several stretches of the road contained by woodland plantations, mature hedgerows or road cutting.	Where possible grade out earthworks to assist in integrating earthworks into existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate.
O2 Aberdeen to Inverness Railway Line	All Options	Railway Line (1)	Medium	Medium	Road, vehicles, embankment, lighting.	Low	Slight/ Moderate	The impacts on visual amenity vary depending on proximity of route option to the railway line. Significance of impacts is limited due to the majority of views towards routes being partially screened by railway cuttings and existing intermittent vegetation.	As receptor 1.
O14 Moss-side road and Core Path NA04.11	2A, 2B, 2C, 2D	Road and footpath (1)	Low	Medium	Vehicles, embankment, lighting.	Medium/ High	Moderate	Views from short section of receptor impacted behind houses located farthest east along Moss-side road. Outdoor receptor severed. Route option alignment and overbridge introduced into rolling pastoral field. Views from other sections of route option alignment screened by topography and Delnies Wood.	As receptor 1, with the opportunity for woodland screening to tie in with surrounding garden planting and Delnies Wood.

Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
Moss-side road and Core Path NA04.11	2E, 2F, 2G, 2H, 2I	Road (1)	Low	Medium	Vehicles, embankment, lighting.	Medium	Slight/ Moderate	Route options visible from western section of outdoor receptor as it passes through expansive, open farmland. Scrub and tree planting, as well as the long distance of the views, limits significance of impacts.	As receptor 1, but with little opportunity for scrub or woodland planting due to open nature of landscape.
O15 Core Path NA04.13	2A, 2B, 2C, 2D	Footpath (1)	High	Medium	Vehicles, embankment, lighting.	High	Substantial	Views of route option alignment and Nairn West Junction A introduced into Delnies Wood. Severance of path in multiple locations.	As receptor 1, with the opportunity for woodland screening to tie in with remaining Delnies Wood.
O16 B9091 and Core Path NA04.20	2A, 2B, 2C	Road (1)	Low	Medium	Vehicles, embankment, overbridge, road surface, lighting.	Low/ Medium	Slight/ Moderate	Large portions of road alignment hidden behind shelterbelt from south of receptor. Route realigned via overbridge at northern section of receptor. Main line visible at this location.	As receptor 1, with increased woodland screening possible given location of existing shelter belts.
	2D	Road (1)	Low	Medium	Vehicles, embankment, overbridge, road surface, lighting.	High	Moderate/ Substantial	Route option has greater visibility due to loss of shelterbelts. Route realigned via overbridge and the route option is particularly visible at this location. Route option generally follows boundaries, limiting significance of impacts.	As receptor 1.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O16 B9091 and Core Path NA04.20	2E, 2F, 2G, 2H, 2I	Road (1)	Low	Medium	Vehicles, embankment, overbridge, road surface, lighting.	High	Moderate/ Substantial	Receptor is severed by route option alignment and local road. Although 2H and 2I follow a slightly different route, impacts remain similar. Areas of shelterbelt would be lost. Change of view to open views of alignment and surrounding countryside.	As receptor 1.
O17 B9090 (East)	2A, 2B, 2C	Road (1)	Low	Low/ Medium	Vehicles, cutting, possibly overbridge, lighting.	Low/ Medium	Slight/ Moderate	Outdoor receptor severed by route options and route realigned via overbridge. Northern section of outdoor receptor screened by shelter belt planting. Main line visible in open agricultural landscape and River Nairn crossing possibly visible.	As receptor 1, with woodland screening possible in certain locations around shelter belts and river banks.
	2E, 2F, 2G	Road (1)	Low	Low/ Medium	Vehicles, cutting, possibly overbridge, lighting.	Medium	Moderate	Route options have similar visible impacts to 2A, 2B, and 2C. Slightly greater impact due to route option alignment being visible over a greater extent and increased extent of earthworks around over bridge.	As receptor 1, with woodland screening possible in certain locations around shelter belts and river banks.
	2D, 2H, 2I	Road (1)	Low	Low/ Medium	Vehicles, cutting, possibly overbridge, lighting, road surface.	High	Moderate/ Substantial	Route option alignment would lead to loss shelter belts opening up views from receptor. Route options and realignment of receptor via overbridge would be visible in open landscape. Possible view of River Nairn overbridge limited by existing planting.	As receptor 1, with woodland screening possible in certain locations around shelter belts and river banks.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O18 Core Path NA04.03	All Options	Footpath (1)	High	Medium/ High	Vehicles, embankment, overbridge, lighting.	Medium	Moderate/ Substantial	Route option alignment severs route and introduces overbridge into scenic river bank location. Impacts only visible from certain section of the outdoor receptor. Small amounts of mature deciduous woodland would be lost along riverbank where construction is located.	Replacement mixed woodland should be introduced to replace that lost during construction. Overbridge structure should be built using traditional materials and techniques.
O19 National Cycle Route 1 (East)	2A, 2B, 2C, 2E, 2F, 2G	Road and Cycle Path (1)	Low	Medium	Vehicles, embankment, lighting.	Medium	Moderate	Receptor severed by route options. Views of open arable farm land to west would be altered by main alignment. Mature coniferous woodland would be lost to the east.	As receptor 1. However, although screening is provided by existing woodland to east, there is little opportunity for further planting in the west due to open character of landscape.
	2D, 2H, 2I	Road and Cycle Path (1)	Low	Medium	Vehicles, embankment, overbridge, lighting.	Medium	Moderate	NCR severed by route options. Alignment interrupting field pattern is visible along field and woodland boundaries. Impacts limited by presence of existing road junction.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform. Possibility for screening to tie in with existing shelter belts and plantation woodland.
O20 A939	2A, 2B, 2E, 2F	Road (1)	Low	Low	Vehicles, embankment, overbridge, lighting.	Low/ Medium	Slight/ Moderate	Road severed by route options. New overbridge leading to loss of mature coniferous woodland, opening up views. Main alignment introduced into open agricultural landscape, which is visible from the receptor. Some screening provided by existing woodland.	As receptor 1, with the opportunity for improved screening through woodland planting, particularly around overbridge where plantation woodland currently exists.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O20 A939	2C, 2G	Road (1)	Low	Low	Vehicles, embankment, overbridge, junction, lighting.	High	Moderate/ Substantial	Introduction of A939 Junction A and associated earthworks, overbridge and slip roads would lead to substantial loss of mature coniferous woodland, opening up views of route options from receptor. Main alignment visible within agricultural setting.	As receptor 1, with the potential for screening of junction in order to integrate with remaining woodland.
	2D, 2I	Road (1)	Low	Low	Vehicles, embankment, overbridge, junction, lighting.	High	Moderate/ Substantial	Introduction of A939 Junction B and associated earthworks, underbridge and slip roads into predominantly open, high grade pastoral landscape visible from receptor. Main alignment visible within agricultural setting.	As receptor 1. However, there is little potential for screening of junction with woodland planting due to open landscape. There are more opportunities to south.
	2H	Road (1)	Low	Low	Vehicles, embankment, overbridge, lighting.	Medium/ High	Moderate	Views of major earthworks and overbridge along alignment of the A939 in generally open agricultural landscape. Small loss of woodland due to alignment. Main alignment generally follows field and woodland boundaries, limiting impacts on existing views.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
	2C, 2G	Road (1)	Low	Low	Vehicles, embankment, road surface, lighting.	Medium/ High	Moderate	Limited views of A939 Junction A due to distance from receptor. Embankments of junction visible, however natural rolling topography limits impact. Route realigned via overbridge at Grigorhill. More open views gained due to loss of vegetation in shelterbelts.	As receptor 1.
	2D, 2I	Road (1)	Low	Low	Vehicles, embankment, road surface, lighting, junction, overbridge.	High	Moderate/ Substantial	Substantial A939 Junction B and associated earthworks and underpass would sever and alter route. Main alignment visible within agricultural setting. Impact on receptor limited by existing presence of junction at similar location.	As receptor 1. However, little opportunity for woodland screening due to open nature of surrounding landscape.
	2H	Road (1)	Low	Low	Vehicles, embankment, road surface, lighting.	Medium/ High	Moderate	Limited views of local road earthworks and overbridge due to distance from receptor. Embankments limited by natural rolling topography limits the impact. More open views gained due to loss of vegetation.	As receptor 1.
	2A, 2B, 2E, 2F	Road (1)	Low	Low	Vehicles, embankment, road surface, lighting, overbridge.	Low	Slight	Local road on embankment and associated overbridge visible from receptor. Existing woodland would screen route options. Main alignment in distance not visible.	As receptor 1, with the potential for screening of overbridge in order to integrate with remaining woodland.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O22 A96 (East)	2A, 2E	Road and Footpath (1)	Low	Low	Vehicles, embankment, road surface, lighting, junction, underbridge.	Medium	Slight/ Moderate	Realignment of existing A96 with introduction of Nairn East Junction A predominantly in cutting. View out to wider landscape limited.	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate.
	2H	Road and Footpath (1)	Low	Low	Vehicles, embankment, road surface, lighting, junction, underbridge.	Medium	Slight/ Moderate	Realignment of existing A96 with introduction of Nairn East Junction C predominantly in cutting. View out to wider landscape limited.	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate.
	2B, 2F	Road and Footpath (1)	Low	Low	Vehicles, embankment, road surface, lighting, junction, underbridge.	Medium/ High	Moderate	Realignment of existing A96 with introduction of Nairn East Junction B predominantly in cutting. View out to wider landscape limited. Loss of existing roadside vegetation due to widening of existing alignment.	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate. Existing planting should be protected where possible.
O23 B9111 and Core Path NA04.07	2A, 2B, 2E, 2F, 2H	Road and Footpath (1)	Medium	Low	Vehicles, embankment, road surface, lighting, junction, underbridge.	High	Substantial	Nairn East Junction A, Nairn East Junction B, and Nairn East Junction C alter receptor alignment and dominate its views. Junctions visible in an open, expansive agricultural landscape.	As receptor 1. However, there is little opportunity for woodland screening due to open nature of surrounding landscape.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O24 Lethen Road	2C, 2G	Road (1)	Low	Low	Vehicles, embankment, road surface.	Medium	Slight/ Moderate	Main alignment visible to west travelling through agricultural farmland. Existing roadside vegetation providing screening to the east.	Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape. Screen planting should be utilised where appropriate. Existing planting should be protected where possible.
	2D, 2I	Road (1)	Low	Low	Vehicles, embankment, road surface.	High	Moderate/ Substantial	Realignment of receptor leading to increased open views of main alignments. Partially open views to the west due to loss of existing vegetation and heightened alignment.	As receptor 1.
O25 Core Path NA01.01.	2C, 2G	Footpath (1)	Medium	Low	Vehicles, cutting, road surface, lighting.	Low/ Medium	Slight/ Moderate	Receptor severed by route options leading to loss of small amount of deciduous woodland, altering views. Alteration of views and impacts only apply in specific location of construction.	Screen planting should be utilised where appropriate. Existing planting should be protected where possible.
	2D, 2I	Footpath (1)	Medium	Low	Vehicles, embankment, road surface, lighting.	High	Moderate/ Substantial	Southern end of receptor lost due to alignment of local road on embankment. Surrounding screening vegetation lost leading to increased visibility of route options. Northern section unaffected.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform. Screen planting should be utilised where appropriate. Existing planting should be protected where possible.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O26 Bogside of Brodie Access Road	2A, 2E, 2H	Road (1)	Low	Low	Vehicles, embankment, overbridge, possible junction.	Medium/ High	Slight	Receptor realigned multiple times via overbridges. Receptor severed by main alignment to west, altering views of open farmland. Limited visibility of main alignment due to existing rising topography.	Where possible grade out earthworks to assist in integrating these into existing surrounding landform. Construction of stone walls, hedgerows, or fence lines along realigned fragmented boundaries using construction techniques and materials found in the adjacent landscape.
O27 A96 (East)	2A, 2E, 2H	Road (1)	Low	Low	Vehicles, Embankment, Road surface, Local road.	Medium/ High	Moderate	Loss of existing roadside vegetation and agricultural land due to alignment alongside the existing A96. View of main alignment on embankment crossing adjacent agricultural lands before being crossed via an overbridge.	As receptor 1.
	2B, 2F	Road (1)	Low	Low	Vehicles, embankment.	Low/ Medium	Slight/ Moderate	Loss of existing roadside mature vegetation and agricultural land due to alignment alongside the existing A96.	As receptor 1 and existing trees should be retained where possible.
	2C, 2D, 2G, 2I	Road (1)	Low	Low	Vehicles, embankment.	Medium	Slight/ Moderate	Introduction of Nairn East Junction D on revised receptor alignment. Opening up of views due to loss of adjacent woodland. Loss of mature vegetation along alignment of existing route corridor due to widening and introduction of adjacent local road, altering views from receptor.	As receptor 1 and existing trees should be retained where possible.



Receptor No Road Name/ Area	Route options	Type and Number	Sensitivity	Existing View and Importance	Elements of Option Visible	Magnitude	Impact (All adverse)	Visual Impact Description	Potential Mitigation
O28 Moyness Road	2B, 2F	Road (1)	Low	Low	Vehicles, embankment, lighting.	Low/ Medium	Slight/ Moderate	Short section of receptor would gain views of widened road corridor and adjacent local roads.	As receptor 1.
	2C, 2D, 2G, 2I	Road (1)	Low	Low	Vehicles, road, embankment, lighting.	Medium/ High	Moderate	Main route option alignment on embankment visible to south-east of receptor. Receptor severed and loss of mature deciduous woodland to the north-east visible. Views towards Nairn East Junction D screened by intervening topography.	As receptor 1 and existing trees should be retained where possible.
O29 Core Path NA01.02.	2B, 2F	Road and Footpath (1)	Medium	Low	Vehicles, embankment.	Medium/ High	Moderate/ Substantial	Alignment south of the existing A96, which removes screening provided by existing vegetation. Receptor directly impacted by realignment.	As receptor 1 and existing trees should be retained where possible.
	2C, 2D, 2G, 2I	Road and Footpath (1)	Low	Low	Vehicles, embankment, overbridge, possible junction.	Low	Slight	Distant views of route option alignment passing between woodland blocks and through agricultural land. Additional screening provided by intervening topography.	As receptor 1 and existing trees should be retained where possible.

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A11.1: Legislation and Conservation Status

Legislative and Policy Framework

International Conventions and Directives

The Convention on Biological Diversity (1993)

The Convention on Biological Diversity (CBD) was adopted in 1993 and provides a legal framework for biodiversity conservation. Contracting Parties are required to create and enforce national strategies and action plans to conserve, protect and enhance biological diversity. The UK Government published the UK Biodiversity Action Plan (UKBAP) in 1994, and to compliment this, the Scottish Biodiversity Strategy (SBS) was launched in 2004.

In 2010 the Contracting Parties adopted a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period. The Aichi Biodiversity Targets have five strategic goals, relating generally to addressing biodiversity loss, improving biodiversity status, and enhancing implementation of measures. Each strategic goal has a number of targets associated with it adding up to a total of 20 targets. Full details can be found at http://www.cbd.int/sp/targets/default.shtml.

The Conservation of European Wildlife and Natural Habitats (the Bern Convention) (1979)

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in 1979 and imposes legal obligations on European Union (EU) Member States and non-member States (as appropriate) to ensure conservation and protection of wild plant and animal species listed within the Convention. Special attention is given to endangered and vulnerable species, including endangered and vulnerable migratory species specified in appendices. The Convention was ratified and implemented in the UK in 1982 through the Wildlife and Countryside Act (WCA) 1981 (as amended) and the Nature Conservation (Scotland) Act (NCA) 2004 (as amended).

The Convention on Conservation of Migratory Species of Wild Animals (the Bonn Convention) (1979)

The Convention on Conservation of Migratory Species of Wild Animals (the Bonn Convention) was adopted in 1979 and came into force in 1985. Signatories work together to conserve migratory species and their habitats by providing strict protection for endangered migratory species (listed in Appendix I of the Convention), concluding multilateral agreements for the conservation and management of migratory species which require or would benefit from international cooperation (listed in Appendix II), and by undertaking cooperative research activities. The Convention aims to achieve the effective management of migratory species across national or jurisdictional boundaries. In the UK, the legal requirement for the strict protection of Appendix I species is provided by the WCA 1981 (as amended).

The Convention on Wetlands of International Importance (the Ramsar Convention (1975)

The Convention on Wetlands of International Importance, called the Ramsar or Wetlands Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The treaty was adopted in the Iranian city of Ramsar in 1971 and entered into force in December 1975, and ratified by the UK in 1976. The Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world".

European Council Directive (79/409/EEC) on the Conservation of Wild Birds (the Birds Directive) (1979)

The Directive is a primary tool for delivering EU obligations under the CBD (1979), the Ramsar and the Bonn Convention (1979). The Birds Directive requires Member States to protect all bird species, their sites and their habitats. Article 4 of the Directive makes provision for the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex I of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the



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protection of wetlands of international importance. Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 is the codified version of Directive 79/409/EEC (as amended) (the Birds Directive (2009)).

European Council Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Fauna and Flora (the Habitats Directive (1992)

Directive (92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive (1992)) is the means by which Member States meet obligations made as a signatory of the Bern Convention (1979). The main aim of the Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species at a favourable conservation status, introducing robust protection for those habitats and species of European importance. Each Member State is required to prepare and propose a national list of sites for evaluation in order to form a European network of Sites of Community Importance (SCIs). Once adopted, these are designated by Member States as Special Areas of Conservation (SACs).

Article 3 of the Directive requires that designated sites contribute to a coherent European ecological network of protected sites under the title Natura 2000. In addition, the Article requires that SPAs are also included in this network. Member States should also endeavour to improve the ecological coherence of the Natura 2000 network by maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora.

The Directive was amended in 1997 and 2003 due to the enlargement of the European Union, with a consolidated version issued in 2007.

European Council Directive (2000/60/EC) Water Framework Directive (2000)

The Water Framework Directive (2000/60/EC) (WFD (2000)) was adopted in October 2000 and establishes a framework for Community action in the field of water policy. It came into force in December 2000 and requires that all inland and coastal watercourses in Europe do not deteriorate from their current condition and reach at least 'good' ecological status by 2015. Under the WFD (2000), the ecological status of watercourses is now the focus of river management and impact assessment. Transposition into national law occurred through the Water Environment and Water Services (WEWS) (Scotland) Act 2003.

European Council Directive (2006/44/EC) Freshwater Fish Directive (2006)

The Freshwater Fish Directive (2006/44/EC) (FFD (2006)) seeks to protect freshwater bodies identified by Member States as waters suitable for sustaining fish populations. This Directive was repealed during 2013 when waters currently designated under the FFD became protected areas under the WFD (2000).

European Council Regulation (No: 1100/2007) Establishing measures for the recovery of the stock of European eel (2007)

In response to the decline of European eels, the EU proposed an Eel Management Plan; each Member State is required to create separate management plans for each river basin district.

National Legislation

The Wildlife and Countryside Act 1981 (as amended)

The WCA (1981) (as amended) is the principal mechanism for wildlife protection in the UK. Its aim is to implement the requirements of the Bern Convention (1979) and the Birds Directive (2009). The statutory designation of Sites of Special Scientific Interest (SSSI) is the main site protection measure in the UK established this legislation.

The Conservation (Natural Habitats, &c.) Regulations (1994) (as amended)

The Conservation (Natural Habitats, &c.) Regulations (1994) (as amended) transpose the Habitats Directive (1992) into national law. The Regulations provide for the designation and protection of



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'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European sites.

Under the Regulations it is an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 of the Regulations, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities (e.g. Scottish Natural Heritage (SNH)). Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on the conservation status of the species concerned.

Nature Conservation (Scotland) Act (2004)

The NCSA (2004) requires Scottish Ministers to publish a list of habitats and species considered to be of principal importance for biodiversity. The Scottish Biodiversity List (SBL, 2005) is intended to be a tool for public bodies and an important source of information and guidance for all.

The Act also makes amendments to the WCA strengthening the legal protection for threatened species. The protection afforded to wild birds, animals and plants is extended to include 'reckless' acts. The Protection of Badgers Act 1992 (see below) is also amended.

Wildlife and Natural Environment (Scotland) Act (2011)

The Wildlife and Natural Environment (Scotland) Act (WANE) (2011) amended other legislation including the WCA (1981) (as amended) and the Deer (Scotland) Act 1996. The Act introduces new wildlife related offences, including 'vicarious liability'. It abolishes the designation of 'areas of special protection' under the WCA (1981) (as amended), adds further regulation of snaring practice, further regulates invasive and non-native species, ensures that badger licensing is consistent with that of other protected species, amends current arrangements for deer management and deer stalking, strengthens protection of badgers, changes how moor burn can be practised and makes operational changes to the management of SSSIs.

The Act also changed the approach to dealing with invasive non-native species and aims to prevent the release and spread of non-native animal and plant species into areas where they can cause damage to native species and habitats and to economic interests, ensure a rapid response to new populations can be undertaken, and ensure effective control and eradication measures can be carried out when problem situations arise.

A Code of Practice, issued under new Section 14C of the WCA (1981) (as amended) helps people who manage land containing non-native plants and animals or are involved in the keeping of non-native plants and animals to understand their legal responsibilities. It also provides a licensing means to derogate offences against species protected by the WCA (1981) (as amended) in certain circumstances.

Protection of Badgers Act (1992)

The Protection of Badgers Act (PBA) (1992) legally protects badgers from intentional cruelty (such as badger-baiting) and from the results of lawful human activities (such as housing, road or other developments).

Environmental Protection Act (1990)

This Environmental Protection Act (EPA) (1990) aims to provide protection and conservation of the natural environment. A number of provisions are set out within this Act that includes provision for the improved control of pollution arising from certain industrial and other processes.

Surface Waters (Fishlife) (Classification) (Scotland) Amendment Regulations (2007)

These Regulations prescribe a system for classifying and monitoring the quality of inland waters in Scotland which need protection or improvement to support fish-life.



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Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act (2003)

The Salmon and Freshwater Fisheries (Consolidation) (SFFA) Act (2003) affords protection through a number of orders to which planning authorities must adhere. Under this any person who knowingly takes, injures or destroys; or obstructs the passage of, any smolt, parr, salmon fry or alevin shall be guilty of an offence. Additionally, any person knowingly injuring or disturbing salmon spawn; or disturbs any spawning bed or any bank or shallow in which the spawn of salmon may be, shall be guilty of an offence.

Water Environment and Water Services (Scotland) Act (2003)

The Water Environment and Water Services (Scotland) (WEWS) Act 2003 implements the WFD (2000) in Scotland but it is now augmented by the Controlled Activities Regulations (CAR) (2011) (as amended).

Water Environment (Controlled Activities) (Scotland) Regulations (2011)(as amended)

The CAR (2011) are the implementation in Scotland of the WFD (2000). The Regulations apply to inland waters and wetlands linking to lochs or rivers (although they may be extended to cover all wetlands). The Regulations were amended in 2013.

UK Biodiversity Action Plan (1994)

The UKBAP (1994) was the UK's response to the CBD (1993). The UK Biodiversity Steering Group published individual action plans for priority habitats and some of the UK's most threatened and endangered species. These Habitat and Species Action Plans (HAPs and SAPs, respectively) were developed to guide conservation action and promote biodiversity.

UKBAP Priority Habitats are distinct from Annex I Habitats listed in the Habitat Directive (1992) and included those habitats identified by the UK Steering Group as being particularly important or that were considered vulnerable to habitat loss and damage, and for which conservation action should be targeted.

Following the creation of the UKBAP (1994), devolution in 1998 led the four countries of the UK (England, Northern Ireland, Scotland and Wales) to develop their own country strategies. However, in 2007 a shared vision for UK biodiversity conservation was adopted by the devolved administrations and the UK government. The UK Post-2010 Biodiversity Framework (JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012)) succeeds the UKBAP (1994) and forms the UK Government's response to the new Strategic Plan for Biodiversity of the CBD (1993), published in 2010 at a meeting in Nagoya, Japan.

The Framework is the result of a change in strategic thinking and much of the work previously carried out under the UKBAP (1994) is now focussed at a country level. The UKBAP (1994) lists of priority species and habitats remain important and valuable reference sources and they have been used to draw up statutory lists of priorities.

Local Biodiversity Action Plans

Local Biodiversity Action Plans (LBAPs) integrated the conservation measures provided in the 1994 UKBAP to enhance biodiversity at the local and regional level. LBAPs are implemented through planning policy, identifying habitats and species of particular value or endangerment at the local or regional level. The regional Highland Biodiversity Action Plan (Highland Biodiversity Partnership (2010)) is of relevance to the A96 Dualling Inverness to Nairn (including Nairn Bypass) route options, and in this there are a number of local plans for each of the Highland Council's administrative areas. The Inverness and Nairn LBAP (2004) is pertinent to the route options (Inverness & Nain Biodiversity Group (2004)).

A full list of local priority habitats and species from the Inverness and Nairn LBAP (2004) can be found at the end of this document (Tables 1 and 2). No habitat or species action plans have been prepared in associated with this LBAP. However, the LBAP does include the main issues, objectives and future actions.



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Locally Important Sites

District Wildlife Sites (DWS), Local Wildlife Sites (LWS), Sites of Importance for Nature Conservation (SINC) and Sites of Interest to Natural Science (SINS) are sites of local conservation interest designated by local planning authorities. Such sites are afforded a measure of protection in local development plans.

Non-Statutory Guidance

International Union for Conservation of Nature (1948)

The International Union for Conservation of Nature (IUCN) was founded in 1948 and aims to deliver conservation and sustainability at both the global and local level through science, delivery of conservation projects and influencing international environmental conventions, policies and law.

The IUCN (1948) has produced the IUCN Red List of Threatened Species (IUCN (2013)) as a comprehensive and objective global approach for evaluating the conservation status of plant and animal species. The goal of the Red List is to provide information and analyses on the status, trends and threats to species in order to inform and catalyse action for biodiversity conservation. Species are classified into the following categories according to their extinction risk: Extinct; Extinct in the Wild; Critically Endangered; Endangered; Vulnerable; Near Threatened; Least Concern; and Data Deficient.

Scottish Biodiversity Strategy (2004)

The Scottish Biodiversity Strategy (SBS) (2004) places a duty of care on public bodies to further the conservation of biodiversity in Scotland, the execution of which is implemented through the LBAPs. The strategy has been revised in light of new International and European agreements, the European Union's Biodiversity Strategy for 2020 and the 'Aichi Biodiversity Targets'. This new strategy, "2020 Challenge for Scotland's Biodiversity" was published in June 2013 (Scottish Government, 2013) and provides a focus for action to 2020, responding to new international targets, and updates elements of the 2004 document. Together, the 2020 Challenge and the original 2004 Strategy comprise the current SBS.

Scottish Biodiversity List (2005)

The SBL (2005) is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland and was developed to meet the requirements of the NCSA (2004). The list provides a guide to empower decision-makers to further the conservation of biodiversity in Scotland. It was published in 2005 and has since been updated to take account of changes to the UKBAP priorities list, the most recent version being 22 April 2013. SNH is currently preparing a version of the SBL to take into account the 'Categories for Action' which relate to the different types of activities that public bodies carry out to deliver their biodiversity duty.

Scottish Planning Policy

Scottish Planning Policy (2014)

The Scottish Planning Policy (SPP) 2014 is the statement of the Scottish Government's policy on nationally important land use planning matters. This document supersedes a number of documents including National Policy Planning Guideline (NPPG) 14: Natural Heritage. It outlines planning guidance in relation to Landscape and Natural Heritage by providing planning authorities with advice on how to maintain and enhance biodiversity.

Planning Advice Note 60: Planning for Natural Heritage (2000)

Planning Advice Note (PAN) 60 (Scottish Executive, 2000) provides guidance on good practice in relation to conservation and natural heritage in Scotland. It covers the protection of biodiversity, designated sites and the wider natural heritage, with the provision that all development effects can be material considerations in the planning process.



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Terrestrial Habitat

Semi-natural habitats may be protected under the Conservation (Habitats, &c.) Regulations (1994) (as amended), the WCA 1981 (as amended) and the Habitats Directive (1992).

The WCA (1981) (as amended) makes it an offence (subject to exceptions) to intentionally pick, uproot or destroy any wild plant listed in Schedule 8 of the WCA (1981) (as amended); or any seed or spore attached to any such wild plant.

The WCA (1981) (as amended) also contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife.

The current version of the SBL (April, 2013) lists 41 habitats across a range of types: coastal, freshwater, upland, lowland and woodland. It also includes 232 species of flowering plant, 12 species of fern, seven species of stonewort, 210 species of moss and liverwort and 240 species of alga.

The Inverness and Nairn LBAP (2004) has identified 35 habitats categorised into six groups (Table 1); sea and coast; river, loch and wetland; farm and croft land; forest and woodland; bog, moor and hill; and town and village. This has also identified 26 plants as priority species including one moss, one liverwort and four lichens. Seven species of fungi are also included on the list (Table 2).

Terrestrial Invertebrates

Terrestrial invertebrates are protected in the UK under the Conservation (Habitats, &c.) Regulations (1994) (as amended) and WCA (1981) (as amended).

There are 286 species of terrestrial invertebrates (not including molluscs) listed on the current version of the SBL (April, 2013). There are 24 invertebrate species of ant, bee, beetle, butterfly, moth and wasp on the Inverness and Nairn LBAP (2004).

Bats

The Agreement on the Conservation of Populations of European Bats (EUROBATS) came into force in 1994 under the auspices of the Bonn Convention (1979). The agreement recognises that endangered migratory-species can only be properly protected if activities are carried out over the entire migratory range of the species, and it aims to protect all 45 species of bats identified in Europe through legislation, education, conservation measures and international co-operation.

Bats are classed as a European Protected Species. All British bat species and their roosts are also protected under the Bern Convention (with the exception of common pipistrelle) (1979) (Appendix II); the Bonn Convention (1979); the Habitats Directive (1992) (Annex IV) and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

Derogations under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) in respect to destruction and disturbance of bat roosts can only be undertaken under licence through consultation with SNH.

The WCA (1981) (as amended) makes it an offence to intentionally/recklessly kill or injure any bat species.

Nine species of bats are listed on the current version of the SBL (April, 2013). Five species of bat are listed on the Inverness and Nairn LBAP (2004).

Badger

Badgers are protected under the PBA and the WCA (1981) (as amended). Derogations under the PBA (1992) in respect to the destruction and disturbance of badger setts can only be undertaken under licence through consultation with SNH (the licensing authority).

Badgers are not listed on the current version of the SBL (April, 2013), but are included in the Inverness and Nairn LBAP (2004).



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Breeding Birds

Resident and migratory bird populations within the UK are protected under the Conservation (Habitats, &c.) Regulations (1994) (as amended) and the WCA (1981) (as amended). They are also protected under the Birds Directive (2009) and the Habitats Directive (1992).

The WCA (1981) (as amended) ensures that all wild birds, their nests and eggs are protected, which makes it an offence to intentionally or recklessly kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while it is in use or being built; take or destroy the egg of any wild bird; and disturb any wild bird listed in Schedule 1 while it is nest building or is at (or near) a nest with eggs or young; or disturb the dependent young of such a bird. The Acts additionally provide protection for SSSIs, in particular those that are designated for the presence of wild bird populations.

The current version of the SBL (April, 2013) includes 105 bird species. The Inverness and Nairn LBAP (2004) contains 62 bird species associated with existing HAPs or draft/consultative HAPs. In addition, four species – barn owl, sand martin, swift and tern – have proposed SAPs.

Reptiles

Common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*) and adder (*Vipera berus*) are common and widespread in Britain and receive limited protection under the WCA (1981) (as amended), which makes it an offence to intentionally or recklessly kill or injure these reptile species.

Common lizard, slow-worm and adder are all listed on the current version of the SBL (April, 2013) and on the Inverness and Nairn LBAP (2004).

Pine Marten

Pine marten (*Martes martes*) is protected in the UK under the WCA (1981) (as amended) and Conservation (Natural Habitats, &c.) Regulations (1994) (as amended). Taken together, these protect pine marten from intentional or reckless killing or injury and disturbance, and from possession or sale.

Pine marten is listed on the current version of the SBL (April, 2013) and on the Inverness and Nairn LBAP (2004).

Red Squirrel

Red squirrel (*Sciurus vulgaris*) is protected under the WCA (1981) (as amended). This legislation makes it an offence to intentionally or recklessly kill or injure red squirrel, disturb or destroy a place of shelter, and take or sell the species.

Red squirrel is listed on the current version of the SBL (April, 2013) and on the Inverness and Nairn LBAP (2004).

Wildcat

Wildcat (*Felis silvestris*) is protected under the Conservation (Habitats, &c.) Regulations (1994) (as amended) and the WCA (1981) (as amended). Wildcats are also protected under the Habitats Directive (1992) and included on the IUCN least endangered list (IUCN, 2013.

Wildcat is listed on the current version of the SBL (April, 2013) and on the Inverness and Nairn LBAP (2004).

Otter

Otter (*Lutra lutra*) is classed as a European Protected Species and is protected under the Conservation (Habitats, &c.) Regulations (1994) (as amended) and the WCA (1981) (as amended). Otters are also protected under the Habitats Directive (1992).

This legislation prevents the deliberate or reckless killing or injury of an otter, disturbance or obstruction of an otter or its place of shelter or resting or breeding place. Certain activities can be carried out under licence from SNH.

Otter is listed on the current version of the SBL (April, 2013) and the Inverness and Nairn LBAP (2004).



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Water Vole

Water vole (*Arvicola amphibius*) is protected under the WCA (1981) (as amended). This protects water vole from: intentional killing or injury; being taken, possessed, controlled or sold; and disturbance while occupying or destruction of a structure or place used for shelter or protection.

Water vole is listed on the current version of the SBL (April, 2013) and the Inverness and Nairn LBAP (2004).

Amphibians

Great crested newts (*Triturus cristatus*) are classed as a European Protected Species and are fully protected in the UK under the Conservation (Natural Habitats, &c.) Regulations (1994) (as amended) and the Habitats Directive (1992). This legislation makes it an offence to kill, injure, capture or disturb great crested newts; damage or destroy their habitat; or possess, sell or trade great crested newts. This legislation refers to all great crested newt life stages, including eggs.

Common frog (*Rana temporaria*), common toad (*Bufo bufo*), palmate newt (*Lissotriton helveticus*) and smooth newt (*Lissotriton vulgaris*) are protected under the WCA (1981) (as amended) from being sold or traded.

Great crested newt is listed on the current version of the SBL (April, 2013) and the Inverness and Nairn LBAP (2004). Common toad, common frog and palmate newt are also included in the LBAP.

Aquatic Habitat/River Habitat

The WFD (2000) requires Member States to take action to ensure that all watercourses in Europe reach at least 'good' ecological status by 2015. Any modifications to a river channel and/or riparian corridor may require prior approval by SEPA under requirements of the CAR (2005).

Fish

Fish species are afforded protection under one or more of the Conservation (Habitats, &c.) Regulations (1994) (as amended), European Eel (Council Regulation (EC) No 1100/2007); SFFA (2003), and Surface Waters (Fishlife) (Classification) (Scotland) Amendment Regulations (2007).

The WFD (2000), through the aim of preventing the ecological status of watercourses from deteriorating from existing conditions is likely to benefit fish species.

All freshwater fish species are protected under the SFFA (2003). Atlantic salmon (*Salmo salar*), bullhead (*Cottus gobio*), sea lamprey (*Petromyzon marinus*), river lamprey (*Lampetra fluviatilis*) and brook lamprey (*L. planeri*) are all listed in Annex II of the Habitats Directive (1992). Atlantic salmon and river lamprey are also listed on Annex V of this Directive, which lists species whose taking in the wild and exploitation may be subject to management measures.

There are 13 fish species that are listed on the current version of the SBL (April, 2013); including three lamprey species, Atlantic salmon, sea trout (*Salmo trutta*) and European/common eel (*Anguilla anguilla*). There are 14 fish species, including these, that are listed on the Inverness and Nairn LBAP (2004).



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LBAP Habitats and Species Tables

This information is taken from the Inverness and Nairn LBAP (Inverness & Nairn Biodiversity Group, 2004).

Table 1: Priority habitats on the Inverness and Nairn LBAP (2004)

Broad Category	Habitat Type
Sea and Coast	Coastal salt marsh
	Coastal sand dunes
	Mudflats
	Seagrass beds
	Sublittoral sands and gravels
	Coastal waters
River, Loch and Wetland	Eutrophic standing waters
	Mesotrophic lakes
	Reedbeds
	Floodplain
	River gorges
	Spawning burns
	Wetlands and ponds
	Cereal field margins
	Purple moor grass and rush pastures
	Cattle-grazed pasture
Farm and Croft Land	Drystone dykes and long established field boundaries
	Gorse and scrub woodland
	Unsprayed and uncultivated field margins
	Winter Brassica fields and stubbles
	Native pinewood
Forest and Woodland	Juniper scrub
	Upland oakwood
	Wet woodland
	Upland birch
	Aspen stands
	Riparian woodland
	Blanket bog
	Lowland heathland
Bog, Moor and Hill	Montane scrub
	Rock faces and ledges
	Snow-bed vegetation
Town and Village	Wildlife-friendly private and public gardens
	Potentially flower-rich roadside verges



Table 2: Priority species on the Inverness and Nairn LBAP (2004)

Common Name	Scientific Name	
Amphibians		
Common toad	Bufo bufo	
Common frog	Rana temporaria	
Great crested newt	Triturus cristatus	
Palmate newt	T. Helvetica (now known as Lissotriton helveticus)	
Ants	, , , , , , , , , , , , , , , , , , ,	
Scottish wood ant	Formica aquilonia	
Northern wood ant	F. lugubris	
Bees		
Bilberry bumblebee	Bombus monticola	
Moss carder bee	B. muscorum	
Broken-belted bumblebee	B. soroeensis	
A mason bee	Osmia inermis	
A mason bee	O. uncinata	
Beetles		
A reed beetle	Donacia aquatica	
A ground beetle	Dyschirius angustatus	
A jumping weevil	Rhynchaenus testaceus	
A rove beetle	Thinobius newberyi	
Birds		
Twite	Acanthis flavirostris	
Goshawk	Accipiter gentilis	
Skylark	Alauda arvensis	
Kingfisher	Alcedo atthis	
Wigeon	Anus penelope	
Greylag goose	Anser anser	
Pink-footed goose	A. brachyrhyncus	
Swift	Apus apus	
Golden eagle	Aquila chrysaetos	
Turnstone	Arenaria interpres	
Short-eared owl	Asio flammeus	
Goldeneye	Bucephala clangula	
Knot	Calidris canutus	
Linnet	Carduelis cannabina	
Dotterel	Charadrius morinellus	
Hen harrier	Circus cyaneus	
Corncrake	Crex crex	
Whooper swan	Cygnus cygnus	
House martin	Delichon urbica	
Yellowhammer	Emberzia citronella	
Reed bunting	E. schoeniclus	
Merlin	Falco columbarius	
Peregrine falcon	F. peregrinus	
Snipe	Gallinago gallinago	
Black-throated diver	Gavia arctica	
Red-throated diver	G. stellata	



Common Name	Scientific Name
Swallow	Hirundo rustica
Wryneck	Jynx torquilla
Black-headed gull	Larus ridibundus
Bar-tailed godwit	Limosa lapponica
Scottish crossbill	Loxia scotica
Crossbill	L. curvirostra
Parrot crossbill	L. pytyopsittacus
Common scoter	Melanitta nigra
Goosander	Mergus merganser
Red breasted merganser	M. serrator
Corn bunting	Miliaria calandra
Red kite	Milvus milvus
Spotted flycatcher	Muscicapa striata
Curlew	Numenius arquata
Osprey	Pandion haliaetus
Crested tit	Parus cristatus
House sparrow	Passer domesticus
Tree sparrow	P. montanus
Grey partridge	Perdix perdix
Honey buzzard	Pernis apivorus
Cormorant	Phalacrocorax carbo
Snow bunting	Plectrophenax nivalis
Golden plover	Pluvialis apricaria
Slavonian grebe	Podiceps auritis
Bullfinch	Pyrrhula pyrrhula
Woodcock	Scolopax rusticola
Eider	Somateria mollissima
Arctic tern	Sterna paradisaea
Common tern	S. hirundo
Black grouse	Tetrao tetrix
Capercaillie	T. urogallus
Greenshank	Tringa nebularia
Redshank	T. totanus
Song thrush	Turdus philomelos
Barn owl	Tyto alba
Lapwing	Vanellus vanellus
Butterflies	
Northern brown argus	Aricia artaxerxes
Pearl-bordered fritillary	Boloria euphrosyne
Small heath	Coenonympha pamphilus
Small blue	Cupido minimus
Speckled wood	Pararge aegeria
Crustacean	
Edible crab	Cancer pagurus
Common lobster	Homarus gammarus
Norway lobster	Nephrops norvegicus



Common Name	Scientific Name
Fish	
Common eel	Anguilla anguilla
Herring	Clupea harengus
Cod	Gadus morhua
River lamprey	Lampetra fluviatilis
Brook lamprey	L. planeri
Whiting	Merlangius merlangus
Sea lamprey	Petromyzon marinus
Plaice	Pleuronectes platessa
Saithe	Pollachius virens
Common skate	Raja batis
Atlantic salmon	Salmo salar
Brown/sea trout	S. trutta
Mackerel	Scomber scombrus
Horse mackerel	Trachurus trachurus
Fungi	1
Drab tooth fungus	Bankera fuligineoalba
Blue corky spine fungus	Hydnellum caeruleum
Reddish-brown corky spine fungus	H. ferrugineum
Brown corky spine fungus	H. peckii
Waxcaps	Hygrocybe spp.
Green footed spiny-cap fungus	Sarcodon glaucopus
Scaly tooth fungus	S. imbricatus
Lichens	
Speckled script lichen	Schismatomma graphidioides
Forked hair lichen	Bryoria furcellata
Caledonian pannaria	Pannaria ignobilis
Elm gyalecta	Gyalecta ulmi
Liverworts	
Stabler's rustwort	Marsupella stableri
Mammals	
Water vole	Arvicola terrestris (now known as Arvicola amphibious)
Common dolphin	Delphinus delphis
Wildcat	Felix sylvestris
Grey seal	
	Halichoerus grypus
Brown hare	Halichoerus grypus Lepus europaeus
Brown hare Mountain hare	
	Lepus europaeus
Mountain hare	Lepus europaeus L. timidus
Mountain hare European otter	Lepus europaeus L. timidus Lutra lutra
Mountain hare European otter Pine marten	Lepus europaeus L. timidus Lutra lutra Martes martes
Mountain hare European otter Pine marten Badger	Lepus europaeus L. timidus Lutra lutra Martes martes Meles meles
Mountain hare European otter Pine marten Badger House mouse	Lepus europaeus L. timidus Lutra lutra Martes martes Meles meles Mus muscuilus
Mountain hare European otter Pine marten Badger House mouse Polecat	Lepus europaeus L. timidus Lutra lutra Martes martes Meles meles Mus muscuilus Mustela putorius
Mountain hare European otter Pine marten Badger House mouse Polecat Daubenton's bat	Lepus europaeus L. timidus Lutra lutra Martes martes Meles meles Mus muscuilus Mustela putorius Myotis daubentonii
Mountain hare European otter Pine marten Badger House mouse Polecat Daubenton's bat Natterer's bat	Lepus europaeus L. timidus Lutra lutra Martes martes Meles meles Mus muscuilus Mustela putorius Myotis daubentonii M. nattereri



Common Name	Scientific Name
Brown long-eared bat	Plecotus auritus
Pipistrelle bat	Pipistrellus pipistrellus
Soprano pipistrelle bat	P. pygmaeus
Red squirrel	Sciurus vulgaris
Bottlenose dolphin	Tursiops truncatus
Molluscs	Tursiops trancatus
Common whelk	Buccinum undatum
Common cockle	Cerastoderma edule
Lesser octopus	Eledone cirrhosa
Edible periwinkle	Littorina littorea
Common squid	Loligo forbesi
Freshwater pearl mussel	Margaritifera margaritifera
Edible mussel	Mytilus edulis
Great scallop	Pecten maximus
Mosses	1 Guerrina Airrius
Green shield moss	Buxbaumia viridis
Moths	Bushdullia villais
Dark-bordered beauty	Epione vespertaria
Narrow-bordered bee hawk-moth	Hemaris tityus
Lunar yellow underwing	Noctua orbona
Cousin German	Paradiarsia sobrina
Netted mountain moth	Semiothsia carbonaria
Northern dart	Xestia alpicola alpine
Sword-grass	Xylena exsoleta
Reptiles	Aylona casolola
Slow worm	Anguis fragilis
Common lizard	Lacerta vivipara
Adder	Vipera berus
Vascular Plants	Vipera beras
Corn chamomile	Anthemis arvensis
Cornflower	Centaurea cyanus
Corn marigold	Chrysanthemum segetum (now known as Glebionis segetum)
Coralroot orchid	Corallorhiza trifida
An eyebright	Euphrasia heslop-harrisonii
Bluebell	Hyacinthoides non-scripta
Juniper	Juniperus communis
Twinflower	Linnaea borealis
Ragged robin	Lychnis flos-cuculi (now known as Silene flos-cuculi)
Marsh clubmoss	Lycopodiella inundata
Small cow-wheat	Melampyrum sylvaticum
One-flowered wintergreen	Moneses uniflora
Purple oxytropis	Oxytropis halleri
Pillwort	Pilularia globulifera
Aspen	Populus tremula
Spring cinquefoil	Potentilla neumanniana (now known as Potentilla tabernaemontani)
Shetland pondweed	Potamogeton rutilus
ополана роническ	1 otamogotom ratinas



Common Name	Scientific Name	
Meadow saxifrage	Saxifraga granulate	
Whitebeam	Sorbus aria	
Field pansy	Viola arvensis	
Wasps		
A ruby-tailed wasp	Chrysura hirsuta parasitoid of Osmia spp.	



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A11.2: Extended Phase 1 Habitat Survey - Target Notes

Note: some target notes are located outside of the current study area. These are included to provide an overview of the all of the areas surveyed as part of the 2010 and 2013 Extended Phase 1 habitat surveys.

Species abundance is recorded using the DAFOR scale: Dominant (D), Abundant (A), Frequent (F), Occasional (O) and Rare (R). Additional information is also provided as to whether the species was recorded Locally (L) or Very Locally (VL).

Table 1: Extended Phase 1 habitat survey - Target Notes (Inverness to Gollanfield)

Target Note	Grid Reference	Description
1	NH 68737 45456	Broad-leaved semi-natural woodland. Broad-leaved semi-natural woodland (possibly planted with some natural regeneration) of beech (<i>Fagus sylvatica</i>), sycamore (<i>Acer pseudoplatanus</i>), wych elm (<i>Ulmus glabra</i>), cherry (<i>Prunus</i> sp.), ash (<i>Fraxinus excelsior</i>) and hawthorn (<i>Crataegus monogyna</i>). Ground flora poorly developed. Sowbread (<i>Cyclamen hederifolium</i>) recorded (garden escape). The section further west is on steep banks and no formal access is possible. Beech, elm and sycamore dominated with some Scots pine (<i>Pinus sylvestris</i>) and rhododendron (<i>Rhododendron ponticum</i>). Some very mature trees present and the woodland may have bat roost potential.
2	NH 68905 45748	Broad-leaved semi-natural woodland. Broad-leaved woodland largely of elm, sycamore and oak (<i>Quercus</i> sp.), with birch (<i>Betula</i> sp.), beech, ash, Scots pine, aspen (<i>Populus tremula</i>), elder (<i>Sambucus nigra</i>), rowan (<i>Sorbus aucuparia</i>), gorse (<i>Ulex europaeus</i>) and rose (<i>Rosa</i> sp.). Trees are mainly mature, up to 30m+ in parts, on steep banks. Understorey varies between grassy to bracken (<i>Pteridium aquilinum</i>) dominated to bare ground. Other plants recorded were honeysuckle (<i>Lonicera periclymenum</i>), foxglove (<i>Digitalis purpurea</i>), great wood-rush (<i>Luzula sylvatica</i>) and fox-and-cubs (<i>Pilosella aurantiaca</i>). The woodland has some potential for bats.
3	NH 69801 45890	Invasive non-native species - Himalayan balsam. Himalayan balsam (<i>Impatiens glandulifera</i>) along the Scretan Burn adjacent to Inverness Business and Retail Park.
4	NH 69821 45995	Protected species - Pine marten. Pine marten (<i>Martes martes</i>) (male) RTA on road between Culloden and Inverness Retail and Business park roundabout.
5	NH 69899 46046	Invasive non-native species – Mink. Mink (<i>Neovison vison</i>) spraint found on A96 culvert wingwalls on the Scretan Burn.
6	NH 70490 46134	Invasive non-native species - Himalayan balsam. Himalayan balsam along watercourse (Cairnlaw Burn) and in woodland and scrub adjacent to the road. Alder (Alnus glutinosa) and gorse are abundant, with tall ruderal species, rosebay willowherb (Chamerion angustifolium) and common nettle (Urtica dioica). Bracken is also present.
7	NH 70067 46364	Invasive non-native species (<i>Himalayan balsam</i>), woodland and scrub and coastal grassland (saltmarsh). Himalayan balsam adjacent to the watercourse (Scretan Burn) at Scretan Bridge. Small patch of woodland of wych elm, larch (<i>Larix decidua</i>), ash, elder and sycamore. Himalayan balsam extends down the watercourse through the coastal grassland area almost to the edge of the sea. Coastal grassland (saltmarsh) dominated by couch (<i>Elytrigia repens</i>) with orache (<i>Atriplex</i> sp.).
8	NH 71086 46417	Derelict hotel at very west of scheme – large metal pipe through the woodland (halfway between A96 and hotel). Hotel is ruined with derelict sheds and exposed rafters and lots of cavities in brickwork – high bat potential. At time of visit (2013) hotel had crime scene tape across gates and entrances.
9	NH 70840 46546	Broad-leaved semi-natural woodland and invasive non-native species – Himalayan balsam. Broad-leaved woodland, partly semi-natural, but probably partly plantation being the grounds of an old house. Mature beech trees are abundant through the woodland area, with sycamore, wych elm, rhododendron, oak, ash, common lime (<i>Tilia x europaea</i>), cherry, rowan, larch and yew (<i>Taxus baccata</i>). Some trees up to 20m+ (up to 230m) in height and 40-50cm in diameter at chest height (up to 1m). Honeysuckle and snowberry (<i>Symphoricarpos albus</i>) are also present. Herb species included, common knapweed (<i>Centaurea nigra</i>), creeping buttercup (<i>Ranunculus repens</i>), creeping thistle (<i>Cirsium arvense</i>), bluebell (<i>Hyacinthoides non-scripta</i>), wood sorrel (<i>Oxalis acetosella</i>), wood avens (<i>Geum urbanum</i>) and violet (<i>Viola</i> sp.). Some signs of digging, possibly only rabbits. Possibly some bat potential. Himalayan balsam is present in abundance adjacent to the Cairnlaw Burn and the A96.



Target Note	Grid Reference	Description
10	NH 70538 46722	Invasive non-native species - Himalayan balsam and Japanese knotweed. Japanese knotweed (<i>Fallopia japonica</i>) mainly in a single stand near the seashore (10m x 5m). Himalayan balsam along the roadside up to the A96 and along the old road running along the seashore.
11	NH 71281 46798	Invasive non-native species - Himalayan balsam. Himalayan balsam present along tributary of the Cairnlaw Burn by Milton of Culloden Smallholdings.
12	NH 70846 46960	Invasive non-native species – Mink. Mink spraint and prints found under and adjacent to bridge over Cairnlaw Burn at NH 70854 46958.
13	NH 70857 47055	Invasive non-native species – Himalayan balsam. Himalayan balsam present along watercourse (Cairnlaw Burn), from near the outlet into the Moray Firth along the length up to the A96.
14	NH 71229 47111	Broadleaved semi-natural woodland and invasive non-native species – Giant hogweed. Mature trees that may have bat potential with 12+ nest boxes. Giant hogweed (<i>Heracleum mantegazzianum</i>) at southern point of woodland.
15	NH 72039 48719	Standing water – ponds. Four ponds which could be kettleholes. Potential for breeding habitat for great crested newt.
16	NH 73616 48955	Broad-leaved semi-natural woodland. Eight nest boxes placed for tree sparrow (<i>Passer montanus</i>) and one owl/kestrel (<i>Falco tinnunculus</i>) nest box. Resident in Lonnie House informed us of men that come to check boxes and that they are for tree sparrow. Bat potential in mature trees. Pond in field to west was still there and had good vegetation surrounding it. Potential for breeding habitat for great crested newt.
17	NH 74569 49359	Broad-leaved plantation woodland of sycamore, ash, beech and elder, 25m+ in height and 30-40cm diameter at chest height. Grassy ground flora. Possibly some bat potential.
18	NH 75748 49421	Broad-leaved plantation woodland. Plantation woodland (shelter belt) showing signs of semi-natural regeneration. Mainly elm with ash and sycamore up to 15m in height. The ground flora was generally poor. Typical weed species were recorded (common nettle, creeping thistle) and also wood avens, ground-ivy (<i>Glechoma hederacea</i>) and woodruff (<i>Galium odorata</i>), a possible Ancient Woodland Indicator (AWI).
19	NH 76121 49987	Coniferous plantation woodland. Mainly Scots pine plantation woodland 5-6m in height. Some broad-leaved species around the edges (birch, rowan, sycamore) and there are open areas of tall ruderal vegetation (common nettle, raspberry (<i>Rubus idaeus</i>), rosebay willowherb) and scrub (broom, <i>Cytisus scoparius</i>). The coniferous areas are dense. Many animal paths were noted.
20	NH 76025 50222	Broad-leaved semi-natural woodland. Apparently naturally regenerated area of semi- natural woodland, although classed on the AWI as category 2b. The woodland is mainly birch with sycamore, rowan and elder, broom and gorse. There are also dense areas of bridewort (<i>Spiraea salicifolia</i>) which may be in the area of the curling pond.
21	NH 76350 50300	Broad-leaved semi-natural woodland with pond. Broad-leaved woodland with the appearance of being semi-natural although classed on the AWI under category 2b. Trees generally 4-6m, with some taller specimens. Ash, birch, elder, oak, sycamore, rowan and beech were recorded with, broom, raspberry and ferns creating a dense understorey in parts. Some mature trees (sycamore) were up to a 1m in diameter at chest height. A pond is also present, which appeared to have very little aquatic vegetation.
22	NH 76580 50336	Coniferous plantation woodland (Tornagrain Wood). Mainly coniferous plantation woodland, listed on the AWI (category 2b). Some broad-leaf trees areas also present (especially along the A96) and some areas of non-native conifers. The woodland appears to be a mixture of planted and natural regeneration, with a ground flora of heath species, grass or bryophytes. Part of the area was being actively logged and woodland was not surveyed in detail.
23	NH 77095 50359	Coniferous plantation woodland (Tornagrain Wood). Scots pine plantation woodland, listed on the AWI (category 2b). There is a small area of broad-leaved, probably seminatural woodland towards the western end and adjacent to the A96, consisting of mainly birch and sycamore. Scots pine trees are 30m+ in height and 30-40cm diameter at chest height. Other species recorded included elder, cherry, larch, rowan, holly (<i>Ilex aquifolium</i>), hawthorn and oak. The ground flora was variable being grassy or rather dense scrub in some areas. Bracken was dominant in parts, with honeysuckle prominent elsewhere. Part of the area was being actively logged.
24	NH 77455 50247	Quarry. Large patch of dense scrub through middle of disused quarry. At least two colonies of sand martins (<i>Riparia riparia</i>) used to nest in banks of quarry.
25	NH 76799 51115	Coniferous plantation woodland (Mature Scots pine. 20-30m in height and 30cm diameter at chest height. Ground flora largely grassy with some heath species heather (Calluna vulgaris) & bilberry (Vaccinium myrtillus). Hare (Lepus europaeus) observed.



Target Note	Grid Reference	Description
26	NH 78353 50266	Mixed plantation woodland. Mixed immature woodland (Scots pine and birch dominant).
27	NH 80497 52702	Coniferous plantation woodland (Scots pine), much of which is listed on the AWI (category 2b). Trees generally 15m in height and 15-20cm in diameter at chest height. Ground flora generally either mossy or grassy with bramble (<i>Rubus fruticosus</i>), raspberry and honeysuckle. Wood sorrel and chickweed-wintergreen (<i>Trientalis europaea</i>) also recorded. Woodpecker hole spotted in woodland (south of the A96). Both parcels of woodland - similar age/structure.



Table 2: Extended Phase 1 habitat survey - Target Notes (Nairn Bypass)

Target Note	Grid Reference	Description
28	NH 83635 53739	Wet heath. Large area of wet heath with woodland and acid grassland around the periphery, mainly Scots pine but also containing birch. Some Scots pine is invading the bog area and wet ditches surround the habitat. Heather and cross-leaved heath are common across the site, with bog-moss species also common, sometimes forming small bog-pool systems. Patches of common cottongrass (<i>Eriophorum angustifolium</i>), hare's-tail cottongrass (<i>E. vaginatum</i>) and bog asphodel (<i>Narthecium ossifragum</i>) were also common, together with reindeer moss (<i>Cladonia</i> spp.).
		The woodland is mixed semi-natural of Scots pine and silver birch (Betula pendula) dominated over acid grassland, with occasional heath areas. Species recorded include: red fescue (Festuca rubra) (F), sweet vernal-grass (Anthoxanthum odoratum) (F), wavy hair-grass (Deschampsia flexuosa) (F), bracken (O-LA), bell heather (Erica cinerea) (O), heath bedstraw (Galium saxatile) (O), violet sp. (O), wood sage (Teucrium scorodonia) (O-R), hare's-tail cottongrass (R) and creeping Lady's-tresses (Goodyera repens) (R) (VLF).
		The wet heath is divided into three distinct areas:
		a) Birch invasion of heather rich to the east
		 b) Area of heather with reindeer moss, also cross-leaved heath (<i>Erica tetralix</i>) (F), hare's-tail cottongrass (F), <i>Sphagnum</i> (F), bog asphodel (O), deergrass (<i>Trichophorum cespitosum</i>) (O), round-leaved sundew (<i>Drosera rotundifolia</i>) (O);
		c) Area where dwarf-shrub heath content is less and cottongrass and Sphagnum content is higher, particularly hare's-tail cottongrass. Bell heather and cross-leaved heath are occasional. Bog-pools and round-leaved sundew more frequent. Heather is invading from woodland edge.
		Common hawker dragonfly (Aeshna juncea) recorded.
29	NH 84241 53781	Waterbody (Kildrummie Kames SSSI). Two waterbodies, one 20m x 40m and the other 15m x 30m. The larger contained no aquatic vegetation. The smaller was fringed with a variety of species including rush (<i>Juncus</i> spp.) and large sedge species (<i>Carex</i> spp.). The smaller pond was surrounded on three sides by swamp vegetation, merging into marshy grassland.
30	NH 84329 53984	Marshy grassland (Kildrummie Kames SSSI). Area of wetland, mainly marshy grassland but with transitions to wet heath-like habitat. Some areas of dense rush. Wet areas also transition to dense wet woodland dominated mainly by goat willow (Salix caprea). Willow and birch seedlings and colonising the rush/heath areas in parts.
		Species recorded include: soft-rush (<i>Juncus effusus</i>) (LD), Yorkshire-fog (<i>Holcus lanatus</i>) (F), silverweed (<i>Potentilla anserina</i>) (LF), sweet-grass (<i>Glyceria</i> sp.) (LF), <i>Sphagnum</i> (LF), sweet vernal-grass (LF), wavy hair-grass (LF), common sedge (<i>Carex nigra</i>) (O-F), tormentil(<i>Potentilla erecta</i>) (O-F), tufted hair-grass (<i>Deschampsia cespitosa</i>) (O-F), cross-leaved heath (O), devil's-bit scabious (<i>Succisa pratensis</i>) (O), false fox-sedge (<i>Carex otrubae</i>) (O), heath rush (<i>Juncus squarrosus</i>) (O), lesser spearwort (<i>Ranunculus flammula</i>) (O), marsh bedstraw (<i>Galium palustre</i>) (O), marsh thistle (<i>Cirsium palustre</i>) (O), oval sedge (<i>Carex leporina</i>) (O), ribwort plantain (<i>Plantago lanceolata</i>) (O), round-leaved sundew (O), selfheal (<i>Prunella vulgaris</i>) (O), heath bedstraw (O-R), marsh cinquefoil (<i>Comarum palustris</i>) (O-R), bottle sedge (<i>Carex rostrata</i>) (R), bulrush (R) (<i>Typha latifolia</i>), common cottongrass (R), horsetail (<i>Equisetum</i> sp.) (R) and water plantain (<i>Alisma plantago-aquatica</i>) (R).
31	NH 84772 53839	Semi-improved and marshy grassland (Kildrummie Kames SSSI). An area of mainly marshy grassland within semi-improved grassland. The marshy grassland is mainly soft-rush, but the semi-improved grassland contained a variety of herb species including common knapweed, selfheal, creeping buttercup, ribwort plantain, common sorrel (<i>Rumex acetosa</i>) and yellow rattle (<i>Rhinanthus minor</i>).
32	NH 83641 54752	Coniferous plantation woodland (Delnies Community Woodland). Mainly non-native plantation woodland with small blocks of broad-leaved species and open areas designed for amenity use (community woodland). Hazel (<i>Corylus avellana</i>), rowan, oak, ash, birch, horse chestnut (<i>Aesculus hippocastanum</i>), alder, Scots pine, hawthorn, broom and cherry were recorded. The main area of woodland was up to 12m with the broad-leaved areas up to 6m. Areas of poor semi-improved grassland and tall ruderal habitats found in the open areas. There is also a small pond. Dead common shrew (<i>Sorex araneus</i>) and dead mole also found.
33	NH 84440 55500	Grassland with pigs and 500+ herring gulls (<i>Larus argentatus</i>) (Wester Delnies Farm).



Target Note	Grid Reference	Description
34	NH 84929 55466	Coniferous plantation woodland and protected species - Red squirrel. Mainly Scots pine plantation woodland, listed on the AWI as category 2b. Similar in age structure to Target Note 35, but not as diverse. Trees were 20m high and 20-30cm at chest height. Some feeding signs (chewed cones) were recorded, probably from mice. One cone probably chewed by red squirrel (<i>Sciurus vulgaris</i>) was found at NH 84915 55491.
35	NH 85679 55298	Coniferous plantation woodland (Delnies Wood). Large mainly Scots pine plantation woodland, listed on the AWI as category 2b. Some small blocks of larch and sycamore also present. Trees are 15-20(-30m) and 30-40cm diameter at chest height, and were planted around 1910 according to information boards. Birch, larch, bramble, gorse, broom and some non-native conifers were also present. In addition, some large stands of rhododendron were also present, and a number of cotoneaster plants (<i>Cotoneaster</i> sp.). The ground flora was varied, being heathy, grassy or poorly developed, or dominated by tall ruderal species. Honeysuckle, ferns, bell heather, heather, wood sorrel, rosebay willowherb and great wood-rush (<i>Luzula sylvatica</i>) were all recorded. Feeding evidence (chewed cones) were recorded but were identified as probably signs of mice.
36	NH 85688 54812	Marshy grassland, swamp and waterbody. A large wet area containing a small pond (20m x 10m) which transitions into swamp, into marshy grassland and into soft-rush infested semi-improved grassland. Sharp-flowered rush (<i>Juncus articulatus</i>) was also common with large sedge species and common cottongrass. The pond area contained water-forget-me-not (<i>Myosotis scorpioides</i>), large sedge species and pondweed species (<i>Potamogeton</i> sp.). Snipe (<i>Gallinago gallinago</i>) were seen in the marshy grassland. Three singing male reed buntings (<i>Emberiza schoeniclus</i>), two singing male skylarks (<i>Alauda arvensis</i>). The adjacent parcel of woodland is open goat willow dominated in marshy grassland/swamp.
37	NH 87544 53542	Broad-leaved woodland, semi-natural and plantation and invasive non-native
		species - Giant hogweed, Himalayan balsam and Japanese knotweed. South of Howford Bridge, by the River Nairn. Mainly broad-leaved woodland with small pockets of Scots pine dominated woodland. A mixture of different types, mixed broad-leaved semi-natural, single species semi-natural (including alder and sycamore dominated areas) and some broad-leaved plantation areas (mainly poplar) (not shown on figure due to small area). Giant hogweed, Himalayan balsam and Japanese knotweed were scattered in the area, especially near the River Nairn. Monkeyflower (<i>Mimulus guttatus</i>) and pink purslane (<i>Claytonia sibirica</i>) were also present. Other species recorded: great wood-rush (LD), climbing corydalis (<i>Ceratocapnos claviculata</i>) (F), white butterbur (<i>Petasites albus</i>) (LF), enchanter's-nightshade (<i>Circaea lutetiana</i>) (R-LF). Common stinkhorn (<i>Phallus impudicus</i>) found. Mink raft was located on minor
		tributary of the River Naim. Generally low bat potential. Sandpiper (<i>Actitis hypoleucos</i>) by river.
38	NH 87348 53588	Invasive non-native species – Giant hogweed. Numerous giant hogweed plants on the west side of the River Nairn.
39	NH 87651 53796	Invasive non-native species – Japanese knotweed. Japanese knotweed on island in River Nairn immediately south of Howford Bridge.
40	NH 87669 53827	Invasive non-native species – Mink. Mink prints and scat observed at Howford Bridge.
41	NH 87682 53906	Invasive non-native species - Japanese knotweed and Himalayan balsam. Species occurring in patches, sometimes extensive, on both sides of the River Nairn throughout the woodland area.
42	NH 87916 53877	Coniferous plantation woodland. Scots pine shelter belt. Other tree species also present with greater a slightly more broad-leaved species towards the west. Trees up to 15m in height.
43	NH 87713 54088	Invasive non-native species - Japanese knotweed. Dense stand of Japanese knotweed on island in River Nairn. Also patch (6 x 20m) on river bank with giant hogweed. The two species are scattered along both banks of the River Nairn.
44	NH 88083 54669	Broad-leaved semi-natural woodland. Some trees with bat potential. Broad-leaved semi-natural woodland running along both sides of the River Nairn. A small section is listed on the AWI, category 3, which appears to be the section on the steepest banks. Sycamore, elder, birch, oak, elm, ash, alder, goat willow, cherry, holly, larch, rowan and rose were all present. Some areas are dominated by sycamore; other areas are much more diverse. Some trees were very mature. Some non-native conifer species were also recorded. The ground flora was varied, being poor or almost absent in some areas and richer in others. Some parts were also dominated by tall ruderal species including sweet



Target Note	Grid Reference	Description
		cicely (Myrrhis odorata) and perennial dog's-mercury (Mercurialis perennis). Possible Ancient Woodland Indicators recorded included bluebell, great woodrush, pignut (Conopodium majus), ramsons (Allium urisinum), perennial dog's mercury and giant bellflower (Campanula latifolia). Wood meadow-grass (Poanemoralis), red campion (Silene dioica), foxglove, harebell (Campanula rotundifolia), common knapweed, sweet cicely, common nettle, greater stitchwort (Stellaria holostea), wood avens, garlic mustard (Alliaria petiolata), cleavers, hedge woundwort (Stachys sylvatica), hogweed (Heracleum sphondylium) and tufted hairgrass were also recorded. Invasive non-native plants species were also present throughout the area (see Target note 45). Spotted flycatcher (Muscicapa striata), willow warbler (Phylloscopus trochilus) also recorded.
45	NH 88112 54987	Non-native invasive plants. Large stand of giant knotweed (<i>Fallopia sachalinensis</i>) on west side of River Nairn. An additional patch occurs downstream near the footbridge (10-12m length).
46	NH 88232 55119	Broad-leaved semi-natural woodland. Range of trees similar to Target Note 44, but also some large beech and common lime trees forming a short avenue. Potential for bat roosts. Stands of snowberry also present.
47	NH 88508 53569	Coniferous plantation woodland. Mature Scots pine dominated woodland 25-30 m in height. Possible buzzard (<i>Buteo buteo</i>) nest (NH 88635 53587).
48	NH 88632 54248	Coniferous plantation woodland (Crook Plantation), protected species and invasive non-native species - Red squirrel and Himalayan balsam. Coniferous plantation woodland of mainly Scots pine (listed on AWI, category 2b), 30m+ in height with a diameter of 20-30cm. Himalayan balsam was present near the entrance and around the track through the plantation. Larch was present scattered and in small patches. Some broad-leaved trees were also present, especially birch, but also holly. The ground flora varied, being very grassy in parts (fine grasses), or dominated by moss species or bracken, or heath-like with bilberry and bell heather. Creeping Lady's-tresses, wood sorrel and great wood-rush were also recorded. Chewed pine cones were recorded, possibly by mice, others probably by red squirrel. Feeding signs at NH 88552 54292 with a drey nearby. Possible pine marten scat.
49	NH 88616 54516	Coniferous plantation woodland (Crook Plantation). Plantation woodland with a section of semi-natural mainly broad-leaved woodland (mainly birch) to the south (adjacent to Target Note 61). The coniferous component was composed of Scots pine and Sitka spruce (<i>Picea sitchensis</i>). The Scots pine was mature but the Sitka spruce area was younger. There was also some recent broad-leaved tree planting. The broad-leaved area tended to be more open, with bracken, whilst the Sitka spruce area was dense. The Scots pine section tended to be grassy with areas of bracken. Mammal digging activity was evident in the woodland.
50	NH 88998 55070	Protected species – Red squirrel. Red squirrel feeding station was identified in an area of mature spruce.
51	NH 89107 54807	Broad-leaved semi-natural woodland. Semi-natural woodland broad-leaved woodland containing some planted trees and some coniferous species. Tree species present included birch, ash, beech, sycamore, cherry and Scots pine. Mammal digging activity was evident in the woodland.
52	NH 89045 55011	Protected species – Red squirrel. Red squirrel feeding station was identified in an area of mature spruce and Scots pine.
53	NH 89048 55009	Coniferous plantation woodland. Mature plantation woodland of mainly spruce and Scots pine. Ground flora under the spruce was virtually absent; under Scots pine it was grassy. Around the small waterbody and burn, broad-leaved trees were present, mainly sycamore and goat willow. Evidence of red squirrel was found in the woodland (see Target Note 52) and there is anecdotal evidence of otter by the waterbody and badger in the woods. Mammal digging activity was evident in the woodland.
54	NH 88659 54608	Protected species – Red squirrel. Red squirrel feeding station was identified in an area of mature Scots pine.
55	NH 88868 55100	Coniferous plantation woodland. Mature plantation woodland of mainly spruce with some Scots pine. Ground flora under the spruce was virtually absent. Evidence of red squirrel was found in the woodland (see Target Note 54) and there is anecdotal evidence of badger in the area. Mammal digging activity was evident in the woodland. The waterbody had some fringing emergent vegetation (sedge species and bulrush) and a small island.



Target Note	Grid Reference	Description
56	NH 88759 55140	Broad-leaved semi-natural woodland. Semi-natural woodland of largely broad-leaved species with some small areas of planted spruce. Sycamore, oak, Scots pine, beech and ash were present, with gorse, and some more open areas in which new planting has been carried out. Mammal digging activity was evident but a large number of rabbit holes were also present.
57	NH 89690 53622	Invasive non-native species – Giant hogweed. Giant hogweed throughout woodland at Park Farm Cottage.
58	NH 89441 54598	Coniferous plantation woodland of mainly Scots pine (listed on AWI, category 2b), 20m+ in height with a diameter of 20-30cm. Ash, beech, holly, sycamore, oak, birch, rowan and Sitka spruce were also present. The understorey was dense in parts with common nettle, bramble, raspberry, honeysuckle, bracken, broom and gorse. Wood sorrel also present. Grassy areas were generally rough and rank.
59	NH 89260 55758	Invasive non-native species – Giant hogweed. Giant Hogweed recorded in scrub area in field.
60	NH 89872 55168	Buzzard nest and pair alarm calling.
61	NH 90174 54919	Coniferous plantation woodland and protected species - Red squirrel. Coniferous plantation woodland of mainly Scots pine (listed on AWI, category 2b). Beech, sycamore, cherry, larch, rowan and broom are also present. The ground flora is mainly grassy and mossy, but some areas are dominated by bracken. Bramble, bell heather, foxglove, herb-Robert (<i>Geranium robertianum</i>), honeysuckle, wood sorrel and ferns also recorded. Broad-leaved species occur mainly around woodland edge. Trees mainly 20m+. Feeding signs of red squirrel recorded and an individual was seen.
62	NH 90189 55275	Coniferous plantation woodland (Russell's Wood). Coniferous plantation woodland of mainly non-native species (Sitka spruce) (listed on AWI, category 2b). Scots pine, birch, wild cherry (<i>Prunus avium</i>), rowan, larch, oak and sycamore are also present. An area of mature Scots pine has been felled. Broad-leaf species often occur around the edge and along the central path. Parts of plantation are <10m, but some trees are 10-20m. Trees are generally 20-30cm in diameter at chest height. Single eaten cone.
63	NH 90366 54698	Coniferous plantation woodland (Bognafuaran Wood). Mainly Scots pine plantation, 20m tall, with some broad-leaved species (hazel and oak). Ground layer mainly moss and grasses and bracken. Speckled wood (<i>Pararge aegeria</i>) (frequent).
64	NH 90382 54236	Protected species – Red squirrel. Newton of Park – Red squirrel sighting at start of track from farm house. Mixed woodland, abundant bluebell. Pond in centre of woodland.
65	NH 91407 54270	Fishing ponds. Two large ponds with managed (mown) margins and some planting. Species recorded include: broad-leaved pondweed (<i>Potamogeton natans</i>) (LA), curled pondweed (<i>P. crispus</i>) (LA), amphibious bistort (<i>Persicaria amphibia</i>) (LF), water-crowfoot (<i>Ranunculus</i> sp.) (LF), branched bur-reed (<i>Sparganium erectum</i>) (O), wild angelica (<i>Angelica sylvestris</i>) (O), yellow iris (<i>Iris pseudacorus</i>) (O), northern marsh orchid (<i>Dactylorhiza purpurella</i>) (R) and water plantain (R). Frogs, common blue damselfly (<i>Enallagma cyathigerum</i>) and tufted duck (<i>Aythya fuligula</i>) also present.
66	NH 91333 54845	Invasive non-native species – Giant hogweed. Scattered plants of giant hogweed.
67	NH 91184 54979	Protected species – Red squirrel. Chewed cones in small area of very dense coniferous plantation woodland. No ground flora. Small pond in open area. Surrounding vegetation is dense common nettle, bramble, false oat-grass (<i>Arrhenatherum elatius</i>) and other tall ruderal/rough grass species.
68	NH 91312 55538	Invasive non-native species – Giant hogweed. Scattered plants of giant hogweed along the Auldearn Burn.
69	NH 91637 55587	Invasive non-native species – Giant hogweed. Dense patch of giant hogweed.
70	NH 91676 55715	Invasive non-native species – Giant hogweed and Himalayan balsam. Plants scattered along the Auldearn Burn. Sweet cicely also present.
71	NH 91949 55309	Broad-leaved semi-natural woodland (Lethan Road Wood). Mature broad-leaved woodland (listed on AWI, category 2b) with ash, oak, beech, wych elm and holly. Including beech (F-LA), elm (F), oak (F), sycamore (F),ash (O), holly (O), rowan (O), broom (O), honeysuckle (O) and cotoneaster (R). Trees up to 25-30m and with a diameter = 60cm at chest height (to 1m in very mature specimens). Poor quality understorey, disturbed, absent under beech trees, some areas of tall ruderal and scrub species. Other species recorded: ground-elder (Aegopodium podagraria) (F-LA), bramble (F), broad-leaved dock (F), creeping buttercup (F), ivy (Hedera helix) (F), wood avens (F), perennial dog's-mercury (LF), bluebell (O),



Target Note	Grid Reference	Description
•		cleavers (O), chickweed wintergreen (O), cock's-foot (O) (Dactylis glomerata), common nettle (O), common ragwort (Senecio jacobaea) (O), elder (O), garlic mustard (F), Yorkshire-fog (F), germander speedwell (Veronica chamaedrys) (O), great wood-rush (O), hedge woundwort (O), herb-Robert (O), hogweed (O), raspberry (O), rosebay willowherb (O), wood sorrel (O), pignut (O-R), common wintergreen (Pyrola minor) (R), nipplewort (Lapsana communis) (R), sanicle (Sanicula europaea) (R), violet (R), wood anemone (Anemone nemorosa) (R) and a number of garden escapes including honesty (Lunaria annua). The woodland is a popular dog walking area. Few trees with bat potential.
72	NH 90453 56225	Invasive non-native species. Giant hogweed and Himalayan balsam recorded along Auldearn Bun both north and south of the A96.
73	NH 90510 56127	Invasive non-native species – Giant hogweed. Scattered plants of giant hogweed at road junction.
74	NH 91192 56318	Invasive non-native plants. Himalayan balsam along watercourse (Auldearn Burn) and one plant of giant hogweed near bridge.
75	NH 91244 56238	Invasive non-native species – Giant hogweed. Scattered plants of giant hogweed at road junction
76	NH 91671 56147	Invasive non-native species – Himalayan balsam and giant hogweed. Himalayan balsam along watercourse (Auldearn Burn) and one plant of giant hogweed.
77	NH 91649 55971	Scattered trees with bat potential. Line of mature trees (5) mainly elm and ash, some dead providing bat roost potential.
78	NH 91815 56044	Invasive non-native species – Himalayan balsam and giant hogweed. Himalayan balsam along the edge of field and in adjacent land (Boath House Hotel) along the Auldearn Burn. Giant hogweed – several patches along burn. Sweet cicely present.
79	NH 92066 55884	Invasive non-native species – Himalayan balsam. Area of Himalayan balsam by watercourse (Auldearn Burn – Brightmony Tributary).
80	NH 92134 54472	Broad-leaved plantation woodland (Policy Belts, east). Thin strip of plantation woodland with generally grassy understorey. Some evidence of modern planting. Birch (F), hawthorn (F), rowan (F), sycamore (F), cherry (O), elder (O), holly (O), sessile oak (<i>Quercus petraea</i>) (O) and sweet chestnut (R). Ground flora of: Yorkshire-fog (A), bluebell (LA), raspberry (LA), cock's-foot (F), common nettle (F), herb-Robert (F), greater stitchwort (F), cleavers (O), germander speedwell (O), hogweed (O), pignut (O), wood avens (O) and nipplewort (R).
81	NH 92688 54233	Pond (Kinsteary House). Designed landscape with woodland, grassland and large pond and marshy grassland adjacent. Many mature trees in the landscape. Japanese knotweed around the pond, with pondweed (LA), bulrush (F), soft-rush (F), yellow iris (F), common comfrey (Symphytum officinale) (O), common valerian (Valeriana officinalis) (O), greater stitchwort (O), marsh thistle (O), water forget-me-not (Myosotis scorpioides) (O), white water-lily (Nymphaea alba) (O), wild angelica (O) and northern marsh orchid (R). Song thrush (Turdus philomelos), linnet (Carduelis cannabina), spotted flycatcher and little grebes (Tachybaptus ruficollis) recorded. Anecdotal evidence of Slavonian grebe (Podiceps auritus), bats, red squirrel and badger. Adjacent broad-leaved woodland is dominated by silver birch with an immature broad-leaved understory. Evidence of deer and lots of ticks present. Dry stone wall along edge of woodland has potential for reptiles.
82	NH 92670 54828	Broad-leaved plantation woodland (Policy Belts, east). Woodland with variable canopy with some areas dominated by sycamore and others by pedunculate oak (<i>Quercus robur</i>). Trees also very variable in age, some large beech trees up to 1m in diameter at chest height and 20m high. Other species: elm (F), ash (O), broom (O), horse chestnut (O), holly (R) and Scots pine (R). Ground flora also variable, grassy (or absent) in parts, or dominated by tall ruderal vegetation/perennial weed species. Some species indicative of ancient woodland sites but low frequency. Species recorded: common nettle (LA), bluebell (F), cock's-foot (F), creeping buttercup (F), broad-leaved dock (LF), creeping thistle (LF), herb-Robert (F), Yorkshire-fog (F), bramble (LF), raspberry (LF), red fescue (LF), sweet vernal-grass (LF), cleavers (O), common ragwort (O), common sorrel (O), germander speedwell (O), heath bedstraw (O), honeysuckle (O), meadow vetchling (<i>Lathyrus pratensis</i>) (O), pignut (O), wood avens (O), wood sorrel (O), hedge woundwort (R), nipplewort (R), spear thistle (<i>Cirsium vulgare</i>) (R), violet sp. (R), wood anemone (R) and great wood-rush (R). Numerous mature trees many with bat potential.



Target Note	Grid Reference	Description
83	NH 92913 54833	Pond. Small area of open water (5m x 3m) under oak at edge of woodland. Associated with larger boggy area. Soft-rush (A), bulrush (F), false fox-sedge (F), bittersweet (Solanum dulcamara) (O), marsh cinquefoil (O) and sweet-grass (O).
84	NH 92578 55452	Invasive non-native species – Giant hogweed. Scattered plants of giant hogweed at road junction.
85	NH 93131 55635	Coniferous plantation woodland – Gallows Hill. Scots pine dominated woodland on very sandy soil – virtually no ground-flora present. Small felled area with tall ruderal species and scrub (bramble) invading.
86	NH 93214 55153	Broad-leaved plantation woodland (Roundall Wood). Woodland dominated by sycamore and beech with ash (O), elder (O), holly (O) and oak (O). Some mature oaks were 1m diameter at chest height. Poor ground-flora mainly grass dominated, some areas with high bluebell cover. Other species: cock's-foot (F), herb-Robert (F-O), common sorrel (O), germander speedwell (O), honeysuckle (O), pignut (O) and violet (O). Woodpiles present. Some trees with bat potential.
87	NH 93587 55204	Open water, marshy grassland and plantation woodland. Manmade and managed area of open water adjacent to small area of marshy grassland with plantation woodland and tall ruderal vegetation. Dense common nettle and rough grassland dominated by false oat-grass, cock's-foot and Yorkshire-fog. Area of soft-rush dominated marshy grassland with, other rush species (F), creeping buttercup (F), redshank (<i>Persicaria maculosa</i>) (LF), broad-leaved dock (O), common ragwort (O), creeping thistle (O), lesser spearwort (O), marsh foxtail (<i>Alopecurus geniculatus</i>) (O), spear thistle (O), sweet-grass (O), water mint (<i>Mentha aquatica</i>) (O), hedge woundwort (R), hogweed (R), meadow cranesbill (<i>Geranium pratense</i>) (R) and oxeye daisy (<i>Leucanthemum vulgare</i>) (R). Marshy grassland grades into poor semi-improved grassland. Shallow pond with liner with: meadowsweet (<i>Filipendula ulmaria</i>) (LF), soft-rush (LF), sweet-grass (LF), branched bur-reed (O), bulrush (O), mare's-tail (<i>Hippuris vulgaris</i>) (O), marsh marigold (<i>Caltha palustris</i>) (O), pondweed (O), water mint (O), yellow iris (O) and wild angelica (O). Giant rhubarb (<i>Gunnera</i> sp.) also present. Lots of algae also present. Planted trees include silver birch, goat willow, hawthorn and hazel. Rhododendron also present. Blue-tailed (<i>Ischnura elegans</i>) and large red (<i>Pyrrhosoma nymphula</i>) damselflies recorded. Mink-box on pond.
88	NH 94673 55861	Plantation woodland (Wester Hardmuir Wood). Plantation woodland comprising areas of mainly broad-leaved or coniferous trees. Some area of natural regeneration in previously felled woodland. Coniferous
		plantation is mainly mature Scots pine, some of the broad-leaved woodland has been relatively recently planted.
		Species recorded: goat willow (LD), Scots pine (LD), gorse (LF), silver birch (LF), sycamore LF), non-natives conifers (some spruce species) (O), ash (O), broom (O), elder (O), hawthorn (O), honeysuckle (O), rowan (O), cherry (LO), larch (LO), hazel (O-R), sessile oak (O-R) and whitebeam (Sorbus aria) (O-R).
		Ground flora is very variable; dense bracken in some areas with very grassy areas elsewhere. Under dense canopies, ground-flora is virtually absent. Wetter areas dominated by rush species. Species recorded: Yorkshire-fog (F-LA), common bird's-foot-trefoil (<i>Lotus corniculatus</i>) (F), red fescue (F), sweet vernal-grass (F), cock's-foot (LF),marsh thistle (LF), tufted hair-grass (LF), wavy hair-grass (LF), selfheal (O), tormentil (O), white clover (<i>Trifolium repens</i>) (O), wood meadow grass (O), great wood-rush (LO), foxglove (O-R), eyebright (<i>Euphrasia nemorosa</i>) (R), common spotted orchid (<i>Dactylorhiza fuchsii</i>) (R), common wintergreen (R) and northern marsh orchid (R).
		In wet areas, soft-rush (A), bottle sedge (LA), Sphagnum (LA), false fox sedge (O), angelica (O), sweet-grass (O), pondweed (O-R) common cottongrass (R). Common hawker dragonfly, common blue butterfly (Polyommatus icarus) and speckled wood butterfly, recorded. Treecreeper (Certhia familiaris) and great spotted woodpecker (Dendrocopos major) recorded. Some chewed pine cones.
89	NH 94514 56127	Hedge along fruit farm (Wester Hardmuir). Hedge with oak, cherry, alder, hazel. Inshoch Moss which is north of fruit farm was inaccessible due to burn, brambles and dense bracken.
90	NH 95490 56535	Invasive non-native species - Giant hogweed. Scattered plants of giant hogweed by broad-leaved plantation woodland.
91	NH 95849 56059	Coniferous plantation woodland (Hardmuir Wood). Plantation woodland dominated by Scots pine. Variable understorey with dense bracken and some areas of wavy hair-grass grassland. Also wet ditches with some areas of <i>Sphagnum</i> moss and rushes. Signs of animal digging and anecdotal evidence suggest a badger sett was



Target Note	Grid Reference	Description
		present previously in the wood. A buzzard nest was recorded at NH 95380 55929. Dragonfly species also recorded. Trees are mature 20-30m, 40-50cm at chest height. Other tree and shrub species: birch (O), gorse (O), cotoneaster sp. (R), holly (R), rowan (R) and non-native conifers (R). Other species recorded: red fescue (F),Yorkshire-fog (F), chickweed wintergreen (LF), common sorrel (LF), marsh thistle (LF), heather (O-F), bell heather (O), bilberry (O), bramble (O), crossleaved heath (O), heath bedstraw (O), honeysuckle (O), sweet vernal-grass (O), tormentil (O), common wintergreen (R), juniper (R), tufted hair-grass (R) and great wood-rush (R).
92	NH 92301 55302	Broad-leaved semi-natural woodland. Small area of mature woodland mainly pedunculate oak and sycamore. Wych elm and holly also present. A dense understorey including hawthorn and bramble. Some bat potential, but a rookery is present.



DMRB Stage 2 Scheme Assessment Report

Part 6: Appendices

Appendix A11.4: Impact Assessment Tables (non-confidential)

Introduction

This Appendix provides the detailed impact assessment, including receptor evaluation, for the route options. Potential impacts on badger and otter can be found in Part 6 (Appendices), Appendix A11.3 Confidential (Badger and Otter).

Inverness to Gollanfield

Terrestrial, freshwater and marine ecological receptors were evaluated according to Table 1.

Table 1: Value of ecological receptors (Inverness to Gollanfield)

Receptor	Description	Value					
Designated sites							
Inner Moray Firth SPA	European designated site. The site is designated as an SPA for providing foraging grounds for breeding osprey (<i>Pandion haliaetus</i>) and has a nationally important breeding population of common tern (<i>Sterna hirundo</i>). It also supports an internationally important wintering population of bar-tailed godwit (<i>Limosa lapponica</i>), and regularly supports internationally important wintering populations of greylag goose (<i>Anser anser</i>), red-breasted merganser (<i>Mergus serrator</i>) and redshank (<i>Tringa totanus</i>). It also supports an assemblage of over 20,000 waterfowl.	International					
Inner Moray Firth Ramsar	Designated for supporting outstanding examples of wetland habitats, by regularly supporting over 20,000 waterfowl and by regularly supporting internationally important wintering populations of greylag goose, red-breasted merganser, bar-tailed godwit and redshank.	International					
Moray Firth SAC European designated site. Primarily selected for its population of bottlenose dolphins (<i>Tursiops truncatus</i>), and for sandbanks which are slightly covered by the sea at all times. The Moray Firth supports the only known resident population of bottlenose dolphin in the North Sea. The population is estimated to be around 130 individuals. Dolphins are present all year round, and range widely in the Moray Firth.							
Loch Flemington SPA							
Longman and Castle Stuart Bays SSSI	Nationally designated site for its coastland and bird features which is afforded protection under national legislation. Coastlands: eelgrass beds, mudflats and saltmarsh. Birds: cormorant (<i>Phalacrocorax carbo</i>), goldeneye (<i>Bucephala clangula</i>), red-breasted merganser, redshank and wigeon (<i>Anas penelope</i>).	National					
Kildrummie Kames SSSI	Nationally designated site for its geological and biological features which is afforded protection under national legislation. Biological features: fens (open water transition fen), freshwater habitats (eutrophic loch) and woodlands (juniper, <i>Juniperus communis</i> , scrub).	National					
Habitats							
Arable	Local priority habitat (arable field margins) on the Inverness and Nairn LBAP. However, the arable fields examined were, in general, too intensively managed to have high quality field margins. Arable land is extensive in the area and may be utilised by qualifying species of the Inner Moray Firth SPA.	Less than local					
Field Boundaries Drystone dykes and long established field boundaries are a local priority habitat on the Inverness and Nairn LBAP. However, the majority of field boundaries in the study area comprised post and wire fences or degraded dry stone walls.							
Dense Scrub	Gorse (<i>Ulex europaeus</i>) and scrub woodland is a local priority habitat on the Inverness and Nairn LBAP. Dense scrub within the study area is mainly composed of gorse and is species-poor.	Less than local					
Grassland, improved and poor semi-improved	These habitats have low species diversity with swards often dominated by grasses. This type of habitat is extensive in the area. It may be utilised by qualifying species of the Inner Moray Firth SPA.	Less than local					



Receptor	Description	Value
Ancient Woodland Inventory (AWI) Woodland	All AWI woodland is classed as 2b, Long-established Woodlands of Plantation Origin. It is mainly either broad-leaved or coniferous with much of the woodland commercial plantation (some has been cleared in the past and no longer exists). It is generally of low diversity, with a poorly developed ground flora and shrub layer.	Local
Woodland, Coniferous Plantation	Coniferous plantation woodland is generally of low diversity, with a poorly developed ground flora and shrub layer.	Local
Woodland, Semi- natural broadleaved	Semi-natural broadleaved woodland within the study area is generally of low diversity.	Local
Watercourses	Watercourses (burns), including SWF 02 (Scretan Burn), SWF 03 (Cairnlaw Burn) and SWF 12 (Rough Burn), vary in their water quality.	Authority/Lo cal
	SEPA assessments indicate that SWF 12 (Rough Burn) has good ecological status, whereas SWF 03 (Cairnlaw Burn) has moderate ecological status. SWF 16 (tributary of the Ardesier Burn) has moderate ecological status upstream of the A96 and bad ecological status downstream partly due to significant modification. The watercourses have not been specifically identified for the presence of ecologically significant fish species (Atlantic salmon (Salmo salar), trout (Salmo trutta), European eel (Anguilla anguilla), lamprey species). However, burns with a good or moderate ecological status and no barriers to movement are likely to contain some ecologically significant fish species. These watercourses are classed as being of Authority ecological value. Other watercourses, including SWF 02 (Scretan Burn) and SWF 08 (Fiddler's Burn), are unclassified (SEPA classification). Many of these are field ditches feeding the larger burns. These watercourses are classed as being of Local ecological value.	
Ponds	Ponds are a priority habitat on the Inverness and Nairn Local Biodiversity Action Plan (LBAP)	Authority
Coastal Waters	Local priority habitat on the Inverness and Nairn LBAP.	Authority
Species		
Bats	Bats are local priority species on the Inverness and Nairn LBAP and are on the Scottish Biodiversity List (SBL). Records and evidence of bats within the study area is low and the level of suitable roost sites across the study area was also low.	Regional
Birds, Breeding	Birds recorded in the study area include species such as northern lapwing (<i>Vanellus vanellus</i>) and yellowhammer (<i>Emberiza citrinella</i>) which are listed on the SBL and on the Inverness and Nairn LBAP.	Regional
Birds, Overwintering	Species of birds that are listed as features of the Inner Moray Firth SPA (see above), including waders and geese, are likely to utilise grassland and arable areas adjacent to the Moray Firth for roosting and foraging. These birds are therefore assessed as being of European/International ecological value.	International
Great Crested Newt	Great crested (<i>Triturus cristatus</i>) newt is on the SBL and on the Inverness and Nairn LBAP. Great crested newts have been recorded from locations within the study area including Loch Flemington.	National
Pine Marten	Pine marten (<i>Martes martes</i>) is on the SBL and on the Inverness and Nairn LBAP. Evidence of pine marten in the form of a RTA has been found within the study area but additional evidence for the presence of the species is limited. For the purposes of impact assessment it is assumed that all suitable habitat has the potential to support pine marten.	Local
Red Squirrel	Red squirrel (<i>Sciurus vulgaris</i>) is on the SBL and on the Inverness and Nairn LBAP. Records of red squirrel exist for woodland areas within the study area. However, suitable habitat is generally small in area, fragmented and subject to commercial logging. For the purposes of impact assessment it is assumed that all suitable habitat has the potential to support red squirrel.	Local
Fish	Desk studies did not indicate the presence of ecologically significant fish species (Atlantic salmon, trout, eel, lamprey) within the study area. However, burns with a good or moderate ecological status and no barriers to movement are likely to support some ecologically significant species.	Authority
Invasive Non-native Plants (INNS)	The Wildlife and Countryside Act (WCA) 1981 (as amended) makes it an offence to allow an INNS to grow outwith its native range. INNS were found along watercourses in the study area, especially on SWF 02 (Scretan Burn) and SWF 03 (Cairnlaw Burn) (and its tributaries).	National

A summary of the potential impacts of the route options can be found in Tables 2 to 11.



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Table 2: Magnitude and significance of potential impacts on designated sites during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = High impact magnitude)

Landin	Lucy and December 1				Op	tion			
Location	Impact Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Inner Moray Firth SPA and Ramsar -	International value	•		•					
Along the length of the route options.	Disturbance to qualifying species utilising SPA supporting habitat.	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major
Along the mainline of the route options.	Disturbance to qualifying species utilising the intertidal area.	●● Major	● ● Major	●● Major	●● Major	●● Major	●● Major	● ● Major	●● Major
Along the length of the local road to Alturlie Point.	Disturbance to qualifying species utilising SPA supporting habitat.	● ● ● Major	● ● ● Major	● ● ● Major	●●● Major	-	-	-	-
Local road to Alturlie Point.	Disturbance to qualifying species utilising the intertidal area.	●●● Major	● ● ● Major	●●● Major	●●● Major	-	-	-	-
Along the length of the route options.	Pollution from runoff from construction via watercourses (sediments, oils, fuels etc.).	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major
Moray Firth SAC - International value	е								
Along the length of the route options.	Vibration from piling and/or blasting could disturb bottlenose dolphins.	●● Major	● ● Major	●● Major	●● Major	●● Major	● ● Major	● ● Major	●● Major
Along the length of the route options.	Pollution from runoff from construction via watercourses (sediments, oils, fuels etc.).	● ● Major	●● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	●● Major
Loch Flemington SPA									
Loch Flemington.	Disturbance to Slavonian grebe from noise during construction of a local road associated with the Brackley Junction.	• Moderate	• Moderate	• Moderate	• Moderate	● Moderate	• Moderate	• Moderate	• Moderate
Longman and Castle Stuart Bays SS	SI – National value								
Along the mainline of the route options.	Disturbance to cited species utilising the intertidal area.	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major	● ● Major
Local road to Alturlie Point.	Disturbance to cited species utilising the intertidal area.	● ● ● Major	● ● ● Major	● ● ● Major	● ● ● Major	-	-	-	-
Kildrummie Kames SSSI – National v	value								
Throughout area.	None determined.	-	-	-	-	-	-	-	-

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Table 3: Magnitude and significance of potential impacts on designated sites during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = High impact magnitude)

Lander	Beautotten				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Inner Moray Firth SPA and Ramsar –	International value								
Along the mainline of the route options.	Loss of SPA/Ramsar supporting habitat under the footprint of the route options.	● ● Major	●● Major	● ● Major	●● Major	●● Major	● ● Major	●● Major	●● Major
Along the length of the route options.	Disturbance to qualifying species utilising SPA supporting habitat.	● ● Major	●● Major	●● Major	●● Major	●● Major	● ● Major	●● Major	● ● Major
Along the length of the local road to Alturlie Point.	Loss of SPA/Ramsar supporting habitat under the footprint of the route options.	● ● Major	●● Major	●● Major	●● Major	-	-	-	-
Along the length of the local road to Alturlie Point.	Disturbance to qualifying species utilising SPA supporting habitat.	● ● Major	●● Major	●● Major	●● Major	-	-	-	-
Local road to Alturlie Point.	Disturbance to qualifying species utilising the intertidal area as a result of improved access.	● ● Major	● ● Major	●● Major	● ● Major	-	-	-	-
Along the length of the route options.	Pollution from runoff from operation via watercourses (sediments, oils, fuels etc.).	● ● Major	● ● Major	●● Major	●● Major	●● Major	● ● Major	●● Major	●● Major
Moray Firth SAC – International value	9								
Along the length of the route options.	Pollution from runoff during operation via watercourses (sediments, oils, fuels etc.).	● ● Major	● ● Major	●● Major	●● Major	●● Major	● ● Major	●● Major	●● Major
Loch Flemington SPA – Internationa	l value								
Throughout area.	None determined.	-	-	-	-	-	-	-	-
Longman and Castle Stuart Bays SS	SI – National value								
Along the mainline of the route options.	Disturbance to cited species utilising the intertidal area.	● ● Major	● ● Major	● ● Major	●● Major	● ● Major	● ● Major	●● Major	● ● Major
Local road to Alturlie Point.	Disturbance to cited species utilising the intertidal area as a result of improved access.	● ● Major	● ● Major	● ● Major	● ● Major	-	-		-
Kildrummie Kames SSSI – National v	ralue								
Throughout area.	None determined.	-	-	-	-	-	-	-	-

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Table 4: Magnitude and significance of potential impacts on terrestrial habitats and plants during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = Medium impact magnitude, ● ■ = High impact magnitude).

Location	Description	Option								
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)	
Arable and Grassland – Less than Local Value										
Along the length of the route options.	Temporary loss of habitats for construction compounds, borrow pits, storage areas etc.	• Negligible	• Negligible	• Negligible	Negligible	• Negligible	• Negligible	• Negligible	• Negligible	
INNS – National Value										
SWF 02 (Scretan Burn), SWF 03 (Cairnlaw Burn), SWF 04, SWF 05 (tributaries of the Cairnlaw Burn SWF 06 (Kenneth's Black Well).	Transfer of Himalayan balsam.	● ● ● Major	● ● ● Major	●●● Major	●●● Major	● ● ● Major	● ● ● Major	● ● ● Major	● ● ● Major	

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Table 5: Magnitude and significance of potential impacts on terrestrial habitats and plants during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = Medium impact magnitude, ● ■ = High impact magnitude)

Lacation	Decement on				Op	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Arable and Grassland - Less than Loc	al Value								•
Along the length of the route options.	Loss of arable, improved and poor semi- improved grassland under the footprint of the route options.	• Negligible							
Woodland - Local Value									
Woodland near Stratton (Smithton Junction).	Loss of dense scrub and broad-leaved woodland under the footprint of the route options.	● ● Minor							
Woodland near Glenbeg.	Loss of broad-leaved woodland under the footprint of the route options.	● ● Minor	●● Minor	● ● Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	●● Minor
Woodland south-west of Allanfearn Cottage.	Loss of broad-leaved woodland due to mainline widening.	●● Minor	●● Minor	● ● Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	●● Minor
Woodland strip east of Morayston.	Loss and/or fragmentation of broad-leaved woodland under the mainline.	-	●● Minor	-	● ● Minor	-	●● Minor	-	●● Minor
Woodland strip east of Morayston.	Loss of broad-leaved woodland under the footprint of a local road.	●● Minor	●● Minor	● ● Minor	-	● ● Minor	●● Minor	●● Minor	-
Woodland at Kerrowaird.	Loss of coniferous plantation woodland under the footprint of the route options.	●● Minor	● ● Minor	● ● Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	●● Minor
Tornagrain Wood (north side of A96).	Loss of coniferous plantation woodland under the footprint of the route options.	● Minor							
Tornagrain Wood (south side of A96).	Loss of coniferous plantation woodland due to road widening.	-	-	● Minor	● Minor	-	-	● Minor	● Minor
Tornagrain Wood (south side of A96).	Loss of coniferous plantation woodland under a local road to Tornagrain.	-	-	● Minor	● Minor	-	-	● Minor	● Minor
Tornagrain Wood/Mid Coul Junction B.	Loss of coniferous plantation woodland under the footprint of the route options.	-	-	• Minor	• Minor	-	-	• Minor	• Minor
Near Mid Coul.	Loss of dense scrub under the footprint of a local road.	-	-	• Minor	• Minor	-	-	• Minor	• Minor
Woodland at Drumine.	Loss of coniferous plantation woodland under the footprint of the route options.	● Minor	• Minor	-	-	● Minor	● Minor	-	-

Location	Description	Option									
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)		
Woodland at Drumine.	Loss of coniferous plantation woodland due to mainline widening.	-	-	• Minor	• Minor	-	-	• Minor	• Minor		
Woodland near Balspardon.	Loss of coniferous plantation woodland due to mainline widening.	● Minor	● Minor	● Minor	Minor	● Minor	● Minor	● Minor	● Minor		
INNS - National											
All locations.	None determined.	-	-	-	-	-	-	-	-		



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Table 6: Magnitude and significance of potential impacts on terrestrial species during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = High impact magnitude)

Location	Description				Ор	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Bats – Regional Value									
Throughout the length of the route	Direct mortality from loss of tree roosts during vegetation clearance.	• Minor	● Minor	● Minor	• Minor	● Minor	● Minor	• Minor	• Minor
options.	Disturbance.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Habitat fragmentation (commuting routes).	O Negligible	O Negligible	● Minor	● Minor	O Negligible	O Negligible	● Minor	● Minor
Mid Coul Junction B/ Mid Coul Farm.	Disturbance of a bat roost (including a maternity roost).	-	-	● Minor	● Minor	-	-	● Minor	● Minor
Breeding Birds – Regional Value	Pollution.	O Negligible	O Negligible	● Minor	● Minor	O Negligible	O Negligible	● Minor	● Minor
Breeding Birds – Regional Value									
	Direct mortality during vegetation clearance.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Areas of woodland throughout the length of the route options.	Disturbance.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Pollution.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor
Wintering Birds – International Value									
	Habitat loss.	• Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
Throughout the length of the route	Habitat fragmentation.	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
options in areas of agricultural land.	Disturbance.	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
	Pollution.	• Moderate	● Moderate	● Moderate	Moderate	● Moderate	● Moderate	Moderate	Moderate
Along length of local road to Alturlie Point	Habitat loss.	• Moderate	• Moderate	• Moderate	• Moderate	-	-	-	-

Landon	Paradiation .				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Along length of local road to Alturlie	Habitat fragmentation.	● Moderate	• Moderate	• Moderate	• Moderate	-	-	-	-
Point	Disturbance.	● Moderate	• Moderate	• Moderate	• Moderate	-	-	-	-
	Pollution (terrestrial and intertidal habitat).	● Moderate	• Moderate	● Moderate	● Moderate	-	-	-	-
Great Crested Newt - National Value			1	T	T	1	T	ı	ı
Terrestrial habitat in broadleaved woodland to the east of Redhill (close	Direct mortality (terrestrial habitat).	● ● Major	●● Major	● ● Major	● ● Major	-	-	-	-
o Newton Junction A in Options 1A and 1B).	Pollution (terrestrial habitat).	• Moderate	• Moderate	• Moderate	• Moderate	-	-	-	-
Pond at Bruaich na Fuaran (local road)	Direct mortality (terrestrial habitat).	-	-	●●● Major	●●● Major	-	-	●●● Major	●●● Major
	Pollution (terrestrial and aquatic habitat).	-	-	● ● Major	● ● Major	-	-	●● Major	●● Major
Pine Marten – Local Value								,	,
Woodland near Stratton (Smithton	Direct mortality.	● Minor							
Junction)	Disturbance.	● Minor							
W 11 1 01 1	Direct mortality.	O Negligible							
Woodland near Glenbeg	Disturbance.	O Negligible							
	Direct mortality.	O Negligible							
Voodland strip east of Morayston	Disturbance.	O Negligible							
Westland of Konsonsial	Direct mortality.	• Minor	• Minor	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor
Woodland at Kerrowaird	Disturbance.	• Minor	• Minor	● Minor	● Minor	● Minor	● Minor	• Minor	• Minor



Landler.	Bassaluttan				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Tamagrain Mood (north of the ACC)	Direct mortality.	● Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
Tornagrain Wood (north of the A96)	Disturbance.	● Minor	• Minor	● Minor	• Minor	• Minor	• Minor	● Minor	• Minor
Tamagrain Mood (aputh of the ACC)	Direct mortality.	-	-	● Minor	• Minor	-	-	● Minor	● Minor
Tornagrain Wood (south of the A96)	Disturbance.	-	-	● Minor	• Minor	-	-	● Minor	● Minor
	Direct mortality.	● Minor	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor
Woodland at Drumine	Disturbance.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Woodland at Balspardon	Direct mortality.	• Minor	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor
	Disturbance.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	Minor	● Minor
Red Squirrel – Local Value									
Mandler d of Kommunical	Direct mortality.	• Minor	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor
Woodland at Kerrowaird.	Disturbance.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
T	Direct mortality.	● Minor	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor
Tornagrain Wood (north of the A96).	Disturbance.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
T : W 1/ # 5# A00	Direct mortality.	-	-	● Minor	● Minor	-	-	● Minor	● Minor
ornagrain Wood (south of the A96).	Disturbance.	-	-	● Minor	● Minor	-	-	● Minor	● Minor
Woodland at Drumine.	Direct mortality.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Woodland at Drumine.	Disturbance.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor



Location	Description		Option								
	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)		
Woodland at Balspardon.	Direct mortality.	• Minor	• Minor	● Minor	● Minor	● Minor	• Minor	• Minor	● Minor		
	Disturbance.	• Minor	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor		

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Table 7: Magnitude and significance of potential impacts on terrestrial species during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ● = High impact magnitude)

1	Bassington				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Bats – Regional Value									
Throughout the length of the route	Habitat loss (loss of tree roosts).	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
options.	Disturbance.	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
Mid Could hypothers D/Mid Could Forms	Habitat fragmentation (commuting routes).	O Negligible	O Negligible	● ● Moderate	● ● Moderate	O Negligible	O Negligible	● ● Moderate	● ● Moderate
Mid Coul Junction B/Mid Coul Farm.	Disturbance of a bat roost (including a maternity roost).	-	-	● Minor	● Minor	-	-	● Minor	● Minor
Breeding Birds – Regional Value									
	Direct mortality.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Throughout the length of the route	Habitat loss.	● ● Moderate	●● Moderate	● ● Moderate					
options.	Disturbance.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Pollution.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Wintering Birds – International Value									
	Direct mortality.	• Moderate	Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
Throughout the length of the route	Habitat loss.	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
Fhroughout the length of the route options in areas of agricultural land.	Disturbance.	• Moderate	Moderate						
	Pollution.	• Moderate	• Moderate	• Moderate	• Moderate	• Moderate	• Moderate	• Moderate	• Moderate
Along the length of the local road to Alturlie Point.	Direct mortality.	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-

Location	Description				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
	Habitat loss.	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-
Along the length of the local road to	Habitat fragmentation.	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-
Alturlie Point.	Disturbance.	• Moderate	● Moderate	● Moderate	● Moderate	-	-	-	-
	Pollution.	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-
Great Crested Newt - National Value			1	r	1	r	r	1	T
Terrestrial habitat in broadleaved	Direct mortality (terrestrial habitat).	• Moderate	● Moderate	● Moderate	● Moderate	-	-	-	-
Terrestrial habitat in broadleaved woodland to the east of Redhill (close to Newton Junction A in Options 1A and	Habitat loss (terrestrial habitat).	• Moderate	● Moderate	● Moderate	● Moderate	-	-	-	-
1B).	Pollution (terrestrial habitat).	• Moderate	● Moderate	● Moderate	● Moderate	-	-	-	-
	Direct mortality (terrestrial habitat).	-	-	• Moderate	● Moderate	-	-	● Moderate	• Moderate
Pond at Bruaich na Fuaran, (local road).	Habitat loss (terrestrial habitat).	-	-	● Moderate	● Moderate	-	-	● Moderate	• Moderate
	Pollution (terrestrial and aquatic habitat).	-	-	● ● Major	● ● Major	-	-	●● Major	●● Major
Pine Marten – Local Value			1	T	1	T	T	1	T
Woodland near Stratton (Smithton	Direct mortality.	• Minor	● Minor						
Junction).	Habitat loss.	• Minor	● Minor						
Wasdland assa Clarks	Direct mortality.	O Negligible							
Woodland near Glenbeg.	Habitat loss.	O Negligible							
Woodland strip east of Morayston.	Direct mortality.	O Negligible							



Location	Description				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Woodland strip east of Morayston.	Habitat loss.	O Negligible							
Woodiand Strip east of Morayston.	Habitat fragmentation.	-	0	-	O Negligible	-	O Negligible	-	O Negligible
	Direct mortality.	● ● Minor	●● Minor	● ● Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	●● Minor
Woodland at Kerrowaird.	Habitat loss.	● ● Minor	●● Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	●● Minor	●● Minor
	Habitat fragmentation.	● ● Minor	●● Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	●● Minor	●● Minor
	Direct mortality.	• Minor	● Minor						
Tornagrain Wood (north of the A96).	Habitat loss.	• Minor	● Minor						
	Habitat fragmentation.	● Minor							
	Direct mortality.	-	-	● Minor	● Minor	-	-	• Minor	● Minor
Tornagrain Wood (south of the A96).	Habitat loss.	-	-	● Minor	● Minor	-	-	● Minor	● Minor
	Habitat fragmentation.	-	-	● Minor	● Minor	-	-	• Minor	● Minor
Woodland at Drumine.	Direct mortality.	O Negligible							
	Habitat loss.	O Negligible							
Woodland at Balspardon	Direct mortality.	O Negligible							
	Habitat loss.	O Negligible							



Landin	December 1 and				Ор	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Red Squirrel – Local Value									
	Direct mortality.	● Minor	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor	• Minor
	Habitat loss.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor
Woodland at Kerrowaird.	Habitat fragmentation.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor
	Disturbance.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Direct mortality.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Habitat loss.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Tornagrain Wood (north of the A96).	Habitat fragmentation.	● Minor	● Minor	● Minor	● Minor	• Minor	● Minor	• Minor	• Minor
	Disturbance.	• Minor	• Minor	• Minor	• Minor	Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor Minor	_	• Minor	
	Direct mortality.	-	-	● Minor	_	-	-	_	• Minor
	Habitat loss.	-	-	● Minor	_	-	-	_	● Minor
Tornagrain Wood (south of the A96).	Habitat fragmentation.	-	-	● Minor	_	-	-	_	● Minor
	Disturbance.	-	-	● Minor	● Minor	-	-	• Minor	• Minor
Woodland at Drumine.	Direct mortality.	O Negligible	O Negligible	O Negligible	O Negligible			O Negligible	O Negligible
	Habitat loss.	● Minor	● Minor	● Minor	● Minor	● Minor	_	● Minor	● Minor
Woodland at Balspardon.	Direct mortality.	O Negligible	O Negligible	O Negligible	O Negligible			O Negligible	O Negligible
	Habitat loss.	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor



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Table 8: Magnitude and significance of potential impacts on freshwater habitats during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● = Medium impact magnitude, ● = High impact magnitude)

	5	Option									
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)		
Ponds – Authority Value											
Pond - Mid Coul local road.	Pollution including sedimentation.	-	-	● ● Moderate	● ● Moderate	-	-	●● Moderate	●● Moderate		
Watercourses – Authority/Local Value											
	Habitat loss and fragmentation due to watercourse realignment and construction of a culvert.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
SWF 02 (Scretan Burn) (Local).	Pollution including sedimentation due to watercourse realignment and construction of culvert.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
SWF 03 (Cairnlaw Burn) & SWF 04	Habitat loss and fragmentation due to watercourse realignment and construction of culvert.	● ● Moderate	●● Moderate	● ● Moderate	● ● Moderate	● ● Moderate	● ● Moderate	●● Moderate	●● Moderate		
(Tributary of Cairnlaw Burn (1)) (Authority).	Pollution including sedimentation due to watercourse realignment and construction of culvert.	● ● Moderate	●● Moderate	●● Moderate							
CME 05 (Tributory of Coimpley Durn (2))	Habitat fragmentation due to watercourse realignment (Options 1A, 1A (MV), 1B, 1B (MV) and construction of culvert (all Options).	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
SWF 05 (Tributary of Cairnlaw Burn (2)) (Authority).	Pollution including sedimentation due to watercourse realignment (Options 1A, 1A (MV), 1B, 1B (MV only) and construction of culvert (all Options).	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
SWF 06 (Kenneth's Black Well)	Habitat loss and fragmentation due to watercourse realignment and construction of a culvert.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
(Authority).	Pollution including sedimentation due to watercourse realignment and construction of culvert.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
SWF 08 (Fiddler's Burn) (Local).	Habitat fragmentation and loss due to watercourse realignment and construction of culvert(s).	● ● Minor	● ● Minor	● ● Minor	● ● Minor	• Minor	• Minor	• Minor	• Minor		

					Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
SWF 08 (Fiddler's Burn) (Local).	Pollution including sedimentation due to watercourse realignment and construction of culvert(s).	● ● Minor	● ● Minor	● ● Minor	● ● Minor	• Minor	• Minor	• Minor	• Minor
SWF 09 (tributary of Rough Burn) &	Habitat fragmentation and loss due to construction of a culvert(s) (all Options) and watercourse realignment (Options 1A (MV), 1B (MV), 1C (MV), 1D (MV).	● Minor	● Minor	• Minor	• Minor	• Minor	• Minor	● Minor	● Minor
SWF 10 (Indirect tributary of Rough Burn (1)) (Local).	Pollution including sedimentation due construction of a culvert(s) (all Options) and watercourse realignment (options 1A (MV), 1B (MV), 1C (MV), 1D (MV).	• Minor	• Minor	• Minor	Minor	• Minor	• Minor	• Minor	• Minor
SWF 11 (Tributary of Rough Burn (2))	Habitat fragmentation and loss due to watercourse realignment (Options 1A (MV), 1B (MV)) and construction of a culvert (Options 1C (MV), 1D (MV)).	-	• Minor	-	• Minor	-	• Minor	-	• Minor
(Local).	Pollution including sedimentation due to watercourse realignment (Options 1A (MV), 1B (MV)) and construction of a culvert (Options 1C (MV), 1D (MV)).	-	• Minor	-	Minor	-	Minor	-	• Minor
SWF 12 (Rough Burn) (Authority) -	Habitat fragmentation and loss due to construction of bridge.	● Minor		● Minor		● Minor		● Minor	
mainline and local roads.	Pollution including sedimentation due to construction of bridge.	• Minor		● Minor		• Minor		● Minor	
SWF 12 (Rough Burn) (Authority) -	Habitat fragmentation and loss due to construction of a culvert and watercourse realignment.	-	• Minor	-	• Minor	-	• Minor	-	• Minor
mainline	Pollution including sedimentation due to construction of a culvert and watercourse realignment.	-	• Minor	-	• Minor	-	• Minor	-	• Minor
SWF 13, SWF 14, SWF15 (Tributary of 'Unnamed Burn – Castle Stuart to source', (1) and (2) (Tornagrain area)) (Local).	Habitat fragmentation and loss due to watercourse realignment (Options 1A, 1A (MV), 1C, 1C (MV)) and construction of culvert(s) (all Options).	● ● Minor							



Location	Description	Option									
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)		
Multiple locations associated with the mainline and local roads. Exact locations vary slightly between options.	Pollution including sedimentation due to watercourse realignment (Options 1A, 1A (MV), 1C, 1C (MV)) and construction of culvert(s).	● ● Minor	● ● Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	●● Minor	● ● Minor		
SWF 16 (Tributary of the Ardersier Burn) (Mid Coul) (Authority).	Habitat fragmentation and loss due to watercourse realignment and construction of a culvert.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
On mainline (all Options) and local roads (Options 1B, 1B (MV), 1D, 1D (MV)).	Pollution including sedimentation due to watercourse realignment and construction of a culvert.	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor	• Minor	• Minor		
SWF 18 (Indirect tributary drains of the	Habitat fragmentation and loss due to watercourse realignment and construction of a culvert.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
Ardersier Burn), (Drumine) (Local).	Pollution including sedimentation due to watercourse realignment and construction of a culvert.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor		



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Table 9: Magnitude and significance of potential impacts on freshwater habitats during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = High impact magnitude)

Lagation	Paravintian				Op	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Ponds - Authority Value									
Pond - Mid Coul local road.	Pollution from road runoff.	-	1	● ● Moderate	● ● Moderate	-	-	● ● Moderate	● ● Moderate
Watercourses									
SWF 02 (Scretan Burn)	Habitat fragmentation and loss due to watercourse realignment and new culvert.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
(Local).	Pollution from road runoff.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor
SWF 03 (Cairnlaw Burn) &	Habitat fragmentation due to watercourse realignment and new culvert.	●● Moderate	● ● Moderate						
SWF 04 (Tributary of Cairnlaw Burn (1)) (Authority).	Pollution from road runoff.	●● Moderate	● ● Moderate						
SWF 05 (tributary of Cairnlaw	Habitat fragmentation due to watercourse realignment (Options 1A, 1A (MV), 1B and 1B (MV) and new culvert (all Options).	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
Burn (2)) (Authority).	Pollution from road runoff.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor
SWF 06 (Kenneth's Black	Habitat fragmentation due to watercourse realignment and new culvert.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor
Well) (Authority).	Pollution from road runoff.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor
SWF 08 (Fiddler's Burn)	Habitat fragmentation and loss due to watercourse realignment and new culvert(s).	● ● Minor	● ● Minor	● ● Minor	● ● Minor	• Minor	• Minor	• Minor	• Minor
(Local).	Pollution from road runoff.	● ● Minor	● ● Minor	● ● Minor	● ● Minor	• Minor	• Minor	• Minor	• Minor
SWF 09 (Tributary of Rough Burn) & SWF 10 (Indirect tributary of Rough Burn (1)) (Local).	Habitat fragmentation and loss due to new culvert(s) (all Options) and watercourse realignment (Options 1A (MV), 1B (MV), 1C (MV), 1D (MV)).	• Minor	● Minor	• Minor	• Minor	● Minor	● ● Minor	• Minor	● ● Minor

I anathan	Paradation .				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
SWF 09 (Tributary of Rough Burn) & SWF 10 (Indirect tributary of Rough Burn (1)) (Local).	Pollution from road runoff.	• Minor	• Minor	• Minor	• Minor	• Minor	● ● Minor	• Minor	● ● Minor
SWF 11 (Indirect tributary of Rough Burn (2)) (Local).	Habitat fragmentation and loss due to watercourse realignment (Options 1A (MV), 1B (MV)) and construction of a culvert (Options 1C (MV), 1D (MV)).	-	• Minor	-	• Minor	ı	• Minor	-	• Minor
(// (***)	Pollution from road runoff.	-	● Minor	-	● Minor	-	● Minor	-	● Minor
SWF 12 (Rough Burn) (Authority)	Habitat fragmentation and loss due to new bridge.	● Minor	-	● Minor	-	● Minor	-	● Minor	-
Mainline and local roads.	Pollution from road runoff.	● Minor	-	● Minor	-	● Minor	-	● Minor	-
SWF 12 Rough Burn (Authority).	Habitat fragmentation and loss due to new culvert and watercourse realignment.	-	● Minor	-	● Minor	-	● Minor	-	• Minor
Mainline.	Pollution from road runoff.	-	● Minor	-	● Minor	-	● Minor	-	● Minor
SWF 13, SWF 14, SWF15 (Tributary of 'Unnamed Burn – Castle Stuart to source', (1)	Habitat fragmentation and loss due to watercourse realignment and new culvert(s).	● ● Minor							
and (2) (Tornagrain area)) (Local) - multiple locations associated with the mainline and local roads.	Pollution from road runoff.	● ● Minor							
SWF 16 (Tributary of the Ardersier Burn, Mid Coul) (Authority) - on mainline (all	Habitat fragmentation and loss due to new culvert and watercourse realignment.	• Minor	• Minor	• Minor	● Minor	• Minor	● Minor	• Minor	• Minor
Options) and local roads (Options 1B, 1B (MV), 1D, 1D (MV).	Pollution from road runoff.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor
SWF 18 (Indirect tributary drains of the Ardersier Burn,	Habitat fragmentation and loss due to watercourse realignment and new culvert.	●● Minor	● ● Minor	• Minor	• Minor	● ● Minor	● ● Minor	• Minor	• Minor
Drumine) (Local)	Pollution from road runoff.	● ● Minor	● ● Minor	● Minor	● Minor	● ● Minor	● ● Minor	● Minor	● Minor



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Table 10: Magnitude and significance of potential impacts on freshwater species during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ Medium impact magnitude, ● ■ = High impact magnitude).

Location	Description				Op	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Watercourses – Authority/Local Value	Je								
	Direct mortality from watercourse realignment and construction of a culvert.	● Minor							
SWF 02 (Scretan Burn) (Local).	Habitat loss and fragmentation.	● Minor	• Minor						
	Pollution.	• Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor	• Minor
	Direct mortality from watercourse realignment and construction of a culvert.	● ● Moderate							
SWF 03 (Cairnlaw Burn) & SWF 04 (Tributary of Cairnlaw Burn (1)) (Authority).	Habitat loss and fragmentation.	● ● Moderate							
(causing):	Pollution.	● ● Moderate							
OWE OF Wileston of Original Property	Direct mortality as a result of culvert construction (all Options) and watercourse realignment (Options 1A, 1A (MV), 1B, 1B (MV)).	● Minor	• Minor	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor
SWF 05 (tributary of Cairnlaw Burn (2)) (Authority).	Habitat loss and fragmentation.	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor
	Pollution.	● Minor							
	Direct mortality as a result of culvert construction and watercourse realignment.	● Minor							
SWF 06 (Kenneth's Black Well) (Authority).	Habitat loss and fragmentation.	● Minor							
	Pollution.	• Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor	• Minor
SWF 08 (Fiddler's Burn) (Local).	Direct mortality as a result of culvert construction and watercourse realignment.	● Minor	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor	• Minor

1	Bassintan				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
SWF 08 (Fiddler's Burn) (Local).	Habitat loss and fragmentation	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	● Minor
	Pollution from road runoff.	● Minor	● Minor	● Minor	• Minor	● Minor	• Minor	● Minor	● Minor
SWF 09 (Tributary of Rough Burn) & SWF 10 (Indirect tributary of Rough Burn (1)) (Local)	Direct mortality as a result of culvert construction (all Options) and watercourse realignment (Options 1A (MV), 1B (MV), 1C (MV), 1D (MV).	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
	Habitat loss and fragmentation.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Pollution.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
SWF 11 (Indirect tributary of Rough	Direct mortality as a result of watercourse realignment (Options 1A (MV), 1B (MV)) and culvert construction (Options 1C (MV), 1D (MV).	-	• Minor	-	• Minor	-	• Minor	-	Minor
Burn (2)) (Local)	Habitat loss and fragmentation.	-	● Minor	-	● Minor	-	● Minor	-	● Minor
	Pollution.	-	● Minor	1	● Minor	-	● Minor	-	● Minor
	Direct mortality as a result of construction of a bridge.	● Minor	-	Minor	-	Minor	-	Minor	-
SWF 12 (Rough Burn) (Authority) Mainline and local roads	Habitat loss and fragmentation.	• Minor	1	• Minor	-	• Minor	-	• Minor	-
	Pollution.	● Minor	-	● Minor	-	● Minor	-	● Minor	-
	Direct mortality as a result of construction of a culvert and watercourse realignment.	-	● Minor	-	● Minor	-	● Minor	-	● Minor
SWF 12 (Rough Burn) (Authority) Mainline	Habitat loss and fragmentation.	-	● Minor	-	● Minor	-	● Minor	-	● Minor
	Pollution.	-	• Minor	-	• Minor	-	• Minor	-	• Minor



Lagation	Becariation.				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
SWF 13, SWF 14, SWF15 (Tributary of 'Unnamed Burn – Castle Stuart to source', (1) and (2) (Tornagrain area)) (Local) - exact location vary between options.	Direct mortality as a result of culvert construction and watercourse realignment.	●● Minor	● ● Minor						
	Habitat loss and fragmentation.	●● Minor	● ● Minor	●● Minor	● ● Minor	●● Minor	● ● Minor	●● Minor	● ● Minor
	Pollution.	●● Minor	● ● Minor	●● Minor	●● Minor	●● Minor	● ● Minor	●● Minor	● ● Minor
SWF 16 (Tributary of the Ardersier Burn, Mid Coul) (Authority).	Direct mortality as a result of watercourse realignment and construction of a culvert.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
On mainline (all Options) and local roads (Options 1B, 1B (MV), 1D, 1D	Habitat loss and fragmentation.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
(MV). SWF 18 (Indirect tributary of the Ardersier Burn, Drumine) (Local).	Pollution.	● Minor	• Minor						
	Direct mortality as a result of culvert construction and watercourse realignment	• Minor	● Minor	• Minor	● Minor	• Minor	● Minor	• Minor	● Minor
SWF 18 (Indirect tributary drains of the Ardersier Burn, Drumine) (Local).	Habitat loss and fragmentation.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Pollution.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor



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Table 11: Magnitude and significance of potential impacts on freshwater species during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ● = High impact magnitude).

Lagation	Description				Ор	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Watercourses - Authority/Local Value				•	•	•			
SIME 02 (Caratan Burn) (Local)	Habitat fragmentation and loss due to watercourse realignment and culvert.	• Minor	• Minor						
SWF 02 (Scretan Burn) (Local).	Pollution from road runoff.	● Minor	● Minor	● Minor	• Minor	• Minor	● Minor	Minor Minor Minor Minor Moderate Moderate	● Minor
SIME 02 (Cairplant Burn) (Authority)	Habitat fragmentation due to watercourse realignment and culvert.	● ● Moderate		● ● Moderate					
SWF 03 (Cairnlaw Burn) (Authority).	Pollution from road runoff.	● ● Moderate	●● Moderate	●● Moderate	● ● Moderate	● ● Moderate	●● Moderate		● ● Moderate
SWF 05 (Tributary of Cairnlaw Burn (2))	Habitat fragmentation due to new culvert and watercourse realignment.	● Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
WF 05 (Tributary of Cairnlaw Burn (2)) Authority).	Pollution from road runoff.	● Minor	● Minor	• Minor	• Minor	• Minor	_	• Minor	• Minor
OME OO (Kanadahila Birah Mali) (Anthorita)	Habitat fragmentation due to new culvert and watercourse realignment.	● Minor	● Minor	● Minor	● Minor	● Minor	_	● Minor	• Minor
SWF 06 (Kenneth's Black Well) (Authority).	Pollution from road runoff.	● Minor	● Minor	• Minor	• Minor	• Minor	_	• Minor	• Minor
OME 00 (Fiddled Born) (Lead)	Habitat fragmentation and loss due to watercourse realignment and new culvert(s).	● ● Minor	●● Minor	●● Minor	●● Minor	• Minor	_	• Minor	• Minor
SWF 08 (Fiddler's Burn) (Local).	Pollution from road runoff.	● ● Minor	●● Minor	●● Minor	● ● Minor	• Minor	_	_	● Minor
SWF 09 (Tributary of Rough Burn) & SWF 10 (Indirect tributary of Rough Burn(1))	Habitat fragmentation and loss due to new culvert(s) (all Options) and watercourse realignment (Options 1A (MV), 1B (MV), 1C (MV), 1D (MV).	• Minor	• Minor	• Minor	• Minor	• Minor		• Minor	● ● Minor
(Local).	Pollution from road runoff.	• Minor	• Minor	• Minor	• Minor	• Minor		_	● ● Minor
SWF 11 (Indirect tributary of Rough Burn (2)) (Local).	Habitat fragmentation and loss due to watercourse realignment (Options 1A (MV), 1B (MV)) and new culverts (Options 1C (MV), 1D (MV).	-	• Minor	-	• Minor	-	• Minor	-	• Minor

	Beautistics				Opt	tion			
Location	Description	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
SWF 11 (Indirect tributary of Rough Burn (2)) (Local)	Pollution from road runoff.	-	• Minor	-	• Minor	-	• Minor	-	• Minor
SWF 12 (Rough Burn) (Authority)	Habitat fragmentation and loss due to new bridge.	● Minor	-	● Minor	-	● Minor	-	● Minor	-
Mainline and local roads	Pollution from road runoff.	● Minor	-	● Minor	-	● Minor	-	● Minor	-
SWF 12 (Rough Burn) (Authority)	Habitat fragmentation and loss due to new culvert and watercourse realignment.	-	● Minor	-	● Minor	-	● Minor	-	• Minor
Mainline	Pollution from road runoff.	-	• Minor	-	● Minor	-	● Minor	-	• Minor
SWF 13, SWF 14, SWF15 (Tributary of 'Unnamed Burn – Castle Stuart to source', (1) and (2) (Tornagrain area)) (Local)	Habitat fragmentation and loss due to watercourse realignment and new culverts.	● ● Minor	● ● Minor						
Multiple locations associated with the mainline and local roads. Exact locations vary between options.	Pollution from road runoff	● ● Minor	● ● Minor						
SWF16 (Tributary of the Ardersier Burn) (Mid Coul) (Authority)	Habitat fragmentation and loss due to watercourse realignment and new culverts.	• Minor	• Minor						
On mainline (all Options) and local roads (Options 1B, 1B (MV), 1D, 1D (MV))	Pollution from road runoff.	● Minor	• Minor						
SWF 18 (Indirect tributary drains of the	Habitat fragmentation and loss due to watercourse realignment and a new culvert.	● ● Minor	●● Minor	● Minor	● Minor	●● Minor	●● Minor	● Minor	● Minor
Ardersier Burn) (Drumine) (Local)	Pollution from road runoff.	● ● Minor	● ● Minor	● Minor	● Minor	●● Minor	●● Minor	Minor	• Minor



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Nairn Bypass

Evaluation of Ecological Receptors

Terrestrial, freshwater and marine ecological receptors were evaluated according to Table 12.

Table 12: Value of ecological receptors (Nairn Bypass)

Receptor	Description	Value
Designated sites		
Inner Moray Firth SPA	European designated site. The site is designated as an SPA for providing foraging grounds for breeding osprey and has a nationally important breeding population of common tern. It also supports an internationally important wintering population of bar-tailed godwit, and regularly supports internationally important wintering populations of greylag goose, red-breasted merganser and redshank. It also supports an assemblage of over 20,000 waterfowl.	International
Inner Moray Firth Ramsar	Designated for supporting outstanding examples of wetland habitats, by regularly supporting over 20,000 waterfowl and by regularly supporting internationally important wintering populations of greylag goose, red-breasted merganser, bar-tailed godwit and redshank.	International
Moray and Nairn Coast SPA	European designated site. The site is designated as an SPA for providing foraging grounds for breeding osprey. It also supports an internationally important wintering population of bar-tailed godwit, greylag goose and redshank. It also supports an assemblage of over 20,000 waterfowl.	International
Moray and Nairn Coast Ramsar	The site supports a variety of important wetland features, including particularly good examples of intertidal flats, saltmarsh and floodplain alder (<i>Alnus glutinosa</i>) woodland. At least six nationally scarce aquatic and coastal plants are present, and two British Red Data Book invertebrates are also found. It also supports internationally important bird assemblages.	International
Moray Firth SAC	European designated site. Primarily selected for its population of bottlenose dolphins, and for sandbanks which are slightly covered by the sea at all times. The Moray Firth supports the only known resident population of bottlenose dolphin in the North Sea. The population is estimated to be around 130 individuals. Dolphins are present all year round, and range widely in the Moray Firth.	International
Kildrummie Kames SSSI	Nationally designated site for its geological and biological features which is afforded protection under national legislation. Biological features: fens (open water transition fen), freshwater habitats (eutrophic loch) and woodlands (juniper scrub).	National
Habitats		
Arable	Local priority habitat (arable field margins) on the Inverness and Nairn LBAP. However, the arable fields examined were, in general, too intensively managed to have high quality field margins. Arable land is extensive in the area and may be utilised by qualifying species of the Inner Moray Firth SPA or the Moray and Nairn Coast SPA.	Less than local
Field Boundaries	Drystone dykes and long established field boundaries are a local priority habitat on the Inverness and Nairn LBAP. However, the majority of field boundaries in the study area comprised post and wire fences or degraded dry stone walls.	Less than local
Dense Scrub	Gorse and scrub woodland is a local priority habitat on the Inverness and Nairn LBAP. Dense scrub within the study area is mainly composed of gorse and is species-poor.	Less than local
Grassland, improved and poor semi- improved	These habitats have low species diversity with swards often dominated by grasses. This type of habitat is extensive in the area. It may be utilised by qualifying species of the Inner Moray Firth SPA or the Moray and Nairn Coast SPA.	Less than Local
Acid grassland	Acid grassland within the study area has developed on cleared areas of woodland and is of generally low quality containing a range of common species.	Local



Receptor	Description	Value
Watercourses	Watercourses including SWF 23 (River Nairn), SWF 26 (Auldearn Burn) and SWF 19 (Balnagowan Burn) vary in their water quality. SEPA assessments indicate that SWF 23 (River Nairn) has good ecological status and is classed as a salmonid river. SWF 26 (Auldearn Burn) has moderate ecological status, whilst SWF 19 (Balnagowan Burn) has bad ecological status. SWF 23 (River Nairn) is classed as being of Regional ecological value, SWF 26 (Auldearn Burn) as Authority ecological value, and SWF 19 (Balnagowan Burn) as being of Local ecological value. Other watercourses, including SWF 22 (Alton Burn), are unclassified. Many of these are field ditches feeding the larger burns (or have been heavily modified). These watercourses are classed as being of Local ecological value.	Regional/ Authority/ Local
Delnies Wood	This woodland is mature coniferous plantation woodland with a ground flora generally more developed than other plantation woodlands in the area, containing large areas of dwarf shrub species. Some natural regeneration is occurring and red squirrels have been recorded here.	Authority
Blar nam Fiadh	Area of mainly wet dwarf shrub heath with semi-natural Scots pine dominated woodland. The wet heath may be a remnant of raised bog/blanket bog. Native pinewood and blanket bog are on the Inverness and Nairn LBAP.	Authority
Woodland, Coniferous Plantation	Coniferous plantation woodland is generally of low diversity in the study area, with a poorly developed ground flora and shrub layer.	Local
Woodland, Broadleaved Plantation	Broadleaved plantation woodland is generally of low diversity in the study area, with a poorly developed ground flora and shrub layer.	Local
Woodland, Mixed Plantation	Mixed plantation woodland is generally of low diversity in the study area, with a poorly developed ground flora and shrub layer.	Local
Woodland, Semi-natural broadleaved	Semi-natural broadleaved woodland within the study area is generally of low diversity.	Local
Marshy Grassland and Swamp	Wetlands and reedbeds are on the Inverness and Nairn LBAP. Marshy grassland varies in quality within the study area. The most species rich are areas are adjacent to or within the Kildrummie Kames SSSI. These areas are classed as being of Authority area ecological value. Other areas are less diverse and are classed as being of Local ecological value.	Authority/ Local
Ponds	Ponds are a priority habitat on the Inverness and Nairn LBAP and are classed as being of Authority ecological value. Some man-made or heavily modified ponds are present within the study area. These are classed as being of Local ecological value.	Authority/ Local
Species		
Bats	Bats are local priority species on the Inverness and Nairn LBAP and are on the Scottish Biodiversity List (SBL). Records and evidence of bats within the study area is low except in the vicinity of the River Nairn.	Regional
Birds, Breeding	Birds recorded in the study area include species such as northern lapwing and yellowhammer which are listed on the SBL and on the Inverness and Nairn LBAP.	Regional
Birds, Overwintering	Species of birds that are listed as features of the Inner Moray Firth SPA (see above), including waders and geese, are likely to utilise grassland and arable areas adjacent to the Moray Firth for roosting and foraging. These birds are therefore assessed as being of European/International ecological value.	International
Great crested newt	Great crested newt is on the SBL and on the Inverness and Nairn LBAP. Great crested newt have been recorded from locations outside the study area at Loch Flemington, and within the study area at Meikle Kildrummie.	National
Pine Marten	Pine marten is on the SBL and on the Inverness and Nairn LBAP. Evidence of pine marten in the form of RTAs has been found within the study area but additional evidence for the presence of the species is limited. For the purposes of impact assessment it is assumed that all suitable habitat has the potential to support pine marten.	Local



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Receptor	Description	Value
Red Squirrel	Red squirrel is on the SBL and on the Inverness and Nairn LBAP. Records of red squirrel exist for woodland areas within the study area including Delnies Wood, Russell's Wood and along SWF 23 (River Nairn). Suitable habitat is present across the study area and is relatively well-connected. For the purposes of impact assessment it is assumed that all suitable habitat has the potential to support red squirrel.	Authority
Fish	Atlantic salmon, brown trout, European eel, and brook lamprey (Lampetra planeri) are known to be present within SWF 23 (River Nairn). Although there is little data regarding population levels, salmon catches have generally been low. Desk studies did not indicate the presence of ecologically significant fish species in other watercourses within the study area, but burns with a good ecological status and no barriers to movement are likely to support some ecologically significant species.	Regional
Invasive Non-native Plants (INNS)	The WCA 1981 (as amended) makes it an offence to allow an INNS to grow outwith its native range. INNS were found along watercourses in the study area, especially on SWF 23 (River Nairn) and SWF 26 (Auldearn Burn) (and its tributaries).	National
Bluebell	Bluebell is on the Inverness and Nairn LBAP. The plant was found in various wooded areas including along SWF 23 (River Nairn) and at Roundall Wood, sometimes in large stands.	Authority
Creeping Lady's-tresses	A nationally uncommon orchid was found at Blar nam Fiadh and in an area of plantation woodland. Being vulnerable to clear-felling and re-planting with non-native species, it may be in decline.	Authority
Juniper	Juniper is on the Inverness and Nairn LBAP and is a SBL species. It was recorded in small amounts in the study area in Hardmuir Wood, which is an active commercial coniferous plantation woodland.	Local
Whitebeam	Whitebeam is on the Inverness and Nairn LBAP. It was recorded in Wester Hardmuir Wood and was of planted origin here.	Local

Potential Impacts of the Proposed Scheme

A summary of the potential impacts of the proposed scheme can be found in Table 13 to 22.

Potential impacts are predicted for the Kildrummie Kames SSSI as a result of land-take under the footprint of the route options (Options 2D, 2H and 2I). The SSSI is designated for its biological and geological features. However, in the vicinity of the potential land-take, only the geological features are present (SNH, pers comm. Meeting 8 October 2013). As a result, no impacts on the cited biological features are predicted.



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Table 13: Magnitude and significance of potential impacts on designated sites during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = Medium impact magnitude, ● ■ = High impact magnitude).

Lagation	Immed Beeninking					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Inner Moray Firth SPA and Ramsar - In	ternational Value									
From the start of the route options to approximately Nairn West Junction (A or B).	Disturbance to qualifying species utilising SPA supporting habitat.	● ● Major								
Moray and Nairn Coast SPA and Ramsar – International Value										
From approximately Nairn East (A, B or C) Junction to the end of the route options.	Habitat loss/fragmentation of SPA supporting habitat.	● ● Major	● ● Major	-	-	●● Major	● ● Major	-	● ● Major	-
From approximately Nairn East Junction (A, B,C or D) to the end of the route options.	Disturbance to qualifying species utilising SPA supporting habitat.	● ● Major								
Moray Firth SAC – International Value										
Along the length of the route options.	Pollution from runoff from construction via watercourses (sediments, oils, fuels etc)	● ● Major	● ● Major	● ● Major	● ● Major	●● Major	● ● Major	● ● Major	● ● Major	● ● Major
Kildrummie Kames SSSI – National Val	ue									
Throughout area	None determined.	_	-	_	-	-	_	-	_	-

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Table 14: Magnitude and significance of potential impacts on statutory designated sites during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = High impact magnitude).

Location	Immed Becamination	Option										
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21		
Moray and Nairn Coast SPA and Rams	ar – International Value											
From approximately Nairn East (A, B or C) Junction to the end of the route options.	Habitat loss/fragmentation of SPA supporting habitat.	● ● Major	● ● Major	-	-	● ● Major	● ● Major	-	● ● Major	1		
From approximately Nairn East (A, B or C) Junction to the end of the route options.	Disturbance to qualifying species utilising SPA supporting habitat.	● ● Major	● ● Major	-	-	● ● Major	● ● Major	-	● ● Major	-		
Moray Firth SAC – International Value												
Along the length of the proposed scheme.	Pollution from runoff from operation via watercourses (sediments, oils, fuels etc).	● ● Major										
Kildrummie Kames SSSI – National Val	ue		_									
Throughout area.	None determined.	_	_	-	-	-	-	-	-	-		

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Table 15: Magnitude and significance of potential impacts on terrestrial habitats and plants during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = Medium impact magnitude, ● ■ = High impact magnitude).

I a salta a	luna et Baradatian	Option										
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21		
Arable and Grassland - Less than Local \	/alue											
Throughout the length of the route options.	Temporary loss of habitats for construction compounds, borrow pits, storage areas etc.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor		
INNS - National Value												
SWF 23 (River Nairn) - Howford Bridge or Broadley crossing.	Transfer of Himalayan balsam and Japanese knotweed.	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major		
SWF 26 (Auldearn Burn). Various locations .	Transfer of giant hogweed and Himalayan balsam.	● ● ● Major	● ● ● Major	-	-	●●● Major	● ● ● Major	-	●●● Major	-		
SWF 26 (Auldearn Burn). Near Mill of Boath.	Transfer of giant hogweed and Himalayan balsam.	● ● ● Major	-	-	-	● ● ● Major	-	-	● ● ● Major	-		
Local road and access track for Easter and Wester Hardmuir.	Transfer of giant hogweed.	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major	●●● Major	••• Major		

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Table 16: Magnitude and significance of potential impacts on terrestrial habitats and plants during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = Medium impact magnitude, ● ■ = High impact magnitude

Location	Impact Description					Option				
Location	impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Arable and Grassland - Less than I	Local Value									
Throughout the length of the route options.	Loss of arable, improved and poor semi-improved grassland.	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor
Woodland - Authority/Local Value										
Woodland at Blackcastle Cottage/Blackcastle Quarry (Local).	Loss of mature coniferous plantation woodland (Long-established woodland of plantation origin) as a result of road widening.	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor	• Minor	● Minor	• Minor
Delnies Community Woodland (Local).	Loss of coniferous plantation woodland as a result of road widening.	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
Delnies Wood/Nairn West Junction A (Authority).	Loss and fragmentation of mature coniferous plantation (Longestablished woodland of plantation origin) under the mainline, junction and local roads.	● ● Moderate	●● Moderate	●● Moderate	● ● Moderate	-	-	-	-	-
Woodland at Moss-side road (Local).	Loss and fragmentation of mature coniferous plantation woodland (Longestablished woodland of plantation origin) under the mainline and local road.	● ● Minor	● ● Minor	● ● Minor	● ● Minor	-	-	-	-	-
Woodland along the B9091, Balblair Road (Local).	Loss and fragmentation of mature coniferous plantation woodland under the mainline.	● ● Minor	● ● Minor	● ● Minor	●● Minor	-	-	-	-	-
Woodland strip at Balnaspirach (Local).	Loss and fragmentation of mature coniferous plantation woodland under the mainline.	-	-	-	-	● Minor	• Minor	• Minor	• Minor	• Minor
Woodland strips at B9091, Balblair Road (Local).	Loss and fragmentation of mature coniferous plantation woodland under local roads.	-	-	-	●● Minor	• Minor	• Minor	• Minor	-	-
Woodland strip near Broadley (Local).	Loss and fragmentation of plantation woodland under local roads.	• Minor	• Minor	• Minor	-	• Minor	• Minor	• Minor	-	-

Landley	In a set Described on					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
River Nairn woodland near Broadley (Local).	Loss and fragmentation of semi- natural broad-leaved woodland under the mainline.	● ● Minor	● ● Minor	● ● Minor	-	● ● Minor	● ● Minor	● ● Minor	-	-
River Nairn Woodland near Howford Bridge (Local).	Loss and fragmentation of semi- natural broad-leaved woodland under the mainline.	-	-	-	● ● Minor	-	-	-	● ● Minor	● ● Minor
Woodland south of Crook (Local).	Loss and fragmentation of mature coniferous plantation woodland (Longestablished woodland of plantation origin) under the mainline.	● ● Minor	● ● Minor	● ● Minor	-	● ● Minor	● ● Minor	● ● Minor	• Minor	-
Woodland on A939 near Skene Park Cottage (Local).	Loss and fragmentation of mature coniferous plantation woodland (Longestablished woodland of plantation origin) under the mainline and local road.	● ● Minor	● ● Minor	-	-	● ● Minor	● ● Minor	-	● ● Minor	-
Woodland on A939 near Skene Park Cottage/ A939 A Junction (Local).	Loss and fragmentation of mature coniferous plantation woodland (Longestablished woodland of plantation origin) under the mainline and local road.	1	-	● ● ● Minor	-	-	-	● ● ● Minor	-	-
Bognafuaran Wood (Local).	Loss and fragmentation of mature coniferous plantation woodland (Longestablished woodland of plantation origin) under the mainline.	-	-	● ● Minor	-	-	-	● ● Minor	-	-
Russell's Wood (Local).	Loss and fragmentation of mature coniferous plantation woodland (Longestablished woodland of plantation origin) under the mainline.	● ● Minor	● ● Minor	-	-	● ● Minor	● ● Minor	-	● ● Minor	-
Newmill Belts (Local).	Loss of mature broad-leaved semi- natural woodland (Long-established woodland of plantation origin) under local road.	-	-	• Minor	-	-	-	-	-	-
Policy Belts (Lethen Road) (Local).	Loss and fragmentation of mature broad-leaved plantation woodland (Long-established woodland of plantation origin) under mainline (2C/2G) and local roads (2D/2I).	-	-	● Minor	● ● Minor	-	-	● Minor	-	● ● Minor



Location	Import Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Policy Belts (Kinsteary House) (Local).	Loss and fragmentation of mature broad-leaved plantation woodland (Long-established woodland of plantation origin) under mainline.	-	-	● ● Minor	• Minor	-	-	●● Minor	-	• Minor
Roundall Wood (Local).	Loss and fragmentation of mature broad-leaved plantation woodland under the mainline.	-	-	● ● Minor	● ● Minor	-	-	●● Minor	-	● ● Minor
Wester Hardmuir Wood (Local).	Loss of coniferous and broad-leaved plantation woodland, and broadleaved semi-natural woodland (partly Longestablished woodland of plantation origin) under the mainline and local road.	● ● Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	●● Minor	●● Minor	●● Minor	● ● Minor
Plant species – Authority Value										
River Nairn woodland near Broadley.	Destruction of bluebells and bluebell habitat under the mainline.	● Minor	• Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
Policy Belts (Kinsteary House).	Destruction of bluebells and bluebell habitat under the mainline.	-	-	● Minor	● Minor	-	-	● Minor	-	● Minor
Roundall Wood.	Destruction of bluebells and bluebell habitat under the mainline.	-	-	●● Moderate	●● Moderate	-	-	●● Moderate	-	● ● Moderate
Woodland south of Crook.	Destruction of creeping Lady's-tresses and creeping Lady's-tresses habitat under the mainline.	● Minor	• Minor	• Minor	-	● Minor	● Minor	• Minor		-
INNS - National Value										
All locations.	Transfer of giant hogweed/Himalayan balsam/Japanese knotweed.	-	-	-	-	-	-	-	-	-



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Table 17: Magnitude and significance of potential impacts on terrestrial species during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = Medium impact magnitude, ● ■ = High impact magnitude)

Location	Impact Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Bats – Regional Value										
Through the leasth of the goods again.	Direct mortality	• Minor	● Minor							
Through the length of the route options.	Disturbance	• Minor	● Minor							
	Habitat fragmentation	● Minor	• Minor	● Minor	• Minor	● Minor	● Minor	• Minor	• Minor	● Minor
River Nairn.	Disturbance	• Minor	● Minor							
	Pollution	O Negligible								
Breeding Birds – Regional Value										
	Direct mortality	● Minor								
Areas of woodland throughout the length of the route options.	Disturbance	• Minor	● Minor							
	Pollution	• Minor	● Minor							
Wintering Birds – International Value		_	T	1	T	1		1	T	
	Habitat loss	• Moderate	● Moderate							
	Habitat fragmentation	• Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	• Moderate	● Moderate	• Moderate
Throughout the length of the route options in areas of agricultural land.	Disturbance	• Moderate	• Moderate	• Moderate	• Moderate	• Moderate	● Moderate	• Moderate	• Moderate	• Moderate
	Pollution	● Moderate								

Location	Impact Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Great Crested Newt - National Value										
Meikle Kildrummie	Direct mortality	-	-	-	-	●● Major	●● Major	●● Major	●● Major	●● Major
Terrestrial habitat.	Habitat loss	-	-	-	-	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
	Habitat fragmentation	-	-	-	-	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
	Direct mortality	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
Policy Belts	Habitat loss	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
Aquatic and terrestrial habitat.	Habitat fragmentation	-	-	● ● Major	● ● Major	-	-	● ● Major	-	● ● Major
	Pollution	-	-	● ● Major	● ● Major	-	-	● ● Major	-	● ● Major
	Direct mortality	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
Garblies	Habitat loss	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
Aquatic and terrestrial habitat.	Habitat fragmentation	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
	Pollution	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
Pine Marten – Local value										
Woodland at Blackcastle	Direct mortality	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
Cottage/Blackcastle Quarry	Disturbance	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
Delnies Community Woodland	Direct mortality	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-



Location	Immed Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Delnies Community Woodland	Disturbance	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
Delnies Wood	Direct mortality	• Minor	● Minor	● Minor	• Minor	-	-	-	-	-
Deinies wood	Disturbance	• Minor	● Minor	● Minor	● Minor	-	-	-	-	-
Wasdierd of Mass side and	Direct mortality	• Minor	● Minor	● Minor	● Minor	-	-	-	-	-
Woodland at Moss-side road	Disturbance	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
W. II. II. II. B0004 B III. B	Direct mortality	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
Woodland along the B9091, Balblair Road.	Disturbance	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Direct mortality	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	0
Woodland strip at Balnaspirach	Disturbance	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	0
W	Direct mortality	-	-	-	● Minor	● Minor	● Minor	● Minor	-	-
Woodland strips at B9091, Balblair Road.	Disturbance	-	-	-	● Minor	● Minor	● Minor	● Minor	-	-
W 1 1 1 1 1 1 1 1 1	Direct mortality	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
Woodland strip near Broadley	Disturbance	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
Diver Maintenant D. II	Direct mortality	• Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
River Nairn woodland near Broadley	Disturbance	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
River Nairn Woodland near Howford Bridge	Direct mortality	-	-	-	● Minor	-	-	-	● Minor	● Minor



L tt - n	Inches A December 1					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
River Nairn Woodland near Howford Bridge	Disturbance	-	-	-	• Minor	-	-	-	• Minor	• Minor
Woodland south of Crook	Direct mortality	● Minor	● Minor	● Minor	-	• Minor	• Minor	● Minor	• Minor	-
Woodiand South of Crook	Disturbance	● Minor	● Minor	● Minor	-	● Minor	● Minor	• Minor	• Minor	-
Woodland on A939 near Skene Park	Direct mortality	● Minor	● Minor	● Minor	-	● Minor	• Minor	● Minor	• Minor	-
Cottage	Disturbance	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	Minor	-
	Direct mortality	-	-	● Minor	-	-	-	● Minor	-	-
Bognafuaran Wood	Disturbance	-	-	● Minor	-	-	-	● Minor	-	-
	Direct mortality	● Minor	● Minor	-	-	● Minor	● Minor	-	• Minor	-
Russell's Wood	Disturbance	● Minor	● Minor	-	-	• Minor	• Minor	-	• Minor	-
	Direct mortality	-	-	O Negligible	-	-	-	1	ı	-
Newmill Belts	Disturbance	-	-	O Negligible	-	-	-	-	1	-
	Direct mortality	-	-	O Negligible	● Minor	-	-	O Negligible	-	• Minor
Policy Belts (Lethen Road)	Disturbance	-	-	O Negligible	● Minor	-	-	O Negligible	-	• Minor
	Direct mortality	-	-	• Minor	● Minor	-	-	• Minor	-	• Minor
Policy Belts (Kinsteary House)	Disturbance	-	-	• Minor	• Minor	-	-	• Minor	-	• Minor
Roundall Wood	Direct mortality	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible



Landin	Income of Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Roundall Wood	Disturbance	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Wester Hardmuir Wood	Direct mortality	• Minor	● Minor	● Minor	• Minor	● Minor	• Minor	● Minor	● Minor	● Minor
	Disturbance	● Minor	● Minor	• Minor	• Minor	• Minor	• Minor	• Minor	● Minor	● Minor
Red Squirrel – Authority Value			T	T			T			
Woodland at Blackcastle	Direct mortality	• Minor	● Minor							
Cottage/Blackcastle Quarry	Disturbance	● Minor								
	Direct mortality	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
Delnies Community Woodland	Disturbance	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Direct mortality	●● Moderate	●● Moderate	●● Moderate	●● Moderate	-	-	-	-	-
Delnies Wood	Disturbance	●● Moderate	●● Moderate	●● Moderate	●● Moderate	-	-	-	-	-
	Direct mortality	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
Woodland at Moss-side road	Disturbance	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
	Direct mortality	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
Woodland along the B9091, Balblair Road.	Disturbance	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Direct mortality	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
Woodland strip at Balnaspirach	Disturbance	-	-	-	-	O Negligible	O Negligible	O Negligible	○ Negligible	O Negligible
Woodland strips at B9091, Balblair Road.	Direct mortality	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	-	-



Location	In a set December 1					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Woodland strips at B9091, Balblair Road.	Disturbance	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	-	-
Woodland strip near Broadley	Direct mortality	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
Woodiand Simp flear Broadley	Disturbance	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
D: N: " D "	Direct mortality	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
River Nairn woodland near Broadley	Disturbance	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
River Nairn Woodland near Howford	Direct mortality	-	-	-	● Minor	-	-	-	● Minor	● Minor
Bridge	Disturbance	-	-	-	● Minor	-	-	-	● Minor	● Minor
	Direct mortality	●● Moderate	●● Moderate	●● Moderate	-	●● Moderate	● ● Moderate	●● Moderate	●● Moderate	-
Woodland south of Crook	Disturbance	●● Moderate	● ● Moderate	● ● Moderate	-	● ● Moderate	● ● Moderate	●● Moderate	● ● Moderate	-
Woodland on A939 near Skene Park	Direct mortality	●● Moderate	●● Moderate	● ● Moderate	-	● ● Moderate	● ● Moderate	●● Moderate	●● Moderate	-
Cottage	Disturbance	●● Moderate	●● Moderate	●● Moderate	-	●● Moderate	● ● Moderate	●● Moderate	●● Moderate	-
	Direct mortality	-	-	●● Moderate	-	-	-	●● Moderate	-	-
Bognafuaran Wood	Disturbance	-	-	● ● Moderate	-	-	-	●● Moderate	-	-
	Direct mortality	● ● Moderate	● ● Moderate	-	-	● ● Moderate	● ● Moderate	-	● ● Moderate	-
Russell's Wood	Disturbance	● ● Moderate	● ● Moderate	-	-	● ● Moderate	● ● Moderate	-	● ● Moderate	-
Newmill Belts	Direct mortality	-	-	O Negligible	-	-	-	-	-	-



Lagation	Import Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Newmill Belts	Disturbance	-	-	O Negligible	-	-	-	-	1	-
	Direct mortality	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Policy Belts (Lethen Road)	Disturbance	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
	Direct mortality	-	-	• Minor	● Minor	-	-	● Minor	-	● Minor
Policy Belts (Kinsteary House)	Disturbance	-	-	• Minor	● Minor	-	-	● Minor	-	● Minor
	Direct mortality	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Roundall Wood	Disturbance	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
	Direct mortality	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Wester Hardmuir Wood	Disturbance	● Minor	● Minor	• Minor	● Minor	● Minor	• Minor	• Minor	● Minor	Minor

DMRB Stage 2 Scheme Assessment Report

Part 6: Appendices

Table 18: Magnitude and significance of potential impacts on terrestrial species during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = High impact magnitude).

						Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Bats – Regional Value										
The control of the least the file and a setting	Habitat loss	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
Throughout the length of the route options.	Disturbance	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
	Habitat fragmentation	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
River Nairn	Disturbance	● ● Moderate	● ● Moderate	● ● Moderate	● ● Moderate	●● Moderate	● ● Moderate	● ● Moderate	● ● Moderate	●● Moderate
	Pollution	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
Breeding Birds – Regional Value										
	Direct mortality	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Habitat loss	●● Moderate	●● Moderate	● ● Moderate	●● Moderate	●● Moderate	● ● Moderate	● ● Moderate	● ● Moderate	●● Moderate
Throughout the length of the route options.	Disturbance	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Pollution	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Wintering Birds – International Value										,
	Habitat loss	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
Throughout the length of the route options	Habitat fragmentation	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate
in areas of agricultural land.	Disturbance	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	● Moderate	• Moderate
	Pollution	• Moderate	● Moderate	Moderate	• Moderate	• Moderate	Moderate	Moderate	Moderate	• Moderate

1 41	luuraat Daarahatlan					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Great Crested Newt - National Value										
	Direct mortality	-	-	-	-	● ● Major	● ● Major	●● Major	●● Major	●● Major
Meikle Kildrummie Terrestrial habitat.	Habitat loss	-	-	-	-	● Moderate	● Moderate	● Moderate	• Moderate	● Moderate
	Habitat fragmentation	-	-	-	-	• Moderate	• Moderate	• Moderate	• Moderate	• Moderate
	Direct mortality	-	-	● ● Major	● ● Major	-	-	● ● Major	-	●● Major
Policy Belts	Habitat loss	-	-	● ● Major	● ● Major	-	-	● ● Major	-	●● Major
Aquatic and terrestrial habitat.	Habitat fragmentation	-	-	● ● Major	● ● Major	-	-	●● Major	-	●● Major
	Pollution	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
	Direct mortality	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
Garblies	Habitat loss	-	-	●● Major	● ● Major	-	-	●● Major	-	●● Major
Aquatic and terrestrial habitat.	Habitat fragmentation	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
	Pollution	-	-	●● Major	●● Major	-	-	●● Major	-	●● Major
Pine Marten – Local Value										
	Direct mortality	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	• Minor	● Minor
Woodland at Blackcastle Cottage/Blackcastle Quarry	Habitat loss	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
	Habitat fragmentation	-	-	-	-	● Minor	● Minor	● Minor	• Minor	● Minor
Delnies Community Woodland	Direct mortality	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-



Location	Insurant Decemention					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Delaige Community Woodland	Disturbance	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
Delnies Community Woodland	Habitat loss	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Direct mortality	• Minor	● Minor	● Minor	• Minor	-	-	-	-	-
Delnies Wood	Disturbance	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
Deinies wood	Habitat loss	● ● Minor	● ● Minor	● ● Minor	● ● Minor	-	-	-	-	-
	Habitat fragmentation	●● Minor	●● Minor	● ● Minor	● ● Minor	-	-	-	-	-
	Direct mortality	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
	Disturbance	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
Woodland at Moss-side road	Habitat loss	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
	Habitat fragmentation	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
	Direct mortality	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Disturbance	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
Woodland along the B9091, Balblair Road.	Habitat loss	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Habitat fragmentation	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
Was dland strip at Dalassaireah	Direct mortality	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
Woodland strip at Balnaspirach.	Disturbance	-	-	-	-	O Negligible	O Negligible	○ Negligible	O Negligible	O Negligible



Location	Impact Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Woodland strip at Dalpassirash	Habitat loss	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
Woodland strip at Balnaspirach.	Habitat fragmentation	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
	Direct mortality	-	-	-	• Minor	• Minor	• Minor	● Minor	-	-
Wasdiand string at POCCA Pallylair Pand	Disturbance	-	-	-	● Minor	● Minor	● Minor	● Minor	-	-
Woodland strips at B9091, Balblair Road.	Habitat loss	-	-	-	● Minor	● Minor	● Minor	● Minor	-	-
	Habitat fragmentation	-	-	-	● Minor	● Minor	● Minor	● Minor	-	-
	Direct mortality	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
	Disturbance	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
Woodland strip near Broadley	Habitat loss	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
	Habitat fragmentation	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
	Direct mortality	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
5	Disturbance	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
River Nairn woodland near Broadley	Habitat loss	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
	Habitat fragmentation	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
River Nairn Woodland near Howford	Direct mortality	-	-	-	O Negligible	-	-	-	O Negligible	O Negligible
Bridge	Disturbance	-	-	-	● Minor	-	-	-	● Minor	• Minor



Lacation	Immed Decembries					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
River Nairn Woodland near Howford	Habitat loss	-	-	-	• Minor	-	-	-	● Minor	● Minor
Bridge	Habitat fragmentation	-	-	-	• Minor	-	-	-	• Minor	● Minor
	Direct mortality	• Minor	• Minor	• Minor	-	• Minor	● Minor	● Minor	● Minor	-
Mandand and both of Creats	Disturbance	• Minor	• Minor	• Minor	-	● Minor	● Minor	● Minor	● Minor	-
Woodland south of Crook)	Habitat loss	• Minor	• Minor	• Minor	-	● Minor	● Minor	● Minor	● Minor	-
	Habitat fragmentation	● ● Minor	● ● Minor	● ● Minor		● ● Minor	● ● Minor	●● Minor	● Minor	-
	Direct mortality	• Minor	● Minor	● ● Minor	-	● Minor	● Minor	●● Minor	● Minor	-
Woodland on A939 near Skene Park	Disturbance	• Minor	• Minor	• Minor	-	● Minor	● Minor	● Minor	● Minor	-
Cottage	Habitat loss	• Minor	● Minor	● ● Minor	-	● Minor	● Minor	●● Minor	● Minor	-
	Habitat fragmentation	● ● Minor	● ● Minor	● ● ● Minor	-	● ● Minor	● ● Minor	●●● Minor	●● Minor	-
	Direct mortality	-	-	● Minor	-	-	-	● Minor	-	-
	Disturbance	-	-	● Minor	-	-	-	● Minor	-	-
Bognafuaran Wood	Habitat loss	-	-	● Minor	-	-	-	● Minor	-	-
	Habitat fragmentation	-	-	● Minor	-	-	-	● Minor	-	-
D	Direct mortality	• Minor	● Minor	-	-	● Minor	• Minor	-	• Minor	1
Russell's Wood	Disturbance	• Minor	• Minor	-	-	• Minor	● Minor	-	• Minor	-



Lagation	Immed Decembries					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Duncalla Wasad	Habitat loss	• Minor	● Minor	-	-	● Minor	• Minor	-	• Minor	-
Russell's Wood	Habitat fragmentation	● ● Minor	● ● Minor	-	-	● ● Minor	● ● Minor	-	• Minor	-
	Direct mortality	-	-	O Negligible	-	-	-	-	-	-
Newmill Belts	Disturbance	-	-	O Negligible	-	-	-	-	-	-
Newmill Bells	Habitat loss	-	-	O Negligible	-	-	-	-	-	-
	Habitat fragmentation	-	-	O Negligible	-	-	-	-	-	-
	Direct mortality	-	-	O Negligible	● Minor	-	-	O Negligible	-	● Minor
	Disturbance	-	-	O Negligible	● Minor	-	-	O Negligible	-	● Minor
Policy Belts (Lethen Road)	Habitat loss	-	-	O Negligible	● Minor	-	-	O Negligible	-	● Minor
	Habitat fragmentation	-	-	O Negligible	● Minor	-	-	O Negligible	-	● Minor
	Direct mortality	-	-	• Minor	● Minor	-	-	● Minor	-	● Minor
	Disturbance	-	-	• Minor	● Minor	-	-	● Minor	-	● Minor
Policy Belts (Kinsteary House)	Habitat loss	-	-	● Minor	● Minor	-	-	● Minor	-	● Minor
	Habitat fragmentation	-	-	• Minor	● Minor	-	-	● Minor	-	● Minor
Deverdell Weed	Direct mortality	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Roundall Wood	Disturbance	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible



Lacation	Insurant Decemention					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Roundall Wood	Habitat loss	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Roundali Wood	Habitat fragmentation	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
	Direct mortality	• Minor	● Minor	• Minor	• Minor	• Minor	● Minor	● Minor	● Minor	● Minor
Wester Hardmuir Wood	Disturbance	• Minor	● Minor	• Minor	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Wester Hardmuir Wood	Habitat loss	• Minor	● Minor	● Minor	● Minor	• Minor	● Minor	● Minor	● Minor	● Minor
	Habitat fragmentation	O Negligible								
Red Squirrel – Authority Value				ı						
	Direct mortality	• Minor	● Minor							
Woodland at Blackcastle	Disturbance	● Minor								
Cottage/Blackcastle Quarry	Habitat loss	● Minor								
	Habitat fragmentation	• Minor	● Minor							
	Direct mortality	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Disturbance	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
Delnies Community Woodland	Habitat loss	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Habitat fragmentation	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Direct mortality	● ● Moderate	●● Moderate	●● Moderate	●● Moderate	-	-	-	-	-
Delnies Wood	Disturbance	● ● Moderate	● ● Moderate	● ● Moderate	● ● Moderate	-	-	-	-	-



Location	Impact Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Delnies Wood	Habitat loss	● ● Moderate	●● Moderate	● ● Moderate	● ● Moderate	-	-	-	-	-
Deinies wood	Habitat fragmentation	●●● Moderate	●●● Moderate	●●● Moderate	●●● Moderate	-	-	-	-	-
	Direct mortality	• Minor	● Minor	● Minor	● Minor	-	-	-	-	-
Mandand d Manasida and	Disturbance	• Minor	● Minor	● Minor	● Minor	-	-	-	-	-
Woodland at Moss-side road.	Habitat loss	● Minor	● Minor	● Minor	● Minor	-	-	-	-	-
	Habitat fragmentation	●● Moderate	●● Moderate	● ● Moderate	● ● Moderate	-	-	-	-	-
	Direct mortality	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Disturbance	O Negligible	○ Negligible	O Negligible	O Negligible	-	-	-	-	-
Woodland along the B9091, Balblair Road.	Habitat loss	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Habitat fragmentation	O Negligible	O Negligible	O Negligible	O Negligible	-	-	-	-	-
	Direct mortality	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
Woodland strip at Balnaspirach	Disturbance	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
	Habitat loss	-	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	O Negligible
	Habitat fragmentation	-	-	-	-	O Negligible	O Negligible	O Negligible	○ Negligible	O Negligible
W. H. J. J. J. Dood B. H. J. S. J.	Direct mortality	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	-	-
Woodland strips at B9091, Balblair Road.	Disturbance	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	-	-



Location	Immed Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Wasdland string at P0004 Pallylain Pand	Habitat loss	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	-	-
Woodland strips at B9091, Balblair Road	Habitat fragmentation	-	-	-	O Negligible	O Negligible	O Negligible	O Negligible	-	-
	Direct mortality	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
Was disable as a Dusadis.	Disturbance	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
Woodland strip near Broadley	Habitat loss	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
	Habitat fragmentation	O Negligible	O Negligible	O Negligible	-	O Negligible	O Negligible	O Negligible	-	-
	Direct mortality	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
5	Disturbance	• Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
River Nairn woodland near Broadley	Habitat loss	• Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
	Habitat fragmentation	● Minor	● Minor	● Minor	-	● Minor	● Minor	● Minor	-	-
	Direct mortality	-	-	-	● Minor	-	-	-	● Minor	● Minor
River Nairn Woodland near Howford	Disturbance	-	-	-	● Minor	-	-	-	● Minor	● Minor
Bridge	Habitat loss	-	-	-	● Minor	-	-	-	● Minor	● Minor
	Habitat fragmentation	-	-	-	• Minor	-	-	-	● Minor	● Minor
Westland and before	Direct mortality	●● Moderate	●● Moderate	● ● Moderate	-	● ● Moderate	● ● Moderate	●● Moderate	●● Moderate	-
Woodland south of Crook	Disturbance	●● Moderate	●● Moderate	● ● Moderate	-	● ● Moderate	● ● Moderate	●● Moderate	● ● Moderate	-



Location	Import Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Woodland on the of Creat	Habitat loss	● ● Moderate	● ● Moderate	● ● Moderate	-	● ● Moderate	● ● Moderate	● ● Moderate	● ● Moderate	-
Woodland south of Crook	Habitat fragmentation	● ● Moderate	● ● Moderate	● ● Moderate	-	● ● Moderate	● ● Moderate	● ● Moderate	●● Moderate	-
	Direct mortality	● ● Moderate	●● Moderate	● ● Moderate	-	● ● Moderate	● ● Moderate	●● Moderate	●● Moderate	-
Woodland on A939 near Skene Park	Disturbance	●● Moderate	● ● Moderate	● ● Moderate	-	● ● Moderate	● ● Moderate	● ● Moderate	● ● Moderate	-
Cottage	Habitat loss	●● Moderate	● ● Moderate	●●● Moderate	-	● ● Moderate	● ● Moderate	●●● Moderate	● ● Moderate	-
	Habitat fragmentation	● ● Moderate	●● Moderate	●●● Moderate	-	● ● Moderate	● ● Moderate	●●● Moderate	● ● Moderate	-
	Direct mortality	-	-	● ● Moderate	-	-	-	●● Moderate	-	-
	Disturbance	-	-	● ● Moderate	-	-	-	●● Moderate	-	-
Bognafuaran Wood	Habitat loss	-	-	●● Moderate	-	-	-	●● Moderate	-	-
	Habitat fragmentation	-	-	● ● Moderate	-	-	-	●● Moderate	-	-
	Direct mortality	● ● Moderate	●● Moderate	-	-	● ● Moderate	● ● Moderate	-	● ● Moderate	-
5	Disturbance	● ● Moderate	●● Moderate	-	-	● ● Moderate	● ● Moderate	-	● ● Moderate	-
Russell's Wood	Habitat loss	● ● Moderate	●● Moderate	-	-	● ● Moderate	● ● Moderate	-	●● Moderate	-
	Habitat fragmentation	● ● Moderate	●● Moderate	-	-	● ● Moderate	● ● Moderate	-	● ● Moderate	-
Newmill Belts	Direct mortality	-	-	O Negligible	-	-	-	-	-	-
Newillii Deits	Disturbance	-	-	O Negligible	-	-	-	-	-	-



Lagation	Insurant Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Newmill Belts	Habitat loss	-	-	O Negligible	-	-	-	-	-	-
Newmin bens	Habitat fragmentation	-	-	O Negligible	-	-	-	-	-	-
	Direct mortality	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Dellas Della (Lather Dead)	Disturbance	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Policy Belts (Lethen Road)	Habitat loss	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
	Habitat fragmentation	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
	Direct mortality	-	-	● Minor	● Minor	-	-	● Minor	-	● Minor
	Disturbance	-	-	● Minor	● Minor	-	-	● Minor	-	● Minor
Policy Belts (Kinsteary House)	Habitat loss	-	-	● Minor	● Minor	-	-	● Minor	-	● Minor
	Habitat fragmentation	-	-	● Minor	● Minor	-	-	● Minor	-	● Minor
	Direct mortality	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
	Disturbance	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Roundall Wood	Habitat loss	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
	Habitat fragmentation	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Waster Hardon in Was d	Direct mortality	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
Wester Hardmuir Wood	Disturbance	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor



Location	Impact Description					Option				
Location	impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
	Habitat loss	• Minor	● Minor							
Wester Hardmuir Wood	Habitat fragmentation	• Minor	• Minor	• Minor	● Minor	● Minor	● Minor	● Minor	• Minor	● Minor

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Table 19: Magnitude and significance of potential impacts on freshwater habitats during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = Medium impact magnitude, ● ■ = High impact magnitude).

Location	Import Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Ponds - Authority/Local Value										
Policy Belts (Kinsteary House) (Authority)	Pollution including sedimentation due to construction works.	-	-	● ● Moderate	● ● Moderate	-	-	● ● Moderate	-	● ● Moderate
Nairn East D Junction (Local)	Pollution including sedimentation due to construction works.	-	-	●● Minor	●● Minor	-	-	●● Minor	-	●● Minor
Watercourses - Regional/Authority/	/Local Value									
OME 40 (Deleganous Dura) (Legal)	Habitat loss and fragmentation due to culvert construction.	● Minor	● Minor	● Minor						
SWF 19 (Balnagowan Burn) (Local).	Pollution including sedimentation due to culvert construction.	● Minor	● Minor	● Minor						
SWF 20 (Tributary of Balnagowan	Habitat loss and fragmentation due to watercourse realignment and culvert construction.	● Minor	• Minor	• Minor	• Minor	-	-	-	-	-
Burn) (Local).	Pollution including sedimentation due to watercourse realignment and culvert construction.	● Minor	• Minor	• Minor	• Minor	-	-	-	-	-
	Habitat loss and fragmentation due to watercourse realignment (all options except 2D) and culvert construction (all options).	• Minor	• Minor	• Minor						
SWF 22 (Alton Burn) (Local)	Pollution including sedimentation due to watercourse realignment (all options except 2D) and culvert construction (all options).	● Minor	● Minor	• Minor						
SWF 23 (River Nairn) (Regional)	Habitat loss and fragmentation due to construction of new overbridge.	• Minor	• Minor	• Minor						
(Broadley, 2A-2C, 2E-2G) (Howford Bridge, 2D, 2H-2I)	Pollution including sedimentation due to construction of new overbridge.	● ● Moderate	●● Moderate	●● Moderate	● ● Moderate					

Location	Import Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
SWF 24 (Tributary of River Nairn) (Local)	Habitat loss and fragmentation due to watercourse realignment and culvert construction.	• Minor	• Minor	• Minor	-	• Minor	• Minor	• Minor	-	-
(Local)	Pollution including sedimentation due to watercourse realignment and culvert construction.	● ● Minor	● ● Minor	● ● Minor	-	● ● Minor	● ● Minor	●● Minor	-	-
SWF 25 (Indirect tributary of River	Habitat loss and fragmentation due to watercourse realignment.	-	-	-	-	-	-	-	● Minor	-
Nairn) (Local)	Pollution including sedimentation due to watercourse realignment.	-	-	-	-	-	-	-	● Minor	-
SWF 26 (Auldearn Burn) (Authority)	Habitat loss and fragmentation due to watercourse realignment and culvert construction.	• Minor	• Minor	● ● Moderate	• Minor	• Minor	• Minor	●● Moderate	• Minor	• Minor
At multiple locations for both realignment and culvert construction.	Pollution including sedimentation due to watercourse realignment and culvert construction.	● Minor	• Minor	● ● Moderate	• Minor	• Minor	• Minor	●● Moderate	• Minor	• Minor
SWF 31 (Tributary of the Auldearn	Habitat loss and fragmentation due to watercourse realignment and culvert construction	-	• Minor	• Minor	• Minor	-	• Minor	• Minor	-	• Minor
Burn (Authority)	Pollution including sedimentation due to watercourse realignment and culvert construction.	-	• Minor	• Minor	• Minor	-	• Minor	• Minor	-	• Minor

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Table 20: Magnitude and significance of potential impacts on freshwater habitats during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ = High impact magnitude).

Location	Import Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
Ponds - Authority/Local Value								•		
Policy Belts (Kinsteary House) (Authority)	Pollution from road runoff.	-	-	● Minor	● Minor	-	-	• Minor	-	● Minor
Nairn East D Junction (Local)	Pollution from road runoff.	-	-	O Negligible	O Negligible	-	-	O Negligible	-	O Negligible
Watercourses										
SWF 19 Balnagowan Burn (Local)	Habitat loss and fragmentation due to culvert extensions.	• Minor	• Minor	• Minor	• Minor	● Minor	● Minor	● Minor	● Minor	● Minor
SWF 19 Balliagowall Bulli (Local)	Pollution from road runoff.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
SWF 20 (Tributary of Balnagowan	Habitat loss and fragmentation due to watercourse realignment and new culverts.	• Minor	• Minor	• Minor	• Minor	-	-	-	-	-
Burn) (Local)	Pollution from road runoff.	• Minor	● Minor	● Minor	● Minor	-	-	-	-	-
SWF 22 (Alton Burn) (Local)	Habitat loss and fragmentation due to due to watercourse realignment (all options except 2D) and culvert construction (all options).	• Minor	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor	• Minor	• Minor
	Pollution from road runoff.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
SWF 23 (River Nairn) (Regional)	Habitat loss and fragmentation due to new overbridge.	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor	● Minor
(Broadley, 2A-2C, 2E-2G) (Howford Bridge, 2D, 2H-2I)	Pollution from road runoff.	●● Moderate	●● Moderate	●● Moderate	●● Moderate	● ● Moderate	●● Moderate	●● Moderate	●● Moderate	●● Moderate
SWF 24 (Tributary of River Nairn)	Habitat loss and fragmentation due to watercourse realignment and new culvert.	• Minor	• Minor	• Minor	-	• Minor	• Minor	• Minor	-	-
(Local)	Pollution from road runoff.	●● Minor	●● Minor	●● Minor	-	● ● Minor	●● Minor	●● Minor	-	-

l continu	Immed Decembring					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
SWF 25 (indirect tributary of River	Habitat loss and fragmentation due to watercourse realignment and new culvert.	-	-	-	-	-	-	-	• Minor	-
Nairn) (Local)	Pollution from road runoff.	1	-	-	-	-	1	-	● ● Minor	-
SWF 26 (Auldearn Burn) (Authority)	Habitat loss and fragmentation due to watercourse realignment and new culverts.	• Minor	• Minor							
At multiple locations for both realignment and new culverts.	Pollution from road runoff.	• Minor	• Minor							
SWF 31 (Tributary of the Auldearn	Habitat loss and fragmentation due to watercourse realignment and new culverts.	1	• Minor	• Minor	• Minor	-	• Minor	• Minor	-	• Minor
Burn) (Authority)	Pollution from road runoff.	-	• Minor	• Minor	• Minor	-	● Minor	• Minor	-	• Minor

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Table 21: Magnitude and significance of potential impacts on freshwater species during construction (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ■ Medium impact magnitude, ● ■ = High impact magnitude).

Landlan	In a set Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
	Direct mortality during construction works (dewatering/noise and vibration).	• Minor								
SWF 19 (Balnagowan Burn) (Local)	Habitat loss and fragmentation due to construction of culvert.	● Minor								
	Pollution including sedimentation due to construction of culvert.	● Minor								
	Direct mortality during construction works (dewatering/noise and vibration).	● Minor	• Minor	• Minor	• Minor					
SWF 20 (Tributary of Balnagowan Burn) (Local)	Habitat loss and fragmentation due to watercourse realignment and construction of culvert.	• Minor	• Minor	• Minor	• Minor					
	Pollution including sedimentation due to watercourse realignment and construction of culvert.	• Minor	• Minor	• Minor	• Minor					
	Direct mortality during construction works (dewatering/noise and vibration).	• Minor								
SWF 22 (Alton Burn) (Local)	Habitat loss and fragmentation due to new culvert(s) construction (all options) and watercourse realignment (all options except 2D).	• Minor	● Minor							
	Pollution including sedimentation due to new culvert(s) construction (all options) and watercourse realignment (all options except 2D).	• Minor	● Minor	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor	• Minor
SWF 23 (River Nairn) (Regional) (Broadley, 2A-2C, 2E-2G) Howford Bridge, 2D, 2H-2I)	Habitat loss and fragmentation due to construction of new overbridge.	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor	• Minor	• Minor	• Minor

Lagation	Immed Description					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
SWF 23 (River Nairn) (Regional)	Pollution including sedimentation									
(Broadley, 2A-2C, 2E-2G)	due to construction of new	●● Moderate	●● Moderate	●● Moderate	●● Moderate	●● Moderate	● ● Moderate	●● Moderate	●● Moderate	●● Moderate
Howford Bridge , 2D, 2H-2I)	overbridge.									
	Direct mortality during construction works (dewatering/noise and vibration).	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
SWF 24 (Tributary of River Nairn) (Local)	Habitat loss and fragmentation due to watercourse realignment and culvert construction.	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor	• Minor
	Pollution including sedimentation due to watercourse realignment and culvert construction.	●● Minor	●● Minor	● ● Minor	• Minor	● ● Minor	● ● Minor	●● Minor	●● Minor	• Minor
	Direct mortality during construction works (dewatering/noise and vibration).	-	• Minor	• Minor	• Minor	-	• Minor	• Minor	-	• Minor
SWF 31 (Tributary of the Auldearn Burn) (Authority)			• Minor	• Minor	• Minor	-	• Minor	• Minor	-	• Minor
	Pollution including sedimentation due to watercourse realignment, and construction of culvert(s).	-	• Minor	• Minor	• Minor	-	• Minor	• Minor	-	• Minor

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Table 22: Magnitude and significance of potential impacts on freshwater species during operation (- = No impact determined, ○ = Negligible impact magnitude, ● = Low impact magnitude, ● ● = High impact magnitude).

I	luna and Danas district					Option				
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21
CIME 40 (Paleageuran Pura) (Lacel)	Habitat loss and fragmentation due to new culvert.	O Negligible								
SWF 19 (Balnagowan Burn) (Local)	Pollution from road runoff.	O Negligible								
SWF 20 (Tributary of Balnagowan	Habitat loss and fragmentation due to watercourse realignment and new culvert.	O Negligible	O Negligible	O Negligible	O Negligible					
Burn) (Local)	Pollution from road runoff.	O Negligible	O Negligible	O Negligible	O Negligible					
SWF 22 Alton Burn (Local)	Habitat loss and fragmentation due to watercourse realignments (all options except 2D) and new culvert(s) (all options).	• Minor	● Minor	• Minor	• Minor	• Minor	• Minor	● Minor	● Minor	• Minor
	Pollution from road runoff.	● Minor								
SWF 23 (River Nairn) (Regional) (Broadley, 2A-2C, 2E-2G)	Habitat loss and fragmentation due to new overbridge.	• Minor								
(Howford Bridge, 2D, 2H-2I)	Pollution from road runoff.	●●● Major	●●● Major	● ● ● Major	● ● ● Major	● ● ● Major	●●● Major	●●● Major	●●● Major	● ● ● Major
SWF 24 (Tributary of River Nairn)	Habitat loss and fragmentation due to watercourse realignment and new culvert.	• Minor	• Minor	• Minor	-	• Minor	• Minor	• Minor	-	-
(Local)	Pollution from road runoff.	● ● Minor	● ● Minor	●● Minor	-	● ● Minor	● ● Minor	● ● Minor	-	-
	Habitat loss and fragmentation due to watercourse realignment.	-	-	-	-	-	-	-	● Minor	-
SWF 25 (Indirect tributary of River Nairn) (Local)	Pollution from road runoff.	-	-	-	-	-	-	-	• Minor	-

Location	Impact Description		Option								
Location	Impact Description	2A	2B	2C	2D	2E	2F	2G	2H	21	
SWF 26 Auldearn Burn (Authority)	Habitat loss/fragmentation due to new culvert(s).	• Minor									
At multiple locations for both realignment and new culverts	Pollution from road runoff.	• Minor	• Minor	• Minor	• Minor	• Minor	● Minor	• Minor	• Minor	• Minor	
SWF 31 (Tributary of the Auldearn Burn) (Authority)	Habitat loss and fragmentation due to watercourse realignment, and new culverts.	-	• Minor	• Minor	• Minor	-	• Minor	• Minor	-	• Minor	
	Pollution from road runoff.	-	● Minor	● Minor	● Minor	-	● Minor	● Minor	-	• Minor	

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A11.5: Estimated Habitat Loss

Note - values for habitat loss are approximate and have been rounded up to one decimal place.

Table 1: Estimated Habitat Loss (ha) (Inverness to Gollanfield)

				Option/Habi	tat Loss (ha)			
Habitat Type	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)
Woodland and scrub	<u>.</u>					·		
Coniferous plantation	6.3	6.5	11.6	13.1	6.3	6.4	11.6	13.2
Broadleaved plantation	0.1	0.3	0.1	0.1	0.1	0.3	0.1	0.1
Broadleaved semi-natural	1.4	1.4	1.6	1.6	1.6	1.6	1.8	1.8
Scrub	0.4	0.4	0.6	0.6	0.4	0.4	0.6	0.6
Felled	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	8.3	8.7	14.0	15.5	8.5	8.8	14.2	15.8
Agricultural	<u>.</u>							
Arable	56.1	70.8	52.9	65.4	52.9	60.6	49.8	55.6
Improved grassland	36.2	21.0	35.3	23.0	26.2	20.9	25.2	23.1
Poor semi-improved grassland	19.4	20.6	18.4	19.4	25.5	23.8	24.6	23.2
Total	111.7	112.4	106.6	107.8	104.6	105.3	99.6	101.9
Other Habitats						·		
Tall ruderal	-	-	0.1	0.1	-	-	0.1	0.1
Other habitat	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2
Overall Total	120.1	121.2	120.8	123.5	113.2	114.2	114.0	117.9



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Table 2: Estimated Habitat Loss (ha) of woodland on Ancient Woodland Inventory (Inverness to Gollanfield)

A\A/I C	ategory	Option/Habitat Loss (ha)									
AVVIC	alegory	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)		
2a	Ancient Woodland	-	-	-	-	-	-	-	-		
2b	Long-established woodlands of plantation origin	7.3	7.5	16.0	17.8	7.3	7.4	16.0	17.9		
3	Other woodlands	-	-	-	-	-	-	-	-		
Total*		7.3	7.5	16.0	17.8	7.3	7.4	16.0	17.9		

^{*}Habitat loss of woodland listed on the AWI may be greater than actual woodland loss (refer to Table 1) due to changes in land use since the inventory was established.

Table 3: Estimated Habitat Loss (ha) (Nairn Bypass)

Habitat Tona				Opt	ion/Habitat Loss	(ha)			
Habitat Type	2A	2B	2C	2D	2E	2F	2G	2H	21
Woodland and Scrub									
Coniferous plantation	31.4	31.9	31.9	24.4	15.3	15.9	14.8	13.3	8.1
Mixed plantation	1.0	1.0	1.1	0.1	0.7	0.7	0.8	0.4	0.2
Broadleaved plantation	4.7	4.5	8.7	7.3	4.7	4.5	8.7	4.7	7.3
Coniferous semi-natural	0.3	0.3	0.3	0.3	-	-	-	-	-
Broadleaved semi-natural	1.1	1.1	1.4	4.1	1.1	1.1	1.4	1.5	4.0
Scrub	1.0	1.0	1.0	1.0	0.6	0.6	0.6	0.6	0.6
Felled	-	-	1.8	-	-	-	1.8	-	-
Total	39.5	39.8	46.2	37.2	22.4	22.8	28.1	20.5	20.2
Agriculture									
Arable	50.1	31.2	44.7	58.4	57.4	38.6	52.0	67.6	63.3
Improved grassland	29.1	34.9	26.9	30.5	35.5	41.5	33.4	35.5	30.9
Poor semi-improved grassland	2.7	6.5	4.8	2.1	4.6	8.3	6.7	5.2	3.6
Total	81.9	72.6	76.4	91.0	97.5	88.4	92.1	108.3	97.8
Other Habitat									
Quarry	0.4	0.4	0.4	0.4	7.2	7.2	7.2	7.2	7.2
Bare ground	0.2	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Wet heath	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-
Tall ruderal	<0.1	<0.1	<0.1	-	-	-	-	-	-
Amenity grassland	0.1	0.1	-	-	0.1	0.1	-	0.1	-
Marshy grassland	0.1	0.1	1.1	1.1	-	-	1.0	-	1.0
Other habitat	0.4	0.4	0.4	0.4	-	-	-	-	-
Total	1.2	1.2	2.1	1.9	7.3	7.3	8.2	7.3	8.2
Overall Total	122.6	113.6	124.7	130.1	127.2	118.5	128.4	136.1	126.2

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Table 4: Estimated Habitat Loss (ha) of woodland on Ancient Woodland Inventory (Nairn Bypass)

AVAIL C	ategory		Option/Habitat Loss (ha)									
AVVIC	alegory	2A	2B	2C	2D	2E	2F	2G	2H	21		
2a	Ancient Woodland	-	-	-	-	-	-	-	-	-		
2b	Long-established woodlands of plantation origin	38.7	38.2	43.7	34.7	28.1	27.1	33.0	26.6	24.8		
3	Other woodlands	0.7	0.9	0.5	-	0.8	1.0	0.5	0.2	-		
Total		39.4	39.1	44.2	34.7	28.9	28.7	33.5	26.8	24.8		

^{*}Habitat loss of woodland listed on the AWI may be greater than actual woodland loss (refer to Table 3) due to changes in land use since the inventory was established.

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Appendix A12.1: Contaminated Land Sources

Note – the GE references provided in the table below relate only to potential historical and current contaminated land and the numbers do not always run in a continuous order.

Table 1: Potential historical and current contamination sources (Inverness to Gollanfield)

Reference	Source Name	Source Type	Location	Maps Edition (OS)	Additional comment
GE04	Canstore, Homebase, Inverness Retail Park	Industrial	West of Smithton		Information from The Highland Council (THC) (ref IN-GAR-1272). Data retrieved from Trading Standards File I314.
GE05	Filling Station Tesco	Garage/Depot	West of Smithton		Information from THC (ref IN-GAR-1250). Data retrieved from Trading Standards File I300.
GE06	Aberdeen to Inverness Railway Line	Railways	South of Smithton to North of Auldearn		Made ground associated with the Aberdeen to Inverness Railway Line which runs parallel to the A96 for much of the length of the route options; it is known to have opened in 1855 and is in current use.
GE07	Inverness to Lossiemouth Fuel Pipeline	Fuel oil pipeline	North of Smithton to North of Auldearn		Pipeline which runs along the A96 for the much of the length of the route options.
GE08	Thrashing Mill	Industrial	North-west of Smithton	1880-1874	-
GE09	Stratton Farm Petrol Tank	Fuel	North-west of Smithton		Information from THC (ref IN-GAR-1065). Data retrieved from Trading Standards File BP331.
GE10	Smithton Junction - Made Ground	Made Ground/fill	North-west of Smithton		Made ground located to the south-east of Smithton Junction roundabout. There is no evidence of past land use on historical maps.
GE11	Milltown Mill Dam	Industrial	North of Culloden	1904	-
GE12	Borrow Pit	Industrial	North of Culloden		Information from THC (ref IN-MIN-1106). Data retrieved from Planning Application.
GE13	Allanfearn Waste Water Treatment Works	Sewage treatment works	North of Culloden		A sewage treatment works (Caledonian Water Ltd) at Allanfearn.
GE14	Milltown Mills	Industrial	North of Culloden	1871	Shown on 1871 map only as disused.
GE15	Allanfearn Railway Station	Railways	North of Culloden	1870-present	Originally opened in 1855 named Culloden Station (1870 map) it was closed in May 1965.
GE16	Allanfearn Pond	Made Ground/fill	North of Culloden	1871	-
GE17	Allanfearn Petrol Farm Tank	Fuel	North of Culloden		Information from THC (ref IN-GAR-1118). Data retrieved from Trading Standards File I108.

Reference	Source Name	Source Type	Location	Maps Edition (OS)	Additional comment
GE18	Allanfearn Chimney/Furnace	Industrial	North of Culloden	1871	Unknown purpose, but RCHAMS have a record of Farm chimney, Allanfearn, mid19th century. A typical circular brick chimney, with beaded top, with the ruins of an engine and boiler house'.
GE19	Pit 1	Other	North-east of Culloden	1959-1993	-
GE20	Lower Cullernie Farm Petrol Tank	Fuel	North- east of Culloden		Information from THC (ref IN-GAR-1119). Data retrieved from Trading Standards File I109.
GE21	Tile and Brickworks	Made Ground/fill	North-east of Culloden	1871-1959	Tile works were noted on the 1871 until 1959 historical maps. The Culloden Brick and Tile Company brickworks were opened in 1847 and remained in use until 1891. The adjacent field was excavated to at least 20' (6m) deep. This area is likely to have been in-filled.
GE22	Pit 2	Other	North of Balloch	1959-1993	Information from THC (ref IN-MIN-1014).
GE23	Redhill Farm Sheep Dip Disposal Site	Landfill	North of Balloch		Information from THC (ref IN-SHP-1040). Data retrieved from CAR Authorisation by SEPA (Water Environment (Controlled Activities) Scotland 2005).
GE24	Upper Cullernie Farm Petrol Tank	Fuel	North of Balloch		Information from THC (ref IN-GAR-1180). Data retrieved from Trading Standards file I105.
GE25	Gravel Pit 1	Mineral Extraction	Newton of Petty	1905-1959	-
GE26	Sand Pit 1	Mineral Extraction	East of Newton of Petty	1870	-
GE27	Morayston Farm Petrol Tank	Fuel	Morayston		Information from THC (ref IN-GAR-1131). Data retrieved from Trading Standards File I147.
GE28	Norbord Factory	Industrial	North of Morayston	1994-present	The Norbord factory produces wooden panels for the building industry. It also has a Biomass Energy Plant that uses waste wood products from the factory to generate electricity.
GE29	Kerrowaird Mill Dam	Industrial	South-west of Kerrowaird	1870-present	Shown as either a pond or a marsh.
GE30	Filter Bed	Other	North-east of Kerrowaird	1966-present	-
GE31	Dalcross Railway Station	Railways	West of Tornagrain Wood.	1870-present	Originally opened in 1855 it was closed in May 1965.
GE32	Smithy 1	Industrial	Tornagrain	1870-1907	-
GE33	Sand Pit 2	Mineral Extraction	Tornagrain	1870-1907	-
GE34	Gravel Pit 2	Mineral Extraction	Tornagrain Wood	1907-1959	-
GE35	Gravel Pit 3	Mineral Extraction	Tornagrain Wood	1870-1959	-
GE36	Gravel Pit 4	Mineral Extraction	Tornagrain Wood	1870-1907	-
GE37	Hill Head Quarry	Mineral Extraction	East of Tornagrain	2001-2009	Information from THC (ref IN-MIN-1136).



Reference	Source Name	Source Type	Location	Maps Edition (OS)	Additional comment
GE38	Mid Coul Mill Dam	Industrial	Mid Coul	1906	-
GE39	Inverness Airport	Aviation	East of Dalcross Industrial Estate		Current Inverness Airport.
GE40	Culblair Farm Petrol Tank	Fuel	South of Inverness Airport		Information from THC (ref IN-GAR-1124). Data retrieved from Trading Standards File I115.
GE41	Culblair Mill Dam	Industrial	South of Inverness Airport	1906-present	Believed to be in current use as an ornamental water feature.
GE42	Gravel Pit 5	Mineral Extraction	South- east of Inverness Airport	1870-1876	-
GE43	Milton of Gollanfield Petrol Tank	Fuel	Milton of Gollanfield		Information from THC (ref IN-GAR-1288). Data retrieved from Trading Standards File I106.
GE44	Milton of Gollanfield Mill Dam	Industrial	Milton of Gollanfield	1876	Hunters lodge hotel and filling station.
GE45	Reservoir	Other	Drummie	1905-1994	-
GE46	Former Railway Land - Gollanfield Station	Railways	North of Brackley	1959-1966	-
GE47	Filling Station	Fuel	Brackley		Information from THC (ref IN-VDL-1001). Data retrieved from Trading Standards File I134.
GE48	Waste Disposal Site for Commercial Waste, Balspordon Farm	Waste treatment /disposal	North of Brackley		Information from THC (ref IN-WDS-1014). Data retrieved from SEPA Waste Management Licence: WML/N/50123 - Licence surrendered 09/01/04.
GE49	Smithy 2	Industrial	Brackley	1870-1876	-
GE50	Poultry Farm	Other	North-east of Brackley	1993-present	-
GE51	Gollanfield Home Farm Petrol Tank	Fuel	Gollanfield		Information from THC (ref IN-GAR-1123). Data retrieved from Trading Standards File I216.
GE53	Gravel Pit 6	Mineral Extraction	Gollanfield	1870	-
GE54	Smithy 3	Industrial	Gollanfield	1870-1874	-
GE137	Redhill Farm Petrol Tank	Fuel	Redhill		Information from THC (ref IN-GAR-1286). Data retrieved from Trading Standards File I/125.
GE138	Petrol Tank	Fuel	North-west of Balloch		Information from THC (ref IN-GAR-1182). Data retrieved from Trading Standards File I/139.
GE139	Balmachree Farm Petrol Tank	Fuel	North-west of Balloch		Information from THC (ref IN-GAR-1118). Data retrieved from Trading Standards File BP360.



Table 2: Potential historical and current contamination sources (Nairn Bypass)

Reference	Source Name	Source Type	Location	Maps Edition (OS)	Additional comment
GE06	Aberdeen to Inverness Railway Line	Railways	South of Smithton to North of Auldearn		Made ground associated with the Aberdeen to Inverness Railway Line which runs parallel to the A96 for much of the length of the route options; it is known to have opened in 1855 and is in current use.
GE07	Inverness to Lossiemouth Fuel Pipeline	Fuel oil pipeline	North of Smithton to North of Auldearn		Fuel oil pipeline which runs along the A96 for the much of the length of the route options.
GE56	Gravel Pit 7	Mineral Extraction	East of Blackcastle	1997	-
GE57	Blackcastle Quarry	Mineral Extraction	East of Blackcastle		Information from THC (ref NA-MIN-1099). Data retrieved from PPC Licence by SEPA (Pollution, Prevention and Control).
GE58	Smithy 4	Industrial	Newlands of Delnies	1869-1979	-
GE59	Depot	Garage / Depot	Newlands of Delnies	1992-present	-
GE60	Ross Timber Products	Industrial	Newlands of Delnies		Current saw mill - Ross Timber Products, The Pines, Newlands of Delnies, Nairn, Morayshire, IV12 5NX.
GE61	Gravel Pit 8	Mineral Extraction	West of Tradespark	1905-1959	-
GE62	Old Gravel Pit	Mineral Extraction	West of Tradespark	1869-1993	-
GE63	Sandwood House Petrol Tank	Mineral Extraction	West of Tradespark		Information from THC (ref NA-GAR-1031). Data retrieved from Trading Standards File I244.
GE64	Gravel Pit 9	Mineral Extraction	South-west of Tradespark	1905-1959	-
GE65	Refuse Tip	Landfill	South-west of Tradespark	1966	-
GE66	Sand Pit/Gravel Pit	Mineral Extraction	South-west of Tradespark	1869-1959	-
GE67	Gravel Pit (Disused)	Mineral Extraction	South of Tradespark	1993	-
GE68	Tradespark Burial Ground	Other	South of Tradespark	1977-present	-
GE69	Area of 19th and 20th Century Refuse Pit	Landfill	North of Tradespark		Information from THC (ref NA-WDS-1006). Data retrieved from Archaeological Information provided within a Planning Application (07/00188/OUTNA).
GE70	Lochdhu Petrol Tank	Fuel	Lochdhu		Information from THC (ref NA-GAR-1010). Data retrieved from Trading Standards File I186.
GE71	Gravel Pit 10	Mineral Extraction	Meikle Kildrummie	1905-1959	-
GE72	Howford Refuse Tip	Mineral Extraction	Howford	1966-1979	-
GE73	Gravel Pit 11	Mineral Extraction	South-east of Howford	1905-1959	-
GE74	Gravel Pit 12	Mineral Extraction	South-east of Howford	1905-1959	-
GE77	Smithy 5	Industrial	South of Knocknagillan	1905-1959	-

Reference	Source Name	Source Type	Location	Maps Edition (OS)	Additional comment
GE78	Skene Park Petrol Farm Tank	Fuel	Knocknagillan		Information from HC (ref NA-GAR-1023). Data retrieved from Trading Standards File I201.
GE79	Quarry	Mineral Extraction	Bognafuaran		Information from HC. Data retrieved from SEPA licence.
GE80	Sawmill - Tulloch Timber (Nairn) Ltd	Industrial	South-east of Nairn	1964-present	Current saw mill - Tulloch Timber (Nairn) Ltd, Grigorhill Saw Mill, Nairn, Morayshire, IV12 5HX.
GE81	Electrical Sub Station	Other	South-east of Nairn	1970-present	-
GE82	Newton of Park Refuse Tip	Landfill	West of Newton of Park	1966	Information from THC. Closed in 1984 contained domestic, commercial and construction waste.
GE83	Achnacloich Landfill	Landfill	South-east of Nairn		Information from THC (ref NA-WDS-1002). Data retrieved from Council Waste Management Records.
GE84	Sand Pit 3	Mineral Extraction	South-east of Nairn	1869-1876	-
GE85	Gravel Pits	Mineral Extraction	Newton of Park	1905-1959	-
GE86	Old Gravel Pit	Mineral Extraction	Newmill	1905-1959	-
GE87	Sand Pit 4	Mineral Extraction	North-west of Auldearn	1898	-
GE88	Saw Mill	Industrial	West of Auldearn	1869-1905	-
GE89	Smithy 6	Industrial	West of Auldearn	1869-1959	-
GE90	Auldearn Sewage Works	Mineral Extraction	West of Auldearn	1966	-
GE92	Smithy 7	Industrial	Within Auldearn	1869-1905	-
GE93	Garage	Garage / Depot	Within Auldearn	1966	-
GE94	Sheep Dip 2	Other	South of Auldearn	2013	-
GE95	Gravel Pit 13	Mineral Extraction	South-east of Auldearn	1905-1906	-
GE96	Broombank Farm Petrol Tank	Fuel	East of Auldearn		Information from HC. Data retrieved from Trading Standards File I/205).
GE97	Gravel Pit 14	Mineral Extraction	South-east of Auldearn	1905 -1959	-
GE98	Old Sand Pit	Mineral Extraction	East of Auldearn	1905 -1959	-
GE99	Sheep Dip 3	Other	East of Auldearn	2013	-
GE100	Sand Pit 5	Mineral Extraction	East of Auldearn	1906 -1979	-
GE101	Quarry (disused)	Mineral Extraction	East of Auldearn	2013	-
GE130	Easter Glackton Quarry	Mineral Extraction	North of Muir of the Clans		Sand and gravel.
GE131	Delnies Quarry	Mineral Extraction	West of Tradespark	1959-1978	-
GE134	Mill Dam	Other	South-west of Auldearn	1871	-



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Appendix A13.1: Summary of Geomorphology Site Visit

A site visit was undertaken in September 2013 by Jacobs' geomorphologists to identify baseline conditions for Surface Water Features (SWF) within the study area. The information from this site visit is provided below along with, where available, photographs of the SWFs.

SWF 01: Inshes Burn



SWF 01 begins just south of Balvonie Wood, through which it then flows north-west towards Dell of Inshes along a moderate-high gradient. Down to Dell of Inshes, it flows along a natural, sinuous planform and is lined continuously with broadleaf trees. The channel is relatively small and appears to have a coarse gravel bed with vegetated banks. Land use adjacent to this section is predominantly agricultural.

From Dell of Inshes down to the sea, the SWF flows along a relatively low gradient across predominantly urban land use. The channel planform has been realigned in a number of places, to run alongside roads

and here the river is disconnected from its flood plain. In urban zones, the banks have been reprofiled creating a trapezoidal channel cross section. Banks are either vegetated or reinforced by stone or concrete walls. Bed material is mainly gravel with some cobbles and the channel is choked with vegetation.

SWF 01 is assessed to have low sensitivity to disturbance.

SWF 02: Scretan Burn



SWF 02 flows through arable agricultural land along a low gradient from the edge of Cradlehall to the sea. The riparian zone is varied, ranging from non-existent/scattered trees (along most of the SWF), to continuous on both banks (downstream of the A96). Aerial photography suggests that there are a mixture of trees and shrubs where there is a riparian zone.

The SWF appears to be realigned along most of its length.

There are some areas (upstream of the Inverness Retail and Business Park) where natural geomorphological recovery appears to be occurring where the river planform becomes more sinuous, which is what it would have been naturally.

The agricultural land is likely to provide a diffuse source of sediment and the channel is choked with vegetation.

SWF 02 is assessed to have low sensitivity to disturbance.

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SWF 03: Cairnlaw Burn



SWF 03 is a small, lowland and calcareous river, which is also a WFD water body of Moderate ecological status, downgraded as a result of morphological alteration from mixed farming. It flows through a mixture of land uses including agricultural (arable and pasture) and urban, along a moderate gradient towards and through the town of Cradlehall and along a low gradient downstream of this town towards the sea.

The riparian zone is varied, ranging from non-existent, semi-continuous to continuous on both banks. Aerial photography suggests there are a mixture of trees and shrubs lining this SWF. Channel substrate is

predominantly cobbles with point bar and side bar depositional features. The burn has a number of flow types including ripples and glides.

The SWF appears to be realigned in a number of places across agricultural land and alongside roads and it has also been culverted along one section in Cradlehall.

SWF 03 is assessed to have medium sensitivity to disturbance.

SWF 04: Tributary of Cairnlaw Burn (1)



SWF 04 is formed from a series of drains and a pond south of Easter Bogbain and Upper Muckovie. In the upper catchment above Culloden Road where it has undergone high impact realignment, the planform is very straight presumably to accommodate drainage for the agricultural and forestry land.

Downstream of Culloden Road, as the river flows through urban settlements of Westhill and Smithton, the planform of the channel is more natural and sinuous. There is also good riparian zone throughout the urban settlements, consisting of a continuous broadleaf treeline. It also flows through a number of culverts in the urban area and there

are likely to be outfalls which contribute to sediment input. As the SWF leaves the urban land, the channel planform becomes artificially straight as it flows over agricultural land into SWF 03 at Stratton.

SWF 04 is assessed to have low sensitivity to disturbance.

SWF 05: Tributary of Cairnlaw Burn (2) - no photograph is currently available.

SWF 05 is a short SWF that flows in a north-easterly direction and meets with SWF 03. Adjacent land use is agricultural land which is likely to be a diffuse sediment source. The SWF has a thick, continuous treeline on both banks.

There do not appear to be any modifications to the channel planform, as contemporary Ordnance Survey (OS) maps show it to be sinuous.

SWF 05 is assessed to have high sensitivity to disturbance.



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SWF 06: Kenneth's Black Well



SWF 06 is formed from drains on Culloden Muir. It has a sinuous planform as it flows along a moderate gradient in a north-westerly direction through Culloden Wood. The gradient becomes gentler as it flows through the urban settlement of Culloden, where it appears to have been realigned and culverted in places. The SWF has also been realigned to a straight planform as it flows out of Culloden and along a minor road in agricultural land and through some residential gardens by Milton of Culloden Smallholdings. It is also culverted to flow under the A96 and the railway, after which it meets SWF 03.

The riparian zone is continuous until the SWF passes the foot of the grounds of Culloden House hotel. After this, the riparian zone is non-existent to sparse with some scattered singular trees at Milton of Culloden Smallholdings.

SWF 06 is assessed to have low sensitivity to disturbance.

SWF 07: Drain at Allanfearn



SWF 07 is a straightened drain with right angle bends that runs along field boundaries. The banks have been reprofiled and the channel overdeepened to create a trapezoidal channel.

The bank profiles are uniform and the channel is choked with vegetation. The morphology is homogenous throughout and there is no diversity of flow or substrate. No natural channel or bank features are present.

The surrounding land use is intensive arable farming with no riparian zone and high volumes of sediment may have been introduced into the channel as a result of the land use.

SWF 07 is assessed to have a low sensitivity to disturbance.

SWF 08: Fiddler's Burn



SWF 08 flows from springs at Viewhill down a relatively steep gradient along a natural, sinuous planform in woodland on the south-western side of Balloch. Part of the channel is culverted under streets in Balloch, but then continues along a natural, sinuous course through woodland. The SWF then becomes culverted at the edge of Balloch and emerges in agricultural fields to the north-west of the town. From this point the SWF is effectively an agricultural drain flowing along a very low gradient following an artificially straightened planform, with right angled bends and reprofiled banks as it flows towards the sea. The riparian zone in the agricultural land is non-existent and there is no buffer strip and no trees. The channel is choked with vegetation.

SWF 08 is assessed to have low sensitivity to disturbance.



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SWF 09: Tributary of Rough Burn



SWF 09 flows over forestry and agricultural (arable) land use. Through the arable land the channel is very straight and is choked with vegetation, which suggests it is a sediment sink. The riparian zone is non-existent along most of its length, except where it flows out of the woodland into the agricultural land. Here there is a distinct lack of trees and channel shading along the channel.

Banks have been reprofiled and the channel overdeepened. The vegetation structure on the banks is predominantly uniform, composed of tall herbs.

SWF 09 is assessed to have low sensitivity to disturbance.

SWF 10: Indirect tributary of Rough Burn (1)



SWF 10 is very short and flows in a north-westerly direction from High Wood into SWF 08. The upper section of this SWF has an extensive riparian zone as it flows within a wood. The lower section flows through tilled land and has a riparian zone extending to approximately 20m either side of the channel. The exception to this is the last 200m before the confluence with SWF 08, where there is no riparian zone. This last section has undergone high impact realignment to a straight channel planform.

The channel is choked with vegetation.

SWF 10 is assessed to have low sensitivity to disturbance.

SWF 11: Indirect tributary of Rough Burn (2)



SWF 11 is very short and flows in a north-westerly direction. Most of this SWF is lined with woodland, which looks from aerial photography to be deciduous. Its flows down a moderate to steep gradient and after it exits the woodland there is a short section where it has been realigned to a straight planform. Here, the banks have been reprofiled and the channel overdeepened, creating a trapezoidal cross section.

The channel is choked with vegetation.

SWF 11 is assessed to have low sensitivity to disturbance.

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SWF 12: Rough Burn



SWF 12 is a WFD water body which has been assigned Good ecological status. However, at the time of survey in September 2013, the channel was mainly dry. The gradient is steep through Culloden forest and above Morayston Farm where there is a sluice, otherwise gradient is gentle.

Where there are waterfalls, the bed is predominantly bedrock, otherwise, the bed comprises cobbles.

The SWF has a sinuous planform and a riparian corridor that has been left at the edge of the agricultural field to allow the river to meander naturally. The riparian buffer

strip on each bank is generally greater than three river widths along much of its length.

The riparian zone is generally lacking in vegetation. Mostly it is a simple vegetation community consisting of grasses and there are only a few scattered trees along the SWF.

There have been some modifications along this SWF. There is a dam, which appears on maps dating back to between 1874 and 1876. This has created a pond, however, recent aerial photography has shown this to be dry. There is also a sluice marked on the current OS map which appears on historic maps dating back to 1874-1876. This is just above Morayston Farm where the gradient is steeper with waterfalls. The channel has also undergone high impact realignment downstream of the A96. Banks have been reprofiled along some reaches.

SWF 12 is assessed to have medium sensitivity to disturbance.

SWF 13: Tributary of 'Unnamed Burn - Castle Stuart to source (Tornagrain)' (1)



SWF 03 flows along a moderate gradient across arable agricultural land above Kerrowaird Farm, and along a low gradient downstream of this. The SWF is an agricultural drain that is very narrow with reprofiled banks and choked with vegetation.

The SWF planform appears to be natural and sinuous in the upper section. However, downstream of Kerrowaird Farm, it appears to have been realigned.

Generally there is no riparian zone and no trees, with the exception of the wooded area with the curling pond that this SWF flows through.

Aerial photography also shows there to be a ford across this SWF in the upper section, which will act as a significant sediment source.

SWF 13 is assessed to have low sensitivity to disturbance.



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SWF 14: Unnamed Burn – Castle Stuart to source (Tornagrain)



SWF 14 is classed by SEPA as a small water body named 'Unnamed Burn – Castle Stuart to source (Tornagrain)'. It originates from several first order streams in Culloden Forest. This flows across a moderate gradient until Tornagrain after which gradient is relatively gentle. The planform is relatively natural until the SWF reaches the A96. Downstream of this, the SWF has undergone high impact realignment with very few natural in-channel features.

The SWF flows across a variety of land uses including arable agricultural land, woodland, heath moorland and residential gardens.

The riparian zone is extensive where the river flows through or adjacent to woodland. Generally where adjacent land is agricultural or moorland there is a very narrow riparian buffer strip with a uniform grass community.

From aerial photography, it appears that there are no trees or shrubs present within this riparian buffer strip, which would provide it with shade for in-channel fauna. Banks have been

reprofiled and at the time of the site visit, the channel was dry.

SWF 14 is assessed to have low sensitivity to disturbance.

SWF 15: Tributary of 'Unnamed Burn - Castle Stuart to source (Tornagrain)' (2)



SWF 15 is a very short tributary of SWF 13.

It is realigned along its entire length with reprofiled banks and an overdeepened channel.

Land use on the right bank is woodland and improved grassland for a war memorial, whilst the left bank has no riparian zone or trees and adjacent land use is tilled land.

The channel is choked with vegetation.

SWF 15 is assessed to have low sensitivity to disturbance.

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SWF 16: Tributary of Ardersier Burn



SWF 16 is split into two WFD water bodies called 'tributary of Ardersier Burn – Mid Coul to Source' and 'tributary of Ardersier Burn – sea to Mid Coul'. The upper water body has a Moderate ecological status, whilst the lower water body has Moderate ecological potential and is heavily modified.

It generally follows a natural planform, with some realignment until Hillhead Farm. After this point there has been a significant amount of high impact realignment, particularly the section flowing through Inverness Airport. The banks have been extensively reprofiled and the channel overdeepened. The lower section is designated as being a heavily modified water body as a result.

The SWF flows down a moderate to low gradient along most of its length. There is an extensive riparian zone where it flows through forests and where it flows over agricultural land. The riparian zone consists of shrub dominated communities or grass communities. Generally there are no trees to provide shade or cover to in-channel species. It also flows through Inverness Airport, where it is significantly realigned and there is no riparian zone present. It is likely that the runway acts as a point source of pollutants.

The WFD assessment includes pressures such as abstraction and diffuse source pollution from arable farming, morphological alterations from mixed farming channelisation/ realignment and air transport culverting.

SWF 16 is assessed to have an overall low sensitivity to disturbance.

SWF 17: Drains at Culblair



SWF 17 appears to be an artificial ditch with one drainage pond branching off it and feeding another pond at Culblair Farm. There is no riparian zone and the surrounding land use appears to be rough pasture for grazing and marshland. A road also runs alongside the drain.

SWF 17 is assessed to have low sensitivity to disturbance.

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SWF 18: Indirect tributary drains of Ardersier Burn



SWF 18 flows along a low gradient and joins SWF 16. Land use is predominantly mixed farming of arable and rough pasture for grazing. There is no riparian zone along the SWF. There is only a very short section where there are some broadleaf trees on the right bank.

This SWF has undergone high impact realignment along most of its length. The channel has been straightened with hard bank reinforcement including wood piling and concrete. The channel becomes choked with vegetation downstream of the A96.

The SWF has a number of tributaries which are highly impacted realigned streams. A railway embankment of a now dismantled railway confines the SWF on the right bank before the outlet into the sea.

SWF 18 is assessed to have a low sensitivity to disturbance.

SWF 19: Balnagowan Burn



SWF 19 is classed as a WFD water body with Bad ecological status. It flows over a relatively gentle gradient towards the sea. Land use is mixed farming for arable and livestock. There is no riparian zone along any of this SWF.

The SWF fails Good ecological status on a number of parameters: bad morphology; poor hydrology (due to abstractions); moderate water quality and bad overall ecology.

Channel straightening for mixed farming is the primary morphological pressure, presumably to

increase field size. Other key pressures include diffuse source pollution from mixed farming and abstraction which is causing a change in the natural flow regime.

During the site visit, water was present within the channel but there was no perceptible flow and the channel was completely choked with vegetation.

SWF 19 is assessed to have a low sensitivity to disturbance.

SWF 20: Tributary of Balnagowan Burn



SWF 20 appears to have been realigned along its entire length. There are two predominant land uses: mixed woodland and mixed farming (arable and pasture for grazing). The riparian zone is extensive where mixed woodland is the adjacent land use. Where arable land or rough pasture is adjacent there is a thin strip of riparian buffer zone. Aerial photography indicates the dominant vegetation to be grass and shrubs, with no trees.

During the site visit there was water present in places but there was no perceptible flow.

This SWF is effectively a field ditch, approximately 0.5m wide and choked with overgrown vegetation.

SWF 20 is assessed to have a low sensitivity to disturbance.



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SWF 21: Field ditch tributaries of Balnagowan Burn



SWF 21 is a series of agricultural and forestry drains. These meet to form one drain along the edge of the railway line. The singular drain flows underneath the railway line to join SWF 20.

The drain that will potentially be crossed by the proposed route options flows along the north edge of the wood named Blar nam Fiadh. During the site visit, this drain was completely choked with vegetation and no flow was visible.

It is likely that the forest provides point sources of sediment (dependent on the drainage system within the forest) or is a diffuse source of sediment. It appears, from a comparison of aerial photography and OS maps, that a large proportion of this forest has been felled.

SWF 20 is assessed to have low sensitivity to disturbance.

SWF 22: Alton Burn



SWF 22 flows along a very gentle gradient over a variety of land uses. The predominant land use is mixed farming (rough pasture for grazing and arable). However, the river also flows through the urban area of Nairn.

There is a distinct lack of trees in the riparian buffer zone along most of the SWF. Vegetation communities mainly comprise of grass or shrubs. As it flows through the town of Tradespark there are broadleaf trees on either side of the channel.

Where this SWF was surveyed during the site visit, the channel is approximately 0.5m wide and completely choked with vegetation. No flow was visible because of this vegetation.

It is likely that sediment from adjacent tilled fields has been washed into the channel and has contributed to this vegetation growth.

The SWF has also been subject to high impact realignment and bank reprofiling as it flows through agricultural land upstream of the town.

SWF 22 is assessed to have a low sensitivity to disturbance.

SWF 23: River Nairn



SWF 23 is divided into two WFD water bodies. The water body that the proposed route options could impact is the River Nairn – Moray Firth to River Farnack confluence, which has Good ecological status. This SWF is a relatively large, mid-altitude, siliceous river and flows for approximately 56km towards the Moray Firth after rising in the Monadhliath mountains.

The SWF follows a sinuous meandering planform and is braiding/ multi-channelled along a significant length. The areas of braiding suggest there is an abundant supply of sediment from upstream, that banks are highly erodible, channel gradient is steep and there are a variety of flow

discharges throughout the year on the Nairn. Within the channel there is a mixture of vegetated and

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un-vegetated mid-channel bars, side bars and point bars that are progressively larger as the river moves downstream. Inferred from the braiding observed, bed material is likely to be predominantly coarse and fine gravel. Cobbles and coarse gravel appear to be the predominant material in the upper reaches. Flow types are a mixture of runs, riffles and glides and there are areas where there are backwaters and side pools that have been created through the formation of mid-channel bars.

The SWF flows over a number of different land uses including forestry, woodland, rough pasture for grazing and arable farming and urban (Nairn). There is an almost continuous riparian zone with broadleaf trees along the entire river.

SWF 23 is assessed to have a very high sensitivity to disturbance.

SWF 24: Tributary of the River Nairn



SWF 24 flows over a very gentle gradient and into SWF 23. It is a relatively short and flows through a coniferous plantation and then adjacent to arable fields. The SWF feeds a pond and has undergone high impact realignment along the edge of the arable field.

The riparian zone consists of a uniform vegetation community of coniferous trees through the plantation. Downstream there is no riparian zone on the left bank where there are arable fields. These are likely to contribute to sediment loading in the SWF, due to there being no buffer strip to filter sediment from field runoff.

There is an embankment and residential gardens on the right bank, just before the river is culverted briefly and takes a sharp right angled bed towards SWF 23 along a realigned course. Where there is a potential crossing, the tributary is only about 0.5m wide and is choked with vegetation. The tributary is reported to be used for discharging sewage.

SWF 24 is assessed to have a low sensitivity to disturbance.

SWF 25: Indirect tributary of River Nairn – no photograph currently available.

SWF 25 is very short (approximately 300m) and is located within Knocknagillan Wood. Land use either side of the SWF is forestry.

From OS maps it appears to have a natural sinuous planform and feeds into the upper course of SWF

SWF 25 is assessed to have a low sensitivity to disturbance.

SWF 26: Auldearn Burn



SWF 26 is approximately 11.2km long. It is a WFD water body with Moderate ecological status and is classed as a small, lowland calcareous river. Gradient is variable along the length of this river; it is relatively steep in the upper reaches becoming progressively gentler as it flows towards SWF 23.

The SWF flows through a number of different land uses including arable fields, scrub, coniferous forestry and the urban settlement of Auldearn. In Laiken Glen the SWF feeds a number of small lochs and a couple of reservoirs along its course towards SWF 23. These lochs and reservoirs will be sediment traps.

The riparian zone is variable. Where the river runs

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alongside arable fields, the riparian zone is generally sparse with very few trees. In the upper section it frequently runs through or adjacent to forestry plantations and woodland.

There are a number of pressures associated with this SWF and adjacent land use. These include diffuse source pollution from mixed farming and morphological alterations which have resulted in the majority of this SWF having a straight planform. Arable fields and forestry are likely to act as diffuse and point sediment sources to the river.

During the site visit, flow was visible along all of SWF 26, although in places the channel was choked with vegetation, probably as a result sediment runoff from arable fields. Much of the SWF is realigned, however, geomorphological processes are active and the river is showing some signs of recovery.

SWF 26 is assessed to have a moderate sensitivity to disturbance.

SWF 27: Drains within Bognafuaran Wood - no photograph currently available.

SWF 27 is probably artificial to assist in forestry drainage. According to OS maps the drains have slightly sinuous planforms and land use either side is consistently forestry. During the site visit the drains were not visible, and were either dried up or filled with vegetation.

SWF 27 is assessed to have a low sensitivity to disturbance.

SWF 28: Tributary of Auldearn Burn (1) - no photograph currently available.

SWF 28 is a short tributary of SWF 26. It is almost entirely lined with trees on both banks and has a relatively natural, sinuous planform up to the culvert underneath the B9101. The planform after this culvert is relatively straight and probably artificially realigned.

SWF 28 is assessed to have a low sensitivity to disturbance.

SWF 29: Tributary of Auldearn Burn (2) - no photograph currently available.

SWF 29 is a short tributary of SWF 26, most likely to be an agricultural drain for Kinnudie Farm. It looks to have undergone high impact realignment, as it has an unnatural straight planform. Land use on both banks is tilled land. There is no buffer strip on either bank, so it is likely that sediment from adjacent fields is readily washed into the SWF.

SWF 29 is assessed to have a low sensitivity to disturbance.

SWF 30: Tributary of Auldearn Burn (3) - no photograph currently available.

SWF 30 is a short tributary of SWF 26 and it emerges in deciduous woodland to the south-east of Newmills. The channel has a very straight planform, which suggests that this is an artificial drain for the woodland. The channel is approximately 3m wide and appears to be overdeep. At the time of site visit, no water was present within the channel.

SWF 30 is assessed to have low sensitivity to disturbance.

SWF 31: Auldearn Burn - Brightmony Tributary - no photograph currently available.

SWF 31 is formed from a series of streams and drains in Brightmony and Easter Brightmony Wood and flows north-west to join SWF 26 just north of the town of Auldearn. It flows over a low gradient across mainly arable land use. There is no riparian zone along most of this SWF.

The channel is choked with vegetation in places and there are some sections that appear to have no flow in summer months. Where bed material was visible, silt and coarse gravel are predominant and it is likely that much of the sediment is sourced from the adjacent arable fields as there is no buffer zone to trap sediment from field runoff. Banks are generally gentle and sloping, however, can be quite steep in places. In some places the channel cross section appeared to be trapezoidal, indicating reprofiled banks. Bank vegetation is generally a simple community consisting of grass and shrubs with occasional, scattered trees.

SWF 31 is assessed to have a low sensitivity to disturbance.



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SWF 32: Drain at Brae of Brightmony - no photograph currently available.

SWF 32 is an artificial SWF that appears to be an agricultural drain. From aerial photography it appears that the main land use is tilled land, with furrows directed towards the SWF. This is likely to present a significant source of sediment. On the right bank in the upper section there is deciduous woodland. It appears that this SWF is culverted and then feeds ponds by Meadowfield.

SWF 32 is assessed to have a low sensitivity to disturbance.

SWF 33: Drain at Penick Farm - no photograph currently available.

This is a short drain that runs alongside the road by Penick Farm. It is an artificial SWF with one culvert. From aerial photography, it appears that adjacent land use is rough pasture and a minor road.

SWF 33 is assessed to have a low sensitivity to disturbance.

SWF34: Tributary of Auldearn Burn (4) - no photograph currently available.

SWF 34 is formed from a series of drains within Inshoch Moss and agricultural drains around Hardmuir Farm to the north-east of the town of Auldearn. The SWF follows an artificially straight planform through predominantly tilled land, which suggests it has been realigned significantly for agricultural purposes.

There are sections of this SWF where the channel is completely choked with vegetation and no flow is visible. Where water is visible, flow types include no perceptible flow, runs and riffles and pools are present.

SWF 34 is assessed to have a low sensitivity to disturbance.

SWF 35: Drain, tributary of Auldearn Burn - Brightmony Tributary - no photograph currently available.

SWF 35 appears to be a short artificial agricultural drain, with a uniform trapezoidal cross section, that discharges into SWF 34. The planform is very straight and is likely to be devoid of in-channel habitat. From aerial photography it appears the main land use is rough pasture for grazing on both banks. Trees are scattered along both banks and there is very little riparian buffer strip either side of this drain, thus if livestock have free access to the channel, this drain could be a significant sediment source to the downstream SWF 34.

SWF 35 is assessed to have a low sensitivity to disturbance.



DMRB Stage 2 Scheme Assessment Report

Part 6: Appendices

A13.2: Impact Assessment Tables

Note - Route options which have a negligible or no impact on a Surface Water Feature (SWF) attribute are not listed in the tables below. All of the impacts reported are adverse unless otherwise stated.

Table 1: Summary of impacts on Surface Water Features (SWFs) during construction and potential mitigation (Inverness to Gollanfield)

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
SWF 02: Scretan Burn							
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Channel choked with vegetation. Extensive channel realignment.	Low	All Options	Moderate	Slight	Implement appropriate control measures for site runoff and sedimentation. Follow SEPA approved construction methods, conduct in-channel works during low flow and limit the extent of disturbance.
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway, culvert and outfall, and part channel realignment.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and urban/residential.	Medium	All Options	Major	Large	Develop Pollution Prevention Plan, including spillage response measures, prior to construction. Prepare appropriate Method Statements for working with and storing oils and chemicals in line with the requirements of the Water
	Dilution and removal of waste products	Potential additional pollutant sources: road drainage and diffuse rural/urban sources.	Medium		Major	Large	Environment (Oil Storage) (Scotland) Regulations 2006. Contractor to prepare and implement a Construction Environmental Management Plan (CEMP), to be approved by SEPA prior
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
SWF 03: Cairnlaw Burn							
Restriction in-channel during construction of culvert and in-channel works. Loss of floodplain area and increased runoff rates during works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and some properties.	Medium	All Options	Moderate	Moderate	Implement appropriate control measures for site runoff. Design and plan works to limit in-channel restrictions during construction.
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: Moderate. Predominantly cobble bed, depositional features. Diversity of flow types. Morphological alterations for mixed farming.	Medium	All Options	Moderate	Moderate	Refer to mitigation recommended for SWF 02.
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway, culvert and outfall, and	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture and some urban/residential.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
part channel realignment.	Dilution and removal of waste products	Potential additional pollutant sources: road drainage and diffuse rural/ urban sources.	Medium		Major Large	Large	
	Biodiversity	WFD overall ecological status: Moderate (2008). Fisheries status: not designated.	Medium		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/	Route	Magnitude	Significance	Potential Mitigation
			Sensitivity	Option			
SWF 04: Tributary of Cairnlaw Burn (1)						
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and some urban/residential.	Medium	All Options	Moderate	Moderate	Refer to mitigation recommended for SWF 02. However, no requirement to apply for CAR licences under requirements of the CAR Regulations.
	Dilution and removal of waste products	Potential additional pollutants: road drainage and diffuse rural/urban sources.	Medium		Moderate	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Moderate	Moderate	
SWF 05: Tributary of Cairnlaw Burn (2)			•			
Restriction in-channel during construction of culvert and in-channel works. Loss of floodplain area and increased runoff rates during works.	Hydrology and flood risk	Not identified on SEPA flood map. Small watercourse.	Medium	All Options	Moderate	Moderate	Refer to mitigation recommended for SWF 03.
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material (all Options) and part channel realignment (Options 1A, 1A (MV), 1B and 1B (MV)).	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Natural planform which does not appear to have modifications, which is unique to the local area. Good riparian zone coverage.	High	All Options	Moderate	Large	Refer to mitigation recommended for SWF 02.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the following: All Options: construction of carriageway culvert and outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: woodland/forestry and agriculture.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
Options 1A, 1A (MV), 1B and 1B (MV) part channel realignment.	Dilution and removal of waste products	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources and hotel.	Low		Major	Moderate	
	Biodiversity WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large		
SWF 06: Kenneth's Black Well							
Restriction in-channel during construction of culvert and in-channel works. Loss of floodplain area and increased runoff rates during works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and some properties.	Medium	All Options	Moderate	Moderate	Refer to mitigation recommended for SWF 03.
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Extensive channel realignment. Culverted in places. Fragmented riparian zone.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the following: All Options: construction of carriageway and culvert and part channel realignment.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; urban/residential and forestry upstream.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF02.
Option 1C, 1C (MV), 1D and 1D (MV): additional construction of outfall.	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural and urban sources, road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	
SWF 07: Drain at Allanfearn					•		
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Artificial watercourse with no natural channel or bank features (overdeep and trapezoidal cross section). Channel choked with vegetation.	Low	1C, 1C (MV), 1D, 1D (MV)	Moderate	Slight	Refer to mitigation recommended for SWF 02.
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway and culvert, and part channel realignment.	Water quality/ supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and urban/residential.	Medium	1C, 1C (MV), 1D, 1D (MV)	Major	Large	Refer to mitigation recommended for SWF 02.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Dilution and removal of waste products	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources, road drainage and urban/residential.	Low		Major	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	
SWF 08: Fiddler's Burn							
Restriction in-channel during construction of culvert(s) and in-channel works. Increased runoff rates during works.	Hydrology and flood risk	Not identified on SEPA flood map.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel	Fluvial geomorphology	WFD hydromorphology parameter status: not classified.	Low	1A, 1A (MV), 1B, 1B (MV)	Major	Moderate	Refer to mitigation recommended for SWF 02.
works to construct culvert(s). Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.		Extensive channel realignment. Channel choked with vegetation.		1C, 1C (MV), 1D, 1D (MV)	Moderate	Slight	
Change in water quality - potential siltation, pollution runoff, spillages, erosion and sedimentation. All Options - construction of carriageway/ culvert(s), and part channel realignment. Options 1A, 1A (MV), 1B and 1B (MV) – construct two outfalls.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; urban/residential and forestry upstream.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, road drainage and urban/residential.	Medium		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	
SWF 09: Tributary of Rough Burn		1	<u> </u>	l.			
Restriction in-channel during construction of culvert(s) and in-channel works. Increased runoff rates during works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and some properties.	Medium	All Options	Minor	Slight	Refer to mitigation recommended for SWF 03.
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert(s).	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Lack of riparian zone.	Low	1A, 1B, 1C, 1C (MV), 1D, 1D (MV)	Moderate	Slight	Refer to mitigation recommended for SWF 02.
Change to channel morphology due to increase of artificial bed and bank material (all Options) and part channel realignment (Options 1A (MV), 1B (MV), 1C (MV) and 1D (MV)).		Choked with vegetation. Extensive channel realignment. Overdeepened.		1A (MV), 1B (MV)	Major	Moderate	
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the following: All Options: construction of carriageway, culvert(s) and outfall(s).	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; forestry upstream.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
Options 1A (MV), 1B (MV), 1C (MV) and 1D (MV): additional part channel realignment.	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, road drainage.	Medium		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not	High		Major	Large	
OWE 40 to the disease of Bassack B	2 (4)	designated.					
SWF 10: Indirect tributary of Rough E	1	T	T	T	T	T	
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and woodland/forestry.	Medium	1C (MV), 1D (MV)	Moderate	Moderate	Refer to mitigation recommended for SWF 02. However, no requirement to apply for CAR licences under requirements of the CAR Regulations.
	Dilution and removal of waste products	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources.	Low		Moderate	Slight	
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.	High		Moderate	Moderate	
SWF 11: Indirect tributary of Rough E	Burn (2)						
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Lack of riparian zone. Choked with vegetation. Extensive channel realignment. Overdeepened.	Low	1C (MV), 1D (MV)	Moderate	Slight	Refer to mitigation recommended for SWF 02.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the following: Options 1A (MV), 1B (MV), 1C, 1C (MV), 1D and 1D (MV): construction of	Water quality/supply WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and woodland/forestry.	Medium	1A (MV), 1B (MV), 1C (MV), 1D (MV)	Major	Large	Refer to mitigation recommended for SWF 02. However, for Options 1C and 1D there is no requirement to apply for CAR licences under requirements of the CAR Regulations.	
carriageway.		woodiand/forestry.		1C, 1D	Moderate	Moderate	
Options 1A (MV) and 1B (MV): additional part channel realignment. Options 1C (MV) and 1D (MV): construction of culvert.	Dilution and removal of waste products Relatively small catchment. Potential additional pollutant sources: diffuse rural sources.	Low	1A (MV), 1B (MV), 1C (MV), 1D (MV)	Major	Moderate		
			1C, 1D	Moderate	Slight		
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.	High	1A (MV), 1B (MV), 1C (MV), 1D (MV)	Major	Large	
		designated.		1C, 1D	Moderate	Moderate	
SWF 12: Rough Burn							
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert (MV Options only) and change to channel morphology due to increase of artificial bed and bank material (all Options)	Fluvial geomorphology	WFD hydromorphology parameter status: Good Bedrock and cobble bed. Natural planform along most of channel,	Medium	1A, 1B, 1C, 1D	Minor	Slight	Refer to mitigation recommended for SWF 02.
and part channel realignment (Options 1A (MV), 1B (MV), 1C (MV). 1D (MV)).		including waterfalls, however modifications present downstream of A96 and a sluice in upper reaches. Choked with vegetation in places.		1A (MV), 1B (MV), 1C (MV), 1D (MV)	Moderate	Moderate	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the following: Options 1A, 1B, 1C, 1D - construction of carriageway and bridge.	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture; forestry upstream.	Medium	1A (MV), 1B (MV), 1C (MV), 1D (MV)	Major	Large	Refer to mitigation recommended for SWF 02. However, for Options 1A, 1B, 1C and 1D there is no requirement to apply for CAR licences under requirements of the CAR Regulations.
Options 1A (MV), 1B (MV), 1C (MV), 1D (MV) - construction of carriageway				1A, 1B, 1C, 1D	Moderate	Moderate	
and culvert, and part channel realignment.	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, road drainage.	Medium	1A (MV), 1B (MV), 1C (MV), 1D (MV)	Major	Large	
				1A, 1B, 1C, 1D	Moderate	Moderate	
	ecolog Good Fisher	WFD overall ecological status: Good (2008). Fisheries status: not designated.	High	1A (MV) 1B (MV) 1C (MV) 1D (MV)	Major	Large	
		designated.		1A, 1B, 1C, 1D	Moderate	Moderate	
SWF 13: Tributary of 'Unnamed Burn	- Castle Stuart to s	ource (Tornagrain)' (1)					
Restriction in-channel during construction of culvert and in-channel works. Increased runoff rates during works.	Hydrology and flood risk	Not identified on SEPA flood map.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Reprofiled banks. Choked with vegetation. Extensive channel realignment.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation of the SWF as a result of construction of carriageway, culvert and outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; some woodland/forestry.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.	High		Major	Large	
SWF 14: Unnamed Burn - Castle Stua	rt to source (Torna	igrain)					
Restriction in-channel during construction of culvert (s) and in-channel works. Increased runoff rates during works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culverts. Change to channel morphology due to increase of artificial bed and bank material (all Options) and part channel realignment (Options 1A, 1A (MV), 1C and 1C (MV)).	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Varied riparian zone cover. Lack riparian zone in places. Extensive channel realignment. Reprofiled banks.	Low	All Options	Major	Moderate	Refer to mitigation recommended for SWF 02.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality - potential siltation, pollution runoff, spillages, erosion and sedimentation. All Options - construction of carriageway and culvert(s). Options 1A, 1A (MV), 1C and 1C (MV): additional part channel realignment.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; some woodland/forestry upstream.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.	High		Major	Large	
SWF 15: Tributary of 'Unnamed Burn	- Castle Stuart to s	ource (Tornagrain)' (2)			•		
Restriction in-channel during construction of culvert and in-channel works. Increased runoff rates during works.	Hydrology and flood risk	Not identified on SEPA flood map.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material (all Options) and part channel realignment (Option 1A, 1A (MV), 1C and 1C (MV)).	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Extensive channel realignment. Reprofiled banks. Overdeep. Channel choked with vegetation.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the following: All Options: construction of carriageway and culvert.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; some woodland/forestry.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
Options 1A, 1A (MV), 1C and 1C (MV): additional part channel realignment. Options 1B, 1B (MV), 1D and 1D (MV): construction of outfall.	Dilution and removal of waste products	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources.	Low		Major	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.	High		Major	Large	
SWF 16: Tributary of Ardersier Burn							
Restriction in-channel during construction of culvert and in-channel works. Loss of some floodplain area and increased runoff rates during works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and Inverness airport.	High	All Options	Moderate	Large	Refer to mitigation recommended for SWF 03 with a particular emphasis on additional storage.

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status for 'Mid Coul to Source': Good. WFD hydromorphology parameter status for 'sea to Mid Coul' (Heavily Modified Water Body): Bad. Extensive channel realignment. Culverting for air transport in Heavily Modified Water Body.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway, culvert and outfall, and part channel realignment.	Water quality/supply	WFD overall chemical status (Mid Coul to source): Pass (2008). WFD overall chemical status (sea to Mid Coul): Pass (2008). Surrounding land-use: agriculture; some forestry towards the top of the catchment; Inverness Airport in the lower catchment. Potential for historic contaminants from disused railway.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, aircraft fuel and associated pollutants.	Medium		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Biodiversity	WFD overall ecological status (Mid Coul to source): Moderate (2008). WFD overall ecological status (sea to Mid Coul): Moderate (2008). Fisheries status: not designated.	Medium		Major	Large	
SWF 17: Drains at Culblair							
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and Inverness Airport.	Medium	1B, 1B (MV), 1D, 1D (MV)	Moderate	Moderate	Refer to mitigation recommended for SWF 02. However, there is no requirement to apply for CAR licences under requirements of the CAR Regulations.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, aircraft fuel and associated pollutants.	Medium		Moderate	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Moderate	Moderate	
SWF 18: Indirect tributary drains of A	rdersier Burn						
Restriction in-channel during construction of culvert and in-channel works. Increased runoff rates during works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-channel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Lack of riparian zone. Hard bank reinforcement in places. Extensive channel realignment. Channel choked with vegetation.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation of the SWF as a result of construction of carriageway, culvert and two outfalls, and part channel realignment.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and Inverness Airport.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, aircraft fuel and associated pollutants.	Medium			Large	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium			Large	
Groundwater		accignated.					
Change in groundwater quality due to construction of carriageway above an aquifer.	Vulnerability	WFD overall quality of aquifer classified as 'Good'.	High	All Options	Major	Large	Refer to mitigation recommended for SWF 02.



Table 2: Summary of impacts on Surface Water Features (SWFs) during operation and potential mitigation (Inverness to Gollanfield)

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
SWF 02: Scretan Burn							
Increase in fine sediment supply and flow from road	Fluvial geomorphology	WFD hydromorphology parameter status: not	Low	All Options	Moderate	Slight	Consult with a geomorphologist at design phase to incorporate the following:
drainage. Banks and bed near in-		classified. Channel choked with					Minimise the length of realignment, culvert and number of in-channel structures.
channel structures may be vulnerable to scour. Change to channel		vegetation. Extensive channel realignment.					Ensure in-channel structures are positioned correctly to minimise scour and alterations to natural flow.
morphology and potential flow patterns due to increase of artificial bed and bank		Todaig: III or it.					Maintain gradient of SWF to prevent siltation through culvert or scour around in-channel structures.
material and part channel realignment.							Where possible, increase sinuosity of channel and create natural bed and identify other possible improvements to SWF morphology and habitats.
Change in water quality as a result of new untreated routine runoff discharge from a single outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and urban/residential.	Medium	All Options	Major	Large	Provide suitable form of treatment for routine runoff prior to outfall. Ensure outfall and method of treatment are appropriately maintained.
	Dilution and removal of waste products	Potential additional pollutant sources: road drainage and diffuse rural and urban sources.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	
SWF 03: Cairnlaw Burn							
Change to runoff rates from road drainage. Culvert may cause restriction in flood flows.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and some properties.	Medium	All Options	Minor	Slight	Provide appropriate attenuation for road drainage. Ensure outfall and method of treatment are appropriately maintained.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: Moderate. Predominantly cobble bed, depositional features. Diversity of flow types. Morphological alterations for mixed farming.	Medium	All Options	Moderate	Moderate	Refer to mitigation recommended for SWF 02.
Change in water quality as a result of new untreated routine runoff discharge from outfall.	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture, some urban/residential.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: road drainage and diffuse rural and urban sources.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: Moderate (2008). Fisheries status: not designated.	Medium		Major	Large	
SWF 05: Tributary of Cairnla	w Burn (2)						·
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material (all Options) and part channel realignment (Options 1A, 1A (MV), 1B, 1B (MV)).	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Natural planform which does not appear to have modifications, which is unique to the local area. Good riparian zone coverage.	High	All Options	Moderate	Large	Refer to mitigation recommended for SWF 02.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality as a result of new untreated routine runoff discharge from a single outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: woodland/forestry and agriculture.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources and hotel.	Low		Major	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	
SWF 06: Kenneth's Black W	ell						
Change to runoff rates from road drainage. Culvert may cause restriction in flood flows. Loss of floodplain area.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and some properties.	Medium	All Options	Moderate	Moderate	Refer to mitigation for SWF 03. In addition, provide compensatory flood storage.
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Extensive channel realignment. Culverted in places. Fragmented riparian zone.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality as a result of new untreated routine runoff discharge from a single outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; urban/residential and forestry upstream.	Medium	1C, 1C (MV), 1D, 1D (MV)	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural and urban sources, road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	
SWF 07: Drain at Allanfearn		designated.					
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Artificial watercourse with no natural channel or bank features (overdeep and trapezoidal cross section). Channel choked with vegetation.	Low	1C, 1C (MV) 1D, 1D (MV)	Moderate	Slight	Refer to mitigation recommended for SWF 02.
SWF 08: Fiddler's Burn							
Change to runoff rates from road drainage. Culvert(s) may cause restriction in flood flows.	Hydrology and flood risk	Not identified on SEPA flood map.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified.	Low	1A, 1A (MV), 1B, 1B (MV)	Major	Moderate	Refer to mitigation recommended for SWF 02.
Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment.		Extensive channel realignment. Channel choked with vegetation.		1C, 1C (MV), 1D, 1D (MV)	Moderate	Slight	
Change in water quality as a result of new untreated routine runoff discharge from two outfalls.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; urban/residential and forestry upstream.	Medium	1A, 1A (MV) 1B, 1B (MV)	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, road drainage and urban/residential.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	
SWF 09: Tributary of Rough	Burn						·
Change to runoff rates from road drainage. Culvert(s) may cause restriction in flood flows.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and some properties.	Medium	All Options	Minor	Slight	Refer to mitigation recommended for SWF 03



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified.	Low	1A (MV), 1B (MV)	Major	Moderate	Refer to mitigation recommended for SWF 02.
Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material (all Options) and part channel realignment (Options 1A (MV), 1B (MV), 1C (MV) and 1D (MV)).		Lack of riparian zone. Choked with vegetation. Extensive channel realignment. Overdeepened.		1A, 1B, 1C, 1C (MV) 1D, 1D (MV)	Moderate	Slight	
Change in water quality as a result of new untreated routine runoff discharge from outfall(s).	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; forestry upstream.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.	High		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
SWF 11: Indirect tributary of	Rough Burn (2)						
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Lack of riparian zone. Choked with vegetation. Extensive channel realignment. Overdeepened.	Low	1C (MV), 1D (MV)	Moderate	Slight	Refer to mitigation recommended for SWF 02.
SWF 12: Rough Burn							
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: Good Bedrock and cobble bed. Natural planform along most of channel, including waterfalls, however modifications present downstream of A96 and a sluice in upper reaches. Choked with vegetation in places.	Medium	1A (MV), 1B (MV), 1C (MV), 1D (MV)	Moderate	Moderate	Refer to mitigation recommended for SWF 02.
SWF 13: Tributary of 'Unnan	ned Burn - Castle	Stuart to source (Tornagra	nin)' (1)				
Change to runoff rates from road drainage. Culvert may cause restriction in flood flows.	Hydrology and flood risk	Not identified on SEPA flood map.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Reprofiled banks. Choked with vegetation. Extensive channel realignment.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.
Change in water quality as a result of new untreated routine runoff discharge from a single outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; some woodland/forestry.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.	High		Major	Large	
SWF 14: Unnamed Burn - Ca	stle Stuart to sou	rce (Tornagrain)					
Change to runoff rates from road drainage. Culvert(s) may cause restriction in flood flows.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material (all Options) and part channel realignment (Options 1A, 1A (MV), 1C and 1C (MV).	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Varied riparian zone cover. Lack riparian zone in places. Extensive channel realignment. Reprofiled banks.	Low	All Options	Major	Moderate	Refer to mitigation recommended for SWF 02.
SWF 15: Tributary of 'Unnam	ned Burn - Castle	Stuart to source (Tornagra	in)' (2)				
Change to runoff rates from road drainage. Culvert may cause restriction in flood flows.	Hydrology and flood risk	Not identified on SEPA flood map.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material (all Options) and part channel realignment (Options 1A, 1A (MV), 1C and 1C (MV)).	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Extensive channel realignment. Reprofiled banks. Overdeep. Channel choked with vegetation.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.
Change in water quality as a result of new untreated routine runoff discharge from a single outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; some woodland/forestry.	Medium	1B, 1B (MV), 1D, 1D (MV)	Major	Large	Refer to mitigation recommended for SWF 02.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Dilution and removal of waste products	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources.	Low		Major	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.	High		Major	Large	
SWF 16: Tributary of Arders	ier Burn						
Change to runoff rates from road drainage. Culvert may cause restriction in flood flows.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and Inverness airport.	High	All Options	Moderate	Large	Refer to mitigation recommended for SWF 03. Provide compensatory flood storage.
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status for 'Mid Coul to source': Good. WFD hydromorphology parameter status for 'sea to Mid Coul' (Heavily Modified Water Body): Bad. Extensive channel realignment. Culverting for air transport in Heavily Modified Water Body.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality as a result of new untreated routine runoff discharge from a single outfall.	Water quality/supply	WFD overall chemical status (Mid Coul to source): Pass (2008). WFD overall chemical status (sea to Mid Coul): Pass (2008). Surrounding land-use: agriculture; some forestry towards the top of the catchment; Inverness Airport in the lower catchment. Potential for historic contaminants from disused railway.	Medium	AII Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, aircraft fuel and associated pollutants.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status (Mid Coul to source): Moderate (2008). WFD overall ecological status (sea to Mid Coul): Moderate (2008). Fisheries status: not designated.	Medium		Major	Large	
SWF 18: Indirect tributary dr	ains of Ardersier	Burn					
Change to runoff rates from road drainage. Culverts may cause restriction in flood flows.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Lack of riparian zone. Hard bank reinforcement in places. Extensive channel realignment. Channel choked with vegetation.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02.
Change in water quality as a result of new untreated routine runoff discharge from two outfalls.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and Inverness Airport.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources, aircraft fuel and associated pollutants.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	



Table 3: Summary of impacts on Surface Water Features (SWFs) during construction and potential mitigation (Nairn Bypass)

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
SWF 19: Balnagowan Burn							
Restriction in-channel during construction of culvert and in-channel works. Increased runoff rates during works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction impacts).
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during inchannel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD hydromorphology parameter status: Bad. Lack of riparian zone. Extensive channel realignment. Channel choked with vegetation.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
as a result of construction of carriageway, culvert and outfall.	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: Bad (2008). Fisheries status: not designated.	Low		Major	Moderate	
SWF 20: Tributary of Balnag	owan Burn						
Restriction in-channel during construction of culvert(s) and in-channel works. Increased runoff rates during works.	Hydrology and flood risk	Not identified on SEPA flood map.	Low	2A, 2B, 2C, 2D	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction impacts).

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during inchannel works to construct culvert(s). Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Extensive channel realignment. Lack of riparian zone in places. Channel choked with vegetation.	Low	2A, 2B, 2C, 2D	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway, culvert and	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; forestry upstream.	Medium	2A, 2B, 2C, 2D	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
outfall, and part channel realignment.	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Bad' equivalent assumed. Fisheries status: not designated.	Low		Major	Moderate	
SWF 21: Field ditch tributario	es of Balnagowan	Burn					
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: woodland/forestry and agriculture.	Medium	2A, 2B, 2C, 2D	Moderate	Moderate	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources.	Medium		Moderate	Moderate	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Biodiversity	WFD overall ecological status: not classified. 'Bad' equivalent assumed.	Low		Moderate	Slight	
		Fisheries status: not designated.					
SWF 22: Alton Burn							
Crossing of floodplain by large culvert or embankment	Hydrology and flood risk	Flood risk to numerous properties in Nairn and	High	2A, 2B, 2C, 2D	Major	Very Large	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction
resulting in an increase in flood risk.		agricultural land. SEPA flood map indicates		2E, 2F, N 2G, 2H,	Moderate	Large	impacts).
Increase in runoff rates during construction.		active floodplain with the potential to affect properties.		21			
Temporary increase in fine sediment from road	Fluvial geomorphology	WFD hydromorphology parameter status: not	Low	2A, 2B, 2C, 2D	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction
widening, earthworks and vegetation clearance. Diversion of flow during inchannel works to construct culvert(s). Change to channel morphology due to increase of artificial bed and bank material (all Options) and part channel realignment (s) (all Options except Option 2D which has no part channel realignment).		classified. Lack of riparian zone. Extensive channel realignment. Channel choked with vegetation.		2E, 2F, 2G, 2H, 2I	Major	Moderate	impacts).

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation las a result of the following: All Options: construction of carriageway and culvert(s). All Options (except Option	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture, rural grassland; some urban/residential downstream.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
2D): part channel realignment(s). Options 2E, 2F, 2G, 2H and 2I: construction of outfall.	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Bad' equivalent assumed. Fisheries status: not designated.	Low		Major	Moderate	
SWF 23: River Nairn							
Crossing of River Nairn by bridge restriction of floodplain during construction.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and properties.	High	All Options	Moderate	Large	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction impacts). Also ensure that site footprint is minimised during construction.
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance during construction of carriageway and bridge. Change to localised channel morphology due to increase in artificial bank material.	Fluvial geomorphology	WFD hydromorphology parameter status for River Nairn — Moray Firth to River Farnack confluence: Good. Natural planform with few modifications. Dynamic geomorphology displaying braiding which is unique on national scale. Variety of flow types and in-channel habitats. Good riparian zone coverage.	Very High	All Options	Minor	Moderate	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway, bridge and outfall.	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture; some woodland/forestry; urban/residential downstream (Nairn).	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: Good (2008) Fisheries status: Salmonid waters under Freshwater Fish Directive (2006/44/EC).	Very High		Major	Very Large	
SWF 24: Tributary of the Riv	er Nairn						
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during inchannel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Extensive channel realignment. Lack of riparian zone in places. Modifications such as embankment and culverts present. Channel choked with vegetation.	Low	2A, 2B, 2C, 2E, 2F, 2G.	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the following: All Options: construction of outfall(s).	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; woodland/forestry upstream.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
Options 2A, 2B, 2C, 2E, 2F and 2G: construction of carriageway and culvert, and part channel realignment.	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. Fisheries status: Salmonid waters (associated water body of the River Nairn) under the Freshwater Fish Directive (2006/44/EC).	Very High		Major	Very Large	
SWF 25: Indirect tributary of	the River Nairn						
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Change to channel morphology due to part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Natural planform however watercourse very short.	Medium	2H	Moderate	Moderate	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts), although text on in-channel structures does not apply as none are proposed here.
Change in water quality due to potential siltation,	Water quality/supply	WFD overall chemical status: not classified.	Medium	2H	Major	Large	Option 2H: refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction
pollution runoff, spillages, erosion and sedimentation as a result of the following: Option 2D, 2H and 2I: construction of carriageway.		'Pass' assumed. Surrounding land-use: agriculture; woodland/forestry upstream.		2D, 2l	Moderate	Moderate	impacts). Option 2D and 2I: refer to mitigation recommended for SWF 02. However, no requirement to apply for CAR licences under requirements of the CAR Regulations.
Option 2H: additional part channel realignment.	Dilution and	Relatively small	Low	2H	Major	Moderate	
Chaine reallylinetic	removal of waste products	catchment. Potential additional pollutant sources: diffuse rural sources.		2D, 2I	Moderate	Slight	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Biodiversity	WFD overall ecological	High	2H	Major	Large	
		status: not classified. 'Good' equivalent assumed. Fisheries status: not designated.		2D, 2l	Moderate	Moderate	
SWF 26: Auldearn Burn							
Restriction in-channel during construction of culvert(s) and other in-channel works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and residential	High	2A, 2B, 2E, 2F, 2H	Moderate	Large	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction Impacts).
Loss of floodplain area and increased runoff rates during works.		properties		2C, 2D, 2G, 2I	Minor	Moderate	
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance.	Fluvial geomorphology	WFD hydromorphology parameter status: Moderate. Varied morphological	Medium	2A, 2C, 2D, 2E, 2G, 2H, 2I	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
Diversion of flow during in- channel works to construct culvert(s).		features and flow. Lack of riparian zone in places.		2B, 2F	Moderate Moderate	Moderate	
Change to channel morphology due to increase of artificial bed and bank material and part channel realignment(s).		Extensive channel realignment. Channel choked with vegetation in places.					
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriagoway, subpot(s), and	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture; some grassland/woodland.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
carriageway, culvert(s) and outfall(s), and part channel realignment(s).	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Biodiversity	WFD overall ecological status: Moderate (2008). Fisheries status: Salmonid waters (associated water body of the River Nairn) under the Freshwater Fish Directive (2006/44/EC).	Very High		Major	Very Large	
SWF 27: Drains within Bogn	afuaran Wood						
Increase in runoff rates during construction.	Hydrology and flood risk	Not identified on SEPA flood map. Small watercourse.	Low	2C, 2D, 2G, 2l.	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction impacts).
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and woodland/forestry.	Medium	2C, 2D, 2G, 2I	Moderate	Moderate	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts). However, no requirement to apply for CAR licences under requirements of the CAR Regulations.
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Moderate	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Moderate	Moderate	
SWF 28: Tributary of Auldea	rn Burn (1)				L		
Restriction in-channel during construction of culverts and other in-channel works. Increase in runoff rates during construction.	Hydrology and flood risk	Not identified on SEPA flood map. Small watercourse.	Low	2C, 2G	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction impacts).



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during inchannel works to construct culverts. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified: Some channel realignment and culverted.	Low	2C, 2G	Major	Moderate	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the:	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture.	Medium	2C, 2G	Major	Large	Refer to mitigation recommended for SWF 02(Inverness to Gollanfield: Construction impacts).
construction of carriageway and two culverts, and part channel realignment.	Dilution and removal of waste products	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources.	Low	2C, 2G	Major	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium	2C, 2G	Major	Large	
SWF 30: Tributary of Auldea	rn Burn (3)						
Restriction in-channel during construction of culvert and other in-channel works. Increase in runoff rates during construction.	Hydrology and flood risk	Not identified on SEPA flood map. Small watercourse.	Low	2D, 2I	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction impacts).



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during inchannel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD morphology parameter status: not classified. Artificial watercourse with straight planform. Overdeep channel.	Low	2D, 2I	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture.	Medium	2D, 2l	Major	Large	Refer to mitigation recommended for SWF 02(Inverness to Gollanfield: Construction impacts).
carriageway and culvert, and part channel realignment.	Dilution and removal of waste products	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources.	Low		Major	Moderate	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	
SWF 31: Auldearn Burn - Bri	ghtmony Tributar	у					
Restriction in-channel during construction of culverts and other in-channel works. Loss of floodplain area and increased runoff rates during works.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and some downstream properties.	Medium	2B, 2C, 2D, 2F, 2G, 2I	Moderate	Moderate	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Construction impacts).



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during in-	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Comprised mainly of artificial watercourses. Lack of riparian zone. Channel choked with vegetation. Reprofiled banks in places.	Low	2C, 2D, 2G, 2I	Major	Moderate	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
channel works to construct culverts. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment(s).				2B, 2F	Moderate	Slight	
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of construction of carriageway, culvert(s) and outfall(s), and part channel	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and woodland/forestry.	Medium	2B, 2C, 2D, 2F, 2G, 2I	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
realignment(s).	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: not designated.	Medium		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
SWF 35: Drain, tributary of A	uldearn Burn - Br	ightmony Tributary					
Temporary increase in fine sediment from road widening, earthworks and vegetation clearance. Diversion of flow during inchannel works to construct culvert. Change to channel morphology due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD morphology parameter status: not classified. Extensive channel realignment. Channel choked with vegetation in places.	Low	2B, 2C, 2D, 2F, 2G, 2I	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
Change in water quality due to potential siltation, pollution runoff, spillages, erosion and sedimentation as a result of the following: Options 2B and 2F:	Water quality/ supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture and woodland/forestry.	Medium	2B, 2C, 2D, 2F, 2G, 2I	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).
construction of carriageway and part channel realignment. Options 2C, 2D, 2G and 2I:	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources.	Medium	2B, 2C, 2D, 2F, 2G, 2I	Major	Large	
construction of carriageway and culvert and part channel realignment.	Biodiversity	Relatively small catchment. Potential additional pollutant sources: diffuse rural sources.	Low	2B, 2C, 2D, 2F, 2G, 2I	Major	Moderate	
Groundwater							
Change in groundwater quality due to construction of carriageway above an aquifer.	Vulnerability	WFD overall quality of aquifer classified as 'Good'.	High	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Construction impacts).



Table 4: Summary of impacts on Surface Water Features (SWFs) during operation and potential mitigation (Nairn Bypass)

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
SWF 19: Balnagowan Burn							
Change to runoff rates from road drainage. Culvert may cause restriction in flood flows.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Operational impacts).
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD hydromorphology parameter status: Bad. Lack of riparian zone. Extensive channel realignment. Channel choked with vegetation.	Low	All Options	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).
Change in water quality due to operation of single outfall.	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: Bad (2008). Fisheries status: not designated.	Low		Major	Moderate	
SWF 20:Tributary of Balnago	owan Burn						
Change to runoff rates from road drainage. Culvert may cause restriction in flood flows.	Hydrology and flood risk	Not identified on SEPA flood map.	Low	2A, 2B, 2C, 2D	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Operational impacts).

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Extensive channel realignment. Lack of riparian zone in places. Channel choked with vegetation.	Low	2A, 2B, 2C, 2D	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts). Also consider the design of channel realignment with the aim of minimising the length of the part channel realignment.
Change in water quality due to operation of single outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture, forestry upstream.	Medium	2A, 2B, 2C, 2D	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Bad' equivalent assumed. Fisheries status: not designated.	Low		Major	Moderate	
SWF 22: Alton Burn				•			
Loss of floodplain and restriction of flood flows through embankments and	Hydrology and flood risk	Flood risk to numerous properties in Nairn and agricultural land. SEPA	High	2A, 2B, 2C, 2D	Major	Very Large	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Operational impacts). Consider flood culverts or permeable
culvert(s). Change to runoff rates from road drainage.		flood map indicates active floodplain with the potential to affect properties.		2E, 2F, 2G, 2H, 2I	Moderate	Large	embankments.



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road	Fluvial geomorphology	WFD hydromorphology parameter status: not	Low	2A, 2B, 2C, 2D	Moderate	Slight	Refer to mitigation recommended for SWF 20.
drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part realignment (all Options, except Option 2D which does not have part channel realignment).		classified. Lack of riparian zone. Extensive channel realignment. Channel choked with vegetation.		2E, 2F, 2G, 2H, 2I	Major	Moderate	
Change in water quality due to operation of single outfall.	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture, rural grassland; some urban/residential downstream.	Medium	2E, 2F, 2G, 2H, 2I	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Bad' equivalent assumed. Fisheries status: not designated.	Low		Major	Moderate	
SWF 23: River Nairn							
Crossing of River Nairn via bridge. Restriction in floodplain through embankment and bridge piers.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and properties.	High	All Options	Minor	Moderate	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Operational impacts).



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Change in water quality due to operation of single outfall.	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture; some woodland/forestry; urban/residential downstream (Nairn).	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: Good (2008) Fisheries status: Salmonid waters under Freshwater Fish Directive (2006/44/EC).	Very High		Major	Very Large	
SWF 24: Tributary of the Riv	er Nairn						
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Extensive channel realignment. Lack of riparian zone in places. Modifications such as embankment and culverts present. Channel choked with vegetation.	Low	2A, 2B, 2C, 2E, 2F, 2G	Moderate	Slight	Refer to mitigation recommended for SWF 20.
Change in water quality due to operation of outfall(s).	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: agriculture; woodland/forestry upstream.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. Fisheries status: Salmonid waters (associated water body of the River Nairn) under the Freshwater Fish Directive (2006/44/EC).	Very High		Major	Very Large	
SWF 25: Indirect tributary of	the River Nairn						
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment(s).	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Natural planform however watercourse very short.	Medium	2H	Moderate	Moderate	Refer to mitigation recommended for SWF 20.
SWF 26: Auldearn Burn	T		_	1			
Culvert(s) may cause restriction in flood flows. Loss of floodplain area and	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and residential	High	2A, 2B, 2E, 2F, 2H	Moderate	Large	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Operational impacts).
increased runoff rates from site drainage.		properties.		2C, 2D, 2G, 2I	Minor	Moderate	

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage. Banks and bed near in- channel structures may be vulnerable to scour.	Fluvial geomorphology	WFD hydromorphology parameter status: Moderate. Varied morphological features and flow. Lack of riparian zone in	Medium	2A, 2C, 2D, 2E, 2G, 2H, 2I	Major	Large	Refer to mitigation recommended for SWF 20.
Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment(s).		places. Extensive channel realignment. Channel choked with vegetation in places.		2B, 2F	Moderate	Moderate	
Change in water quality due to operation of outfall(s).	Water quality/supply	WFD overall chemical status: Pass (2008). Surrounding land-use: agriculture; some grassland/woodland.	Medium	All Options	Major	Large	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).
	Dilution and removal of waste products	Potential additional pollutant sources: diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: Moderate (2008). Fisheries status: Salmonid waters (associated water body of the River Nairn) under the Freshwater Fish Directive (2006/44/EC).	Very High		Major	Very Large	
SWF 28: Tributary of Auldea	rn Burn (1)						
Culvert(s) may cause restriction in flood flows.	Hydrology and flood risk	Not identified on SEPA flood map. Small watercourse.	Low	2C, 2G	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Operational impacts).



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified: Some channel realignment. Culverted.	Low	2C, 2G	Major	Moderate	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).
SWF 30: Tributary of Auldea	rn Burn (3)						
Culvert may cause restriction in flood flows. Change to runoff rates from road drainage.	Hydrology and flood risk	Not identified on SEPA flood map. Small watercourse.	Low	2D, 2I	Moderate	Slight	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Operational impacts).
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD morphology parameter status: not classified. Artificial watercourse with straight planform. Overdeep channel.	Low	2D, 2I	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Inverness to Gollanfield: Operational impacts).
SWF 31: Auldearn Burn - Bri	ghtmony Tributar	у					
Culverts may cause restriction in flood flows. Loss of floodplain area and change to runoff rates from road drainage.	Hydrology and flood risk	SEPA map indicates flood risk to agricultural land and some downstream properties.	Medium	2B, 2C, 2D, 2F, 2G, 2I	Moderate	Moderate	Refer to mitigation recommended for SWF 03 (Inverness to Gollanfield: Operational impacts).

Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour.	Fluvial geomorphology	WFD hydromorphology parameter status: not classified. Comprised mainly of artificial watercourses. Lack of riparian zone.	Low	2C, 2D, 2G, 2I	Major	Moderate	Refer to mitigation recommended for SWF 20.
Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material and part channel realignment(s).		Channel choked with vegetation. Reprofiled banks in places.		2B, 2F	Moderate	Slight	
Change in water quality due to operation of outfall(s).	Water quality/supply	WFD overall chemical status: not classified. 'Pass' assumed. Surrounding land-use: Agriculture and woodland / forestry.	Medium	2B, 2C, 2D, 2F, 2G, 2I	Major	Large	Refer to mitigation recommended for SWF 02 (Operational impacts).
	Dilution and removal of waste products	Potential additional pollutant sources: Diffuse rural sources and road drainage.	Medium		Major	Large	
	Biodiversity	WFD overall ecological status: not classified. 'Moderate' equivalent assumed. Fisheries status: Not designated.	Medium		Major	Large	



Description of Potential Impact	Attribute	Indicator of Quality	Importance/ Sensitivity	Route Option	Magnitude	Significance	Potential Mitigation				
SWF 35: Drain, tributary of A	SWF 35: Drain, tributary of Auldearn Burn - Brightmony Tributary										
Increase in fine sediment supply and flow from road drainage. Banks and bed near inchannel structures may be vulnerable to scour. Change to channel morphology and potential flow patterns due to increase of artificial bed and bank material.	Fluvial geomorphology	WFD morphology parameter status: not classified. Extensive channel realignment. Channel choked with vegetation in places.	Low	2B, 2C, 2D, 2F, 2G, 2I	Moderate	Slight	Refer to mitigation recommended for SWF 02 (Operational impacts).				

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Appendix A14.1: Desk Based Survey

1. Introduction

Purpose of this Report

This report presents the results of a cultural heritage desk based survey undertaken to inform the cultural heritage chapter of the A96 Dualling Inverness to Nairn (including Nairn Bypass) DMRB Stage 2 Assessment report.

Background to the Scheme

Jacobs UK Ltd (Jacobs) has been commissioned by Transport Scotland to undertake a Design Manual for Roads and Bridges (DMRB) Stage 2 Assessment of proposed improvements to the A96 from Inverness to the east of Auldearn (hereafter, referred to as A96 Dualling Inverness to Nairn (including Nairn Bypass)). A number of online and offline route options, new junctions and junction improvements are being considered. For the purposes of this assessment, the scheme is divided into two sections Inverness to Gollanfield and the Nairn Bypass.

In the Inverness to Gollanfield section there are eight route options (Option 1A, 1A (MV), 1B, 1B (MV), 1C, 1C (MV), 1D and 1D (MV)) while in the Nairn Bypass section there are nine route options (Option 2A - 2I).

Aims and Objectives of the Desk Based Study

Under the guidance provided by DMRB Volume 11, Section 3, Part 2, Cultural Heritage (HA208/07) (The Highways Agency et al., 2007), cultural heritage has been considered under the following three sub-topics:

- Archaeological Remains the material remains of human activity from the earliest periods of human evolution to the present. These may be buried traces of human activities, sites visible above ground, or moveable artefacts. Archaeological Remains can encompass the remains of buildings, structures, earthworks and landscapes, human, animal or plant remains, or other organic material produced by or affected by human activities, and their settings (HA208/07, Annex 5, para 5.1.1);
- Historic Buildings 'architectural or designed or other structures with a significant historical value'. These may include structures that have no aesthetic appeal or structures not usually thought of as 'buildings', such as milestones or bridges (HA208/07, para 2.5); and
- Historic Landscape landscape is an area, as perceived by people, whose character is the result
 of the action and interaction of natural and/or human factors. (HA208/07) Annex 7, para 7.1.2).
 The evidence of past human activities is a significant part of the Historic Landscape and may
 derive both from archaeological remains and historic buildings within it.

A cultural heritage asset is an individual archaeological site or building, a monument or group of monuments, and historic building or group of building or an historic landscape which together with its setting (where relevant), can be considered as a unit for assessment.

The main aim of the desk based survey was to identify known cultural heritage assets and assess their value and the potential of the area for unknown archaeological remains.

2. Policy, Legislation and Guidance

In addition to the guidance provide by HA208/07, other policy documents and published guidance taken into account in the preparation of this desk based study included:

- Scottish Planning Policy (Scottish Government, 2014);
- PAN 2/2011: Planning and Archaeology (Scottish Government, 2011);
- Scottish Historic Environment Policy (SHEP) (Historic Scotland, 2011);
- Managing Change in the Historic Environment: Setting (Historic Scotland, 2010); and



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• Standard and Guidance for historic environment desk-based assessment (Institute for Archaeologists, 2012).

Legislation

Scheduled Monuments are by definition of national importance and are protected by law under the Ancient Monuments and Archaeological Areas Act 1979 (as amended by the Historic Environment (Amendment) (Scotland) Act 2011). It is a criminal offence to damage a Scheduled Monument, and consent (known as Scheduled Monument Consent) must be obtained from the Scottish Ministers before any works affecting a Scheduled Monument may take place.

Listed Buildings are protected under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended by the Historic Environment (Amendment) (Scotland) Act 2011), and are recognised to be of special architectural or historic interest. Under the Act, planning authorities are instructed to have special regard to the desirability of preserving a Listed Building, its setting, or any features of special architectural or historic interest which it possesses (Planning (Listed Buildings and Conservation Areas) Act 1997, Section 66(1)). Designation as a Listed Building confers additional controls over demolition and alteration through the requirement for Listed Building Consent to be gained before undertaking alteration or demolition.

The Town and Country Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended by the Historic Environment (Amendment) (Scotland) Act 2011) imposes a duty on local planning authorities to designate and protect areas of special architectural or historic interest the appearance or character of which it is desirable to preserve or enhance as Conservation Areas. Designation provides control over demolition of unlisted buildings through the requirement for Conservation Area Consent, limit permitted development rights, and provides the basis for planning policies to further preserve and enhance the area's special character.

Section 11 of the Historic Environment (Amendment) (Scotland) Act 2011 inserted new sections 32A and 32B in the Ancient Monuments and Archaeological Areas Act 1979. These created a new statutory duty for Scottish Ministers to compile and maintain an inventory of gardens and designed landscapes and an inventory of battlefields which are in their view of national importance.

National Planning Policy and Guidance

National planning policy on a variety of themes is contained within Scottish Planning Policy (SPP) (Scottish Government, 2014) (hereafter referred to as SPP). In terms of the impact of proposals on cultural heritage, SPP is focussed on:

- promoting the care and protection of the designated and non-designated historic environment; and
- enabling positive change in the historic environment which is informed by a clear understanding of the importance of the heritage assets affected and ensure their future use.

SPP highlights that the historic environment is a key cultural and economic asset and should be seen as integral to creating successful places. It also acknowledges that the historic environment can accommodate change which is informed by a clear understanding of the importance of the heritage assets affected. However, any change should be sensitively managed to avoid or minimise adverse impacts. SPP contains a number of policies relating to various aspects of the historic environment. Those relating to Listed buildings, Scheduled Monuments and undesignated assets include:

- Listed buildings: SPP requires planning authorities to have special regard to the desirability of preserving Listed Buildings and their setting, or any features of special architectural or historic interest which it possesses. Accordingly, there is a presumption against works that will adversely affect a Listed Building or its setting.
- Schedule Monuments: SPP states that development which will have adverse effects on a Scheduled Monument, or the integrity of its setting, would not be permitted unless there are exceptional circumstances.
- Undesignated assets: SPP seeks to protect and preserve as far as possible undesignated historic assets including historic landscapes, routes such as drove roads and battlefields which do not have statutory protection.



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In relation to preserving the above cultural heritage assets, SPP states that these sites should be protected and preserved in-situ where feasible. Where it is not possible to preserve archaeological assets in situ appropriate excavation, recording, analysis, publication and archiving would be required to be undertaken before or during development.

SHEP (Historic Scotland, 2011) and the Managing Change in the Historic Environment Guidance Note series (Historic Scotland, various publication dates), set out Scottish Ministers' policies for the historic environment and provide a framework that informs the work of a range of organisations that have a role and interest in managing the historic environment. SHEP also states that the effect of proposed development on Inventory battlefields is a material consideration in the determination of a planning application (para 3.82) and that other public bodies should ensure that nationally important battlefields are given consideration within relevant strategies, plans and programmes (para 3.87).

Circulars and Planning Advice Notes (PANs) published by the Scottish Government provide further guidance on specific topics. Of relevance to cultural heritage is PAN 2/2011: Planning and Archaeology (Scottish Government, 2011).

Regional and Local Planning Policy and Guidance

The Highland-wide Local Development Plan (HwLDP) (The Highland Council, 2012) (hereafter referred to as HwLDP) is the land-use plan which will guide the development and investment in the region over the next 20 years. The relevant policies in relation to cultural heritage assets include:

- Policy 28: Sustainable Design; and
- Policy 57: Natural, Built and Cultural Heritage.

The HwLDP has a number of supporting supplementary guidance notes, and those of relevance to cultural heritage assets include:

- Sustainable Design Guide: Supplementary Guidance (adopted January 2013) (The Highland Council, 2013c); and
- Highland Historic Environment Strategy and Supplementary Guidance (adopted January 2013) (The Highland Council, 2013ab).

Policy 28 (Sustainable Design) of the HwLDP requires development to be designed with sustainability in mind. As such, developments will be assessed on a number of criteria including the extent to which they impact on designated areas of cultural heritage assets. Developments which are judged to be significantly detrimental in terms of these criteria will not accord with the HwLDP, except where no reasonable alternative exists, if there is a demonstrable overriding strategic benefit or if satisfactory mitigation is incorporated.

Policy 57 (Natural, Built and Cultural Heritage) of the HwLDP allows development that has the potential to impact on features of local/regional importance if it can be demonstrated that it will not have an unacceptable impact on the natural environment, amenity and heritage resource. For features of national importance, development will only be permitted if they can be shown not to compromise the natural environment, amenity and heritage resource. Where there will be significant adverse effects, these must be clearly outweighed by social or economic benefits of national importance.

The Highland Historic Environment Strategy Supplementary Guidance (The Highland Council, 2013) provides further information in regard to undesignated archaeological sites (e.g. those of local/regional importance) and states that where possible, archaeological sites and their settings should be understood and protected from harmful development. Where there is potential for an asset or its setting to be lost, the guidance states that consideration should be given to its significance and to the means available to preserve, record and interpret it in line with national policy.

3. Methodology

In line with the guidance provided by Annex 5, Section 5.4 of HA208/07 study areas were defined 200m from the outermost edge of each of the route options. These were then combined into one study area. For this study area information on cultural heritage assets was gathered from the following sources of information:



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- Historic Scotland for information on designated sites comprising World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas, sites included on the Inventory of Gardens and Designed Landscapes in Scotland, and the Inventory of Historic Battlefields.
- The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS).
- Historic Landscape Assessment undertaken by RCAHMS.
- The Highland Council's Historic Environment Record (HER).
- Aerial photographs held in the National Collection of Aerial Photography (NCAP) maintained by RCAHMS.
- Published documentary and photographic sources held in the search room of the RCAHMS.
- Historic mapping held by the National Library of Scotland.
- Published sources of The Society of Antiquaries of Scotland, available online at: http://archaeologydataservice.ac.uk/archives/view/psas/index.cfm?CFID=2186613&CFTOKEN=62
 5133300;
- Documentary and cartographic sources held by the National Archives of Scotland.
- Discovery and Excavation in Scotland data available online through the archaeology data service at: http://archaeologydataservice.ac.uk/archives/view/des/

Assessment of Sensitivity

For all three cultural heritage sub-topics, an assessment of the value of each asset was undertaken on a six-point scale of Very High, High, Medium, Low, Negligible and Unknown using professional judgement guided by the criteria presented in Tables 1, 2 and 3.

Table 1: Criteria to Assess Sensitivity of Archaeological Remains

Sensitivity	Criteria
Very High	World Heritage Sites (including nominated sites).
	Assets of acknowledged international importance.
	Assets that can contribute significantly to acknowledged international research objectives.
High	Scheduled Monuments (including proposed sites).
	Undesignated assets of schedulable quality and importance. Assets that can contribute significantly to acknowledged national research objectives.
Medium	Designated or undesignated assets that contribute to regional research objectives.
Low	Designated and undesignated assets of local importance.
	Assets compromised by poor preservation and/or poor survival of contextual associations.
	Assets of limited value, but with potential to contribute to local research objectives.
Negligible	Assets with very little or no surviving archaeological interest.
Unknown	The sensitivity of the site has not been ascertained.

Table 2: Criteria to Assess Sensitivity of Historic Buildings

Sensitivity	Criteria
Very High	Structures inscribed as of universal importance as World Heritage Sites. Other buildings of recognised international importance.
High	Scheduled Monuments with standing remains.
	Category A Listed Buildings. Other listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade.
	Conservation Areas containing very important buildings.
	Undesignated structures of clear national importance.
Medium	Category B Listed Buildings. Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations.
	Conservation Areas containing buildings that contributes significantly to its historic character.
	Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).



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Sensitivity	Criteria
Low	Category C Listed buildings. Historic (unlisted) buildings of modest quality in their fabric or historical association. Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).
Negligible	Buildings of no architectural or historical note; buildings of an intrusive character.
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance.

Table 3: Criteria to Assess Sensitivity of Historic Landscape

Sensitivity	Criteria
Very High	World Heritage Sites inscribed for their historic landscape qualities. Historic landscapes of international value, whether designated or not. Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).
High	Designated historic landscapes of outstanding interest. Undesignated landscapes of outstanding interest. Undesignated landscapes of high quality and importance, and of demonstrable national value. Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).
Medium	Designated special historic landscapes. Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value. Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	Robust undesignated historic landscapes. Historic landscapes with importance to local interest groups. Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	Landscapes with little or no significant historical interest.

4. Cultural Heritage Background

Geology

Solid Geology

The study area between Inverness and Gollanfield is underlain by Middle Devonian strata of the Inverness Sandstone Group, predominantly comprising the Hillhead Sandstone Formation, with localised areas of the Inshes Flagstone Formation. These strata are generally recorded as comprising flaggy sandstones, with siltstones, mudstones and thin limestones in the latter formation.

In the study area for the Nairn Bypass section, the geological sheets (BGS Sheet 84E, Nairn (Drift and Solid) Scale 1:50,000, BGS Sheet NH85NW, Cawdor (Drift and Solid) Scale 1:10,000 and BGS Sheet NH85NE, Nairn (Drift and Solid) Scale 1:10,000) show the solid geology to comprise undifferentiated formations of the Inverness Sandstone Group comprising sandstone, siltstone and mudstone and the Nairn Sandstone Formation comprising friable brown and yellow sandstone. The latter formation generally lies beneath the existing A96 Aberdeen – Inverness Trunk Road (hereafter referred to as existing A96), Nairn and its immediate southern environs, while the former lies to the south of the town.

Drift Geology

The superficial deposits recorded to underlie the route include made ground, peat, alluvium, a variety of Flandrian and Late Devensian Raised Marine deposits, and Late Devensian glacial deposits. These are detailed below.

• Made ground - expected to be locally derived and limited to areas of existing road or railway embankment or infill to historic quarries.



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- Peat the most significant deposit of peat is located to the north of the Muir of the Clans, southwest of Nairn, though limited deposits are also present elsewhere. The thickness of peat is variable although a depth of 4.00m has been proven.
- Alluvial deposits recorded in the vicinity of the study area comprising of two distinct types; fluvial
 deposits underlying river and burn floodplains; and lacustrine deposits found within enclosed
 basins.
- Raised marine deposits generally located within the western part of the study area and include undifferentiated, shoreface, beach deposits, and tidal flat deposits.
- Glacial deposits recorded in the vicinity of the study area and include glaciofluvial sheet and ice contact deposits, glaciomarine deposits, till and hummocky glacial deposits.
- Glaciofluvial ice contact deposits extensive areas are present throughout the study area and are likely to comprise undulating spreads and mounds of sands and gravels with some beds of silt and clav.
- Glaciomarine deposits of the Ardersier Silt Deposits (silt, fine grained sand and pebbly clay) and Alturlie Gravels Formation (blown sand, beach gravel and silt in addition to sand and gravel) located predominantly in the western part of the study area.

Prehistoric Period (8000 BC to AD 400)

The earliest human activity in the area dates to the Mesolithic period (c.8000 BC to 4000 BC), with groups of hunter-gatherers attracted by the resources provided by the River Ness and the Moray Firth. Within the city of Inverness, excavations at 13 -24 Castle Street (NGR: NH 6673 4518, NMRS No: NH 64 NE 104) revealed layers of Mesolithic activity. A total of 137 retouched flints and 4,700 chips and flakes were recovered. Associated charcoal was radiocarbon dated to 7275 ± 235 bc, (Wordsworth, 1985, page 98). A shell midden at Muirtown near the Caledonian Canal (NGR: NH 652 457, NMRS No: NH 64 NH 38) produced a radiocarbon date of 5635 ± 65 bc (Wordsworth, 1985, page 89). Another Mesolithic shell midden with associated microlithic industry has been excavated at Milton of Culloden (NMRS No: NH 74 NW 81). This site was not radiocarbon dated as the material within the shell midden was not suitable for dating purposes.

The Neolithic (c.4000 BC to 2500 BC) and Bronze Age (c.2500 BC to 800 BC) periods in this area are characterised by religious monuments, such as the remains of a stone circle at Upper Cullernie (Asset 86, NMRS No: NH 74 NW 77) or the row of 30 upright stones at Milton (Asset 46, NMRS No: NH 74 NW 11). Communal funerary monuments are also found within the study area like the chambered cairn at Culloden (Asset 64, NMRS No: NH 74 NW 5).

Approximately 4km to the south of the study area is an outstanding complex of well-preserved Bronze Age burial cairns known as the Clava Cairns (SM 90074, NGR: NH 7571 4443 (centred)). The cairns were erected during the Early Bronze Age (2500 BC to 1500BC) and comprise passage graves, ring cairns, a kerb cairn and standing stones. The complex comprises one of the finest examples of a prehistoric cemetery in Scotland. Excavations have revealed that there were two phases of activity, the first of which saw the construction of a row of large cairns, three of which survive. A thousand years later the site was re-used and new burials were added to some of the existing cairns and three smaller additional cairns were built, including a kerb cairn which bears cup and ring marks.

Individual burials in cists have also been discovered and excavated within the general area. During construction work at Holm Mains Farm, to the south of Inverness, two short cist burials were uncovered (NGR: NH 656 414). The larger cist contained an individual adult male, in a crouched position with two barbed-and-tanged arrowheads, other lithic tools and a fragment of pottery. The second cist also contained an adult male with a single beaker.

Stone artefacts dating to these periods include a large kite-shaped flint arrowhead, found at Allanfearn (Asset 81, NMRS No: NH 74 NW 79) and a leaf-shaped arrowhead and stone axe head found in association with a nearby cairn at Balloch (Asset 75, NMRS No: NH 74 NW 78). It is thought that as well as being used as utilitarian objects in the clearance of woodland stone axes and in particular polished examples were used for ceremonial purposes. One such axe was found at Clava (NGR: NH 7600 4460).



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Around the northern end of Loch Duntelchaig (NGR: NH 3300 6550) there is a concentration of hut circles, field systems and clearance cairns and at Eastertown (NGR: NH 6406 3291) there is a field system with an associated hut circle (NMRS No: NH 63 SW 46). Nearby was a 2ha area that contained numerous small clearance cairns and traces of field bank.

Very often no above ground traces of these sites survive and they are only visible as cropmarks or soil marks on aerial photographs. The most common cropmark in this area are sub-circular cropmarks known as ring ditches. The results of excavations indicated that ring ditches are the ploughed out remains of roundhouses although some may also be the remains of ditches around barrows, which are mounds of earth constructed over burials. The ring ditch and enclosure at Allanfearn (Asset 74, NMRS No: NH 74 NW 86) is a Scheduled Monument (SM 5008) comprising an almost circular enclosure, 33.00m in diameter with a second circular cropmark, 13.00m across, surrounded by an extensive area of pits.

Located just outside the study area is a cropmark enclosure at Seafield Farm (NGR: NH 6946 4582, HER No: MHG3944). A large number of worked lithics have been recovered around the site. Prior to development of a sewage farm at this location, the wider area was subjected to a geophysical survey. Geophysical survey revealed a possible hearth and rectilinear structure, with a second possible hearth and semicircular anomaly which was interpreted as the possibly remains of an enclosure.

Further sites dating to the Bronze Age in the area around Morayston consist of a burnt mound (Asset 125, NMRS No: NH 74 NW 71) and sites of possible Iron Age (700BC to AD 43) date including a souterrain at Newton (Asset 124, NMRS No: NH 74 NW 88).

Located to the south of Inverness at Culduthel Mains Farm, the site of a multi phased settlement was excavated prior to the construction of a housing development (NGR: NH 664 414, NMRS No: NH 64 SE 241). The palisaded enclosure was initially noted as a cropmark and excavation revealed the remains of a substantial Iron Age settlement and industrial centre. As well as the enclosure, there were 17 roundhouses. A total of 171 iron objects were recovered from the site including several ritually deposited weapons. Also recovered were wood, metal and leather working tools, an enamelled Romano-British bow and fantail brooch, an intricately decorated cruciform brooch and two Roman coins. These artefacts provisionally date this part of the settlement to the late 1st to early 2nd century AD. A further two areas were stripped to the south of the enclosure and these areas revealed a total of 48 pits and postholes, producing Neolithic Grooved Ware pottery and flint.

The invasion of AD 43 marks the start of the Roman occupation of Britain. By AD 80 the native tribes south of the Forth and Clyde had been subdued by the Romans, but those to the north were harder to control. Agricola advanced to the River Tay and a legionary fortress was built at Inchtuthil (NGR: NO 1251 3971, SM 1606), north of Perth. In AD 83, an estimated 50,000 soldiers from the 9th Legion fought against 30,000 Caledonians in a pitched battle at 'Mons Graupius'. The Caledonians were outflanked by the Romans and an estimated 10,000 were killed during the battle. The Roman historian Tacitus notes that the battle was won by well-trained auxiliary forces, with the legion held in reserve.

Following the defeat of the Caledonians at the Battle of Mons Graupius, Agricola led his forces northwards, reaching the Moray coastline. The majority of evidence for Roman activity in northern Scotland comprises the remains of temporary marching camps which are related to the campaigns of AD 84 and the 3rd century AD. Roman temporary camps have also been noted in the wider area such as at Thomshill near Elgin and Burghead (Ptoroton) where a Roman bath was found (NGR: NJ 1102 6915, NMRS No: NJ 16 NW 2) as well as a Roman fort at Easter Galcantray near Cawdor (NGR: 810 483, NMRS No: NH 84 NW 20). The partial excavation of Easter Galcantray, revealed a fragment of coarse Roman pottery and a radiocarbon date that dated the site to AD 80-130. This date placed it within Agricola's campaign.

While the cultural material found on domestic archaeological sites would have changed, the morphology of sites generally did not. In the absence of excavation is it difficult to date such site to later prehistoric period on the basis of morphology alone.

Medieval Period (AD 400 to AD 1500)

During the Post-Roman period the main source of evidence for the presence of the Picts in northern Scotland are symbol stones; freestanding slabs decorated with incised animals and objects. An early



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and particularly well known example of one of these is Sueno's Stone, Forres (NGR: NJ 04655 59533, NMRS No: NJ 05 NW 1). This highly decorated stone stands over 6.00m in height and is decorated with a cross on one side and a hunting scene on the other. To the south of Inverness at Knocknagael, there is another Pictish stone known as the "Boar Stone" (NGR: NH 6567 4134, NMRS No: NH 64 SE 25). This roughly shaped stone has a mirror-case symbol incised on the top right hand corner and the figure of a wild boar below.

There is also a well-known Pictish fort at Burghead (NGR: NJ 1090 6914, NMRS No: NJ 16 NW 1) to the north north-east of the study area which was a site of significant power during the Pictish period. The remains of fort are located on a headland which commands extensive views of the Moray Firth. The site encloses an area of 3 hectares and is three times as large as any contemporary fort. The landward side of the fort was defended by three banks and ditches which were destroyed when the harbour and village was built in the early 19th century. During recent excavations, numerous fragments of Pictish cross slabs and symbol stones have been found and Burghead is the only Pictish fort where bullstones (stones inscribed with a depiction of a bull) have been found. While thirty were found in the early 19th century only six remain. The site is believed to be Ptolemy's 'Ptoroton' and 'Torffness' of the Orkneyinga Saga.

Norse occupation of the Northern Isles began by the late 8th century AD and by the mid 9th century AD the Earldoms of Orkney and Caithness had been established. The Norse frequently subjected the western islands and coasts of Scotland to invasion and settlement. In AD 884 Sigurd the Powerful, the first Earl of Orkney, captured Torridun, the name by which Burghead was known at that time. It is believed that the fort became the centre of Norse power within Moray and became known by the Danish word Burghe. There is little material evidence of Viking activity in the Moray area, however, at Tarbat Old Parish Church (NGR: NH 9150 8400, NMRS No: NH 98 SW 8) a hoard of Norse silver coins were uncovered by a grave digger. The hoard consisted of two complete silver armlets (ringmoney), a fragment of another, two end portions of a fourth and six silver coins, one Anglo-Saxon (Eadgar AD 959 to AD 975) and five Frankish (Louis le Begue AD 846 to AD 879).

The medieval period in the Highlands was a time of considerable social and economic change. After the demise of Norse rule the following centuries witnessed various attempts by the kings of Scotland to establish power over the highlands, the Earldom of Orkney and the Lordship of the Isles in the west. In an attempt to undermine this political system, chief was set against chief, encouraging the growth and establishment of the clan system. This is most evident through the construction of numerous castles such as the 14th century Cawdor Castle (NGR: NH 84718 49871, NMRS No: NH 84 NW 1) located to the south of the study area. Towns such as Inverness were established as strategic centres of trade and royal power.

Assets in and around the study area dating to the medieval period include motte and bailey castles, such as the Scheduled example at Old Miller's Cottage to the south east of the study area. Mottes are mounds, usually artificial, which formed the foundations for timber (sometimes stone) castles. In Scotland these date from the 12th to the 13th centuries, appearing in the north-east in the third quarter of the 12th century. They were generally accompanied by baileys (enclosed courtyards for ancillary buildings). As such, they were common expressions of control, influence and power over surrounding lands and were often located in association with local hunting forests.

Another motte and bailey castle is present within the study area at Auldearn, and the old parish church also dates to this period. It is likely that there would have been a settlement here in medieval period.

Post Medieval Period (AD 1500 to AD 1900)

The Post Medieval period was a period of political and religious turmoil as Scotland and England struggled to live together under the Act of Union (1707), which combined the parliaments of Scotland and England. In 1745 the British government was taken by surprise by the second Jacobite Rising. This period of unrest ultimately resulted in the battle of Culloden (NGR: NH 742 450, NMRS No: NH 74 NW 17, SM 967) on the 16th April 1746 where the Jacobite army of Charles Edward Stuart fought against the British army, led by the Duke of Cumberland. The battle was the last pitched battle fought on British soil and lasted barely an hour and resulted in the defeat of Charles Edward Stuart's army.

Following this period of unrest, work began in 1748 on the construction of the military site at Fort George (NGR: NH 76079 56674, SM 90146) as well as a system of military roads leading to the fort. The construction and location of this site added to the network of strategically located Crown garrisons



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(Fort William and Ruthven Barracks), established by General Wade as a result of the Jacobite Rising of 1715.

The agricultural and economic improvements of the 18th and 19th centuries have their origins in the 17th century. Improving leases were granted to selected tenants. Under these leases the runrig system of cultivation was dismantled replaced with longer, more varied crop rotations in large, enclosed fields. Activities such as the enclosure of the land, the quarrying and burning of lime for use as a fertilizer and the planting of trees all resulted in lasting changes to the landscape.

Also at this time, improvements were occurring in the transport infrastructure to improve movement of people and resources around the country. The expansion of the railway network in the 19th century saw the opening of the Inverness to Nairn Railway line in 1855. This line was opened and it was subsequently absorbed in 1861 by the Inverness and Aberdeen Junction Railway.

Modern Period (AD 1901 - Present)

Within the study area the 20th century witnessed the improvement of the infrastructure system (road and rail), the creation or expansion of nucleated settlements, and the creation of larger fields for pasture, improvement of upland pasture through drainage and enclosure and forestry plantations.

5. Archaeological Remains

Summary

A total of 208 archaeological remains have been identified within the study area. Of these:

- 35 have been assessed to be of high sensitivity;
- 65 have been assessed to be of medium sensitivity;
- 18 have been assessed to be of low sensitivity; and
- 90 have been assessed to be of negligible sensitivity.

Further information on these assets is provided in Appendix 14.1.1 (Gazetteer) of this appendix.

High Sensitivity

Of the 35 archaeological remains assessed to be of high sensitivity, 23 are designated as Scheduled Monuments (SMs) (Assets 43, 59, 67, 68, 74, 76, 85, 100, 106, 136, 163, 177, 198, 242, 244, 250, 251, 255, 264, 314, 340, 380 and 388). Asset 340 (Auldearn Old Parish Church) is designated as a Scheduled Monument and a Category B Listed building. For the purposes of assessment, it is discussed under the archaeological remains sub-topic.

The majority of these assets are the remains (usually the cropmark remains) of prehistoric settlement, funerary and religious monuments. The majority of these comprise of the remains of assets such as ring ditches and enclosures which are likely to have been domestic in nature.

Castle of Auldearn (Asset 314) comprises the remains of a motte and bailey castle built by William the Lion, King of Scots (AD 1165 – AD 1214). Kinsteary House Round Barrow or Possible Motte (Asset 388) comprises the remains of a prehistoric burial mound or round barrow. Originally classified as a motte the feature has been reinterpreted by The Highland Council as a round barrow due to its location at the eastern end of a fluvio-glacial ridge which is higher at its western end and a motte located here would have a better defensive position.

A further 11 assets, though undesignated, have been assessed to be of high sensitivity due to their potential to increase our knowledge of prehistoric settlement, ceremonial or religious activity through material remains (Assets 69, 103, 109, 110, 204, 205, 222, 239, 283, 287, 369).

Asset 309 is the possible site of burials in Dead Wood. The majority of the bodies from the battle of Auldearn (1647) were allegedly buried here and this asset has been assessed to be of high sensitivity due to the historical association with the battle.



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Medium Sensitivity

The majority of the 65 archaeological remains assessed to be of medium sensitivity are the cropmark remains of ring ditches and enclosures which are likely to date to the prehistoric period and to be domestic, religious or funerary in origin. While these assets tend not to be as extensive in area as those identified above, they are assessed to have potential to provide evidence of prehistoric settlement and activity.

Low Sensitivity

A total of 18 archaeological remains have been assessed to be of low sensitivity. These are largely sites where remains have been removed but which have the potential for below ground remains to survive or where badly disturbed remains of an asset still have some potential to increase our knowledge of their respective periods through material remains.

Negligible Sensitivity

A total of 90 assets have been assessed to be of negligible sensitivity. The majority of these sites date to the Post Medieval period. The sites were identified from historic mapping, but no extant remains survive. In consideration of their very limited potential to increase our knowledge of this period through archaeological remains, these assets have been assessed to be of negligible sensitivity.

Potential for the presence of Unknown Archaeological Remains

Based on the concentration of known archaeological remains, the potential for the presence of unknown archaeological remains, especially those dating to the prehistoric period, has been assessed to be high.

6. Historic Buildings

Summary

A total of 86 historic buildings have been identified within the study area. While Asset 340 (Auldearn Old Parish Church) is designated both as a Scheduled Monument and as a Category B Listed building, for the purposes of assessment, it has been considered under the archaeological remains sub-topic.

High Sensitivity

Two historic buildings have been assessed to be of high sensitivity. Built c.1830 by the Aberdeen architect, Archibald Simpson, for Sir James Dunbar, Boath House (Asset 328) is a Category A Listed building and has been assessed to of high sensitivity due to its designation, its architectural interest and the sites association with the Battle of Auldearn. Dating to the 17th century, Balblair House (Asset 421) is undesignated. However, before the battle of Culloden, the Duke of Cumberland's camp was centred on this house and due to this historical association it has been assessed to be of high sensitivity.

Medium Sensitivity

A total of 17 historic buildings have been assessed to be of medium sensitivity due to their designation as Category B listed buildings and there architectural or historic interest. These historic buildings comprise: Assets 61, 186, 187, 189, 217, 277, 313, 329, 330, 331, 332, 333, 335, 337, 338, 341 and 376.

Low Sensitivity

A total of 65 historic buildings were identified to be of low sensitivity. Of these, six are Category C listed buildings (Assets 138, 139, 296, 297, 349 and 357). The buildings assessed to be of low sensitivity fall into five broad categories including:

· farmsteads, agricultural buildings, and cottages;



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- structures associated with infrastructure, for example railways, road and rail bridges;
- boundary stones and markers;
- religious buildings, including churches and manses;
- schools; and
- miscellaneous other buildings including a war memorial, smithies and a post office.

While these historic buildings tend to have been be modernised they still have potential to provide information on Post Medieval period architecture and, as such, have been assessed to be of low sensitivity.

Negligible Sensitivity

Two historic buildings; Mid Coul (Asset 152) and Old Millers Cottage (Asset 387) have been assessed to be of negligible value as while they are shown on early Ordnance Survey (OS) mapping there is little evidence to indicate that that they are now of architectural or historic interest.

7. Historic Landscape

Summary

A total of 25 historic landscape types (HLT) have been identified within the study area. Table 4 below provides a summary of the historic landscape character types identified within the study area along with an assessment of their sensitivity.



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Table 4: Historic Landscape Character Types

HLT Ref	HLT	Sensitivity	Section
HLT 1	Natural Water Area	Negligible	Inverness to Gollanfield
HLT 2	17 th to 19 th Century Policies and Parkland	Medium	Inverness to Gollanfield/Nairn Bypass
HLT 3	18 th to 19 th Century Rectilinear Fields	Negligible	Inverness to Gollanfield/Nairn Bypass
HLT 4	18 th to 20 th Century Managed Woodland	Negligible	Inverness to Gollanfield/Nairn Bypass
HLT 5	18 th to 20 th Century Planned Rectilinear Fields	Negligible	Inverness to Gollanfield/Nairn Bypass
HLT 6	18 th to 20 th Century Smallholdings	Negligible	Nairn Bypass
HLT 7	19 th Century-Present Amalgamated Field	Negligible	Inverness to Gollanfield/Nairn Bypass
HLT 8	19 th Century-Present Cultivated Former Parkland	Negligible	Nairn Bypass
HLT 9	19 th Century-Present Industrial and Commercial Area	Negligible	Inverness to Gollanfield/Nairn Bypass
HLT 10	19 th Century-Present Quarry	Negligible	Inverness to Gollanfield
HLT 11	19 th Century-Present Recreation Area	Negligible	Nairn Bypass
HLT 12	19 th Century- Present Reservoir	Negligible	Nairn Bypass
HLT 13	19 th Century-Present Urban Area	Negligible	Inverness to Gollanfield/Nairn Bypass
HLT 14	20 th Century Coniferous Plantation	Negligible	Inverness to Gollanfield/Nairn Bypass
HLT 15	20 th Century-Present Airfield	Low	Inverness to Gollanfield
HLT 16	20 th Century Holdings	Negligible	Inverness to Gollanfield
HLT 17	Late 20 th Century-Present Industrial Scale Farming	Negligible	Inverness to Gollanfield
HLT 18	Late 20 th Century-Present New Field	Negligible	Inverness to Gollanfield/Nairn Bypass
HLT 19	Late 20 th Century-Present Opencast	Negligible	Nairn Bypass
HLT 20	Late 20 th Century-Present Restored Agricultural Land	Negligible	Inverness to Gollanfield
HLT 21	Late 20 th Century-Present Road	Negligible	Inverness to Gollanfield
HLT 22	Late 20 th Century-Present Woodland Plantation	Negligible	Nairn Bypass
HLT 23	Prehistoric-Present Rough Grazing	Low	Inverness to Gollanfield/Nairn Bypass
HLT 24	Medieval Urban Core	Medium	Nairn Bypass
HLT 25	Auldearn Battlefield	High	Nairn Bypass

High Sensitivity

One HLT has been assessed to be of high sensitivity. Auldearn Battlefield (HLT 25) is listed on the Inventory of Historic Battlefields. Fought on the 9th May 1645, the battle was between the Covenanter Army under the command of Sir John Hurry and the Royalist Army under the command of James Graham the first Marquis of Montrose.

While severance has resulted from the existing A96 and recent development has reduced its legibility, the following key elements remain legible within the battlefield and key to its understanding:

• land to the west of the village of Auldearn around the farm of Kinnudie, representing the direction of advance of the Covenanter forces and where they formed up for battle;



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- Auldearn village including the parkland of Boath House and Dooket Hill, which was the position of the Royalist forces; and
- lands to the south and south-west of Auldearn village including Garlic Hill and Dead Wood, which was the likely direction of the defeated Covenanter's rout.

Based on its designation as an Inventory Battlefield, its historical associations and its potential to contribute to our understanding of the civil war in Scotland through material remains, this HLT has been assessed to be of high sensitivity.

Medium Sensitivity

The 17th to 19th Century Policies and Parkland (HLT 2) is relatively rare within the study area. The historic landscape type also tends to be associated with some of the more sensitive historic buildings within the study area including Boath House Category A Listed Building (Asset 328) and Kinsteary House and Walled Garden (Asset 376) a Category B Listed Building. Based on this rarity within the study area, and association with designated assets, the sensitivity of this asset has been assessed to be medium.

The medieval urban core (HLT 24) indicates the possible location of the medieval core of Auldearn. The current layout of Auldearn dates to the early to mid-19th century when the existing town was remodelled along the new turnpike from Nairn to Forres. An earlier route to the north of this turnpike is shown on Roy's map and it likely that the medieval core of Auldearn was focused on this the preturnpike alignment, and in the area of Auldearn Old Parish Church (Asset 340) and around the Doocot Hill motte (Asset 314). While the historic legibility of the HLT is low, it has a high potential for time depth and it is rare within the study area and, as such, has been assessed to be of medium sensitivity.

Low Sensitivity

HLT 15 (20th Century-Present Airfield) was called RAF Dalcross during the war when it was used an aircrew training base because of its almost fog free conditions and also its remoteness from enemy attack and in 1947 it became part of Inverness Airport. The training school was it was reopened during the Korean War as No.8 Advanced Flying Training School, Royal Air Force. While there is little trace of its former use, based on it its association with WWII and the Korean War this HLT has been assessed to be of low sensitivity.

HLT 23 (Prehistoric-Present Rough Grazing) consists of areas classed as moorland and rough grazing which may date from the Prehistoric period through to the present. However, this this HLT has low potential for time depth and it has low historic legibility and, as such, the sensitivity of this type is assessed as low.

Negligible Sensitivity

All other HLTs have been assessed as low sensitivity. This is because they have very limited or lack potential for time depth, are not rare within the study area or within the wider landscape and lack cultural or historical associations. As such they add little to our understanding of the origins or evaluation of the historic landscape and have, therefore, been assessed to be of negligible sensitivity.

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RHP1026 Plan of the contraverted ground between Belmackardoch and Kinnudie, Nairnshire 1771 RHP141511 Plan of part of the Boath estate 1836

RHP46305/1 Plan and section of proposed turnpike road from Blackley Crossroads (Wester Breachley) to Auldearn village 1839

RHP1414 Plan of the estates of Brodie, Inshoch and Penick, property of William Brodie 1825

RHP186/1 Plan of the roads between Nairn and Millhill, Nairnshire 1797

Vertical Aerial Photographs

Lib Ref	Sortie	Date	Frame Run / Photo Number
B0135	CPE/UK/0223	1947	3079 - 3086
			4080 - 4086
			4180 - 4186
			3190
B0356	58/1116	1953	0275 – 0283
			0242 – 0260
			0142 – 0148
			0044 – 0048
C0140	106G/DY/0016	1944	60001 – 60010
			60047 - 60049



Appendix 14.1.1: Gazetteer

Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
32	Ashton Farm	Cropmark	Archaeological remains	NH 6988 4587	-	None	Medium	Noted on the 1953 AP, frame 151 a possible ring ditch.
33	Scretan Bridge	Bridge	Historic Building	NH 7006 4535	-	None	Low	Recorded on the 1st ed OS map (sheet 4) as 'Scretan Bridge'.
34	Seafield Cottage	Cottages	Archaeological remains	NH 7011 4536	-	None	Negligible	Recorded on the 1st ed OS map (sheet 4) as 'Seafield Cottage', comprising of four roofed rectangular buildings, a roofless rectangular building and a roofless L-shaped building. These buildings are located on either side of the Inverness to Nairn railway line.
37	Cairnlaw, buildings	Buildings	Historic Building	NH 7043 4624	-	None	Low	Recorded on the 1st ed OS map (sheet 4) as comprising of an L-shaped roofed building and roofed rectilinear building, oriented northeast - south-west. Rectilinear building is still extant.
39	Stratton, farmstead	Farmstead	Historic Building	NH 7057 4600	-	None	Low	Recorded on the 1st ed OS map (sheet 4) as 'Stratton', a farmstead comprising of a large roofed L-shaped building and four roofed rectilinear buildings.
40	Cairnlaw	Barrow (Possible)	Archaeological remains	NH 7052 4645	NH 74 NW 111, MHG35299	None	Medium	The faint cropmarks of at least two possible barrows have been recorded by oblique aerial photography (RCAHMSAP 1995) 550m west-north-west of Stratton Lodge Hotel. They both measure about 6.00m in diameter. There are a number of indeterminate cropmarks in the surrounding area.
43	Stratton Lodge	Cropmark (s), ring ditch	Archaeological remains	NH 709 466	NH 74 NW 30, MHG436	Scheduled Monument	High	The NMRS (NH 74 NW 30) notes air photography has revealed the crop-mark of a ring-ditch 240.00m north-west of Stratton Lodge. It measures about 6.00m in diameter within a ditch about 1.50m wide.
46	Milton	Stone Row	Archaeological remains	NH 707 469	NH 74 NW 11, MHG2930	None	Low	The NMRS (NH 74 NW 11) notes a quarter of a mile east of the farmhouse of Milltown of Culloden and close to the public road there is a double row of thirty upright stones, forming a straight avenue or passage of 0.60m to 0.90m in width. The rows are aligned "from east-north-east to west-north-west and the stones at the western end are considerably larger than the others". (See NH74NW 5 - Chambered Cairn, indicates original location of stones are in the wrong place). No trace of the stone rows was found during field investigation. Visited by OS (E G C) 25 April 1962.
49	Milltown, mill pond and sluice gates	Industrial	Archaeological remains	NH 7089 4686	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as a large oval shaped mill pond with sluice gates at either end.
50	Milltown, building	Buildings	Archaeological remains	NH 7081 4708	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as an L shaped roofed building with attached square shaped in plan enclosure.

Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
51	Milltown, well	Well	Archaeological remains	NH 7086 4701	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as a well.
52	Milton of Culloden	Railway Cottages	Historic Building	NH 70932 46969	NH 74 NW 56, MHG2954	None	Low	The NMRS (NH 74 NW 56) notes, a small one-storey and attic, rubble-built structure comprising two dwellings with projecting gable entrance.
53	Milltown, enclosure	Enclosure	Archaeological remains	NH 7088 4717	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as large rectangular shaped enclosure located to the north-west of Milltown Mills (disused).
54	Milltown, buildings	Buildings	Archaeological remains	NH 7089 4707	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as two adjacent roofed buildings, one rectilinear and the other square. Both have attached enclosures located to the western side of the buildings. Sire currently occupied by a single large building.
55	Milltown Mills	Mill	Archaeological remains	NH 7095 4711	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as a rectilinear structure and noted on the map as disused.
57	Inverness to Nairn Railway	Railway	Historic Building	NH 71215 4732	-	None	Low	Inverness to Nairn Railway line opened in 1855. This railway line was subsequently absorbed by the Inverness and Aberdeen Junction Railway in 1861 and then became part of the Highland Railway which became part of London Midland and Scottish Railway (LMS) in 1923.
59	Allanfearn Station	Barrow(s), Barrow cemetery, square barrow(s), cemetery, field boundary, pit, burial cairn	Archaeological remains	NH 7132 4758	NH 74 NW 23, MHG2939, MHG40182- MHG40186	Scheduled Monument	High	The NMRS (NH 74 NW 23) notes crop-marks showing the ditches of at least one square and two circular barrows have been recorded 280.00m west-north-west of Allanfearn farmhouse (visible on RCAHMS air photographs, 1977). The square barrow measures about 5.00m square within a ditch which may be interrupted by causeways at the corners; it appears to be joined by two transverse ditches to a circular barrow measuring about 5.00m in diameter within a ditch about 1.00m wide. There is at least one other circular barrow to the west. In January and February 1993, GUARD carried out a geophysical survey of these barrows in advance of the construction of a sewage farm. The barrows are not upstanding, and the intention of the survey was to locate them and any further associated remains within the field. The barrows themselves, being scheduled monuments, were not under threat, but any remains out with the scheduled area could have been damaged by construction work. In order to allow for the possibility of siting the sewage farm in a less archaeologically-sensitive area, the two adjoining fields were also surveyed. Survey was carried out using a fluxgate gradiometer; resistivity was inappropriate because of the free-draining nature of the site. A total of 112 20m-grids were surveyed, giving a coverage of 44800m sq. Within the scheduled area, the three barrows were located but appeared only faintly. The reason for this is that the banks of the barrows have been substantially ploughed out with the magnetic signal dispersed accordingly. A



Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
								possible fourth barrow was also indicated in close proximity to the other barrows. The only other potentially important anomalies were interpreted as a possible sub-oval enclosure and a possible hut circle. In the adjoining fields, a rectilinear anomaly, interpreted as an enclosure, and a possible sub-oval enclosure were located in the field to the east, while a field bank and enclosure were indicated in the field to the west. Recent aerial photography (RCAHMSAP 1995) has revealed the cropmarks of at least two further square barrows. One is situated about 10.00m to the west-south-west of the previously described barrows and it measures about 7.00m square with a centrally placed mark that may represent a burial pit. About 30.00m to the east-north-east is a second possible square barrow, measuring about 5.00m across. A linear cropmark, aligned east-north-east - west and visible for about 40.00m to 50.00m intersects this barrow. Other indeterminate cropmarks in the immediate area may be additional barrows. These cropmarks were previously classified merely as 'barrows'. An excavation by GUARD prior to the construction of a new sewage treatment works revealed a series of enigmatic deposits, a selection of which are described below. Trench A: The partial remains of a roundhouse structure were excavated. The house had a central ring of post-holes forming the main structural element. There was a large and well-defined east facing entrance but little evidence for an outer wall. A fire pit or hearth was located to the rear of the building and a line of stake-holes suggested an internal partition. Trench B; A possible Bronze Age cremation urn containing small fragments of burnt bone was excavated from a small pit outside a possible kerbed cairn. This satellite burial was the only one recovered. Trench G: A linear feature was excavated which may represent a trackway or path running parallel to the shore. Trench J/K: The remains of a possible domestic structure and a series of pits were excavated, along with the partial rem

Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
60	Culloden Station	Railway station	Historic Building	NH 7148 4756	NH 74 NW 52, MHG3019	None	Low	Recorded on the 1st ed OS (sheet 4) as a L shaped roofed building located on the southern side of the Inverness and Nairn railway. The NMRS (NH 74 NW 52) notes that Culloden Station (probably opened 6.11.1855) until 1.11.1898, then after known as Allanfearn Station; closed 3.5.1965. This intermediate station on the Inverness-Nairn line of the former Highland Railway was opened (by the Inverness and Nairn Railway.) on 5 November 1855 as Culloden Station; this line formed part of the Inverness-Aberdeen main line of the Highland and Great North of Scotland Railway. The station was renamed Allanfearn Station (presumably to avoid confusion with Culloden Moor Station, NH74NE 41.00); it was grouped into the London, Midland and Scottish Railway. In 1923 and closed to regular passenger traffic on 3 May 1965. The line itself remains in use.
61	Allanfearn Farmhouse	Farmhouse	Historic Building	NH 71604 47494	NH 74 NW 60, MHG3954, MHG46672	B Listed	Medium	The NMRS (NH 74 NW 60) notes that Allanfearn Farmhouse was designed by Ross and Macbeth and dates to 1897. The farm house is a single storey and attic house over raised basement, symmetrical 3-bay south-west facing front with slightly advanced and gabled centre bay. Red rubble, tooled rubble and ashlar dressings. Round-headed doorway with cavetto moulded reveal approached by short flight of steps; similarly detailed window above. Flanking windows and similar windows in return gables; canted dormers in outer bays both front and rear; lying-pane glazing; coped end stacks; slate roof with projecting eaves. Rear stair projection. The farm chimney dates to the mid19th century. A typical circular brick chimney, with beaded top, with the ruins of an engine and boiler house.
62	Allanfearn, farm steading	Chimney, farmstead	Historic Building	NH 7175 4745	NH 74 NW 60.01	None	Low	The NMRS (NH 74 NW 60.01) records Allanfearn farm chimney, dating to the mid19th century. A typical circular brick chimney, with beaded top and the ruins of an engine and boiler house.
63	Allanfearn	Enclosure	Archaeological remains	NH 7182 4754	NH 74 NW 109, MHG22641	None	Medium	The NMRS (NH 74 NW 109) notes the cropmark of circular bivallate enclosure, measuring 25.00m in diameter located 75.00m north-east of the farm steading.



Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
64	Culloden	Chambered cairn	Archaeological remains	NH 7162 4761	NH 74 NW 5, MHG3022	None	Medium	The NMRS (NH 74 NW 5) records the remains of this chambered cairn consisted, in 1879, of "twenty-five stones of which, however, only seven appear to be in their natural position" (ISSFC 1885). Today it is almost entirely destroyed, the main feature being a standing stone 5ft 6ins high, 4ft wide by 2ft 9ins to 3ft thick at the base. Round it are grouped a number of large boulders, all of which appear to have been moved. This may be the site described by Anderson (1831) consisting of thirty upright stones in two rows (see NH74NW 11). The remains of the cairn are as described above. The stones are grouped together on a low mound measuring 8.00m in diameter.
65	Culloden	Cropmark (s), pit alignment	Archaeological remains	NH 7165 4765	NH 74 NW 113, MHG35432	None	Medium	-
66	Allanfearn	Cropmark	Archaeological remains	NH 7180 4760	MHG11473	None	Medium	-
67	Blackhill	Palisaded enclosure, roundhouses (possible)	Archaeological remains	NH 7164 4764	NH 74 NW 32, MHG435	Scheduled Monument	High	The NMRS (NH 74 NW 113) notes that air photography has revealed the crop-mark of an almost circular enclosure 240.00m south-west of Blackhill farmhouse. It measures about 30.00m in diameter within a narrow ditch. Recent aerial photography (RCAHMSAP 1995) suggests that a narrow palisade defines this enclosure. A crescent mark measuring about 10.00m in diameter and visible in the north-east side of the interior may represent a roundhouse. There are a number of indeterminate cropmarks and pits scattered across the same field.
68	Blackhill	Palisaded enclosure	Archaeological remains	NH 717 479	NH 74 NW 122	Scheduled Monument	High	-
69	Blackhill	Palisaded enclosure	Archaeological remains	NH 718 478	NH 74 NW 121, MHG36072	None	High	-
70	Balloch, Allanfearn	Enclosure, (possible), timber building (possible)	Archaeological remains	NH 7186 4772	NH 74 NW 33, MHG434	None	Medium	NMRS (NH 74 NW 33) notes that air photography has revealed the crop-mark of what may be a roughly circular enclosure 300.00m northeast of Allanfearn farmhouse.
71	Inverness to Fort George	Military road	Archaeological remains	NH 7200 4767	NH 74 NW 68	None	Negligible	The NMRS (NH 74 NW 68) notes the modern road (A96) follows the line of the old military road, passing Allanfearn and joining the route now followed by the B9039 in the vicinity of Newton at NH 7383 4865.



Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
74	Allanfearn	Cropmarks, enclosure, pit setting, ring ditch, settlement	Archaeological remains	NH 7200 4750, NH 7203 4753, NH 721 475	MHG2891, NH 74 NW 31, NH 74 NW 86, MHG17657	Scheduled Monument	High	Air photography has revealed the crop-mark of an almost circular enclosure 450m east-north-east of Allanfearn farmhouse. It measures about 33.00m in diameter within a single ditch. RCAHMS 1979; Visible on RCAHMS air photographs IN 2648: flown 1976. Second feature in the same area (also visible on air photographs) is a dark circular mark, some 13.00m across, surrounded by extensive areas of pitting. A roughly oval cropmark visible on aerial photographs, measuring about 25.00m to 30.00m in length, lies within the enclosure and intersects it on the south-west side and it is surrounded by a pit-setting.
75	Balloch	Rig and furrow, find spot - stone axe head/ flint arrow head	Archaeological remains	NH 7235 4752	NH 74 NW 78, MHG18469, MHG29558	None	Medium	The NMRS (NH 74 NW 78) notes broad rig and furrow. Stone axehead. Associated with other finds recovered from the periphery from the cairn near-by including a leaf-shaped arrowhead, a large flint point and pieces of cremated bone.
76	Allanfearn	Pit Circle(s), ring ditch, timber building(s), unenclosed settlement	Archaeological remains	NH 722 477	NH 74 NW 85, MHG17658	Scheduled Monument	High	The NMRS (NH 74 NW 85) notes that the monument comprises the remains of an unenclosed settlement of prehistoric date, visible as a cropmark on oblique aerial photographs. It lies in farmland, in the south-east corner of an arable field, at 12.00m above sea level where it is located approximately 800 m from the present-day shoreline of the Moray Firth. The cropmark comprises evidence for an unenclosed settlement consisting of a number of pit circles and ring ditches, varying in diameter from 6.00-10.00m, and spread over an area about 100.00 m long.
78	Lower Cullernie	Pit alignment	Archaeological remains	NH 7221 4776	-	None	Medium	Noted on the 1946 AP's, frame 5108 as a line of pits, comprising of 10 pits oriented north-east - south-west. Associated with two other alignments.
79	Lower Cullernie	Enclosure	Archaeological remains	NH 722 478	NH 74 NW 41, MHG2946	None	Medium	Air photography has revealed the crop- markings of what may be a rectilinear enclosure 300.00m south-south-west of Lower Cullernie farmhouse; immediately to the east there is what appears to be a second, smaller enclosure. Scheduled as 'Lower Cullernie, settlement 415m SSW of' Information from Historic Scotland, scheduling document dated 9 March 2007.
80	Lower Cullernie	Pit alignment	Archaeological remains	NH 7217 4783	-	None	Medium	Noted on the 1946 AP's, frame 5108 as a line of pits, comprising of 5 pits oriented north-east - south-west. Associated with two other alignments.



Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
81	Allanfearn	Projectile (flint)	Archaeological remains	NH 721 478	NH 74 NW 79, MHG3252	None	Negligible	The NMRS (NH 74 NW 79) notes a large kite-shaped flint projectile head found while field walking.
82	Allanfearn	Cremation (possible)	Archaeological remains	NH 721 479	NH 74 NW 80, MHG3254	None	Low	The NMRS (NH 74 NW 80) notes that field walking finds of large size fragments of cremated bone may indicate presence of ploughed out cremation burial in vicinity.
83	Lower Cullernie	Farmstead	Historic Building	NH 7236 4813	-	None	Low	Recorded on the 1st ed OS (sheet 4) as a roofed L-shaped building, roofed rectilinear building and associated enclosure. Located on the southern side of the Inverness to Nairn railway line.
84	Culloden Brick and Tile Works	Brick and Tile Works (destroyed)	Archaeological remains	NH 725 479	NH 74 NW 83, MHG4374	None	Negligible	Recorded on the 1st ed OS (sheet 4) as comprising of three long linear roofed buildings with three roofed rectangular buildings in between within a large square enclosed area. The site is fed by Fiddlers Burn. Noted on the map as Culloden Brick and Tile Works. The NMRS (NH 74 NW 83) notes that the site has been cleared. A desk-based assessment was undertaken on the site of Culloden Brickworks (NMRS NH74NW 83) as part of a wider study of the history of the area around Petty Church. The brickworks were opened in 1847 and remained in use until 1891. The site is currently under arable grazing with no vestiges of buildings remaining.
85	Isle View, ring cairn	Ring cairn	Archaeological remains	NH 7250 4769	NH 74 NW 4, MHG2948	Scheduled Monument	High	The NMRS (NH 74 NW 4) notes that this structure has been greatly disturbed and robbed. However, part of a typical peristalith remains, fairly complete on the north and north-west sides. It is built of boulders of considerable size set close together and ranging from 0.68m to 0.82m in height. Only one stone seems to be in place on the south side and two on the south-east. Various other stones have fallen forwards from their original positions. The cairn seems to have been oval in plan, about 10.36m north - south by 12.20m east-west. There are a great number of boulders lying about the site, some split by blasting, and it is not easy to distinguish the stones that are in situ and those which have been moved, perhaps for the foundation of a building which once stood here. A certain amount of turf-covered cairn material remains inside the kerb and round the base of the monolith. This structure has been greatly disturbed and robbed. However, part of a typical peristalith remains, fairly complete on the north and northwestern sides. A single stone 1.37m high stands about 3.96m outside the position of the kerb on the north-east side, and another slab lies to the east of the cairn. These stones are probably survivors of the circle of monoliths. The standing stone has been joined to the kerb by a line of boulders, the foundation of a secondary wall. Close to the site on the north-east, Anderson (1831) records another cairn, thought not to



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								have been opened. It was bounded by a kerb "15 paces" in diameter, and said to have been surrounded by a ditch, but apparently without a monolithic circle. No signs of this monument remain. The feature is as described by Henshall (1963) (in the original typescript). The cairn, oval in shape, measured 13.40m north-east - south-west by 11.20m north-west - south-east. An air photograph, taken by Jill Harden in 1989, is in Inverness Museum (8901.33 INVMG). Recorded on the 1st ed OS (sheet 4) as Stone Circle (Remains of).
86	Upper Cullernie	Stone Circle (possible), Cinerary urn, Event - partial excavation	Archaeological remains	NH 7255 4750	NH 74 NW 77, MHG18468	None	Medium	The NMRS (NH 74 NW 77) notes 'Cremation urn and remains of stone circle to the south of a known chambered cairn (NH74NW 4)': Identified during observation on route of Nairn to Inverness pipeline. A low hillock c.100m south of the known Chambered cairn had an undecorated urn with a cremation inserted. The mound appeared to be defined by a curving gulley 1.00m wide by 0.50m deep filled with rounded stones 100mm in diameter. 3 large pits lay outside this feature, one of which had been dug to bury a granite stone 1. 40m x 1.00m x 0.50m. Presumption that this represents another burial monument, with its form remaining unclear due to the small fragment excavated. Described as Arc of loose set rounded stones average 160mm diameter set around a low knoll that lies to the south of the chambered cairn at Upper Cullernie. 3 large pits adjacent to this include 1 containing elongated granite boulder 1.40m x 1.00m x 0.50m. Cremated burial in undecorated urn lay in a small pit to the south-west.
87	Cullernie	Cairn	Archaeological remains	NH 726 477	NH 74 NW 12, MHG2929	None	Medium	NMRS notes two circles 5.50m in diameter almost touching each other, about 50 paces from the road and 150 paces from the Cairn at Cullernie. Common axis bears north. 25 degrees east and in middle of the western one once stood a single stone, now fallen. G Anderson 1831. No circles are evident in the vicinity of the area described above. Visited by OS (E G C) 26 April 1962. No signs of this cairn remain. A S Henshall 1963.
88	Culloden	Buildings and well	Archaeological remains	NH 7261 4778	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as two roofed square buildings with associated well, located to the south of Culloden Brick and Tile works.
89	Inverness to Fort George	Military Road	Archaeological remains	NH 7250 4774	MHG4326	None	Negligible	The modern road (A96) follows the line of the old military road, joining the B9039 at Newton (NH 7383 4865).
90	Lower Cullernie	Enclosure	Archaeological remains	NH 727 480	NH 74 NW 40, MHG2947	None	Medium	The NMRS (NH 74 NW 40) notes that air photography has revealed the crop-mark of what may be an oval enclosure 350.00m east-southeast of Lower Cullernie farmhouse.



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91	Lower Cullernie	Enclosure (possible)	Archaeological remains	NH 728 482	NH 74 NW 38, MHG430	None	Medium	The NMRS (NH 74 NW 38) notes that the crop-mark of what may be an oval enclosure has been recorded 440.00m east-north-east of Lower Cullernie farmhouse.
92	Lower Cullernie	Ring ditch (possible)	Archaeological remains	NH 728 480	NH 74 NW 39, MHG2949	None	Medium	The NMRS (NH 74 NW 39) notes air photography has revealed the crop-mark of what may be a ring-ditch 520.00m east-south-east of Lower Cullernie farmhouse and 170.00m east-south-east of the enclosure described on NH74NW 40.
96	Upper Cullernie	Enclosure	Archaeological remains	NH 7303 4782	NH 74 NW 34, MHG433	None	Medium	The NMRS (NH 74 NW 34) notes that air photography has revealed the crop-mark of an oval enclosure 480.00m north-west of Upper Cullernie farmhouse. It measures about 44.00m by 22.00m within a narrow ditch which has a gap 6.00m wide on the east. RCAHMS 1979; Visible on RCAHMS air photograph IN 3606, IN 3608-10: flown 1978. Aerial photographs taken by Jill Harden in 1989 are in Inverness Museum (8903.27 and 8907.01 INVMG). This enclosure is visible on post war RAF vertical air photographs (58[A]/421, Pt.1, 5094-5096, flown 21 June 1949) as an oval cropmark. In addition, within the cropmark a right-angled cropmark is visible in the south - east quadrant.
97	Upper Cullernie	Ring Ditch	Archaeological remains	NH 7310 4790	MHG432	None	Medium	Air photography has revealed the crop-mark of a ring-ditch 500m NNW of Upper Cullernie farmhouse, immediately S of the Inverness - Nairn road. RCAHMS 1979; Visible on RCAHMS air photograph IN 3606-7, IN 3609-10.
98	Upper Cullernie	Ring ditch	Archaeological remains	NH 7310 4796	NH 74 NW 35, MHG3098	None	Medium	The NMRS (NH 74 NW 35) notes that air photography has revealed the crop-mark of a ring-ditch 500.00m north-north-west of Upper Cullernie farmhouse, immediately south of the Inverness - Nairn road. RCAHMS 1979; Visible on RCAHMS air photograph IN 3606-7, IN 3609-10. This enclosure measures about 10.00m in diameter. Additional ring-ditches recorded in the surrounding area (NH74NW 39/NH74NW 47).
99	Newton	Barrow	Archaeological remains	NH 731 480	NH 74 NW 36	None	Medium	The NMRS (NH 74 NW 36) notes air photography has revealed the crop-marks of a ring-ditch 740.00m E of Lower Cullernie farmhouse in diameter within a ditch 2.00m wide. RCAHMS 1979; Visible on RCAHMS air photographs IN 2649, IN 3085-7, IN 3607: flown 1976 and 1977.



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100	Lower Cullernie	Ring Ditch	Archaeological remains	NH 731 480	MHG428	Scheduled Monument	High	The Scheduled Monument record notes the monument comprises a single ring-ditch, the remains of a prehistoric burial of settlement feature. It appears in an arable field as a mark in a cereal crop; experience shows that further remains will survive in the areas (not susceptible to cropmarks) around the visible marks. The roughly circular ring-ditch measures a maximum of 60.00m east-west by 70.00m north-south, to include the area in which cropmarks are visible and the surrounding area where further features are likely to survive, as marked in red on the attached sheet. The monument is of national importance as the remains of a domestic or ceremonial structure of the mid to late prehistoric period. Even though the area is under the plough experience shows that extensive and important archaeological features and deposits will survive below plough level. Whether a house or a funerary/ceremonial structure, it is one of very few surviving in this lowland area.
101	Upper Cullernie	Ring ditch(s) (possible)	Archaeological remains	NH 7321 4802	NH 74 NW 47	None	Medium	-
102	Newton	Building	Archaeological remains	NH 731 484	NH 74 NW 93, MHG25837	None	Negligible	The NMRS (NH 74 NW 93) notes one unroofed building depicted on the 1st edition of the OS map (sheet 4), but it is not shown on the current edition of the OS 1:10000 map (1982).
103	Upper Cullernie	Cropmark (s), ring ditch(s)	Archaeological remains	NH 7330 4794	NH 74 NW 116, MHG35437	None	High	The NMRS (NH 74 NW 116) notes that oblique aerial photography (RCAHMSAP 1995) has revealed a group of ring-ditches and other cropmarks in a field 400.00m north of Upper Cullernie farmsteading. There are at least three ring-ditches, measuring about 8.00m to 10.00m in diameter, and a number of indeterminate cropmarks. In the surrounding area the cropmarks of enclosures and ring-ditches has been recorded (NH74NW 34, NH74NW 35, NH74NW 36, NH74NW 45, NH74NW 47, NH74NW 115).
104	Upper Cullernie	Enclosure	Archaeological remains	NH 7335 4801	NH 74 NW 45, MHG2942	None	Medium	The NMRS (NH 74 NW 45) notes that oblique aerial photography (RCAHMSAP 1978) has revealed the cropmark of a roughly circular enclosure, measuring about 30.00m in diameter, 450.00m north-northeast of Upper Cullernie farmstead.
105	Upper Cullernie	Ring ditch (possible)	Archaeological remains	NH 7332 4818	NH 74 NW 115, MHG33022	None	Medium	The NMRS (NH 74 NW 115) notes the cropmark of a possible ring-ditch, measuring about 20.00m in diameter within a broad ditch, has been revealed by oblique aerial photography (RCAHMSAP 1995) 650.00m north of Upper Cullernie farm steading. A centrally placed mark, possibly a pit, suggests that this could be the cropmark of a barrow.



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106	Newton of Petty	Ring cairn	Archaeological remains	NH 7348 4858	NH 74 NW 14, MHG2927	Scheduled Monument	High	The NMRS (NH 74 NW 14) notes a chambered Cairn. The site of this Clava-type cairn is in the corner of a flat field, just over 15.20m OD, about 1/2 mile inland from the south shore of the Moray Firth. A railway cutting skirts the monument on the north and may account for the loss of the monoliths on this side. Most of the kerb of the cairn survives and has a diameter of 15.20m - 15.85m. It is constructed of rough, rounded boulders with no regular graduation in size though they tend to be rather slighter to the north. The stones vary from 0.90m to 0.30m in height. The cairn material and centre structure have been removed though some stones of the innermost setting survived to 1824 (Anderson 1831). Four monoliths of the surrounding circle remain standing, evenly spaced on the south-west arc, 4.27m to 4.88m from the kerb. From south to north they are 1.22m, 1.52m, 1.37m, and 1.14m high, the tallest stone being directly to the south-west. Two prostrate stones on the south-east are probably fallen monoliths. There are said to have been formerly thirteen free-standing stones round the cairn (Anderson 1831). G Anderson 1831; J Fraser 1884; A S Henshall 1963. The remains of the cairn are as described by Miss Henshall one of the kerb stones on the south-west side has since been removed. Visited by OS (E G C) 25 April 1962. Two seasons of excavation have confirmed that this site was of "ring-cairn" type. The inner kerb consisted of a small ditch dug into the old land surface which was filled mainly with water-worn boulders and some flat slabs. This infill protruded above the old land surface in some places. The larger sizes of both the ditch and the stones of its infill on the southwest side of the inner kerb reflected the usual Clava orientation. Large quantities of crushed cremated bone were found in a matrix of sooty soil in the central area of the cairn. There was little sign of disturbance in the thin layer of cairn material, and in view of the very insubstantial nature of the inner kerb, it is doubtful if the cairn

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107	Newton	Cropmark	Archaeological remains	NH 736 485	NH 74 NW 66, MHG3061	None	Medium	Enclosure. A cropmark enclosure was first recorded at this location by RCAHMS aerial photography. A visitor to the HER website reported that the context of Anderson's description indicates that the cairn he is describing is in fact one hundred and fifty paces to the east of Newton on Petty (MHG2929). It is possible that this coincides with this cropmark site. Anderson had identified "two circles, each six yards in diameter and almost touching each other, about fifty paces from the road and a hundred and fifty paces from the temple just described" i.e. Newton of Petty.
108	Newton	Cropmark	Archaeological remains	NH 7358 4819	-	None	Medium	Noted on the 1946, frame 5058 AP's three rows of square crop marks. Northern most row comprised of 7 square cropmarks, middle row comprised of three and the southern-most row comprised of 2. Also noted on the 1959 sortie, frame 0065 where three pits which appear to be forming part of a circle, located between the middle and southern row of the features noted on the 1946 AP's.
109	Newton	Unenclosed settlement	Archaeological remains	NH 738 482	NH 74 NW 65, MHG3062	None	High	-
110	Balmachree	Timber hall	Archaeological remains	NH 740 482	NH 74 NW 50, MHG302	None	High	-
113	Newton	Cropmark- Enclosure (possible)	Archaeological remains	NH 7382 4854	NH 74NW 64, MHG3063	None	Medium	-
114	Newton	Farmstead	Historic Building	NH 7380 4865	-	None	Low	Recorded on the 1st ed OS (sheet 4, 1874, 1:10560, Inverness-shire and Skye) as a large farmstead comprising of a roofed U-shaped building, a roofed L-shaped building, a roofed T-shaped building and a roofed small rectangular building.
115	Newton	Cropmark - Enclosure	Archaeological remains	NH 743 485	NH 74 NW 28, MHG2935	None	Medium	The NMRS (NH 74 NW 28) notes that air photography has revealed the crop-mark of an enclosure 1km north-north-east of Balmachree farmhouse. It measures about 15.00m in diameter within a narrow ditch. RCAHMS 1979; Visible on RCAHMS air photograph IN 3098-100: flown 1977.
116	Newton of Petty, railway bridge	Railway bridge	Historic Building	NH 7420 4896	NH 74 NW 59, MHG18266	None	Low	The NMRS (NH 74 NW 59) notes Underbridge, Newton, opened 1855 by the Inverness and Nairn Rly. A handsome example of an I&NR underbridge, a segmental arch with curved wing walls.



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117	Newton	Building	Historic Building	NH 7431 4888	-	None	Low	Recorded on the 1st ed OS (sheet 4) as a roofed rectilinear building, oriented east-west with associated enclosure.
118	Newton	Smithy	Archaeological remains	NH 7440 4881	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as 'Smithy', comprising of a roofed L-shaped building with extensions with associated roofed rectilinear building located to the north-west.
119	Newton of Petty	Offices	Archaeological remains	NH 744 488	NH 74 NW 128, MHG47439	None	Negligible	The NMRS (NH 74 NW 128) notes that Newton of Petty offices were designed by architect Alexander Ross.
120	Newton	Post office	Historic Building	NH 7444 4882	-	None	Low	Recorded on the 1st ed OS (sheet 4) as 'Post Office', comprising of a roofed T-shaped building.
121	Newton Cottage	Cropmark	Archaeological remains	NH 7458 4908	NH 74 NW 123	None	Medium	Ring Ditch. No Information available.
123	Newton	Farmstead	Archaeological remains	NH 7469 4894	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as a roofed L-shaped building.
124	Newton	Roundhouses (possible), souterrain (possible)	Archaeological remains	NH 748 489	NH 74 NW 88, MHG16122, MHG43646	None	Medium	-
125	Morayston	Burnt Mound	Archaeological remains	NH 7485 4881	NH 74 NW 71, MHG17544	None	Low	The HER (MHG17544) notes another possible burnt mound, at least 20m by 15m, similar to MHG18033, was observed on the route of the gas pipeline between Nairn and Inverness, but it had been badly disturbed by field drains.
126	Newton Cottage	Cropmark	Archaeological remains	NH 749 490	NH 74 NW 89, MHG16123	None	Medium	-
128	Morayston Steading	Farmhouse, farmsteading	Archaeological remains	NH 7517 4900	NH 74 NE 59, MHG24041, MHG42173	None	Negligible	-
129	Morayston	Building	Archaeological remains	NH 751 491	NH 74 NE 62, MHG26226	None	Negligible	The NMRS (NH 74 NE 59) notes one unroofed building depicted on the 1st edition of the OS map (Sheet 5), but it is not shown on the current edition of the OS 1:10000 map (1994).
130	Morayhill	Farmstead	Historic Building	NH 75180 49342	-	None	Low	Recorded on the 1st ed OS (sheet 5) as 'Morayhill', a farmstead comprising of two roofed L-shaped buildings, a roofed square building and associated enclosure and well. Only the square building is extant and it has been extended.



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131	Tom Na Croiche	Human remains	Archaeological remains	NH 7545 4940	NH 74 NE 1, MHG2860	None	Low	The NMRS (NH 74 NE 1) notes that human Remains found (AD. 1860) were found at this site. Recorded on the 1st ed OS map (sheet 5) as 'Human Rem found here AD 1860 and also noted on the 2nd edition OS map (sheet 5). The old Gallowhill of Petty is a small natural mound by the side of the road on the farm of Morayston. Human remains were found here in A.D. 1860. ISSFC 1885; Name Book 1870. At this spot is a ploughed-down grass knoll. No additional information was encountered concerning the finds. (See also NH74NE 2 - Cists). Visited by OS (J L D) 24 April 1962.
134	Kerrowaird, Farmstead and cottages	Farm labourers cottage(s)	Historic Building	NH 7625 4955	NH 74 NE 60, MHG24106, MHG44197	None	Low	Moray Estate Office, Forres - 2 sheets plans, elevations & sections of 1890 farmhouse. Only the farmhouse is extant.
135	Morayhill	Farmstead	Historic Building	NH 7613 4972	-	None	Low	Recorded on the 1st ed OS (sheet 4) as a farmstead comprising of three roofed rectilinear buildings. Only the central building is extant.
136	Kerrowaird	Cropmarks - Ring ditch, square barrow, circular barrow, enclosure	Archaeological remains	NH 764 498	NH 74 NE 37, MHG2925	Scheduled Monument	High	The NMRS (NH 74 NE 37) notes crop-marks showing the ditches of what may be a square barrow and a circular barrow have been recorded 180.00m east-north-east of Kerrowaird farmhouse. The square barrow measures about 10.00m square within a ditch which may be interrupted by causeways at the corners. Immediately to the south-west there is what appears to be a circular barrow measuring about 8.00m in diameter within a narrow ditch. There are other possible barrows in an area of indeterminate crop-marks about 100.00m to the south-south-east. RCAHMS 1979; Visible on RCAHMS air photograph IN 2653: flown 1976.
137	Clach-an- Tuil	Boundary stone	Historic Building	NH 7670 4985	NH 74 NE 26, MHG2915	None	Low	The NMRS (NH 74 NE 26) notes a large boulder with a hole the size of tea-cup cut in the top. Evidently an old cup or boundary stone. Clachan-tuill is a holed stone, the collected water from which was supposed to cure wens. Name Book 1870; A Fraser 1878. No trace of this stone could be found at its original location. It is probably the stone now adjacent to the front door of the U.F.C church manse at Tornagrain and measures 0.70m x 0.60m x 0.40m high, having a hole 5" in diameter by 3" deep central to the top.



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138	Tornagrain, Manse Farmstead and Steading	Manse Farmstead and steading	Historic Building	NH 76732 49847	NH 74 NE 87, MHG15459, MHG38746, MHG43040	C Listed	Low	Recorded on the 1st ed OS (sheet 5) as 'Free Church Manse'. The NMRS (NH 74 NE 87) notes that the church comprised of two L-shaped structures. 1848. Asymmetrical 2-storey, 3-bay L-plan house. All harled with contrasting painted tooled ashlar margins. 3-bay northwest entrance front, with near centre door under bracketted hood, flanked left by shallow projecting gabled bay with bipartite in ground floor and right by further, more pronounced projecting gabled bay with canted bay window in ground floor. Regular south-west garden front again with shallow projecting bay with apex stock. All first floor windows slightly shorter than those in ground floor; multi-pane glazing, mainly 12-pane saw-tooth skews; apex finials; end stacks slate roofs. Small lean-to extension on to rear. Steading: L-plan whitewashed rubble steading with slated roof.
139	Tornagrain	Old Manse	Historic Building	NH 76712 49866	NH 74 NE 86, MHG38743,	C Listed	Low	-
140	Tornagrain	Smithy	Historic Building	NH 7670 4993	-	None	Low	Recorded on the 1st ed OS (sheet 5) as 'Smithy', comprising of three roofed rectilinear building, two oriented north-east - south-west and the third north-west - south-east.
141	Tornagrain	Buildings	Historic Building	NH 7667 4994	-	None	Low	Recorded on the 1st ed OS (sheet 5) as three roofed rectilinear buildings.
142	Petty United Free Church	Church	Historic Building	NH 76683 50215	NH 75 SE 64, MHG30098, MHG47438	None	Low	ARCHITECT: Alexander Ross
143	War memorial	War Memorial	Historic Building	NH 76711 50222	NH 75 SE 64, MHG49586	None	Low	-
144	Dalcross Station	Railway station	Historic Building	NH 7617 5043	NH 75 SE 19, MHG3032	None	Low	The NMRS (NH 75 SE 19) notes Dalcross Station, opened 1855 by the Inverness and Nairn Rly. Formerly a two-platform through station. The platform faces have been demolished, but the down- (originally up-) platform survives, a 1-storey and 1-storey and attic structure, on an L plan incorporating 2 dwelling houses, platform offices and an awning. J R Hume 1977. This intermediate station on the Highland Railway portion of the Inverness-Aberdeen main line was opened on 5 November 1855. It closed to regular passenger traffic in 1965, the line itself remaining in use.

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145	Dalcross Station	Building	Archaeological remains	NH 7622 5645	-	None	Negligible	Recorded on the 1st ed OS (sheet 4) as a roofed L-shaped building located near the station.
146	Dalcross Station	Weighing machine	Archaeological remains	NH 7622 5645	-	None	Negligible	Recorded on the 1st ed OS (sheet 5) as a roofed rectilinear building, oriented north-east - south-west.
149	Tornagrain wood	Plantation bank	Archaeological remains	NH 768 5101	NH 75 SE 50, MHG28216	None	Negligible	The NMRS (NH 75 SE 500 notes in advance of the construction of a new access road to Dalcross Airport, two trenches were cut across plantation banks. No bedding stones were evident and the height of the banks suggested these were topped by hedges or some form of timber fence. J Wordsworth 1997
150	Tornagrain wood	Plantation bank	Archaeological remains	NH 7690 5045	NH 75 SE 49, MHG24766	None	Negligible	The NMRS (NH 75 SE 500 notes in advance of the construction of a new access road to Dalcross Airport, two trenches were cut across plantation banks. No bedding stones were evident and the height of the banks suggested these were topped by hedges or some form of timber fence. J Wordsworth 1997
151	Mid Coul	Farmhouse	Historic Building	NH 7770 5068	NH 75 SE 36,	None	Low	-
152	Mid Coul	Cottages	Historic Building	NH 7762 5090	NH 75 SE 36.1, MHG42372, MHG24052	None	Negligible	-
153	Culblair	Buildings	Archaeological remains	NH 7762 5104	-	None	Negligible	Recorded on the 1st ed OS (sheet 5) as 'Culblair', comprising of two roofed rectilinear buildings oriented north-east - south-west, with associated enclosures.
154	Culblair	Farmhouse	Historic Building	NH 7779 5050	NH 75 SE 43, MHG42172, MHG21131	None	Low	-
155	Milton of Braicklaich	Cropmark - Pit Circle(s), ring ditch, souterrain (possible)	Archaeological remains	NH 7856 5147	NH 75 SE 51, MHG35545	None	Medium	-
156	Drumine Farm	Farm steading	Historic Building	NH 7925 5154	NH 75 SE 48, MHG25363	None	Low	-
157	Drumine	Cropmark - Ring ditch	Archaeological remains	NH 7941 5164	NH75SE 17, MHG3034	None	Medium	-



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158	Mains of Croy	Enclosure (possible)	Archaeological remains	NH 7924 5195	NH 75 SE 28	None	Medium	The NMRS (NH 75 SE 28) notes 'Possible banked enclosure 60.00m in diameter'.
159	Polfaden	Farmstead	Historic Building	NH 7952 5214	-	None	Low	Recorded on the 1st ed OS (sheet 5) as 'Polfarten', a farmstead comprising of one roofed L-shaped building, one roofed U-shaped building, two roofed small square buildings and a well. Only the Farmhouse is extant.
160	Tirfogrein	Corn drying kiln	Archaeological remains	NH 7990 5223	NH 75 SE 27, MHG17495	None	Negligible	The NMRS (NH 75 SE 27) notes 'Possible corn-drying kiln'.
161	Brackley	Flanged axe head (bronze)	Archaeological remains	NH 802 521	NH 85 SW 27, MHG2830	None	Negligible	The NMRS (NH 85 SW 27) notes a flanged bronze axe (Coles' Class III) from Brackley farm is in the British Museum. (Wing-flanged axe of Ulrome type). Brackla, Cawdor, Nairnshire. Single find. Flanged axe, cleaned, pitted, slight ridge joining the ends of the flanges, faint median ridge on blade. Length 150mm, butt 27mm, cutting edge 52mm, weight 445 gms.
162	Brackley	Farmstead	Historic Building	NH 8029 5214	NH 85 SW 46, MHG20560, MHG42170	None	Low	Three cottages are extant of the seven buildings depicted on the 1st Edition OS map.
163	Brackley	Cropmark - Settlement	Archaeological remains	NH 804 521	-	Scheduled Monument	High	The Scheduled Monument record notes that the monument comprises a prehistoric settlement of at least four roundhouses, visible as cropmarks on aerial photographs. It survives as negative (buried) features, situated on level ground 175.00m to the east-north-east of the buildings at Brackley. As a group the four roundhouses are aligned roughly east to west, with the middle pair situated very close together on a north-west to south-east alignment. The roundhouse to the east appears the best preserved, with a ditch that is 3.00-4.00m wide enclosing an internal area 13.00 m in diameter. A ring of thirteen postholes is situated around the perimeter of the internal area. A break in the line of the ditch occurs to the north. The middle pair of roundhouses appears to overlap slightly, suggesting a sequence of settlement. The south-east example consists of a penannular ditch, 3.00-4.00m wide, tracing its north perimeter, with a break in the centre indicating an entranceway. A series of irregularly spaced pits lie between this roundhouse and the well-preserved one to the east. The north-west roundhouse in the middle pair consists of a broad ditch, 4.00-6.00m wide, giving an overall external diameter of 21.00m. The roundhouse to the west is defined along its northern perimeter by a broad penannular ditch, 5.50m wide, tapering to the west.



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164	Brackley	Cropmark - Ring ditch	Archaeological remains	NH 8038 5236	NH 85 SW 73, MHG36076	None	Medium	RCAHMS AP shows the cropmark of the roundhouses, pits and possible souterrain with the cropmarks of the ring-ditch and the farmsteading adjacent.
165	Lochside	Farmstead	Archaeological remains	NH 809 526	NH 85 SW 53, MHG20817	None	Negligible	The NMRS (NH 85 SW 53) notes a farmstead comprising one unroofed and one roofed building and an enclosure is depicted on the 1st edition OS map (sheet 4), but it is not shown on the current edition OS 1:10000 map (1979).
168	East Glackton	Farmhouse, farmstead	Archaeological remains	NH 8245 5346	NH 85 SW 56, MHG21394	None	Low	The NMRS (NH 85 SW 56) notes Easter Glackton (Gollanfield), architect Ross & Macbeth (1895). Easter Glackton (Gollanfield), Farm Offices, architect: Alexander Ross (1880)
170	Cockhill	Farmstead	Archaeological remains	NH 8322 5391	NH 85 SW 59, MHG21954	None	Negligible	The NMRS (NH 85 SW 59) notes a farmstead, comprising one roofed, one unroofed building and one enclosure is depicted on the 1st edition of the OS 6-inch map (Nairnshire 1871, sheet 4). Two roofed buildings and two enclosures are shown on the current edition OS 1:10000 map (1979).
171	Wester Delnies	Road Block	Archaeological remains	NH 8400 5500	MHG30442	None	Low	-
172	Drumdivan	Farmstead	Archaeological remains	NH 8444 5469	-	None	Negligible	Recorded on the 1st ed OS (sheet 5) as 'Drumdivan', a farmstead comprising of three roofed rectilinear buildings, a small roofed square building, a well and two enclosures.
173	Drumdivan	Farm	Archaeological remains	NH 8438 5133	MHG38902	None	Negligible	Roofed L shaped building number 451 marked on 1st ed OS (sheet4). Building now demolished.
174	Drumdivan	Building	Archaeological remains	NH 8466 5423	MHG38903	None	Negligible	Building (no 458) in grounds immediately north of the railway line on 1st ed OS (sheet 5). On different alignment indicating that it might predate railway. Now removed.
176	Mosshall	Cultivation remains, enclosure (poss)	Archaeological remains	NH 851 544	NH 85 SE 30, MHG7029	None	Low	The NMRS (NH 85 SE 30) notes a possible rectangular enclosure, measuring 16.50m x 9.00m.
177	Meikle Kildrummie	Cropmark - Palisaded enclosure	Archaeological remains	NH 8521 5410	NH 85 SE 22, MHG7017	Scheduled Monument	High	The NMRS (NH 85 SE 22) notes a pear-shaped enclosure visible as crop-markings about 400.00m west-north-west of Meikle Kildrummie measures about 41.00m from east to west by 32.00m transversely within a narrow ditch.
183	Balnespirach	Boundary Marker	Historic Building	NH 8592 5449	MHG32803	None	Low	The HER (MHG32803) notes that 1st ed OS shows two boundary stones, most northerly still marked on modern OS. Marked as municipal boundary (i.e. corner in) of Nairn with parish of Croy & Dalcross to west.



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184	Moss-side	Farmstead	Archaeological remains	NH 8606 5441	-	None	Negligible	Recorded on the 1st ed OS (sheet 5) as 'Moss-side' a farmstead comprising of three roofed rectilinear buildings, a small roofed square building and a well.
186	Delnies Delniesmuir and Gate Lodge	Building	Historic Building	NH 85405 55553	NH 85 NE 422, NH 85 NE 422.01, MHG42683	B Listed	Medium	The Listed building report states that the house; early 20th century, English Arts and Crafts; harled. 2 storey and attic, asymmetrical; Uplan north frontage and L-plan to south. Doorway in north frontage reentrant sheltered by loggia; jettied 1st floor north and south elevations; 2 canted bays in ground floor and 3 swept dormers; south elevation; 1, 2 and 3 light windows, some transomed; most multi-pane glazing survives. Ridge and end stacks; shallow piended and graded stone slate roof with projecting eaves. Lodge: single storey, 3 bay lodge with entrance to rear. Harled; 3 light window with lattice pane glazing; ridge and end stacks; shallow piended and graded stone slate roof with projecting eaves. Simple stone retaining wall, gate piers and pair wrought iron gates.
187	Delnies Beldorney	Building	Historic Building	NH 85503 55566	NH 85 NE 418, MHG15940	B Listed	Medium	Listed building report states dated 1902. Cotswold Revival. Coursed rubble, ashlar dressings. 2 storey and attic, 8 bay asymmetrical gabled house; near centre entrance under corniced, shouldered lintel with moulded architraves and sundial above; similarly detailed doorway to right; canted bay rising to 1st floor with shaped parapet to left. 1, 2, 3 and 4 light windows with multi-pane glazing; single attic dormer; stair window to rear; moulded cills and eaves cornice; ridge and end corniced stacks; graded Caithness slate roof.
188	Drumdelnies	House	Historic Building	NH 8562 5551	NH 85 NE 67, MGG17393	None	Low	-

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189	Delnies Sandwood House and Lodge	House	Historic Building	NH 85889 55527	NH 85 NE 64, MHG7319	B Listed	Medium	Style of W R Davidson. Dated 1907. Scottish Revival. Harled, tooled pink local granite dressings. Symmetrical shallow H-plan 2 storey and attic house. Near centre doorway in north front with depressed arch set in recessed ashlar bay with decorative lozenge detailing above, flanked by gabled and crow stepped bays; shallow 2 storey turret in left re-entrant. 7 bay south elevation; centre 3 bays with paired French windows, and three 1st floor windows rising through eaves with crow stepped shaped gablets; flanking asymmetrical gabled wings; to left with corbelled detailing, to right, shaped and corbelled 1st floor with cable moulding decoration. 2 later dormers to south and 1 north; 8-pane sashes. Ridge and end stacks with lozenge detailing; large crow stepped stack to east gable; deep brown stone slate roof. Single storey service wing to east. Lodge: single storey, 5 narrow bays. Harled with wider centre bay of coursed rubble with lozenge detailing and recessed centre door. 4-pane glazing; rear stacks; piended platform graded slate roof (similar slates to house); stone ridge.
192	Gorsebank	Cemetery	Archaeological remains	NH 8651 5516	MHG31483	None	Low	Depicted on current OS map (1:10000, 1979).
193	Lochdhu	House	Historic Building	NH 8666 5524	NH 85 NE 426, MHG23916	None	Low	Architect: Alexander Ross (Inverness Advertiser June 12, 1868 and June 26, 1868)
194	Lochdhu	Cropmark - Enclosure (possible)	Archaeological remains	NH 868 548	NH 85 SE 25, MHG7015	None	Low	What may be a small enclosure is visible as a crop-mark 250.00m south-south-west of Lochdhu. Plantation bank possible.
195	Gallowgate and Lochdhu	Gallows and Brooch	Archaeological remains	NH 870 550	NH 85 NE 21, NH 85 NE 444, MHG6949, MHG38044	None	Low	The NMRS (NH 85 NE 21 & NH 85 NE 444) notes the gallows stood at the west end of the town, near Lodgehill and the road leading to it was called the Gallowgate. G Bain 1893. The site of the gallows was not located during field investigation. The Gallowgate, now known as Lodgehill Road, extends from NH 8822 5634 to approximately NH 8790 5587. Visited by OS (E G C) 30 November 1961. Copper-alloy annular brooch with incised decoration but with the pin missing. Discovered whilst ploughing. Claimed as Treasure Trove (TT.68/00) and allocated to Nairn Museum. J Shiels 2001
196	Lochdhu Farm	Cropmark	Archaeological remains	NH 867 544	NH 85 SE 52, MHG7279	None	Medium	-



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198	Little Kildrummie and Lochdhu Farm	Cropmark - Barrow(s), unenclosed settlement (possible) and ring ditch	Archaeological remains	NH 870 536	NH 85 SE 57, NH 85 SE 61, MHG7297, MHG17997	Scheduled Monument	High	The NMRS (NH 85 SE 57, NH 85 SE 61) notes - Scheduled [with NH85SE 51] as 'Fonn, three barrows 200m west-south-west of, Little Kildrummie an alignment of three Bronze-Age burial barrows surviving as buried (negative) features in a cultivated field near to the campsite between Little Kildrummie and Howford Bridge.' [Dimensions specified].
199	Howford	Cropmark - Ring ditch	Archaeological remains	NH 874 537	NH 85 SE 20, MHG7301	None	Medium	The crop-mark of the ring-ditch measuring about 6m in diameter has been recorded 100.00m north-west of Howford. Visible on RCAHMS air photograph N 250-1: flown 1976. RCAHMS 1978.
200	Howford	Farmstead	Historic Building	NH 8753 5379	-	None	Low	Recorded on the 1st ed OS (sheet 5) as 'Howeford', a farmstead comprising of two roofed rectilinear structures.
201	Howford	Building	Archaeological remains	NH 8756 5385	-	None	Negligible	Recorded on the 1st ed OS (sheet 5) comprising of a small rectilinear building with attached enclosure.
202	Howford Bridge	Road Bridge	Historic Building	NH 8767 5383	NH 85 SE 80, MHG28172	None	Low	The NMRS (NH 85 SE 80) notes this bridge carries the B9090 public road across the River Nairn.
203	Howford Bridge	Cropmark - Enclosure	Archaeological remains	NH 8781 5375	NH 85 SE 88, MHG36116	None	Medium	The NMRS (NH 85 SE 880 notes that aerial photography has identified the crop mark of the northern and eastern sides of a rectilinear enclosure immediately to the east of Howford Bridge. Only the northern and eastern sides of this enclosure can be seen. The visible traces suggest an enclosure measuring 50.00m by 90.00m. The southern side of this enclosure has been recorded as cropmarks on oblique aerial photography (RCAHMSAP 1996). The enclosure therefore measures about 100.00m north-south.
204	Howford Bridge	Cropmark - Mortuary Enclosure	Archaeological remains	NH 8782 5384	NH 85 SE 56, MHG7296	None	High	The NMRS (NH 85 SE 56) notes a mortuary enclosure has been recorded as cropmarks on oblique aerial photography (RCAHMSAP 1989, 1996, 2000) lying at the base of a low hill on the eastern bank of the River Nairn. It is rectilinear on plan with squared ends and measures about 65.00m west-north-west - east-south-east by about 8.00m within a ditch about 2.00m wide. A large irregular oblong pit lies in the west-north-west end and cropmarks on the north-north-east side suggest further similar features outside the enclosure.
205	Howford Bridge	Cropmark - Henge (possible), ring ditch	Archaeological remains	NH 879 540	NH 85 SE 89, MHG36117	None	High	The NMRS (NH 85 SE 89) notes a penannular ring-ditch has been noted on an air photograph about 300.00m to the north-west of Howford Bridge. The ring-ditch has a diameter of about 8.00m internally with a relatively broad ditch and an entrance on the southeast.



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206	Broadley	Cropmark - Timber Building(s), unenclosed settlement	Archaeological remains	NH 877 548	NH 85 SE 90, MHG36118	None	Medium	The NMRS (NH 85 SE 90) notes that aerial photography has revealed cropmarks of a possible unenclosed settlement about 150.00m to the north-west of Broadly farmsteading. Settlement traces include two timber houses, each consisting of a ring-ditch enclosing a pit circle, a number of circular and crescent marks up to 30.00m in diameter, and an arc of ditch.
207	Broadley	Cropmark	Archaeological remains	NH 8797 5474	-	None	Medium	Noted on the 1953 sortie, frame 272, a possible ring ditch located to the immediate north of Broadley farm.
208	Knocknagilla n	House	Historic Building	NH 890 543	NH 85 SE 41, MHG6999	None	Low	The NMRS (NH 85 SE 41) notes that the 1st ed OS map depicts Knocknagillan house, comprising of four roofed, buildings, one U-shaped, one L-shaped and two rectilinear buildings and a well.
209	Blackpark	Cropmark(s)	Archaeological remains	NH 8946 5483	NH 85 SE 97, MHG50399	None	Low	The NMRS (NH 85 SE 97) notes that macular cropmarks of unknown origin, which are situated to the south-west of Blackpark farmstead, have been recorded on oblique aerial photography (RCAHMSAP 2006).
211	Kinnudie	Cropmark - Enclosure (possible)	Archaeological remains	NH 9046 5528	NH 95 NW 64, MHG36109	None	Medium	-
215	Auchnacloic h	Farmhouse, farmstead	Archaeological remains	NH 9030 5633	NH 95 NW 59, MHG28438	None	Negligible	Recorded on the 1st ed OS (sheet 5) as 'Auchnacloich', comprising of three roofed structures, one a large elaborate building in plan with attached chimney, a U-shaped building and a rectilinear building.
216	Tornagrain	Road	Archaeological remains	NH 7649 4990	MHG33471	None	Negligible	Line of old road visible. Information supplied by Mr Brennan, 1997
217	Seafield of Raigmore	House	Historic Building	269693.6;84 6029.2	-	B Listed	Medium	-
219	Seafield Beach Findspot	Findspot	Archaeological remains	269700.4;84 6101.9	108970, MHG22292	None	Negligible	The NMRS notes NH 697 461. Copper as of Commodus (AD 180-192). Found in 1988 below high water mark on beach near Culloden. Donated to Inverness Museum (INVMG 1996.005). R G Hanley and V Rawlins 1996.
220	Blackcastle Farmstead	Farmstead	Archaeological remains	283038.8;85 4071	15228, MHG6979	None	Negligible	Site of a Farmstead depicted on the Ordnance Survey 6" to the mile 1st Edition, Nairnshire Sheet IV
221	Wester Delnies	Pit	Archaeological remains	284468.3;85 5165.7	287020, MHG50396	None	Medium	The NMRS notes NH85NW 28 8445 5518. A small scatter of pits, which are situated to the SE of Wester Delnies farmstead, have been recorded as cropmarks on oblique aerial photography (RCAHMSAP 2006). Linear cropmarks in the NW of the same field are probably frost wedges. Information from RCAHMS (VLW) 27 February 2007.



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222	Easter Delnies Unenclosed Settlement	Unenclosed Settlement	Archaeological remains	285120.5;85 5681.4	15133, MHG7284	None	High	The NMRS notes NH85NE 45 851 557. Air photographs reveal the cropmarks of a linear unenclosed settlement composed of at least four houses ranging in size from c7m to c13m in diameter; other pitted and ditched features can be seen in the vicinity. Information from SDD (HBM) 26 March 1991.
234	Blackhill Boat House	Boat House	Archaeological remains	271410.8;84 8034.3	-	None	Negligible	Boat House is annotated on the 2nd Edition Ordnance Survey 6" to the mile, no building is depicted.
236	Blackhill Trackway	Trackway	Archaeological remains	271794.7;84 8189.4	-	None	Negligible	A trackway is depicted on the 1st Edition Ordnance Survey 6" to the mile.
237	Redhill Enclosure	Enclosure	Archaeological remains	272900;848 500.1	14226, MHG431	None	Medium	The NMRS notes NH74NW 37 729 485. NH 729 485. Enclosure (Site), Redhill: The crop-mark of an oval enclosure has been recorded 640m ESE of Redhill farmhouse. It measures about 55m in maximum diameter within a narrow ditch. RCAHMS 1979; Visible on RCAHMS air photographs IN 3084, IN 3088: flown 1977.
239	Lonnie Ring Ditch	Ring Ditch	Archaeological remains	273401.1;84 8694.6	14214, MHG2937	None	High	The NMRS notes NH 734 487. Air photography has revealed what may be an unenclosed settlement 450m SW of Lonnie farmhouse. It comprises a ring-ditch about 13m in diameter which contains a ring of pits; an arc of a possible second ring-ditch; and a pit-circle. RCAHMS 1979; Visible on RCAHMS air photographs IN 3092-4: flown 1977. M Tolan 1988. Recent aerial photography (RCAHMSAP 1996) has revealed additional cropmarks suggesting that this is an unenclosed settlement with at least three round houses each comprising of a ring-ditch enclosing a pit-circle, with an internal diameter of about 15m. The most westerly has a broad outer ditch, while the other two have narrow arcs of ditch surrounding the pit-circle. A number of pits are scattered around the immediate area of the round houses. These cropmarks were previously interpreted as enclosures and pit-circles, then as an unenclosed settlement and pit-circle. The remains of a chambered cairn and the cropmarks of two enclosures have been recorded in the surrounding area (NH74NW 14, NH74NW 48, NH74NW 87). Information from RCAHMS (KJ) 28 March 2000.
241	Castle Stuart Find Spot	Find Spot	Archaeological remains	274000;849 000.1	14255, MHG3016	None	Negligible	The NMRS notes NH74NW 8 74 49. A large Neolithic polished stone axe of Cumbrian type from Castle Stewart, is in Edinburgh Museum. C I Fell 1964.



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242	Balmachree Enclosure	Enclosure	Archaeological remains	274139.8;84 8243.3	SM5025, 14215, MHG2936	Scheduled Monument	High	The NMRS notes NH74NW 27 741 482. NH 741 482. Air photography has revealed the crop-mark of a roughly circular enclosure 700m NE of Balmachree farmhouse; it has been surrounded by a bank and an external ditch. RCAHMS 1979; Visible on RCAHMS air photographs IN 2650-1, IN 3097 and IN 3104-6: flown 1976 and 1977. This enclosure measures 12m in diameter, and has clear traces of an internal feature. Information from SDD (HBM), 1991
243	Balmachree	Kiln	Archaeological remains	274197.7;84 8255.5	14248, MHG42393	None	Low	The NMRS notes NH74NW 57 7426 4824. Remains of a single building incorporating a corn-drying kiln. RCAHMS 1979, visited February 1978.
244	Newton Enclosure	Enclosure	Archaeological remains	274490;848 290.1	SM5298, 14217, MHG2934	Scheduled Monument	High	The NMRS notes NH74NW 29 745 483. NH 745 483. Air photography has revealed the crop-mark of an enclosure 1km NE of Balmachree farmhouse. It measures about 20m in diameter within a narrow ditch. RCAHMS 1979; Visible on RCAHMS air photographs IN 2652, IN 3101-3: flown 1976 and 1977.
245	Morayston Sluice and Waterfall	Sluice	Archaeological remains	275209.6;84 8910.7	-	None	Negligible	A sluice and waterfall are depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000
249	Milton of Braicklaich	Enclosure, Unenclosed settlement	Archaeological remains	278500;852 100	14411, MHG3036	None	Medium	-
250	Ballaggan Farm	Pit alignment	Archaeological remains	279453.2;85 2531.8	SM5041, 14410, MHG3037	Scheduled Monument	High	The NMRS notes NH75SE 14 794 525. NH 794 525. Pit-alignment, Ballaggan: Air photography has revealed the crop-mark of a pit-alignment running for about 70m from NW to SE immediately SE of Ballaggan farmhouse. There are indeterminate crop-markings to the E and SE. RCAHMS 1979. (Tolan notes pit-circle at termination of alignment). M Tolan 1988.
251	Ballaggan Farm	Enclosure	Archaeological remains	279462.9;85 2542.1	SM5041, 14410, MHG44638	Scheduled Monument	High	The NMRS notes At the E terminal of the pit-alignment, air photographs show the remains of a pitted enclosure (30m in diameter) with traces of an internal feature which may be a palisade; the relationship between the two is unclear. Information from SDD (HBM), 1991.



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252	Ballaggan Boundary Stone (1)	Boundary Stone	Archaeological remains	279631.8;85 2326.8	-	None	Negligible	A boundary stone is depicted on the 1st and 2nd edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000
254	Ballaggan Farm	Possible Ring Ditch	Archaeological remains	279700;852 900	68516, MHG3080	None	Medium	The NMRS notes NH75SE 12 797 529 Air photography has revealed the crop-mark of what may be an enclosure 400m NE of Ballaggan farmhouse. What may be a ring-ditch or a second enclosure is visible among vestigial crop-markings immediately to the ENE. RCAHMS 1979.
255	Ballaggan Farm	Enclosure	Archaeological remains	279731.9;85 2685.4	SM5028, 14409, MHG3039	Scheduled Monument	High	The NMRS notes NH75SE 13 796 526 NH 796 526. Enclosure (Site), Ballaggan: Air photography has revealed the crop-mark of an oval enclosure about 300m ENE of Ballaggan farmhouse. It measures about 9m in maximum diameter within a narrow ditch. Indeterminate crop-markings to the SW may be periglacial in origin. (Visible on RCAHMS air photographs IN 3071-3, flown 1977). RCAHMS 1979. There is a very clear internal structure, crescentic in shape and measuring some 5m across. There are individual pits in the immediate vicinity. Information from SDD (HBM), 1991.
256	General Wade's Military Road	Road	Archaeological remains	279799.3;85 2894.9	-	None	Negligible	Annotated General Wade's Military Road on the Ordnance Survey 2nd Edition 6" to the mile.
257	Balspardon Building and Walled Garden	Building and Walled Garden	Archaeological remains	279803.8;85 2953.2	-	None	Negligible	A building and walled garden are depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile.
258	Balspardon Post Office	Post Office	Archaeological remains	279808.4;85 2913.3	-	None	Negligible	A building annotated Post Office on the 1st and 2nd Edition Ordnance Survey 6" to the mile
259	Ballaggan Boundary Stone (2)	Boundary Stone	Archaeological remains	279852.9;85 2626.2	-	None	Low	A boundary stone is depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000
261	Polfalden Boundary Stone	Boundary Stone	Archaeological remains	279946.6;85 2574	-	None	Low	Depicted on the 1st Edition Ordnance Survey 6" to the mile. It is not depicted on the 2nd Edition.



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262	Balspardon Boundary Stone	Boundary Stone	Archaeological remains	280034.1;85 2603.1	-	None	Low	A boundary stone is depicted on the 1st and 2nd Edition Ordnance survey 6" to the mile. It is not depicted on the current 1:25,000.
264	Loch Flemington Barrow	Ring Ditch	Archaeological remains	280663.4;85 1984.5	SM5005, 15209, MHG2814	Scheduled Monument	High	NRMS notes NH85SW 12 806 519. NH 806 519. Air photography has revealed the crop-mark of a ring-ditch 450m ESE of Brackley farmhouse. It measures about 8m in diameter within a ditch 1m wide. RCAHMS 1979; Visible on RCAHMS air photographs IN 2689-90, flown 1976.
265	Blackcastle Mile Stone	Mile Stone	Archaeological remains	282741.2;85 3972	-	None	Negligible	A mile stone is depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000
266	Blackcastle Cottage Trackway	Trackway	Archaeological remains	282981.3;85 3986.5	-	None	Negligible	A trackway is depicted on the 1st Edition Ordnance survey 6" to the mile. It is not depicted on the 2nd Edition.
267	Blackcastle Well	Well	Archaeological remains	282923.9;85 4251.4	-	None	Negligible	A well is depicted on the 1st Edition Ordnance Survey 6" to the mile. It is not depicted on the 2nd Edition.
268	Blackcastle Trackway	Trackway	Archaeological remains	283048.3;85 4125	-	None	Negligible	A trackway is depicted on the 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000
269	Wester Delnies Old Gravel Pit	Gravel Pit	Archaeological remains	284582.2;85 5568.2	-	None	Negligible	A gravel pit is depicted on the 2nd Edition Ordnance Survey 6" to the mile annotated 'Old Gravel Pit'
270	Delnies Building and Garden	Building	Archaeological remains	284603.7;85 5448.4	-	None	Negligible	A building and garden are depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000.
271	Woodside Cottage Gravel Pit	Gravel Pit	Archaeological remains	284629.8;85 5489.9	-	None	Negligible	A gravel pit is depicted on the Ordnance Survey 6" to the mile 2nd Edition. It is not depicted on the current 1:25,000
272	Woodside School	School	Historic Building	284663.6;85 5354.7	-	None	Low	A building annotated school is depicted on the 1st Edition Ordnance Survey 6" to the mile. It is not annotated School on the 2nd Edition.
273	Mardon House	Smithy	Archaeological remains	284932.7;85 4546.9	MHG52500	None	Negligible	The HER notes A smithy is depicted on the 1st edition Ordnance Survey map c.1869. It was demolished before the 1960s but metal objects including horse shoes are often still found in the locality. <1> Possible areas of burning and ashy/charcoal deposits were uncovered during topsoil stripping on land to the south. These may be associated with this site.



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274	Newlands of Delnies	Farmstead	Archaeological remains	285054;854 696	15193, MHG7003	None	Negligible	The NMRS notes NH85SE 38 850 546 Site of former farm. OS 6" map, Nairnshire, 1st ed. (1871), sheet iv; RCAHMS 1978, visited March 1978.
275	Caskieben	Crop mark	Archaeological remains	285200;855 000.1	15131, MHG6930	None	Medium	-
276	Delnies Direction Post	Direction Post	Archaeological remains	285287;855 638.8	-	None	Negligible	A direction post is depicted on the 1st and 2nd Edition Ordnance survey 6" to the mile. It is not depicted on the current 1:25,000.
277	Delniesmuir Cottage	Gate lodge and gate pier	Historic Building	285400;855 643	253291, MHG46816	B Listed	Medium	-
278	Delnies School	School	Historic Building	285672.4;85 5701.8	-	None	Low	The Ordnance Survey 6" to the mile 2nd Edition depicts a building annotated 'School'
279	Tradespark Building	Building, Orchard and Trackway	Archaeological remains	286478.6;85 5597.4	-	None	Negligible	A building, orchard and trackway are depicted on the 1st Edition Ordnance Survey 6" to the mile. They are not depicted on the 2nd Edition.
280	5, Wyvis Road, Nairn	Find Spot	Archaeological remains	286610.3;85 5538	15110, MHG7303	None	Negligible	The NMRS notes NH85NE 24 8661 5554. A flint knife from Sandown Road, Nairn, was donated to the National Museum of Antiquities of Scotland (NMAS) in 1964 by R MacDonald, Nairn. Proc Soc Antiq Scot 1967. This flint knife was found at NH 8661 5554 by Mr MacDonald in 1964, about 1' under ground level in peat, whilst digging the foundation for a private house - 5 Wyvis Road. Visited by OS (A A) 24 May 1971. This "knife" - Acc. No. AB 2800 - is a long blade of light buff-grey cherty flint, 3.3" long, 0.1" max. width, with no secondary marking. A blade as large as this is not Mesolithic, but it could be either Neolithic or Early Bronze Age. Information from Dr Close-Brooks, NMAS to OS, 6 March 1972.
281	Hall, TradesparkN airn	Recreation Hall	Historic Building	286674.8;85 5640.2	197470, MHG37559	None	Low	-
282	Nairn, Tradespark Housing Scheme for Nairn CC	House	Historic Building	286700;855 500	110702, MHG23588	None	Low	-



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283	Nairn	Hut circle settlement, defended enclosure, barrow	Archaeological remains	287500.6;85 5507.1	15141, MHG6922, MHG40178, MHG40179	None	High	NMRS notes NH85NE 52 875 555 to 855 535. 'Stretching south west from Nairn for a distance of 3km a complex of huts, large defended enclosure, what appear to be many barrows, including a square enclosure similar to the Heathrow Romano-British site. (cf. NH85NE 46; NH85SE 20, NH85SE 22, NH85SE 23, NH85SE 28 -31) G D B Jones and I Keillar 1986.
284	Balblair	Ring Ditches	Archaeological remains	287700;855 100.1	15134, MHG7285	None	Medium	The NMRS notes NH85NE 46 877 551. 'Air photography has revealed a range of cropmarks in addition to the already known fort at Balblair with its ditch, two concentric internal palisades and internal features. There are at least two probable penanular ring ditches lying W and NW of the fort. To the south are a variety of linear features, some of which may be ice wedges, others may be field boundaries.' (See archive for details.) Information from J Harden 1989. Aerial photography has revealed a series of cropmarks scattered across a field 350m ESE of Balblair House (NH85NE 8). A large oval enclosure, measuring about 55m by 40m internally, has a parallel pair of palisades 4m apart, and 6m in from the external ditch. At least one circular mark within this enclosure, probably a house, suggests that this is a settlement. It has an entrance on the S side. A number of indeterminate circular and sub-circular marking, some of which may be ring-ditches, have also been recorded immediately to the S and W of this settlement, five of which appear on the same alignment. An irregular curving linear cropmark runs for some 50m NE from the roadside in the NW corner of the field, and one of the features identified as a penanular ring-ditch (above) lies to the 40m to the NW of the settlement. Two circular marks, both with diameters of approximately 10m, may be further round-houses, and arcs of ditch between and to the W are probably parts of ring-ditches. Various other indeterminate markings have been recorded immediately to the N. Swirling cropmarks in the SW corner of in the same field are geological in origin, and irregular narrow linear features in the NE corner represent frost or ice wedges. Information from RCAHMS (KB) 7 July 1999
285	Foynesfield	Ring Ditch, pits	Archaeological remains	289000;853 400	68289, MHG7272	None	Medium	Aerial photography has revealed a Ring Ditch and pits. No further information.

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286	Foynesfield	St Ninian's Chapel	Archaeological remains	289200;853 800	15202, MHG6995	None	Negligible	The NMRS notes NH85SE 6 892 538. 'A chapel, dedicated to St Ninian, existed at Foynesfield (St Ninian's Well - NH85SE 2 - is at NH 8952 5379). It was known by the Gaelic form of 'St Ninian', viz. 'St Ringan', and the place is called 'Ringan' by the Gaelic-speak- ing people to this day. A clump of ash trees alone remains to mark the site of the ecclesiastical settlement.' G Bain 1893. Visited by OS (NKB) 16 November 1965. No definite evidence exists for the location of the pre-Reformation chapel. However, the site is reputed locally to have been on a hillock at NH 892 538, where stone is still ploughed up. RCAHMS 1978, visited May 1978.
287	Foynesfield	Possible Fort	Archaeological remains	289300;853 300	15189, MHG7007	None	High	The NMRS notes NH85SE 34 893 533 On east side of B 9101 and west of A 939, 2km south of Nairn, small bi-vallate defended site, recorded during aerial reconnaissance. G D B Jones and I Keillar 1985.
288	Foynesfield	Enclosure	Archaeological remains	289329.8;85 3982	73859, MHG7271	None	Medium	The HER notes NH85SE 59 8933 5398 Listed. No details given. J Wordsworth 1991w. Enclosure identified during observation on the route of the Nairn to Inverness pipeline. Ditch 0.5m wide forming L-shaped fragment of enclosure lying mostly to S of pipe trench and situated on a slight knoll. 5m long N/S and 2m E/W exposed. Interpreted as clearly part of a much larger feature extending Southwards. Whether it was the remains of a field boundary or part of a timber building was not clear.
289	Foynesfield	Settlement	Archaeological remains	289480;854 120	73858, MHG7278	None	Negligible	The HER notes NH85SE 58 8948 5412 Settlement, probably post medieval: listed, no details given. J Wordsworth 1991v. A number of features to the West of the A939 and South of Foynesfield were identified during observation on the route of the Nairn to Inverness pipeline. They represent a major settlement covering at least 60m x 20m. It was difficult to understand its structure as it was largely excavated by toothed bucket and dozer. Mr Mackintosh, the farmer at Foynesfield reported that this was the site of a croft in the early 19th century and this might explain the presence of stones (site 10) and cobbling (site 6). The large areas of charcoal-rich deposit to the West do not seem SO obviously linked to such an occupation, particularly as they were sterile of any artefacts such as pottery or corroded ironwork.



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290	St Ninian's Well	Holy Well	Archaeological remains	289532.2;85 3797.8	15173, MHG7019	None	Low	The NMRS notes NH85SE 2 8952 5379. St Ninian's Well, just within the dyke of Bognafuaran at the road leading to the Park, enjoyed great celebrity. (There was a chapel to St Ninian at Foynesfield, near by - NH85SE 6). G Bain 1893. St Ninian's Well, situated at NH 8952 5379, is now surmounted by a disused hand water-pump. Revised at 1/2500. Visited by OS (N K B) 16 November 1965. (NH 895 253 78) Well (NAT) OS 25" map, Nairnshire, (c. 1900) St Ninian's Well [NT] (covered) [NAT] OS 1:10,000 map, 1980.
291	Park Farm Cottages	Well	Archaeological remains	289566.4;85 3493	-	None	Negligible	A Well is depicted on the 1st Edition Ordnance Survey 6" to the mile. It is not depicted on the 2nd Edition.
292	Bognafuaran	Well	Archaeological remains	290040.9;85 4068.8	-	None	Negligible	A Well is depicted on the ordnance Survey 6" to the mile 1st and 2nd Edition. It is not depicted on the current 1:25,000.
293	Newton of Park	Quarry and Gravel Pit	Archaeological remains	290197.5;85 4236.2	-	None	Negligible	A quarry and a gravel pit are depicted on the 2nd Edition Ordnance Survey 6" to the mile. They are not depicted on the current 1:25,000.
294	Newton of Park	Farmstead	Historic Building	290354.7;85 4138.4	118544, MHG26999	None	Low	Depicted on both the 1st and 2nd edition OS 6" to the mile.
295	Newton of Park	Cottage	Historic Building	290524.3;85 4160.3	118545, MHG27000	None	Low	Depicted on the 2nd edition OS 6~" to the mile.
296	Grigorhill	House	Historic Building	290615.6;85 4552	-	C Listed	Low	Farmstead, comprising two roofed buildings, one unroofed L-shaped building of two compartments and one enclosure is depicted on the 1st Edition of the OS 6-inch map (Nairnshire 1871-4, sheet V). Three roofed buildings are shown on the current edition
297	Grigorhill	Farmstead	Historic Building	290611.4;85 4562.1	-	C Listed	Low	-

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301	Auldearn	Recreation Ground	Archaeological remains	291200;855 610	MHG55085	None	Negligible	The HER notes Known locally as 'The Rec'. The field was presented to the village by Sir Alexander J Dunbar of Boath in 1898. It was used for village cricket and football clubs (before cricket was placed at Boath House). Cricket ceased to be played at the rec after the war. When the army were billeted at Boath House and Kinsteary during WWII they played football against the local football team. There was also a very good ladies football team in the village at the time. During the war years a gymkhana was held in the rec supporting the war effort. There was a black shed which was used as a changing room and store on the bypass side of the field until about late 1960/1970 when it was taken down. In the mid-1990s portacabins put in place on roadside of the field (until then footballers changed in their cars).
302	Millhill	Site of Wind Pump	Archaeological remains	291200;856 300	111433, MHG23784	None	Negligible	HER notes Information from ARCH Community Timeline Project: Auldearn:Modern place name on OS maps is Millhill; local name for the site is Mill-o-Hill. Information from Mrs. Doreen Davidson: 'A Potted History of the Windmill' supplied to ARCH Community Timeline course.19th October 1944. Mr Davidson went to Darklass Farm to see Mr Russell and look at the windmill 28th October 1944. Mr Davidson went to Darklass with Mr Tolmie, builder and Mr Ross, plumber and viewed the mill and again to see about dismantling it.24th January 1945. The hand pump broke down completely and water had then to be carried from the well in the field.12th February 1945. After a lot of to- ing and fro-ing Mr Tolmie brought the windmill from Darklass. It cost £30. Meanwhile the scullery was demolished and a new kitchen built. Found & well were prepared for the windmill.12th March 1945. Windmill was erected with help of Italians from Drumduan.18th June 1945. Tank arrived for storing the water & placed on the kitchen roof.13th July 1945. Windmill going at last. A lot of work had to be done with all the pipes, bathroom and septic tank. Windmill was in use until 1957 - mains water supply was installed.
303	Kinnudie	Find Spot	Archaeological remains	291300.4;85 5002	108971, MHG22293	None	Negligible	The NMRS notes NH95NW 40 913 550 NH 913 550. Small Middle Bronze Age dirk blade (L: 104mm; butt W: 17mm) found with metal detector in plough soil. Reported as Treasure Trove and allocated to Inverness Museum. R G Hanley and I Asher 1996.
304	Garlic Hill	Enclosure	Archaeological remains	291400;855 300.1	72176, MHG7299	None	Medium	-



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305	Millhill	Mill Dam and Sluice	Archaeological remains	291346;856 364.3	-	None	Negligible	A Mill Dam and Sluice are depicted on the 1st and 2nd Editions of the Ordnance Survey 6" to the mile. They are not depicted on the current 1:25000.
306	Auldearn	Find Spot	Archaeological remains	291500;854 500	293308, MHG51802	None	Negligible	The NMRS notes NH95SW 57 91 54. NH 91 54 A heavily worn Early Bronze Age flat axe head was found by Mr T McLeod while metal detecting in woodland. Claimed as Treasure Trove and allocated to Inverness Museum and Art Gallery (TT 11/06). T Cowie 2006
308	Dead Wood	Ring Ditches, Enclosures and Pits	Archaeological remains	291600;854 900	118543, MHG26998, MHG44653	None	Medium	The NMRS notes NHG95SW 42 916 549 Ring-ditches, pits and enclosures identified by Aberdeen Archaeological Service: air photographs AAS/96/05/G15/11-12. NMRS, MS/712/17.
309	Dead Wood, Auldearn	Burial	Archaeological remains	291627.4;85 4848.6	MHG31746	None	High	The HER notes The wood is a small area of conifers with undergrowth on highest land. This area lies to the SW of the centre of the battle - royalist positions were apparently in the village itself with flanks to E & W - HAW 05/2005. Dead Wood, a small irregular rectangular wood in middle of field to S of village is marked & named on 1st ed OS. The majority of the bodies from the battle of Auldearn (1647) were allegedly buried in Dead Wood. Other sources indicate that they were transferred there after they were exhumed on Garlic Hill at a later date - HAW 2/2003
310	Newmill	Farmstead	Historic Building	291620;854 500	118546, MHG27001	None	Low	Depicted on both the 1st and 2nd edition OS 6" to the mile.
311	Newmill	Mill Dam	Archaeological remains	291663.9;85 4437.3	-	None	Negligible	A Mill Dam is depicted on the 1st Edition Ordnance Survey 6" to the mile. It is not depicted on the 2nd Edition.
312	Mill Hill	Crop Marks, pit setting possible	Archaeological remains	291620;856 270	150423, MHG35543	None	Medium	-

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313	Boath Dovecot, Docot Hill, Auldearn	Dovecot	Historic Building	291721.9;85 5627.8	LB1648, 15562, MHG7224	B Listed	Medium	The NMRS notes (NH 9172 5562) Dovecot (NAT) OS 6" map (1906). See also NH95NW 11. Boath Dovecot is 17th century and is now the property of the National Trust for Scotland. NTS List 1959 Boath Dovecot, situated on Castle or Dooket Hill, is circular, with an external diameter of 5.7m. It has one string course, and has been extensively modernised and re-roofed. Visited by OS (RD) 22 November 1965 NH 917 556 Structural analysis and record of the late 17th to early 18th-century circular doocot was undertaken. Assessment of the fabric revealed clay-bonded masonry with a succession of lime-based pointing mortars and harls, the latter employing both marine and river sand aggregate. Sponsor: National Trust for ScotlandJ Millar 2000Scheduled with NH95NW 11 as Dooket Hill, motte and doocot, Auldearn. Information from Historic Scotland, scheduling document dated 21 December 2000.
314	Castle of Auldearn, Doocot Hill	Motte and Bailey	Archaeological remains	291725.3;85 5623.9	SM9293, 15538, MHG7064	Scheduled Monument	High	The NMRS notes NH95NW 11 9172 5562(NH 9172 5562) Dooket Hill (NR) (Supposed to have been A Mote Hill (NR) OS 6" map (1906) See also NH95NW 8 and NH95NW 27. Castle, or Doocot, Hill, a motte, is the site of the Royal Castle of Auldearn of William the Lion (1165-1214). In support of this statement the National Trust write (List of Properties 1959) that the second charter of the Burgh of Inverness was signed at Auldearn by William the Lion sometime after 1180 and (letter from NTS, 1 June 1966) the Earl of Ross submitted to Robert Bruce at the Castle of Auldearn in 1308. They deduce from this that 'it is safe to say that there was a royal castle here which dated back to the 12th century, but whether it was built by William the Lion or not cannot be determined.' The outline of the ditch is still clearly visible. (Undated) information in NMRS. The motte on Dooket or Castle Hill overlooks the village of Auldearn. It measures 59.0m in diameter externally by 8.0m high. The flat central area enclosed by a rampart, measures 32.0m E-W by 27.0m transversely, in the centre of which is a 17th century dovecot (NH95NW 8). No trace of an outer ditch could be seen, and the external slopes are bounded by a modern wall. Resurveyed at 1/2500. Visited by OS (RD) 26 November 1965NH 917 556 An evaluation on a site immediately to the SW of Dooket Hill Motte (NMRS NH95NW 11) revealed several isolated pits and gullies. A large spread of re-deposited gravel was present in the NE corner of the evaluation area; it overlay an area of natural subsoil which appears to have been quarried out or pitted. This was bounded on its northern extremity by two artificial gullies, one of which was filled with rounded stones. A large ditch oriented SE-NW was located on the SE edge of the evaluation area, but was not identified elsewhere. A large spread of burnt material was identified at the bottom of the slope, though it did



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								not appear to have any structure to it. None of these features contained any datable material. A report has been lodged with the NMRS. Sponsor: Highland Council. B Glendinning 1999NH 917 556. The report on the above site gives details of the archaeological features identified during the evaluation. The report also gives several recommendations concerning proposed development for the site. Housing proposed for the area of the farmyard should not affect any of the archaeology as long as it does not impact on the whin bushes to the NW of the site. The farm buildings themselves are modern and do not require recording. The proposed car park is on an area of deep top soil and the archaeological features (burnt deposit and small gully) could be left in place as long as a sufficient depth of overburden is used. The root of the proposed path is believed to cross the area of trench three. Dew to the density of the archaeology and the lack of topsoil in that area further work is recommended before putting the path in place. Sponsors: Highland Council NMRS MS/726/146 (Edinburgh University Centre for Field Archaeology, January 1999)A topographic survey was conducted of Dooket Hill, the motte upon which the doocot stands (NMRS NH95NW 8). The motte may have formed the focus of a more substantial fortification, there perhaps having been a bailey out-with the survey area to the E and now built over. A well-preserved embankment that encloses the summit of the motte may represent subsequent modification. Whether the embankment relates to royalist preparations before the 1646 Battle of Auldearn cannot be determined without excavation. A substantial depression in the NE part of the summit may represent the quarry source for its construction and, if so, would consequently represent a secondary development. The embankment is irregularly formed with a series of dips or shallow depressions, four or five to the W and two to the NE. It is considered at least possible that these represent gun emplacements hastily formed in preparation for

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								'scissor' spade. Nothing of archaeological interest was recorded. Archive to be deposited in the NMRS. Sponsor: NTS.J Harden 2002.
317	Auldearn, Nairn County Council Housing	House	Historic Building	291800;855 600	111464, MHG23770	None	Low	-
318	Auldearn	Burgh	Archaeological remains	291873;855 530	MHG31754	None	Medium	The HER notes GR given to just E of the royal castle (NH95NW0013) established by William the Lion (at latest). Royal Burgh established c1179-82; Craig Millar: Mercat Cross & Tolbooth.
319	Auldearn, Smithy	Smithy	Historic Building	291875.2;85 5502.3	MHG39245	None	Low	HER notes - Building marked as smithy on 1st ed OS, lies to the N of the High St and on opposite side of the lane to the hotel. Boundary walls now re-used as the electricity sub-station. Extension to the W has been removed, but looks to have been secondary. Simple rectangular building, however looks as if the stone within it has been re-used from a major building. Photo HAW 31/05/2005
324	Boath Mill, Auldearn	Grain mill	Archaeological remains	291748.1;85 6111.7	MHG31579	None	Negligible	The HER notes GR corrected to above from 1st ed OS 1st ed OS shows "Boath Mill (Corn)" Range of buildings around 3 sides of court end on to the leat from N. NB the leat line is now changed to N of the building - HAW 2/2003
325	Boath House	Aviary	Archaeological remains	291871;855 780.7	MHG39609	None	Negligible	The HER notes Gardens to Grade A listed House built c1835. To the SW of house very large walled garden with 1 internal building and 4 external including 1 on SW corner described as "Aviaries". Bowling Green to S of this. Area around house heavily treed & down the drive to S. But also appears to be avenue in field to NW of house, plus clumps of trees in field to SE which is tree edged - 1st ed OS - HAW 2/2003
326	Boath House	Walled Garden	Historic Building	291897;855 797.9	MHG31747	None	Low	Gardens to Grade A Listed House built c.1835. To the SW of the house very large walled garden with one internal building and four external including one on SW corner described as "Aviaries".



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327	Boath House	Bowling green	Archaeological remains	291924;855 769	MHG39608	None	Negligible	The HER notes Gardens to Grade A listed House built c1835. To the SW of house very large walled garden with 1 internal building and 4 external including 1 on SW corner described as "Aviaries". Bowling Green to S of this. Area around house heavily treed & down the drive to S. But also appears to be avenue in field to NW of house, plus clumps of trees in field to SE which is tree edged - 1st ed OS - HAW 2/2003.
328	Boath House	House	Historic Building	291958.3;85 5823.6	LB1649, 15552, MHG7050	A Listed	High	The NMRS notes Information from catalogue slip Owner: Brigadier Muirhead Architect: Archibald Simpson 1827 NH 9195 5582. Boath House. Built c.1830 by the Aberdeen architect, Archibald Simpson, for Sir James Dunbar. J G Dunbar 1966. Archibald Simpson, 1830. Austere classical mansion, 2 storeys over basement, with 5-bay main elevations facing east and west. All polished ashlar. East front; centre entrance with moulded architraves within fluted lonic tetrastyle portico; long flanking ground floor windows; corniced parapet (encircling house); centre stepped and raised blocking course. West front; bowed 3-window centre bays rising full height; outer single ground floor French windows set within segmental headed recesses, each with diminutive wreath carved over architrave. 4-bay south elevation; 3-bay north elevation with blind outer bay fenestration. Multi-pane glazing. Symmetrical corniced wallhead stacks (north and south) and paired centre stacks; shallow piended platform slate roof Interior; entrance hall with coffered ceiling and lonic screen leading to (west) drawing room. All public rooms with simple corniced ceilings and original marble chimney pieces; original panelled doors and moulded door pieces; curved staircase to north with cast-iron balustrade with palmette detailing. Notes - Unsigned and undated plans (which appear original) retained in house. Built by Capt. Sir James A. Dunbar, RN, on site of and to replace "the great stane-house" that had been in the Dunbar family since mid 16th century. "Boath House an elegant building of freestone taken from a quarry on the property but not within the parish of Auldearn. the freestone of a beautiful whiteness has retained its colour almost uninjured by the elements". (1842) 1 ground floor room converted to modern kitchen circa 1980.

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329	Boath House, farmsteading	Hen House	Historic Building	291989;855 952	267013, MHG47616	B Listed	Medium	Probably Archibald Simpson, 1830. Range of buildings, stables and former carriage house range being at right angles to one another with single carriage house and hen house sited at angle. Stables; E facing, 2-storey, 8-bay range; pinned coursed rubble with tooled ashlar dressings, margins and quoins. Windows flanking doorways in outer bays; 4 stable entrances set within segmental-headed recesses; 3 small segmental-headed loft windows; end stack; piended slate roof. Former carriage house range fronting former steading; 2-storey; 7 bay S facing range; stugged coursed rubble, tooled ashlar margins and quoins. 4 right (E) bays now converted as dwelling. 3 centre segmental-headed entrances (2 now blocked as window and door to dwelling); small segmental-headed 1st floor windows with 9-pane glazing, 12-pane in ground floor; ridge stack; piended slate roof. Derelict steading square to rear. Single carriage house, with single, S facing, wide segmental-headed entrance; pinned rubble, tooled ashlar dressings; piended slate roof. Hen House; small rubble hen-house with paired centre arched entrances, each segmental-headed, closed with vented wooden doors; piended slate roof. Notes - Fine set of offices set a little north of Boath House. That portion of former carriage house range now a dwelling called "Boath Cottage".
330	Boath House, Farmstead	West Range	Historic Building	291998;855 950	267009	B Listed	Medium	Probably Archibald Simpson, 1830. Range of buildings, stables and former carriage house range being at right angles to one another with single carriage house and hen house sited at angle. Stables; E facing, 2-storey, 8-bay range; pinned coursed rubble with tooled ashlar dressings, margins and quoins. Windows flanking doorways in outer bays; 4 stable entrances set within segmental-headed recesses; 3 small segmental-headed loft windows; end stack; piended slate roof. Former carriage house range fronting former steading; 2-storey; 7 bay S facing range; stugged coursed rubble, tooled ashlar margins and quoins. 4 right (E) bays now converted as dwelling. 3 centre segmental-headed entrances (2 now blocked as window and door to dwelling); small segmental-headed 1st floor windows with 9-pane glazing, 12-pane in ground floor; ridge stack; piended slate roof. Derelict steading square to rear. Single carriage house, with single, S facing, wide segmental-headed entrance; pinned rubble, tooled ashlar dressings; piended slate roof. Hen House; small rubble hen-house with paired centre arched entrances, each segmental-headed, closed with vented wooden doors; piended slate roof. Notes - Fine set of offices set a little north of Boath House. That portion of former carriage house range now a dwelling called "Boath Cottage".

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331	Boath House, Farmstead	Coach House	Historic Building	292005;855 933	267008, MHG47611	B Listed	Medium	Probably Archibald Simpson, 1830. Range of buildings, stables and former carriage house range being at right angles to one another with single carriage house and hen house sited at angle. Stables; E facing, 2-storey, 8-bay range; pinned coursed rubble with tooled ashlar dressings, margins and quoins. Windows flanking doorways in outer bays; 4 stable entrances set within segmental-headed recesses; 3 small segmental-headed loft windows; end stack; piended slate roof. Former carriage house range fronting former steading; 2-storey; 7 bay S facing range; stugged coursed rubble, tooled ashlar margins and quoins. 4 right (E) bays now converted as dwelling. 3 centre segmental-headed entrances (2 now blocked as window and door to dwelling); small segmental-headed 1st floor windows with 9-pane glazing, 12-pane in ground floor; ridge stack; piended slate roof. Derelict steading square to rear. Single carriage house, with single, S facing, wide segmental-headed entrance; pinned rubble, tooled ashlar dressings; piended slate roof. Hen House; small rubble hen-house with paired centre arched entrances, each segmental-headed, closed with vented wooden doors; piended slate roof. Notes - Fine set of offices set a little north of Boath House. That portion of former carriage house range now a dwelling called "Boath Cottage".
332	Boath House, Farmstead	North Range	Historic Building	292009.6;85 5958.2	267101, MHG47613	B Listed	Medium	Probably Archibald Simpson, 1830. Range of buildings, stables and former carriage house range being at right angles to one another with single carriage house and hen house sited at angle. Stables; E facing, 2-storey, 8-bay range; pinned coursed rubble with tooled ashlar dressings, margins and quoins. Windows flanking doorways in outer bays; 4 stable entrances set within segmental-headed recesses; 3 small segmental-headed loft windows; end stack; piended slate roof. Former carriage house range fronting former steading; 2-storey; 7 bay S facing range; stugged coursed rubble, tooled ashlar margins and quoins. 4 right (E) bays now converted as dwelling. 3 centre segmental-headed entrances (2 now blocked as window and door to dwelling); small segmental-headed 1st floor windows with 9-pane glazing, 12-pane in ground floor; ridge stack; piended slate roof. Derelict steading square to rear. Single carriage house, with single, S facing, wide segmental-headed entrance; pinned rubble, tooled ashlar dressings; piended slate roof. Hen House; small rubble hen-house with paired centre arched entrances, each segmental-headed, closed with vented wooden doors; piended slate roof. Notes - Fine set of offices set a little north of Boath House. That portion of former carriage house range now a dwelling called "Boath Cottage".

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333	Boath Cottage and Steadings	Farmstead	Historic Building	292018.2;85 5948.1	LB1656, 110824, MHG45444	B Listed	Medium	The listing document notes probably Archibald Simpson 1830. Range of buildings, stables and former carriage house range being at right angles to one another with single carriage house and hen house sited at angle.
334	Boath Cottage and Steadings	Poultry House	Historic Building	292021.8;85 5949.6	LB1656, 110824, MHG45443	None	Low	The listing document notes small rubble hen house with paired centre arched entrances, each segmental headed, closed with ventilated doors: piended slate roof.
335	Boath Cottage and Steadings	Stable	Historic Building	292022.2;85 5949.9	LB1656, 110824, MHG45442	B Listed	Medium	The Listing document notes E facing, two storey, 8 bay range; pinned course rubble with tooled ashlar dressings, margins and quoins. Windows flanking doorways in outer bays. 4 stable entrances set within segmental headed recesses; 3 small segmental-headed loft windows; end stac
336	Boath House, Farmstead	East Range	Historic Building	292026;855 946	267011, MHG47614	None	Low	-
337	Boath House, Farmstead	South Range	Historic Building	292019;855 924	267012, MHG47615	B Listed	Medium	Probably Archibald Simpson, 1830. Range of buildings, stables and former carriage house range being at right angles to one another with single carriage house and hen house sited at angle. Stables; E facing, 2-storey, 8-bay range; pinned coursed rubble with tooled ashlar dressings, margins and quoins. Windows flanking doorways in outer bays; 4 stable entrances set within segmental-headed recesses; 3 small segmental-headed loft windows; end stack; piended slate roof. Former carriage house range fronting former steading; 2-storey; 7 bay S facing range; stugged coursed rubble, tooled ashlar margins and quoins. 4 right (E) bays now converted as dwelling. 3 centre segmental-headed entrances (2 now blocked as window and door to dwelling); small segmental-headed 1st floor windows with 9-pane glazing, 12-pane in ground floor; ridge stack; piended slate roof. Derelict steading square to rear. Single carriage house, with single, S facing, wide segmental-headed entrance; pinned rubble, tooled ashlar dressings; piended slate roof. Hen House; small rubble hen-house with paired centre arched entrances, each segmental-headed, closed with vented wooden doors; piended slate roof. Notes - Fine set of offices set a little north of Boath House. That portion of former carriage house range now a dwelling called "Boath Cottage".

Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
338	Auldearn Old Parish Church Burial Ground	Cemetery	Historic Building	291943.4;85 5581.9	LB1647, MHG31377	B Listed	Medium	The HER notes Allegedly some of the bodies from the Battle of Auldearn 1647 were buried in the graveyard others in Dead Wood - HAW 2/2003 See also: NH95NW0006 Church, J Aitken: 11/12/02, NMRS Notes: NH95NW 6 9194 5555. Church (NAT) OS 6" map (1959) The parish church of Auldearn, built in 1757, It is adjoined by an unroofed portion of its predecessor (whose windows bear traces of Gothic architecture), which is now used for burial. St Columba was associated with Auldearn but whether his establishment was on this site or whether the medieval church was dedicated to him is not known. G Bain 1893. As described above. Visited by OS (RD) 26 November 1965.
340	Auldearn Old Parish Church	Church	Historic Building/Archa eological Remains	291947.1;85 5564.3	SM5418, LB1647, 15560, MHG7226	Scheduled Monument	High	The NMRS notes NH95NW 6.00 91941 55561 (NH 9194 5555) Church (NAT) OS 6" map (1959) NH95NW 6.01 NH 91962 55569 (Old) Church; Burials NH95NW 6.02 NH 91936 55538 Sundial NH95NW 6.03 Centred NH 91950 55561 Churchyard The parish church of Auldearn, built in 1757, It is adjoined by an unroofed portion of its predecessor (whose windows bear traces of Gothic architecture), which is now used for burial. St Columba was associated with Auldearn but whether his establishment was on this site or whether the medieval church was dedicated to him is not known. G Bain 1893. As described above. Visited by OS (RD) 26 November 1965.
341	Auldearn Old Parish Church	Sundial	Historic Building	291929.5;85 5536.6	LB1647, MHG44943	B Listed	Medium	The HER notes Protected Status: Listed Building (B(SM)) 1647: Auldearn Parish Church, Remains Of Former Medieval Church, Burial Ground And Sundial; Scheduled Monument 5418: Auldearn, old parish church.
345	Newmill	Enclosure, pits	Archaeological remains	291800;854 700	82761, MHG44631	None	Medium	-



Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
346	Bogside of Boath	Farmstead	Historic Building	292175;856 345	278286, MHG49300	None	Low	The NMRS notes NH95NW 73 92175 56345. This courtyard farmstead comprises a U-shaped arrangement of cattle sheds and a barn, and has a late 20th-century shed attached to the rear. A detached farmhouse of one-and-a-half storeys forms the fourth side of the courtyard. The buildings are of stone and slate and were in good condition and in farming use when visited (2000). Information from RCAHMS (SS) 23 January 2006.
347	Bogside of Boath	Well	Archaeological remains	292261.2;85 6313.6	-	None	Negligible	A well is depicted on the Ordnance Survey 6" to the mile 1st and 2nd Editions. It is not depicted on the current 1;25,000.
348	Auldearn Old Parish School	School	Historic Building	292019;855 453	MHG55086	None	Low	The HER notes The old parish school was in use from at least 1693, when documents talk of the roof falling in, and its rethatching in 1696. The school closed in 1896 and was sold at public auction for £260 around the turn of the century. It was a carpenter's workshop, and then divided into three dwelling houses around 1950. Information from Malvina Taylor and Marie MacLeod. George Bain 1898. History of the Parish of Auldearn Centenary Auldearn Primary School 1896-1996: One hundred years of school life.
349	Innes Mount School	School	Historic Building	292055.6;85 5452.2	LB1661, 110818, MHG15943	C Listed	Low	The NMRS notes Built 1841, and named after John Innes, MP and partner in the house of Fairley, Bonham and Company. When the school was no longer needed, it was turned into the headmaster's house until it was sold in 1971. Information from the Auldearn Community Timeline Project, 2012
350	Auldearn, Market Stance	Market Place	Archaeological remains	292056.7;85 5413.6	MHG31478	None	Negligible	The HER notes 1st ed OS shows market stance across main road at east end of village and to the north of it HAW 2/2003.
351	Auldearn Manse	Manse	Historic Building	292074.4;85 5533.2	118542, MHG26997	None	Low	The HER notes Marked on 1st ed OS - HAW 2/2003.
352	Auldearn Primary School	School	Historic Building	292090;855 460	MHG55087	None	Low	The HER notes Current primary school. The Parish and Innes schools amalgamated, with Innes school becoming the junior department of the Auldearn Public school, but by 1895 there was not enough provision. The older part of the current primary school was built by Mr Whittet, architect of Elgin in 1895 and formally opened in 1896. It consisted of four large rooms. In 1975 a large dinner hall and general purposes room was added. Later temporary classrooms have also been added. Centenary Auldearn Primary School 1896-1996: One hundred years of school life. G. Bain 1893. History of Nairnshire



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355	Kinsteary	Ring Ditch	Archaeological remains	291971;854 501	MHG39241	None	Medium	The HER notes Large single ditched ring ditch, W side visible as cropmark on AP. F22.458 RAF1116 278-79 08/05/1953 - HAW 05/2005
356	Kinsteary House, West Lodge	House	Historic Building	291910;854 110	118550, MHG27004	None	Low	The HER notes Still in use as house, but original lodge has been heavily extended - HAW 05/2005.
357	Dalmore, Former Free Church	Church	Historic Building	291942;854 019	LB1659, 111582, MHG16036	C Listed	Low	The Listing document notes 1843. Alterations, A. & W. Reid, Elgin, 1862; further alterations, 1893. Rectangular church with wide gables facing NE and SW. Rubble with tooled ashlar dressings. Projecting gabled porch at NE front with round-headed entrance and double leaf door with fanlight with intersecting tracery. Flanking round-headed windows and smaller hood-moulded centre gallery window with later 19th century tracery. Small occulus in gable apex, with late 19th century belicote above. 3-bay flanks with round-headed windows with intersecting Y-tracery; 2 narrow round-headed windows light SW gable (flanking former pulpit) and abutting single storey Minister's room; lattice pane glazing. End stack at SW apex and to Minister's room; slate roofs. Interior; galleried interior in very poor condition. No interior fittings survive. Notes Original church, built in 1843 on site gifted by John Clark Brodie of Lethen, was "3 roofed", and later altered to achieve present wide single span.
358	Dalmore Manse	Manse	Historic Building	291984;854 020	118548, MHG27003	None	Low	The NMRS notes This site was visited as part of the Scottish Farm Buildings Survey on 28 June 2000. Information from RCAHMS (ACD) 3 March 2008
362	Kinsteary House	House	Historic Building	292410;854 440	271450, MHG48252	None	Low	-
364	Kinsteary	Barrow	Archaeological remains	292420;855 440.1	150577, MHG35588	None	Medium	The NMRS notes NH95NW 63 9242 5544 The cropmark of a possible barrow has been revealed by oblique aerial photography (RCAHMSAP 1995) 130m NW of Kinsteary Cottage at the E side of Auldearn. It is roughly circular in shape, measuring about 10m in diameter, with an indeterminate mark visible in the interior that may represent a burial pit. Information from RCAHMS (KJ) 27 October 1999.
365	Meadowfield	Guide Post	Archaeological remains	292459.2;85 5361.6	-	None	Negligible	A guide post is depicted on the 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000.



Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
366	Auldearn, possible Stone Circle or Ring Cairn	Possible Stone Circle or Ring Cairn	Archaeological remains	292470;855 300	15547, MHG7055	None	Medium	The NMRS notes NH95NW 2 9247 5530 (NH 9247 5530) Stone Circle (NR) (Remains of). OS 6" map (1906) This site was included by Fraser in his list of Clava-type cairns, but there is now nothing to indicate whether the remaining stones are the remnants of a kerb or part of a stone circle. There were formerly four stones, set in a diameter of roughly 55ft but the southernmost (and not the northernmost, as stated by Henshall after her visit on 12 April 1957) has disappeared (A S Henshall 1963). The north stone is 3ft 3ins high, the centre stone is almost flush with the ground, and the south stone is 2ft 3ins high. The stones are conglomerate sandstone. Resurveyed at 1/2500. Visited by OS (RD) 22 November 1965 Three stones set in a private garden are all that remains of what may have been a Clava cairn. RCAHMS 1978, visited April 1978
367	Broombank	House	Archaeological remains	292485.4;85 5574	110829, MHG23586	None	Negligible	-
368	Bogside of Brodie	Well	Archaeological remains	292488.4;85 6381.2	-	None	Negligible	A well is depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000
369	Bogside of Brodie	Find Spot, evaluation.	Archaeological remains	292500;856 500	273589, MHG48600	None	High	The NMRS notes NH95NW 71 92 56 Fragmentary Roman sheet and cast bronze dipper found while metal detecting around Auldearn. Subsequent excavation in the area of the findspot by Fraser Hunter (NMS) uncovered features that may indicate a possible site, including the floor of a house. This potential site may be similar to Birnie, near Elgin, currently being excavated. Declared Treasure Trove (TT 80/03) and allocated to Inverness Museum. A Heald 2004.
370	Bogside of Brodie	Farmhouse	Historic Building	292537;856 382	278313, MHG49312	None	Low	The NMRS notes NH95NW 74 92537 56382. This farmstead, now converted into housing, has a U-shaped plan. The farmhouse is detached and adjacent. Information from RCAHMS (SS) 24 January 2006.
371	Broombank	Mile Stone	Archaeological remains	292689.6;85 5444.6	-	None	Negligible	A mile stone is depicted on the 1st and 2nd Edition ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000.
372	Gallows Hill	Building	Archaeological remains	292781.7;85 5481.5	-	None	Negligible	A roofed building is depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000



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374	Meadowfield	Farmstead	Archaeological remains	292863.1;85 5171.3	118540, MHG26995	None	Negligible	The current famstead is of modern construction and does not accord with the 1st and 2nd edition OS 6" to the mile.
376	Kinsteary House and Walled Garden	House	Historic Building	292642.8;85 4303.6	LB1663, 15950	B Listed	Medium	The Listing document notes House; dated 1792. Single storey and attic, unusual "cottage" dwelling with 5-bay north facing facade and Uplan garden court to south. All pinned Kinsteary pink granite rubble with contrasting tooled ashlar sandstone dressings. Projecting gabled centre bay with lunette, apex wrought-iron dated weather vane (pointers missing) and side entrance. Centre ground floor Venetian window; similar windows in flanking recessed bays; tripartites in further recessed outer bays; 2 small piended dormers; intersecting and multipane glazing. South facing U-plan garden court enclosed east and west by domestic and office ranges and closed on south side by low wall with cast-iron railings. North and east elevations of inner court linked by continuous glazed lean-to extensions. Corniced ridge and wallhead stacks; piended slate roof. Interior; original 6-panelled doors and simple coved ceilings. Walled garden; large walled garden, rubble walls with ashlar copes; brick lined on south and west elevations. Notes: Weathervane initialled GC. Kinsteary lands belonged to Sutherlands of Kingsteary; sold in later 19th century to Cosmo Gordon of Cluny (i.e.) (Aberdeenshire), from whom it passed to his brother, Charles Gordon of Braid (Edinburgh who had property and trade in Tobago, West Indies Date stone of 1698 initialled IS (James?) Sutherland at rear House gives impression that it was converted from former (later 19th century) stables.
377	Kinsteary House	Buildings	Archaeological remains	292762;854 241.8	106394, MHG21232	None	Negligible	The NMRS notes NH95SW 27 9273 5422 Three unroofed buildings are depicted on the 1st edition of the OS 6-inch map (Nairnshire 1871-4, sheet v). One unroofed building is shown on the current edition of the OS 1:10000 map (1980). Information from RCAHMS (AKK) 6 August 1996.
378	Gallows Hill	Human Remains	Archaeological remains	293134.8;85 5638.8	15554, MHG7048	None	Medium	The NMRS notes NH95NW 26 931 556. NH931 556. Human Bones found here. Whilst trenching at several places on the top of Gallows Hill, the farmer has come across human bones. These are usually buried in Dead Wood (NH 916 548). Name Book 1869



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379	Gallows Hill	Enclosure	Archaeological remains	293150;855 550	73925, MHG7268	None	Medium	The NMRS notes NH95NW 29 9315 5555. Air photography has revealed the cropmarks of a penanular ditch and a circular enclosure, immediately N of the A96 at Gallows Hill. That to the W of the grid reference is c10m in diameter, defined by a broad ditch and has an entrance to the S. That to the E is larger, c15m in diameter, defined by a narrower ditch with a possible entrance to the S. (See Archive for details.) Information from J Harden 1989.
380	Little Penick	Enclosure	Archaeological remains	293217;855 346.9	15548, MHG7054	Scheduled Monument	High	The NMRS notes NH95NW 20 9320 5530. NH 932 553. Crop-markings visible on air photographs (RCAHMSAP 1976 and 1977) 300m SW of Little Penick reveal an annular enclosure about 29m in diameter containing an inner palisade trench. Palisaded homestead (possible). RCAHMS 1978.
381	Little Penick	Penick Castle	Archaeological remains	293304.2;85 5363.5	15559, MHG7227	None	Low	The NMRS notes NH95NW 5 c. 933 553. (Area: NH 934 561) The House of Penick, latterly known as Penick Castle, was the country seat of the later Deans of Moray. It was three stories high, and its ruins disappeared shortly before 1893, but an avenue of trees still led up to the site in 1893. (Avenue of trees noted on OS 6" 1st ed at approx NH 933 553). G Bain 1893 According to local information an avenue of trees was removed a number of years ago from the area centred NH 933 553, a ploughed field known as Castle Penick. No trace of building survives and there is no local knowledge regarding its exact position. Visited by OS (RL) 11 December 1970 No trace remains of this three-storeyed castle which was possibly of 16th-century date. The modern Penick Farm is at NH 934 562, but the castle itself is more likely to have stood at NH 933 553. RCAHMS 1978, visited March 1978.

Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
385	Kinsteary	Stone Alignment	Archaeological remains	293166.2;85 4833.5	MHG32191	None	Medium	The HER notes There are four stones in the first phase of the wall that lies just within the cottage garden. Three seem to be bedded. They all lie on the S side of an old wall that has largely collapsed. The garden then truncates the wall line, but further to the W it continues in a different form of build but has at least 1 further large stone in it. If these stones should be linked to the others that project from the cairn then it is possible that they are not in original position and have indeed been moved, but proper survey would be needed to conform this. However it should also be noted that at least 2 large stones lie in the field wall/bank to the SW of the cairn as well - HAW 3/2004 Stone row projecting from the cairn - NH95SW0002 and previously recorded within that record (see file). However, corres by Mr G Steele to AU in 1984 givers much more detailed description of the row based on info from the farmer, regarding further stones now buried and the moving of others, see file 2 stones are visible to the E of the access track, just inside the field line (photo). HAW 5/203
387	Hillend, Old miller's Cottage	Cottage	Historic Building	293222;854 822	291414, MHG52315	None	Negligible	No further information. No cottage is depicted on the 1st or 2nd edition OS 6" to the mile and the building currently on site is of modern construction.
388	Kinsteary House	Round Barrow or possible Motte	Archaeological remains	293297.8;85 4775.7	SM11644, 15602, MHG7189	Scheduled Monument	High	The NMRS notes NH95SW 8 93299 54776 Motte [NR] OS 1:10,000 map, 1980. Location formerly cited as NH 9328 5477. At NH 9328 5477 is a motte constructed by isolating the W end of a glacial ridge. It is roughly circular measuring, c33.0m in diameter at the base and c6.5m high. The featureless flat summit is irregularly oval measuring c18.0m E to W by c7.5m transversely. Around the base of the motte is a ditch with an outer bank, c 6.0m average width and c 1.0m average height, which survives on the N and E only. On the S and W it has been destroyed by a field boundary and quarry respectively. Surveyed at 1/2500. Visited by OS (RL) 7 January 1971. This possible motte is situated at the end of a fluvio-glacial ridge. It stands about 6.5m high and may have been surrounded by a ditch, now partly silted up. Dense vegetation covers the site. RCAHMS 1978, visited May 1978. Scheduled as 'Old Miller's Cottage, motte 95m ESE of the remains of a later medieval motte visible as a rough grass-covered mound and associate low ditch and outer bank.'



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								Information from Historic Scotland, scheduling document dated 27 September 2007. The HER notes There is no evidence that this is a motte. Lies at the E end of a ridge, but the W end is noticeably higher and would form the better defensive position. Looks now as if there has been old quarrying within the area, leaving just the defining external area of the mound. This has old stone walling defining it, but has also been used for dumping stones, probably cleared from adjacent fields. However, could still have been a monument. In suspicious alignment with the series of prehistoric monuments that stretch from Auldearn eastwards - so should be perhaps be considered as possible barrow or equivalent if once ditched as described - HAW 3/2004 NH95SW 8 9328 5477. At NH 9328 5477 is a motte constructed by isolating the W end of a glacial ridge. It is roughly circular measuring, c33m diameter at the base and c6.5m high. The featureless flat summit is irregularly oval measuring c18m E-W by c7.5m transversely. Around the base of the motte is a ditch with an outer bank, c6m average width and c1m average height, which survives on the N and E only. On S and W it has been destroyed by a field boundary and quarry respectively. Surveyed at 1/2500. Visited by OS (RL) 7 January 1971 This possible motte is situated at the end of a fluvio-glacial ridge. It stands about 6.5m high and may have been surrounded by a ditch, now partly silted up. Dense vegetation covers the site. RCAHMS 1978, visited May 1978
389	Kinsteary	Clearance Cairns and Quarry	Archaeological remains	293103;854 814	MHG42959, MHG33025	None	Medium	The HER notes In woodland to S of the cairn and adjacent to the boundary bank is a dip, almost certainly a small quarry pit now overgrown. Heaps of stones around it are probably the site of relatively modern and older clearance stone dumps. Probably from the arable field to the S. Although it should be noted that there are several large stones in the boundary that could be a continuation of the stone row - HAW 3/2004

Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
390	Tree Knoll, Kinsteary	Possible Stone Circle	Archaeological remains	293107;854 759	MHG44906, MHG32197	None	Low	The HER notes Photos 16/3/2004 from cairn site etc. Development seems to be encroaching further on this knoll that has been truncated across the NW segment. Stones visible - HAW 3/2004 Site visit 10/2003: One of the larger trees on the S side has been felled (possible age c160yrs) and grass etc dying back. There is evidence of flat stone walling in parts around this mound. This matches policy walling elsewhere for Kinsteary House grounds. However, there are a number of other larger stones in possibly arc on S side of clump that look like incomers and suspicious in view of the total lack of stone in the trenching immediately outside the area. Possible that early site retained in this area - HAW 10/2003 Small circular clump of trees marked on 1st ed OS, still there within an arable field. Small natural knoll. However, lies within what is believed to be ritual landscape so needs to be checked as there are a number of stones within the trees, including one exceptionally large one that farmer claims has been placed there relatively recently (is this stone an outlier from the stone row/chambered cairn to N?) - HAW 6/2003.
393	Little Penick	Building	Archaeological remains	293322.2;85 5341.7	-	None	Negligible	A roofed building is depicted on the 1st Edition Ordnance Survey 6" to the mile. It is not depicted on the 2nd Edition.
395	Little Penick	Crop Marks	Archaeological remains	293500;855 600	73927, MHG44676, MHG44677	None	Medium	The NMRS notes NH95NW 30 935 556. Air photography has revealed the cropmarks of a complex of rectilinear features centred c40m NE of Little Penick Cottages, including field boundaries, smaller rectangular structures, and presumably, a trackway. Amongst these features is a possible circular enclosure defined by a very fine ditch c20m in diameter. (See Archive for details.) Information from J Harden 1989.
396	Former GPO Repeater Station at Auldearn	Repeater Station	Historic Building	293424.1;85 5554.8	MHG51276	None	Low	The building at NH 934 556 called Old Telephone Exchange (front building, rear building appears to be modern and built in same style to match up) was a GPO repeater station and is mentioned in a document in the North Highland Archive (available through
397	Little Penick Buildings	Buildings	Archaeological remains	293483.4;85 5516.8	-	None	Negligible	Two L-shaped buildings are depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile.
398	Little Penick Trackway	Trackway	Archaeological remains	293565.5;85 5391.5	-	None	Negligible	A trackway is depicted on the Ordnance Survey 1st Edition 6" to the mile. It is not depicted on the 2nd Edition.
399	Little Penick Well	Well	Archaeological remains	293592.5;85 5363.2	-	None	Negligible	A well is depicted on the 1st Edition Ordnance Survey 6" to the mile. It is not depicted on the 2nd Edition.



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401	Courage Cottage	Ring Ditch	Archaeological remains	293610;855 500	269773, MHG47882	None	Medium	The NMRS notes NH95NW 69 9361 5550 What may be a ring-ditch has been recorded as cropmarks on oblique aerial photography (RCAHMSAP 2000) lying on undulating ground about 140m E of Courage Cottage. An arc of ditch may define the SE side of a ring-ditch measuring about 14m in diameter. Information from RCAHMS (KMM) 1 December 2004.
402	Courage Cottage	Possible Ring Ditch	Archaeological remains	293800;855 500	118538, MHG402	None	Medium	The NMRS notes NH95NW 47 9389 5550. Previously numbered NH95NW 35. Two circular enclosures photographed by Aberdeen Archaeological Services (AAS/96/10/G27/8-11). NMRS, MS/712/17. Two barrows and a ring-ditch have been recorded as cropmarks on oblique aerial photography (RCAHMSAP 1996, 2000) lying on undulating ground to the W of Courage (NH95NW 48). The terminals of the ditches appear to expand slightly. Ring-ditch measures about 14m in diameter within a ditch about 2m wide with an entrance gap on the NW. The barrows lie about 70m and 150m to the WNW. Both measure about 8m in diameter within apparently continuous ditches. A cropmark representing what may be a central burial can be seen within the centre of the W barrow. Information from RCAHMS (KMM) 1 Dec 04.
403	Courage Cottage	Ring Ditch	Archaeological remains	293850;855 495.1	MHG32709	None	Medium	The HER notes APs (1996) seem to show a ring ditch to the NW of the clearly defined larger one close to the farm buildings (i.e. the central one of the group. Provided by RCAHMS C72 885-887 - HAW 1/2004
405	Ring ditch, SW of Courage Farm, Auldearn	Ring Ditch	Archaeological remains	293914;855 360	MHG32710	None	Medium	The HER notes Single ring ditch visible as cropmark in field to S of the one holding main cluster. Possible other ditch lines. APs supplied by RCAHMS 1996 C72 885-887 - HAW 1/2004
406	Courage farmsteading	Farmsteading	Historic Building	293956.1;85 5524.5	118539, MHG26994	None	Low	The HER notes Large farmsteading buildings marked on 1st ed OS to W of Courage Cottage at 293992855518. The Cottage is probably the old farmhouse, simple two storey and unrestored. The farmsteadings have been heavily upgraded to form residential units. Large area of landscaping around them. Plus area to S has been created as pond, probably to provide material to form hill terrace on which large new house behind Innesfree is being built - HAW 2/2004
408	Wester Hardmuir Mile Stone	Mile Stone	Archaeological remains	294223.6;85 5857.6	-	None	Negligible	A mile stone is depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile. It is not depicted on the current 1:25,000.



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409	Wester Hardmuir Old Sand Pit	Sand Pit	Archaeological remains	294234.3;85 5972.8	-	None	Negligible	The Ordnance Survey 6" to the mile depicts an old sand pit.
413	Wester Hardmuir	Farmstead	Historic Building	294659.1;85 6109.1	128838, MHG28437	None	Low	The farmhouse is depicted on both the 1st and 2nd edition OS 6" to the mile. It has been altered with an extension to the east.
414	Hardmuir of Boath, 2	Building	Archaeological remains	294975.2;85 5768.9	-	None	Negligible	A building is depicted on the Ordnance Survey 6" to the mile 1st and 2nd Edition.
415	Hardmuir of Boath, Building 3	Building	Archaeological remains	294981.3;85 5785.1	-	None	Negligible	A building is depicted on the 2nd Edition of the Ordnance Survey 6" to the mile.
420	Craggie Knockowdie Farm	Farm	Historic Building	290907.6;85 3749.8	15590, MHG7201	None	Low	The HER notes NB Knockowdie reputedly had chapel in C14 see separate site. Plus recorded dovecote to SW indicates a higher status site - needs checking - HAW 01/2005. The Farm is depicted on both the 1st and 2nd edition OS 6" to the mile.
417	Hardmuir of Boath Well	Well	Archaeological remains	295094.2;85 5747.5	-	None	Negligible	A well is depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile.
418	Wester Hardmuir Well	Well	Archaeological remains	294661.4;85 6186.5	-	None	Negligible	A well is depicted on the Ordnance Survey 6" to the mile 1st and 2nd Edition. It is also depicted on the current 1:25,000.
419	Hardmuir Building, Walled Garden and Track	Building, Walled Garden, Track	Archaeological remains	295039.6;85 6324	-	None	Negligible	A building, walled garden and track are depicted on the 1st Edition Ordnance Survey 6" to the mile.
421	Balblair House	House	Historic Building	287318.2;85 5279.8	15146, MHG6918	None	High	The NMRS notes NH85NE 8 8728 5532. (NH 8728 5532) Balblair (NAT) OS 6" map, (1938) Just before the battle of Culloden, the Duke of Cumberland's camp was centred on the house of Balblair. G Bain 1893. Balblair is a plain harled building of three storeys and has no outstanding architectural features. It dates back to the early 17th. century. Visited by OS (E G C) 29 November 1961; Information from Major Allenby, owner, Balblair.
422	C19 Railway bridge - near Inverness Airport, Petty	Railway Bridge	Historic Building	277104.7;85 1169.9	MHG55863	None	Low	-



Asset ID	Site Name	Site Type	Sub Topic	Easting; Northing or NGR	NMRS/HER No.	Designation	Sensitivity	Description
416	Hardmuir of Boath, Building 1	Building	Historic Building	294990.6;85 5763.6	-	None	Low	A rectilinear roofed building is depicted on the 1st and 2nd Edition Ordnance Survey 6" to the mile.
426	Nairn Boundary Stone	Boundary Stone	Historic Building	-	-	None	Low	A boundary stone is depicted on the 1st and 2nd edition OS 6" to the mile.

A96 Dualling Inverness to Nairn (including Nairn Bypass)

DMRB Stage 2 Scheme Assessment Report

Part 6: Appendices

A14.2: Impact Assessment Tables

Note: Route options which have a negligible impact or no impact on a receptor are not listed in the tables below.

Table 1: Potential impacts on Historic Landscape Types (HLT) (Inverness to Gollanfield)

HLT	Sensitivity	Proposed Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance
17 th to 19 th Century Policies and Parkland	Medium	All Options	Construction of the main route option alignment would lead to the disturbance and severance of the historic pattern of land use.	Permanent	Direct	Negative	Minor	Slight
18 th to 20 th Century Managed Woodland	Negligible	All Options	Construction of the main route option alignment and the local road on embankment near Tornagrain would lead to severance of the HLT.	Permanent	Direct	Negative	Minor	Slight
19 th Century- Present Amalgamated Field	Negligible	All Options	Construction of the route options would lead to the partial loss and severance of the HLT.	Permanent	Direct	Negative	Minor	Slight
Prehistoric- Present Rough Grazing.	Low	1A (MV), 1B (MV), 1D (MV)	Construction of Newton Junction C (Option 1A (MV), 1B (MV)) would lead to the partial loss and severance of the historic landscape type. Construction of the local road on embankment at Mid Coul would also lead the partial loss of the HLT (Option 1B (MV), 1D (MV)).	Permanent	Direct	Negative	Negligible	Slight

Table 2: Potential impacts on archaeological remains and historic buildings (Inverness to Gollanfield)

Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
32	Ashton Farm	Archaeological remains	None	Medium	All Options	Setting	Construction of the main route option alignment would introduce new elements in views to the north.	Minor	Slight
37	Cairnlaw, buildings	Historic Building	None	Low	All Options	Physical	The corner of the assets north- western curtilage would be removed by the construction of the main route option alignment.	Negligible	Slight
						Setting	Construction of the Smithton Junction would completely enclose all round views.	Major	Moderate
40	Cairnlaw, barrow (possible)	Archaeological remains	None	Medium	All Options	Physical	Any archaeological remains associated with this asset would be removed by the construction of the Smithton Junction.	Major	Large
43	Stratton Lodge	Archaeological remains	Scheduled Monument	High	All Options	Setting	Construction of the main route option alignment would introduce new visual and noise elements that would continue into operation in views to the north of this asset.	Minor	Slight
49	Milltown, mill pond and sluice gates	Archaeological remains	None	Negligible	All Options	Physical	Any archaeological remains associated with the asset would be removed by the construction of the main route option alignment.	Moderate	Slight
61	Allanfearn farmhouse	Historic Building	B Listed	Medium	1A, 1A (MV), 1B, 1B (MV)	Physical	Construction of the main route option alignment would result in the loss of part of the assets garden and north-western boundary wall.	Minor	Slight
						Setting	Construction of the main route option alignment would reinforce existing infrastructure elements in views to the north and west.	Minor	Slight

Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
62	Allanfearn, farm standing	Historic Building	None	Low	1C, 1C (MV), 1D, 1D (MV)	Setting	Construction of the main route option alignment on embankment would introduce significant new infrastructure elements in rural views to the south.	Minor	Slight
64	Culloden, chambered cairn	Archaeological remains	None	Medium	1A, 1A (MV), 1B, 1B (MV)	Physical	Construction of the main route option alignment would result in the loss of any archaeological remains or deposits associated with the assets south-eastern edge.	Minor	Slight
						Setting	Construction of the main route option alignment would reinforce existing infrastructure elements in views to the north-east.	Minor	Slight
65	Culloden, cropmarks, pit alignment	Archaeological remains	None	Medium	1A, 1A (MV), 1B, 1B (MV)	Physical	Construction of the main route option alignment would result in the loss of any archaeological remains or deposits associated with the assets south-eastern edge.	Minor	Slight
						Setting	Construction of the main route option alignment would reinforce existing infrastructure elements in views to the north-east.	Minor	Slight
66	Allanfearn, cropmark	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Setting	Construction of the main route option alignment would introduce new visual and noise elements that would continue into operation in views to the south of this asset and sever visual links to Asset 86 that forms part of a wider complex of prehistoric assets to the east (Assets 74, 85 and 87) that may be understood as part of a prehistoric landscape.	Minor	Slight
70	Balloch, Allanfearn, Enclosure (possible), timber building	Archaeological remains	None	Medium	1A, 1A (MV), 1B, 1B (MV)	Physical	Any archaeological remains associated with this asset would be removed by the construction of the main route option alignment.	Major	Large



Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
74	Allanfearn, cropmarks, enclosure, pit setting, ring ditch, settlement	Archaeological remains	Scheduled Monument	High	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains associated with the south-eastern edge of this asset would be removed by the construction of the main route option alignment.	Minor	Slight
						Setting	Construction of the main route option alignment would introduce new visual and noise elements that would continue into operation in views to the south of this asset and sever visual links to Asset 86 that forms part of a wider complex of prehistoric assets to the west and east (Assets 66, 85 and 87) that may be understood as part of a prehistoric landscape.	Minor	Slight
75	Balloch, rig and furrow, find spot - stone axe head, flint arrow head	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains associated with the southern half of this asset would be removed by the construction of the main route option alignment.	Moderate	Moderate
83	Lower Cullernie, farmstead	Historic Building	None	Low	1A, 1A (MV), 1B, 1B (MV)	Setting	Construction of the local roads would introduce new infrastructure elements in rural views to the north and west.	Moderate	Slight
85	Isle View, ring cairn	Archaeological remains	Scheduled Monument	High	1C, 1C (MV), 1D, 1D (MV)	Setting	Construction of the main route option alignment would introduce new visual and noise elements that would continue into operation in views to the south of this asset and sever visual links to Asset 86 that forms part of a wider complex of prehistoric assets to the west and east (Assets 66, 74 and 87) that may be understood as part of a prehistoric landscape.	Minor	Slight



Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
86	Upper Cullernie, stone circle	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Setting	Construction of the main route option alignment would introduce new visual and noise elements that would continue into operation in views to the north and west of this asset and sever visual links to Assets 66, 74, 85 and 87 that form part of a wider complex of prehistoric assets to the north and west that may be understood as part of a prehistoric landscape.	Minor	Slight
91	Lower Cullernie, enclosure (possible)	Archaeological remains	None	Medium	1A, 1A (MV), 1B, 1B (MV)	Physical	Any archaeological remains or deposits associated with the southern half of this asset would be removed by the construction of the main route option alignment.	Moderate	Moderate
96	Upper Cullernie, Enclosure	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains or deposits associated with this asset would be removed by the construction of Newton Junction B.	Major	Large
97	Upper Cullernie, ring ditch	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains or deposits associated with this asset would be removed by the construction of Newton Junction B.	Major	Large
98	Upper Cullernie, ring ditch	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains or deposits associated with this asset would be removed by the construction of Newton Junction B.	Major	Large
99	Newton, barrow	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains or deposits associated with this asset would be removed by the construction of Newton Junction B.	Major	Large
100	Lower Cullernie, ring ditch	Archaeological remains	Scheduled Monument	High	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains associated with the south and eastern part of this asset would be removed by the construction of Newton Junction B.	Major	Large



Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
101	Upper Cullernie, ring ditch(s) (possible)	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains associated with this asset would be removed by the construction of Newton Junction B.	Major	Large
102	Newton, Building	Archaeological remains	None	Negligible	1A, 1B	Physical	Any archaeological remains associated with this asset would be removed by the construction of Newton Junction A.	Major	Slight
103	Upper Cullernie, cropmark(s), ring ditch(s)	Archaeological remains	None	High	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains or deposits associated with this asset would be removed by the construction of Newton Junction B.	Major	Large
104	Upper Cullernie, enclosure	Archaeological remains	None	Medium	1A, 1B	Physical	Any archaeological remains associated with the this asset would be removed by the construction of the new local road associated with Newton Junction A.	Moderate	Moderate
					1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains associated with this asset would be removed by the construction of Newton Junction B.	Major	Large
105	Upper Cullernie, Ring Ditch (possible)	Archaeological remains	None	Medium	1A, 1B	Physical	Any archaeological remains associated with the northern and eastern sides of this asset would be removed by the construction of Newton Junction A.	Major	Large
					1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains associated with the southern half of this asset would be removed by the construction of Newton Junction B.	Major	Large



Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
106	Newton of Petty, Ring Cairn	Archaeological remains	Scheduled Monument	High	1A, 1B	Setting	Construction of Newton Junction A would introduce significant new visual and noise elements into rural views to the south and southwest of this asset.	Moderate	Moderate
					1A (MV), 1B (MV)		Construction of the main route option alignment would reinforce existing visual and noise elements in rural views to the south of this asset.	Minor	Slight
107	Newton, Cropmark(s)	Archaeological remains	None	Medium	1A, 1B	Physical	Any archaeological remains associated with this asset would be removed by the construction of the local road associated with Newton Junction A.	Major	Large
108	Newton, Cropmark(s)	Archaeological remains	None	Medium	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains associated with the south-eastern half of this asset would be removed by the construction of the main route option alignment.	Moderate	Moderate
109	Newton, Unenclosed Settlement	Archaeological remains	None	High	1C, 1C (MV), 1D, 1D (MV)	Physical	Any archaeological remains or deposits associated with the northwestern quarter of this asset would be removed by the construction of the main route option alignment.	Moderate	Moderate
113	Newton, Cropmark, enclosure (possible)	Archaeological remains	None	Medium	1A, 1A (MV), 1B, 1B (MV)	Physical	Any archaeological remains associated with this asset would be removed by the construction of the main route option alignment.	Major	Large
115	Newton, Cropmark, enclosure	Archaeological remains	None	Medium	1A (MV), 1B (MV)	Physical	Any archaeological remains associated with the central part of this asset would be removed by the construction of the new local road associated with Newton Junction C.	Major	Large
					1C (MV), 1D (MV)	Physical	Any archaeological remains associated with the southern half of this asset would be removed by the construction of the main route option alignment.	Major	Large



Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
117	Newton, Building	Historic Building	None	Low	1A (MV), 1B (MV)	Physical	The assets south-western curtilage would be severed by the construction of Newton Junction C.	Minor	Slight
						Setting	Construction of a local road associated with Newton Junction C would introduce new infrastructure elements in rural views to the south.	Minor	Slight
120	Newton, Post office	Historic Building	None	Low	1A, 1B, 1C, 1C (MV), 1D, 1D (MV)	Setting	Construction of the main route option alignment would introduce new infrastructure elements in rural views to the south.	Minor	Slight
					1A (MV), 1B (MV)		Construction of Newton Junction C would introduce significant new infrastructure elements in views to the south.	Moderate	Slight
123	Newton, Farmstead	Archaeological remains	None	Negligible	1A, 1B, 1C, 1D	Physical	Any archaeological remains or deposits associated with the south-eastern edge of this asset would be removed by the construction of the main route option alignment.	Minor	Slight
					1A (MV), 1B (MV)	Physical	Any archaeological remains or deposits associated with this asset would be removed by the local road associated with Newton Junction C.	Major	Slight
124	Newton, Roundhouses (possible)	Archaeological remains	None	Medium	1A, 1B, 1C, 1D	Physical	Construction of the main route option alignment would remove any archaeological remains or deposits associated with the northwestern edge of this asset.	Minor	Slight

Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
126	Newton Cottage, Cropmark	Archaeological remains	None	Medium	1A, 1B, 1C, 1D	Physical	The location and extent of this asset was obtained from Highland Environmental Records (HER) digital data derived from aerial photography. However, the full extent of archaeological remains or deposits associated with this asset may extend out of the area provided. Therefore the assumption has been made that any archaeological remains or deposits associated with the northwestern edge of this asset would be removed by the construction of the main route option alignment.	Minor	Slight
129	Morayston, Building	Archaeological remains	None	Negligible	1A, 1B, 1C, 1D	Physical	Any archaeological remains associated with the north-western half of this asset would be removed by the construction of a new local road to Morayston.	Moderate	Slight
131	Tom Na Croiche, human remains	Archaeological remains	None	Low	1A, 1B, 1C, 1D	Physical	The location of this asset was obtained from HER digital data derived from historic mapping. However, the full extent of archaeological remains or deposits associated with this asset may extend beyond the location given. Therefore the assumption has been made that any archaeological remains or deposits to the north of the given location would be removed by the construction of the new local road.	Minor	Slight

Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
135	Morayhill, Farmstead	Historic Building	None	Low	1B (MV), 1D (MV)	Physical	The assets north-western curtilage would be removed by the new local road.	Moderate	Slight
						Setting	Construction of the local road and the main route option alignment on embankment would introduce significant new infrastructure elements in views to the north and west of this asset.	Major	Moderate
142	Petty United Free Church	Historic Building	None	Low	All Options	Setting	Construction of the main route option alignment and local road would introduce new infrastructure elements in rural views to the west.	Minor	Slight
152	Mid Coul Cottages	Historic Building	None	Negligible	1B, 1B (MV), 1D, 1D (MV)	Physical	Any archaeological remains or deposits associated with the south-eastern cottage would be removed by the construction of Mid Coul Junction B.	Major	Slight
156	Drumine Farm	Historic Building	None	Low	1B, 1B (MV), 1D, 1D (MV)	Physical	The assets north-western curtilage would be removed by the local road associated with the Brackley Junction.	Minor	Slight
159	Polfaden, Farmstead	Historic Building	None	Low	All Options	Physical	The assets south-eastern curtilage would be severed by the local road associated with the Brackley Junction.	Minor	Slight
						Setting	Construction of the local road would introduce new infrastructure elements in rural views to the south and east.	Minor	Slight
162	Brackley, Farmstead	Historic Building	None	Low	All Options	Physical	The assets north-eastern curtilage would be partially removed by the construction of Brackley Junction.	Minor	Slight
						Setting	Construction of Brackley Junction would introduce new infrastructure elements in rural views to the north-east.	Moderate	Slight



Asset No	Name	Asset Type	Designation	Sensitivity	Route Option	Physical/ Setting	Description of Potential Impact	Magnitude	Significance
164	Brackley, Cropmark, ring- ditch	Archaeological remains	None	Medium	All Options	Physical	Any archaeological remains associated with this asset would be removed by the construction of Brackley Junction.	Major	Large

Table 3: Potential impacts on Historic Landscape Types (HLT) (Nairn Bypass)

HLT	Sensitivity	Proposed Route Option	Description of Impact	Permanent/ Temporary	Direct/ Indirect	Positive/ Negative	Magnitude	Significance
18 th to 19 th Century Rectilinear Fields	Negligible	All Options	Construction of the route options would lead to the severance of the existing HLT and disruption to field pattern.	Permanent	Direct	Negative	Minor	Slight
19 th Century- Present Amalgamated Field	Negligible	All Options	Construction of the route options would lead to the partial loss and severance of the HLT.	Permanent	Direct	Negative	Negligible	Slight
17 th to 19 th Century Policies and Parkland	Medium	2C, 2D, 2G, 2I	Construction of the main route option alignment and local roads at Kinsteary would lead to the partial loss and severance of the HLT.	Permanent	Direct	Negative	Negligible	Slight
19 th Century- Present Cultivated former Parkland	Negligible	2C, 2D, 2G, 2I	Construction of the main route option alignment and local roads at Kinsteary would lead to the partial loss and severance of the HLT.	Permanent	Direct	Negative	Minor	Slight
19 th Century to Present Recreation Area	Low	2A, 2B, 2C, 2D, 2E, 2F and 2H	Construction of the route options will lead to the partial loss and severance of the HLT.	Permanent	Direct	Negative	Minor	Slight
Late 20 th Century- Present Opencast	Negligible	2E, 2F, 2G, 2H, 2I	Construction of the route options will lead to a partial loss and severance of the HLT.	Permanent	Direct	Negative	Minor	Slight
Auldearn Battlefield	High	2A, 2B, 2E, 2F, 2H	Construction of the Nairn East Junction, associated local roads and the main route option alignment would lead to a partial loss and reinforcement of the existing severance of the HLT.	Permanent	Direct	Negative	Moderate	Moderate

Table 4: Potential impacts on archaeological remains and historic buildings (Nairn Bypass)

Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
170	Cockhill, Farmstead	Archaeological remains	None	Negligible	2A, 2B, 2C, 2D	Physical	Any archaeological remains associated with this asset would be removed by the construction of a local road to Cockhill Farm.	Minor	Slight
173	Drumdivan Farm	Archaeological remains	None	Negligible	2A, 2B, 2C, 2D	Physical	Any archaeological remains associated with the centre of this asset would be removed by the construction of the local road to Cockhill Farm.	Minor	Slight
176	Mosshall, cultivation remains, enclosure (possible)	Archaeological remains	None	Low	2E, 2F, 2G, 2H, 2I	Physical	Construction of the local road would result in the loss of archaeological remains associated with the southwestern half of this asset.	Moderate	Slight
183	Balnespirach, Boundary Marker	Historic Building	None	Low	2E, 2F, 2G, 2H, 2I	Setting	Construction of the main route option alignment on embankment would introduce new infrastructure elements in rural views to the south.	Minor	Slight
186	Delnies Delniesmuir and Gate Lodge	Historic Building	B Listed	Medium	2A, 2B, 2C, 2D	Physical	The northern curtilage of this asset would be partially removed by the local road associated with Nairn West Junction A.	Minor	Slight
193	Lochdhu	Historic Building	None	Low	2A, 2B, 2C, 2D	Setting	Construction of the main route option alignment on embankment would introduce new infrastructure elements in rural views to the south-east.	Minor	Slight
194	Lochdhu, Cropmark, enclosure (possible)	Archaeological remains	None	Low	2A, 2B, 2C	Physical	Any archaeological remains associated with the northeastern half of this asset would be removed by the main route option alignment.	Moderate	Slight

Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
196	Lochdhu Farm, Cropmark	Archaeological remains	None	Medium	2E, 2F, 2G, 2H, 2I	Physical	The location and extent of this asset was obtained from HER digital data derived from aerial photography. However, the full extent of archaeological remains or deposits associated with this asset may extend out of the area provided. Therefore it is assumed that any archaeological remains or deposits associated with the southern edge of this asset would be removed by the construction of the local road.	Negligible	Slight
199	Howford, Cropmark, ring ditch	Archaeological remains	None	Medium	2H, 2I	Physical	The location and extent of this asset was obtained from HER digital data derived from aerial photography. However, the full extent of archaeological remains or deposits associated with this asset may extend out of the area provided. Therefore it is assumed any archaeological remains or deposits associated with the northern edge of this asset would be removed by the construction of the local road.	Negligible	Slight
200	Howford, Farmstead	Historic Building	None	Low	2D, 2H, 2I	Setting	Construction of the main route option alignment would introduce new infrastructure elements in rural views to the north.	Minor	Slight
202	Howford Bridge	Historic Building	None	Low	2D, 2H, 2I	Setting	Construction of the new bridge and main route option alignment would introduce new infrastructure elements in views to the north.	Minor	Slight



Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
204	Howford Bridge, Cropmark, Montuary enclosure	Archaeological remains	None	High	2D, 2H, 2I	Physical	Any archaeological remains associated with the northeastern edge of this asset would be removed by the construction of the main route option alignment.	Negligible	Slight
206	Broadley, Cropmark - Timber Building(s), unenclosed settlement	Archaeological remains	None	Medium	2A, 2B, 2C, 2E, 2F, 2G	Physical	The location and extent of this asset was obtained from HER digital data derived from aerial photography. However, the full extent of archaeological remains or deposits associated with this asset may extend beyond out of the area provided. Therefore it is assumed that any archaeological remains or deposits associated with the eastern or southern edge of this asset would be removed by the construction of a new local road.	Negligible	Slight
208	Knocknagillan	Historic Building	None	Low	2A, 2B, 2E, 2F	Setting	Construction of the main route option alignment and associated local roads would introduce new infrastructure elements in rural views to the north.	Minor	Slight
					2C, 2G		Construction of the main route option alignment and A939 Junction A would introduce new elements in rural views to the north and east.	Moderate	Slight
					2D, 2I		Construction of A939 Junction B would introduce new infrastructure elements in rural views to the south.	Moderate	Slight



Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
					2H		Construction of the main route option alignment and associated local roads would introduce new infrastructure elements in rural views to the south and east.	Moderate	Slight
209	Blackpark, Cropmark(s)	Archaeological remains	None	Low	2A, 2B, 2C, 2E, 2F, 2G, 2H	Physical	Any archaeological remains associated with this asset would be removed by the construction of the main route option alignment and the realigned local road.	Moderate	Slight
211	Kinnudie Possible Enclosure	Archaeological remains	None	Medium	2H	Physical	Any archaeological remains associated with the north-western half of this asset would be removed by the construction of the main route option alignment.	Moderate	Moderate
220	Blackcastle Farmstead	Archaeological remains	None	Negligible	2E, 2F, 2G, 2H, 2I	Physical	Any archaeological remains associated with this asset would be removed by the construction of the main route option alignment.	Major	Slight
288	Foynesfield, Enclosure	Archaeological remains	None	Medium	2D, 2l	Physical	Any archaeological remains associated with this asset would be removed by the construction of A939 Junction B.	Major	Large
289	Foynesfield, Settlement	Archaeological remains	None	Negligible	2D, 2H, 2l	Physical	Any archaeological remains associated with the western and southern half of this asset would be removed by the construction of A939 Junction B (Option 2D, 2I) or a local road (Option 2H).	Major	Slight
294	Newton of Park, Farmstead	Historic Building	None	Low	2D, 2l	Setting	Construction of the main route option alignment would introduce new infrastructure elements in rural views to the south.	Minor	Slight



Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
295	Newton of Park, Cottage	Historic Building	None	Low	2D, 2l	Setting	Construction of the main route option alignment would introduce new infrastructure elements in rural views to the south.	Minor	Slight
296	Grigorhill, House	Historic Building	C Listed	Low	2C, 2G	Setting	Construction of the main route option alignment would introduce new infrastructure elements in rural views to the south.	Minor	Slight
297	Grigorhill, Farmstead	Historic Building	C Listed	Low	2C, 2G	Setting	Construction of the main route option alignment would introduce new infrastructure elements in rural views to the north.	Minor	Slight
310	Newmill, Farmstead	Historic Building	None	Low	2D, 2l	Setting	Construction of a local road on embankment would introduce new infrastructure elements in mainly rural views to the south.	Negligible	Slight
313	Boath Dovecot	Historic Building	B Listed	Medium	2A, 2B, 2E, 2F, 2H	Setting	Construction of the Nairn East Junction and main route option alignment would introduce new infrastructure elements in mainly rural views to the west.	Moderate	Moderate
314	Castle of Auldearn (Motte)	Archaeological remains	Scheduled Monument	High	2A, 2B, 2E, 2F, 2H	Setting	Construction of Nairn East Junction and associated local roads would introduce new infrastructure elements in mainly rural views to the west.	Moderate	Moderate
345	Newmill, Enclosure, pits	Archaeological remains	None	Medium	2C, 2G	Physical	Any archaeological remains associated with the northern half of this asset would be removed by the construction of the main route option alignment.	Moderate	Moderate



Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
346	Bogside of Boath, Farmstead	Historic Building	None	Low	2A, 2E, 2H	Setting	Construction of the main route option alignment would introduce new infrastructure elements in rural views to the south.	Minor	Slight
356	Kinsteary House, West Lodge	Historic Building	None	Low	2D, 2l	Setting	Construction of the local road on embankment would introduce new infrastructure elements in views to the north.	Minor	Slight
358	Dalmore Manse	Historic Building	None	Low	2D, 2I	Setting	Construction of the local road on embankment would introduce new infrastructure elements in wooded views to the north.	Negligible	Slight
362	Kinsteary House	Historic Building	None	Low	2D, 2l	Setting	Construction of the local road on embankment would introduce new infrastructure elements in rural views to the north-east.	Minor	Slight
376	Kinsteary House and Walled Garden	Historic Building	B Listed	Medium	2D, 2l	Setting	Construction of the local road on embankment would introduce new infrastructure elements in rural views to the north.	Minor	Slight
379	Gallows Hill, Enclosure	Archaeological remains	None	Medium	2B, 2F	Physical	The location and extent of this asset was obtained from HER digital data derived from aerial photography. However, the full extent of archaeological remains or deposits associated with this asset may extend out of the area provided. Therefore it is assumed that any archaeological remains or deposits associated with the southern edge of this asset would be removed by the construction of the local road.	Negligible	Slight



Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
380	Little Penick Enclosure	remains Monument associated with the northern and eastern edge of this ass would be removed by the construction of Naim East Junction D and the associate local road.		construction of Nairn East Junction D and the associated	Major	Large			
					2B, 2F	Physical	Any archaeological remains associated with the northern and edge of this asset would be removed by the construction of the main route option alignment to the east of Auldearn.	Major	Large
381	Little Penick Castle	Archaeological remains	None	Low	2C, 2D, 2G, 2l	Physical	Any archaeological remains associated with the centre of this asset would be removed by the construction of Nairn East Junction D and associated local road.	Moderate	Slight
					2B, 2F	Physical	Any archaeological remains associated with the centre of this asset would be removed by the main route option alignment to the east of Auldearn.	Moderate	Slight
385	Kinsteary, Stone alignment	Archaeological remains	None	Medium	2C, 2D, 2G, 2l	Setting	Construction of the local road to Nairn East Junction D would introduce new infrastructure elements in rural views to the north.	Minor	Slight
387	Hillend, Old miller's Cottage	Historic Building	None	Negligible	2C, 2D, 2G, 2l	Setting	Construction of the local road to Nairn East Junction D would introduce new infrastructure elements in rural views to the north.	Minor	Slight



Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
388	Kinsteary House, round barrow or possible motte	Archaeological remains	Scheduled Monument	High	2C, 2D, 2G, 2l	Setting	Construction of the local road to Nairn East Junction D would introduce new infrastructure elements in rural views to the north.	Minor	Slight
393	Little Penick, building	Archaeological remains	None	Negligible	2C, 2D, 2G, 2l	Physical	Any archaeological remains associated with this asset would be removed by the construction of Nairn East Junction D and associated local roads.	Major	Slight
396	Former GPO Repeater Station at Auldearn	Historic Building	None	Low	2B, 2F	Setting	Construction of the main route option alignment and local road would introduce new infrastructure elements in rural views to the east and west.	Minor	Slight
					2C, 2D, 2G, 2I		Construction of Nairn East Junction D would introduce new infrastructure elements in rural views to the south.	Minor	Slight
401	Courage Cottage, ring ditch	Archaeological remains	None	Medium	2C, 2D, 2G, 2l	Physical	Any archaeological remains associated with the centre of this asset would be removed by the construction of Nairn East Junction D and associated local roads.	Major	Large
					2B, 2F	Physical	Any archaeological remains associated with the centre of this asset would be removed by the main route option alignment to the east of Auldearn.	Major	Large
402	Courage Cottage, ring ditch (possible)	Archaeological remains	None	Medium	2C, 2D, 2G, 2l	Physical	Any archaeological remains associated with the western half of this asset would be removed by the construction of Nairn East Junction D and associated local roads.	Moderate	Moderate



Asset No	Name	Asset Type	Designation	Sensitivity	Proposed Route Option	Physical/Setting	Description of Potential Impact	Magnitude	Significance
406	Courage Farmsteading	Historic Building	None	Low	2A, 2B, 2E, 2F, 2H	E, 2F, Setting Construction of the loand main route option alignment would intronew infrastructure elerural views to the norwest.		Negligible	Slight
					2C, 2D, 2G, 2l		Construction of the main route option alignment and Nairn East Junction D would introduce new infrastructure elements in rural views to the north and west.	Minor	Slight
413	Wester Hardmuir, Farmstead	Historic Building	None	Low	All Options	Setting	Construction of the main route option alignment would introduce new infrastructure in rural views to the south.	Minor	Slight
420	Craggie (Knockowdie) Farm	Historic Building	None	Low	2D, 2l	Setting	Construction of the main route option alignment would introduce new infrastructure elements in rural views to the north.	Minor	Slight
426	Nairn Boundary Stone	Historic Building	None	Low	2D, 2E, 2F, 2G, 2H, 2I	Physical	This asset would be removed by the construction of the realigned local road.	Major	Slight

A15.1 Path Network

Table 1: Path network and access to outdoor areas (Inverness to Gollanfield)

Path Ref.	Designation	Users*	Description	Access to Outdoor Areas
IN08.23	Core path	Walkers	Longman to Milton by old A96. Provides link to IN08.30, ACP05 and LP04.	Provides direct access along and to the beach.
IN08.30	Core path	Walkers	A96 to old A96 by Seafield. The IN08.30 travels south from the IN08.23 and meets the existing A96 where an at-grade crossing provides access across and links to IN08.10 and LP01.	Provides direct access to the beach.
IN08.10	Core path	Walkers Cyclists Runners	A96 to Caulfield Road North by Ashton Farm. On the southern side of the existing A96, the IN08.10 is a continuation of the route taken by the IN08.30 travelling south from the IN08.23, until it reaches Resaurie/Smithton. Links to IN08.30 and LP01.	No direct access to outdoor areas provided. Links to IN08.30 to provide access to the beach.
IN08.05	Core path	Walkers	Milton level crossing (A96) to Culloden by Milton of Culloden Smallholdings. Provides at-grade crossing for the residents of Milton of Culloden to cross the existing A96 and access Culloden town centre. Links to LP04.	No direct access to outdoor areas provided. Links to LP04 to provide access to the beach. Provide indirect access to Culloden playing field
IN08.15	Core path	Unknown	Allanfearn to Culloden path. Provides access into Culloden town centre and links to IN08.21 and IN08.16.	No direct access to outdoor areas provided.
IN08.21	Core path	Walkers Cyclists	Alturlie Junction to Allanfearn. Links to IN08.15, IN08.16 and LP05.	No direct access to outdoor areas provided. Links to LP05 to provide access to the beach.
IN08.16	Core path	Walkers Cyclists	Allanfearn to Cherry Park. Provides a link to NCR1, IN08.15 and IN.08.21.	No direct access to outdoor areas provided.
IN08.32	Core path	Walkers	A96 to High Wood by Balmachree. Links to ACP07.	Provides direct access to Cullernie Wood and High Wood.
NCR1	National Cycle Route	Cyclists	NCR1 through Nairn town centre when arriving from the east and heads southwards before looping back up in a north-westerly direction towards Inverness. It intersects the study area briefly in the village of Balloch.	Provides direct access to Cullernie Wood.
ACP02	Aspirational core path	Walkers	Stoneyfield to Inverness Retail Park.	No direct access to outdoor areas provided.
ACP03	Aspirational core path	Unknown	Scretan bridge to Inverness Retail Park.	No direct access to outdoor areas provided.
ACP04	Aspirational core path	Unknown	Ashton Farm to Stratton and Cairnlaw. Provides access to and from the existing A96. Links to ACP06, LP01 and LP04.	No direct access to outdoor areas provided. Links to LP04 to provide access to the beach.
ACP05	Aspirational core path	Unknown	Track to old A96 at Smithton Roundabout. Provides access to and from the existing A96 and links to IN08.23, LP01 and LP02.	Provides direct access to the beach.
ACP06	Aspirational core path	Unknown	Track to Caulfield Road north. Provides access to and from the existing A96 and links to ACP04, LP01 and LP04.	No direct access to outdoor areas provided. Links to LP04 to provide access to the beach.

Path Ref.	Designation	Users*	Description	Access to Outdoor Areas
ACP07	Aspirational core path	Unknown	Barn Church Road from Balloch to A96. Links to IN08.32.	No direct access to outdoor areas provided. Links to IN08.32 to provide access to Cullernie Wood and High Wood.
ACP08	Aspirational core path	Walkers	Circuit of Loch Flemington.	Provides access to Loch Flemington via a circular route.
LP01	Local path	Walkers Runners Cyclists	A96 Raigmore Interchange to Milton of Culloden. Provides access to and from the existing A96 and links to IN08.30, IN08.10, ACP04, ACP05, ACP06, LP02 and LP04.	No direct access to outdoor areas provided. Links to IN08.30, ACP05 and LP04 to provide access to the beach.
LP02	Local path	Walkers, Runners Cyclists	Barn Church Road from Smithton Roundabout. Provides access to and from the existing A96 and links to ACP05, LP01 and LP03.	No direct link to outdoor areas provided. Links to ACP05 to provide access to the beach.
LP03	Local path	Unknown	Barn Church Road to Smithton. Links to LP02 and crosses ACP04.	No direct link to outdoor areas provided.
LP04	Local path	Walkers, Runners Cyclists	Road at Milton of Culloden Smallholdings. Provides access to and from the existing A96 and links to IN08.23, ACP04, ACP06 and LP01.	Provides direct access to the beach.
LP05	Local path	Unknown	Alturlie Road Junction. Provides access to and from the existing A96 and links to IN08.21.	Provides direct access to the beach.
LP06	Local path	Walkers	A96 to High Wood. Provides access to and from the existing A96.	Provides direct access to High Wood.
LP07	Local path	Walkers	A96 to Tornagrain Wood (through Kerrowaird Wood). Provides access to and from the existing A96.	Provides direct access to Kerrowaird Wood and Tornagrain Wood. Also provides direct access to a curling pond.
LP08	Local path	Walkers	A96 to Tornagrain Wood. Provides access to and from the existing A96.	Provides direct access to Tornagrain Wood.
LP09	Local path	Walkers	A96 to Hillhead. Provides access to and from the existing A96.	Provides direct access to Tornagrain Wood.
LP10	Local path	Walkers	A96 to Hillhead. Provides access to and from the existing A96.	Provides direct access to Tornagrain Wood.
LP11	Local path	Walkers, Runners Cyclists	Mid Coul roundabout to Inverness Airport. Provides access to and from the existing A96 and links to LP12.	Provides direct access to a small section of Tornagrain Wood.
LP12	Local path	Walkers	Old Road at Mid Coul Cottages to Inverness Airport. Provides access to and from the existing A96 and links to LP11.	No direct access to outdoor areas. Links to LP11 to provide access to a small section of Tornagrain Wood.
LP13	Local path	Unknown	Hillhead to High Wood.	Provides direct access to High Wood.
LP14	Local path	Unknown	High Wood to Culaird. Links to LP15.	Provides direct access to High Wood. Links to LP15 to provide access to Woodend Plantation.
LP15	Local path	Unknown	Culaird to Woodend. Links to LP14.	Provides direct access to Woodend Plantation.
LP16	Local path	Unknown	Dismantled Railway.	No direct access to outdoor areas provided.

^{*}data as provided by The Highland Council, October 2013



Table 2: Path network and access to outdoor areas (Nairn Bypass)

Path Ref.	Designation	Users*	Description	Access to Outdoor Areas
HN1	Right of way	Unknown	Runs directly through farmland via specially sign posted dirt track. Path provides access to, from and across the existing A96 leading to the centre of Auldearn.	No direct access to the outdoor areas provided.
NA04.15	Core path	Walkers	Delnies Community Wood circuit (small circuit to the west of the Delnies Circular walk – NA04.13).	Provides direct access to Delnies Community Wood.
NA04.16	Core path	Unknown	Jubilee Bridge to Firhall along the west bank of River Nairn riverside path.	Provides direct access to the River Nairn.
NA04.17	Core path	Unknown	Firhall to Winnieknowe Lane.	Provides direct access to the River Nairn.
NA04.13	Core path	Walkers Runners Cyclists	Forms a large part of the Delnies Circular walk. Links to NA04.11 and LP18. Path provides access to, from and across the existing A96 and continues through the woodland.	Provides direct access to Delnies Wood.
NA04.11	Core path	Walkers Runners Cyclists	Tiraluin Path. This path helps to close the Delnies Circular Walk. Provides access to, from and across the existing A96.	Provides direct access to Delnies Wood.
NA04.20	Core path	Walkers Runners Cyclists	Tradespark to B9091.	No direct access to outdoor areas provided.
NA04.19	Core path	Walkers Cyclists	Nairn Academy safer route to school.	No direct access to outdoor areas provided.
NA04.04	Core path	Walkers Cyclists	River Nairn riverside path which links to NA04.03 as a continuation of the riverside path.	Provides direct access to the River Nairn.
NA04.03	Core path	Walkers Cyclists	River Nairn riverside path which links to NA04.02 to provide access into Nairn town centre. Links to NA04.04 as a continuation of the riverside path.	Provides direct access to the River Nairn.
NA04.02	Core path	Unknown	River Nairn riverside path which links to NA04.03 as a continuation of the riverside path. Also provides access to Nairn town centre.	Provides direct access to the River Nairn.
NA04.07	Core path	Walkers Cyclists	Nairn to Auldearn path. Provides access to, from and across the A96.	Provides direct access to Dunbar Recreation Ground.
NA01.01	Core path	Walkers Cyclists	Auldearn to Newmill by Lethan Road Wood. Links to LP19.	Provides direct access to Lethan Road Wood. Links to LP19 for access to woodland near Kinsteary House.
NA01.02	Core path	Walkers	Meadowfield Path.	No direct access to outdoor areas provided.
NCR1	National Cycle Route	Cyclists	NCR1 runs through Nairn town centre when arriving from the east and heads southwards before looping back up in a north-westerly direction towards Inverness.	Provides direct access to Crook Plantation and unnamed woodland south of the Crook Plantation.

Path Ref.	Designation	Users*	Description	Access to Outdoor Areas
ACP09	Aspirational core path	Unknown	Path links Boath House Hotel to Auldearn. Provides access to, from and across the existing A96. Links to HN1 and LP19.	No direct access to outdoor areas provided.
ACP10	Aspirational core path	Unknown	River Nairn riverside path - Howford Bridge to Firhall. Links to NA04.17 and NA04.16.	Provides direct access to the River Nairn.
LP17	Local path	Walkers	Track to Roadside Cottage. Provides access to and from the existing A96.	No direct access to outdoor areas provided.
		Cyclists		·
LP18	Local path	Walkers	Moss-side to Delnies track. Provides access to, from and across the existing A96. Links to NA04.13.	Provides direct access to Delnies Wood.
LP19	Local path	Walkers	Tracks through Kinsteary. Links to ACP09 in Auldearn and NA01.01 near Newmill.	Provides direct access to woodland near Kinsteary House. Links to NA01.01 to provide access to Lethan Road Wood.
LP20	Local path	Walkers	Track through Crook Plantation. Links to NCR1.	Provides direct access to Crook Plantation.
LP21	Local path	Unknown	Gallows Hill Track. Provides access to and from the A96.	Provides direct access to Gallows Hill.

^{*}data as provided by The Highland Council, October 2013

A96 Dualling Inverness to Nairn (including Nairn Bypass)

DMRB Stage 2 Scheme Assessment Report

Part 6: Appendices

A15.2: Impact Assessment Tables

Table 1: Potential Impacts on the path network and access to outdoor areas (Inverness to Gollanfield)

Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
IN08.30	Core path	All Options	The at-grade crossing of the existing A96 where IN08.30 and IN08.10 meet would be severed by the main route option alignment. Access to and from the existing A96 is expected to be stopped up. No change in the amenity value of the path is expected due to the online widening of the A96 in this location and the paths current close proximity to the existing A96.	Yes	No	Due to severance of the crossing points of the existing A96, access to the beach north of the A96 is expected to be adversely impacted for NMUs travelling from the south.
IN08.10	Core path	All Options	The at-grade crossing of the existing A96 where IN08.30 and IN08.10 meet would be severed by the main route option alignment. Access to and from the existing A96 is expected to be stopped up. No change in the amenity value of the path is expected due to the online widening of the A96 in this location and the paths current close proximity to the existing A96.	Yes	No	Due to severance of the crossing points of the existing A96, access to the beach north of the A96 is expected to be adversely impacted for NMUs travelling from the south.
IN08.05	Core path	All Options	The path would be severed by the main route option alignment at the northern end where it meets and crosses the existing A96. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this severance and the main route option alignment being in closer proximity to NMUs using the path.	Yes	Decrease	Due to severance of the crossing points of the existing A96, access to the beach north of the A96 is expected to be adversely impacted for NMUs travelling from the south. Due to severance of IN08.05, access for NMUs to Culloden playing field is expected to be adversely impacted.
IN08.15	Core path	1C, 1C (MV) 1D, 1D (MV)	The path would be severed by the main route option alignment south of Allanfearn Farm. The amenity value of the path is expected to decrease as a result of this severance.	Yes	Decrease	-
IN08.16	Core path	1C, 1C (MV) 1D, 1D (MV)	The path would be severed by the main route option alignment south of Allanfearn Gas Distribution Station. The amenity value of this path is expected to decrease as a result of this severance.	Yes	Decrease	-

Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
IN08.21	Core path	1A, 1A (MV) 1B, 1B (MV)	The path would be severed by the main route option alignment at the point where it joins the existing A96. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is not expected to change due to the online widening of the existing A96 in this location and the paths current close proximity to the existing A96.	Yes	No	Due to the severance of the crossing point of the existing A96, access to the beach north of the A96 is expected to be adversely impacted for NMUs using IN08.21.
IN08.21	Core path	1C, 1C (MV) 1D, 1D (MV)	The amenity value of the path is expected to decrease due to the close proximity of the main route option alignment at the southern end of the path.	No	Decrease	-
IN08.32	Core path	1A, 1B	The amenity value of the path is expected to decrease as a result of Newton Junction A.	No	Decrease	Due to the decrease in amenity for IN08.32 NMUs using these paths to access Cullernie Wood and High Wood are expected to be adversely impacted.
ACP04	Aspirational core path	All Options	The path would be severed by the Smithton Junction and access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this junction.	Yes	Decrease	Due to severance of the crossing points of the existing A96, access to the beach north of the A96 is expected to be adversely impacted for NMUs travelling from the south.
ACP06	Aspirational core path	All Options	The path would be severed by the main route option alignment at the northern end where it meets the existing A96. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this severance and the main route option alignment being in closer proximity to NMUs using the path.	Yes	Decrease	Due to severance of the crossing points of the existing A96, access to the beach north of the A96 is expected to be adversely impacted for NMUs travelling from the south.
ACP07	Aspirational core path	1A, 1B	The amenity value of the path is expected to decrease as a result of Newton Junction A.	No	Decrease	Due to the decrease in amenity for ACP07, NMUs using these paths to access Cullernie Wood and High Wood are expected to be adversely impacted.
ACP07	Aspirational core path	1C, 1C (MV) 1D, 1D (MV)	The path would be severed as a result of Newton Junction B. Access to and from the existing A96 is expected to be stopped up. The amenity value of this path is expected to decrease as a result of this junction.	Yes	Decrease	Due to severance of ACP07, access for NMUs to Cullernie Wood and High Wood is expected to be adversely impacted.



Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
IN08.32	Core path	1C, 1C (MV) 1D, 1D (MV)	The path would be severed north of Balmachree as a result of Newton Junction B. Access to and from the existing A96 is expected to be stopped up. The amenity value of this path is expected to decrease as a result of this junction.	Yes	Decrease	Due to severance of IN08.32, access for NMUs to Cullernie Wood and High Wood is expected to be adversely impacted.
LP01	Local path	All Options	The path would be severed by the main route option alignment where it crosses the existing A96 (as per IN08.30 and IN08.10) and by the Smithton Junction. Access to and from the existing A96 will be stopped up. The amenity value of the path is expected to decrease as a result of the Smithton Junction.	Yes	Decrease	Due to severance of the crossing points of the existing A96, access to the beach north of the A96 is expected to be adversely impacted for NMUs travelling from the south.
LP02	Local path	All Options	The path would be severed by the Smithton Junction. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this junction.	Yes	Decrease	Due to severance of the crossing points of the existing A96, access to the beach north of the A96 is expected to be adversely impacted for NMUs travelling from the south.
LP03	Local path	All Options	The path would be severed at its northern end by the Smithton Junction. The amenity value of the path is expected to decrease as a result of this junction.	Yes	Decrease	-
LP06	Local path	All Options	The path would be severed either by a local road at its northern end just before it meets the existing A96 (Options 1A, 1B, 1C and 1D), in two locations by the main route option alignment just south of the existing A96 (Options 1A (MV) and 1C (MV)) or one location by the main route option alignment just south of the existing A96 (Options 1B (MV) and 1D (MV)). Access to and from the existing A96 is expected to be stopped up. In all cases the amenity value of the path is expected to decrease as a result of severance and/or the main route option alignment being in closer proximity to the NMUs using the path.	Yes	Decrease	Due to severance of LP06 access for NMUs to High Wood is expected to be adversely impacted.
LP07	Local path	All Options	The path would be severed by the main route option alignment at its southern end just before it joins the existing A96. The amenity value of the path is expected to decrease as a result of this severance and the main route option alignment being in closer proximity to NMUs using the path.	Yes	Decrease	Due to severance of LP07 access for NMUs to and around Kerrowaird Wood, the curling pond and Tornagrain Wood is expected to be adversely impacted.



Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
LP08	Local path	All Options	This network of paths would be severed by the main route option alignment either through the middle (Options 1A, 1A (MV), 1C, 1C (MV)) or at the southern end (Options 1B, 1B (MV), 1D, 1D (MV)) where the path provides access to the road near Petty Church. For Options 1B, 1B (MV), 1D and 1D (MV) access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this severance and the main route option alignment being in closer proximity to the NMUs using the path.	Yes	Decrease	Due to severance of LP08 access for NMUs to and around Kerrowaird Wood, the curling pond and Tornagrain Wood is expected to be adversely impacted.
LP11	Local path	All Options	The path would be severed by Mid Coul Junction A or B. For Options 1B, 1B (MV), 1D and 1D (MV) access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of these junctions.	Yes	Decrease	Due to severance of LP11 access for NMUs to and around Kerrowaird Wood, the curling pond and Tornagrain Wood is expected to be adversely impacted.
LP12	Local path	All Options	The path would be severed by Mid Coul Junction A or B. For Options 1B, 1B (MV), 1D and 1D (MV) access to and from the existing A96 is expected to be stopped up. The amenity value is expected to decrease as a result of these junctions.	Yes	Decrease	Due to severance of LP12 access for NMUs to and around Kerrowaird Wood, the curling pond and Tornagrain Wood is expected to be adversely impacted.
LP05	Local path	1A, 1A (MV) 1B, 1B (MV)	Access to and from the existing A96 is expected to be stopped up at the southern end of the path. The amenity value of the path is not expected to change due to the online widening of the existing A96 in this location and the paths current close proximity to the existing A96.	Yes	No	NMUs are expected to be adversely impacted in accessing LP05 from the existing A96 which provides access to the beach.
LP05	Local path	1C, 1C (MV) 1D, 1D (MV)	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	Due to the increase in amenity for LP05, NMUs using this path to access the beach to the north of the A96 are expected to experience beneficial impacts.
LP09	Local path	1A, 1A (MV) 1C, 1C (MV)	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	Due to the increase in amenity for LP09 NMUs using these paths to access Tornagrain Wood are expected to experience beneficial impacts.



Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
LP09	Local Path	1B, 1B (MV) 1D, 1D (MV)	The path would be severed by a local road associated with Mid Coul Junction B in two places; at the point where it joins the existing A96 and where it crosses LP10. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the local road to NMUs using the path.	Yes	Decrease	Due to severance of LP09 access for NMUs to Tornagrain Wood is expected to be adversely impacted.
LP10	Local path	1A, 1A (MV) 1C, 1C (MV)	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	Due to the increase in amenity for LP10, NMUs using these paths to access Tornagrain Wood are expected to experience beneficial impacts.
LP10	Local path	1B, 1B (MV) 1D, 1D (MV)	The path would be severed in two places; by the new main route option alignment at the point where it joins the existing A96 and by the local road associated with Mid Coul Junction B where it crosses LP09. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the local road and main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of LP10 access for NMUs to Tornagrain Wood is expected to be adversely impacted.

Table 2: Potential Impacts on the path network and access to outdoor areas (Nairn Bypass)

Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
NA04.03	Core path	All Options	The path would be severed by the main route option alignment at point where it crosses the River Nairn. The amenity value of the path is expected to decrease due to this severance and the closer proximity of the main route option alignment and river crossing to NMUs using the path.	Yes	Decrease	Due to severance of NA04.03, access for NMUs to the River Naim riverside path is expected to be adversely impacted.
NA04.13	Core path	2A, 2B, 2C, 2D	The path would be severed by Nairn West Junction A and the main route option alignment north of Moss-side. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of NA04.13 access for NMUs to Delnies Wood is expected to be adversely impacted.
NA04.13	Core path	2E, 2F, 2G, 2H, 2I			Increase	Due to an increase in amenity of NA04.13, NMUs using this path to access Delnies Wood are expected to experience a beneficial impact.
NA01.02	Core path	2A, 2C, 2D, 2E, 2G, 2H, 2I	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	-
NA01.02	Core path	2B, 2F	The path would be severed by a local road. The amenity value of the path is expected to decrease due to the closer proximity of both the local road and the main route option alignment to NMUs using the path.	Yes	Decrease	-
NA04.07	Core path	2A, 2B, 2E, 2F, 2H	The path would be severed as a result of Nairn East Junction A, B or C. The amenity value of the path is likely to decrease as a result of this junction.	Yes	Decrease	Due to severance of NA04.07 access for NMUs to Dunbar Recreation Ground is expected to be adversely impacted
NA04.07	Core path	2C, 2D, 2G, 2I	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	Due to an increase in amenity, NMUs using NA04.07 to access Dunbar Recreation Ground are expected to experience a beneficial impact.
NA01.01	Core path	2C, 2G	The path would be severed by the main route option alignment through Lethan Road Wood. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of NA01.01 access for NMUs to Lethan Road Wood is expected to be adversely impacted.

Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
NA01.01	Core path	2D, 2I	The path would be severed as a result of the overbridge near Newmill. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of NA01.01 access for NMUs to Lethan Road Wood is expected to be adversely impacted.
NA04.11	Core path	2E, 2F, 2G, 2H, 2I	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	Due to an increase in amenity of NA04.11, NMUs using this path to access Delnies Wood are expected to experience a beneficial impact.
HN1	Public right of way	2A, 2E, 2H	The path would be severed by the main route option alignment and a local road associated with Nairn East Junction A, B or C. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	-
HN1	Public right of way	2B, 2F	The path would be severed by the main route option alignment where it currently meets and crosses the existing A96. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the main route option alignment for NMUs using the path.	Yes	Decrease	-
HN1	Public right of way	2C, 2D, 2G, 2l	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	-
ACP10	Aspirational core path All Options The path would be severed by the main route option alignment at the point where it crosses the River Nairn. The amenity value of the path is expected to decrease as a result of this severance and due to the closer proximity of the main route option alignment and river crossing to NMUs using the		Yes	Decrease	Due to severance of ACP10, access for NMUs to the River Nairn riverside path is expected to be adversely impacted.	
ACP09	Aspirational core path	2B, 2F	path. The path would be severed by the main route option alignment at the point where it meets and crosses the existing A96. Access to and from the existing A96 is expected to be stopped up. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the main route option alignment to NMUs using the path.		Decrease	-



Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
ACP09	Aspirational core path	2A, 2C, 2D, 2E, 2G, 2H, 2I	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	-
NCR1	National Cycle Route	All Options	The path would be severed by the main route option alignment either next too (Options 2A, 2B, 2C, 2E, 2F and 2G) or south (Options 2D, 2H and 2I) of the Crook Plantation. The amenity value of the path in all cases is expected to decrease as a result of this severance and the closer proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of NCR1 access for NMUs to the Crook Plantation is expected to be adversely impacted.
LP17	Local path	2A, 2B, 2C, 2D	Access to and from the existing A96 at the southern end of the path is expected to be stopped up. No change in the amenity value of the path is expected due to the online widening of the A96 in this location and the paths current close proximity to the existing A96.	Yes	No	-
LP17	Local path	2E, 2F, 2G, 2H, 2I	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	-
LP18	Local path	2A, 2B, 2C, 2D	The path would be severed by the main route option alignment at the southern end near to where this path meets NA04.13. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of LP18 access for NMUs to Delnies Wood is expected to be adversely impacted.
LP18	Local path	2E, 2F, 2G, 2H, 2I	The amenity value of the path is expected to increase as a result of the main route option alignment of the route options being further away from NMUs using the path, than the existing A96.	No	Increase	Due to an increase in amenity of LP18, NMUs using this path to access Delnies Wood are expected to experience a beneficial impact.
LP21	Local path	All Options	The amenity value of the path is expected to decrease as a result of the new main route option alignment of the route options to the north of the path (Options 2A, 2E and 2H), the visual impacts of the route options to the south of the path (Options 2B and 2F) or Naim East Junction D (Options 2C, 2D, 2G and 2I).	No	Decrease	Due to the decrease in amenity for LP21, NMUs using this path to access Gallows Hill are expected to be adversely impacted.



Path Name	Path Type	Route Option	Potential Impact (unmitigated)	Change in Journey Length	Change in Amenity Value	Access to Outdoor Areas
LP19	Local path	2C, 2G	The path would be severed by the main route option alignment in two places as it makes its way through the woodland near Kinsteary House. The amenity value of the path is expected to decrease as a result of this severance and the closer proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of LP19 access for NMUs to the woodlands near to Kinsteary House is expected to be adversely impacted.
LP19	Local path	2D, 2l	The path would be severed in a number of places by the main route option alignment and local roads/overbridges. The amenity value of the path is expected to decrease as a result of this severance and the close proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of LP19 access for NMUs to the woodlands near Kinsteary House is expected to be adversely impacted.
LP20	Local path	2D, 2I	The amenity of the path is likely to decrease due to the proximity of the new main route option alignment to NMUs using the path.	No	Decrease	Due to the decrease in amenity of LP20, NMUs using this path to access the Crook Plantation are expected to be adversely impacted.
LP20	Local path	2H	The path would be severed by the main route option alignment at its eastern end near Foynesfield. The amenity value of the path is likely to decrease as a result of this severance and the close proximity of the main route option alignment to NMUs using the path.	Yes	Decrease	Due to severance of LP20 access for NMUs to the Crook Plantation will be adversely impacted.

Part 6: Appendices

A16.1: Development Land

Table 1: Local Development Plan land allocations (Inverness to Gollanfield)

No.	Site/Area	Development Plan Allocation	Overview of Allocation	Comments and Details of Associated Extant Planning Permissions
LA1	South-west of Inverness Retail and Business Park	Inner Moray Firth Proposed Local Development Plan (IMFPLDP) Development Allocation IN90	7.2ha of additional land for bulky goods retail.	-
		Highland-wide Local Development Plan (HwLDP) Policy 11 Inverness Retail and Business Park		
		Inverness Local Plan City Centre Policy 7		
LA2	West of Eastfield Way	IMFPLDP Development Allocation IN85	1.9ha for business with a high architectural and landscape design quality.	-
LA3	Ashton Farm and	IMFPLDP Development Allocation IN82	105.2ha for residential, community,	-
	Adjoining Land	HwLDP (No specific policy, refers to IMFPLDP)	business, industrial, leisure and non- residential institution.	
LA4	Stratton	IMFPLDP Development Allocation IN83	73.7ha site for mixed use including 2,475 residential units, retail, business, community	09/00141/OUTIN.
		HwLDP Policy 12 Stratton	and leisure.	Planning permission in principle (PPP) was granted in 2011 and the approved Masterplan accounts for a new A96 alignment. The developers have not yet lodged any Matters Specified in Conditions (MSC) applications.
LA5	Stratton Lodge, Milton of	IMFPLDP Development Allocation IN76	2.5ha for 25 residential units.	-
	Culloden	HwLDP Policy 12 Stratton		
LA6	Milton of Culloden	IMFPLDP Development Allocation IN84	24.9ha mixed use site including 375	-
		HwLDP (no specific policy but HwLDP refers to IMFPLDP)	residential units, business and community.	
LA7	Land north-east of Culloden Academy (East of Barn Church Road)	IMFPLDP Development Allocation IN86	10.1ha for the relocation and expansion of school playing fields.	-
LA8	Allanfearn	Inverness Local Plan City Centre Policy 37	Scottish Water proposes to adapt the sludge treatment and storage facilities to enable manufacture of a recycled product for use as a sterilised agricultural fertiliser, soil conditioner and fuel source.	-



No.	Site/Area	Development Plan Allocation	Overview of Allocation	Comments and Details of Associated Extant Planning Permissions
LA9	Upper Cullernie Farm	IMFPLDP Development Allocation IN79	Approximately 0.4ha for 12 residential units.	12/03711/FUL and 13/02472/FUL.
		Inverness Local Plan City Centre Policy 97x		Full planning permission for seven residential units granted in 2013.
LA10	Upper Cullernie	Inverness Local Plan City Centre Policy 104	1ha for housing and community/open space.	12/04666/PIP.
				PPP for a new church granted in February 2013.
LA11	Castle Stuart	IMFPLDP Development Allocation CS1	36.5ha for business, leisure and tourism.	-
LA12	Balloch Primary School	Inverness Local Plan City Centre Policy 105	0.4ha adjacent to Balloch Primary School allocated for open space.	-
LA13	Morayhill	IMFPLDP Development Allocation MH1	10.6ha for industrial use.	13/2803/FUL.
		Inverness Local Plan A96 Corridor Policy 7		Planning permission granted for part of site (storage of wood and access).
LA14	Inverness Airport Business Park	IMFPLDP Development Allocation IA1	200ha for business/research and development park/ hotel/conference	08/00215/OUTIN, 13/01826/MSC and 13/04789/MSC. PPP has been granted for the overall Masterplan of the site.
		HwLDP (no specific policy but HwLDP refers To IMFPLDP)	centre/transport interchange/distribution centre/industry/warehouse.	Two MSC permissions approved in February 2014.
		Inverness Local Plan A96 Corridor Policy 3		
LA15	Tornagrain	IMFPLDP Development Allocation TG1	226ha new town with the potential to deliver	09/00038/OUTIN.
		HwLDP Policy 13 Tornagrain	4,960 new homes, shops, schools and community facilities over a series of phases.	PPP granted for the overall Masterplan of the site in 2013.
LA16	Lochside	Inverness Local Plan Lochside Policies 1, 3	1.1ha for housing, 0.6ha for business/tourist	07/01165/REMIN.
		and 4	related use and 0.2ha for amenity.	Planning permission for a residential development at this site granted in 2007. The site is currently under development and an additional planning application is currently under consideration for an additional four dwellings.

Table 2: Extant planning applications (Inverness to Gollanfield)

No.	Planning Application Reference	Application Site	Description of Application	Application status
PA1	09/00121/FULIN	Tesco, 1A Eastfield Way, West Seafield, Inverness.	Erection of 3 micro wind turbines and associated works.	Planning permission granted.
PA2	09/00141/OUTIN	Land at Stratton and East Seafield, Inverness.	New Town comprising town centre, housing and commercial development.	PPP granted. See Development Land Allocation LA4 in Table 1.
PA3	08/00443/FULIN	Land 15m south of 2 Friars Croft, Friars Croft, Milton of Culloden, Inverness.	Erect two houses (amendment to 03/00201/FULIN).	Planning permission granted.
PA4	11/00112/PIP	Garden of Scalasaig, 7 Cullernie Road, Balloch, Inverness.	Erect 1 1/2 storey dwelling.	Planning in principle granted.
PA5	12/04666/PIP	Land south-east of Upper Cullernie Place, Upper Cullernie Place, Balloch, Inverness.	New church.	PPP granted. See Development Land Allocation LA10 in Table 1.
PA6	12/03711/FUL and 13/02472/FUL	Land to east of Upper Cullernie Cottages, Cullernie Road, Balloch, Inverness.	2 no. new build residential terraces (7 dwellings).	Planning permission granted. See Development Land Allocation LA9 in Table 1.
PA7	13/02803/FUL	Norbord Europe Ltd, Dalcross, Inverness.	Formation of access tracks and storage of round wood.	Planning permission granted.
PA8	08/00215/OUTIN and 13/01826/MSC and 13/04789/MSC	Land to west and south of Inverness Airport Dalcross, Highland.	Business park.	PPP granted and approval of some MSC. See Development Land Allocation LA14 in Table 1.
PA9	09/00038/OUTIN	Land north-east of Tornagrain, Dalcross, Inverness.	New Town.	PPP granted See Development Land Allocation LA15 in Table 1.
PA10	13/02215/S42	Taste of Moray, Gollanfield, Inverness.	Renewal of consent: Erection of hotel (09/00539/FULIN).	Planning permission granted.
PA11	11/01226/FUL	The Longhouse, Gollanfield, Ardersier, Inverness.	Proposed amendment to site boundary (10/02819/FUL – Erection of bungalow).	Planning permission granted.

Table 3: Local Development Plan land allocations (Nairn Bypass)

No.	Site/Area	Development Plan Allocation	Overview of Allocation	Comments and Details of Associated Extant Planning Applications
LA16	Lochside	Inverness Local Plan Lochside Policies 1, 3 and 4	1.1ha for housing, 0.6ha for business/tourist related use and 0.2ha for amenity.	07/01165/REMIN. Planning permission for a residential development at this site granted in 2007. The site is currently under development and an additional planning application is currently under consideration for an additional four dwellings.
LA17	Delnies, Nairn	IMFPLDP Development Allocation NA6 HwLDP Policy 17	27.27ha site for up to 300 houses over the next 10 years. The HwLDP and Nairn Local Plan also indicate longer term opportunities for small scale leisure and tourism	-
		Nairn Local Plan Policy 11(b)	development including an expansion of the golf course.	
LA18	Sandown, Nairn	IMFPLDP Development Allocation NA4 HwLDP Policy 16	Approximately 35ha for 350 residential units, business and community development.	-
LA19	Ord View	Nairn Local Plan Policy 10(c)	1.2ha for 25 houses.	-
LA20	Sawmill, Cawdor	IMFPLDP Development Allocation NA12	5.1ha for expansion sawmill.	-
	Road	Nairn Local Plan Policy 12(b)	1	
LA21	Balblair	Nairn Local Plan Policy 14	Subject to land assembly at Balblair the Council will encourage expansion of timber processing, related activities and development of freight rail sidings.	11/04730/FUL. Planning permission for the erection of a building to house new timber sorting line granted in 2011.
LA22	Nairn Public Depot and Nairn County Football Ground	Nairn Local Plan Policy 15	Development/expansion of commuter parking and health or related facilities.	-
LA23	Firhall	Nairn Local Plan Policy 10(e)	4ha for housing development.	Planning permission for the development of a concept village providing a managed environment for people of middle age and advancing years (conversion of house into 6 flats, office and shop, erection of 12 new flats, erection of 84 houses) granted in 1999. The site has since been largely developed and has not been included as a land allocation in the IMFPLDP.
LA24	Nairn South	IMFPLDP Development Allocation NA8 HwLDP Policy 18	25.9ha including 520 residential units, business and community.	11/04355/FUL. Planning permission for a residential development consisting of 319 units refused in 2013 and (at the time of writing (June 2014)) is currently under appeal.
LA25	Nairn South (Long Term)	IMFPLDP Development Allocation NA9	17.6ha for retail, 410 residential units, business and community development.	-

No.	Site/Area	Development Plan Allocation	Overview of Allocation	Comments and Details of Associated Extant Planning Applications
LA26	Grigorhill – East of Granny Barbours Road	Nairn Local Plan Policy 12(d)	2.1ha for industrial use.	-
LA27	Grigorhill - West of Granny Barbours Road	IMFPLDP Development Allocation NA10	3.1ha for a new cemetery.	-
LA28	Balmakeith	IMFPLDP Development Allocation NA11	3.2ha allocated for business use in the IMFPLDP. The Nairn Local Plan previously	-
		Nairn Local Plan Policy 12(a)	included a much larger area (11ha).	
LA29	South of Balmakeith	Nairn Local Plan Policy 12(c)	4.2ha for industrial/business use.	The western extent of this site has been developed as a supermarket. The eastern extent has not been included in the IMFPLDP.
LA30	Lochloy, Nairn	Inner Moray Firth PLDP Development Allocation NA5	21ha for 200 residential units, education and community development.	12/04592/FUL. Planning permission has been granted for 24 dwellings. The IMFPLDP states that the Council will support the completion of presently allocated land at Lochloy in the short-term.
		HwLDP Policy 15		Since 2000 there have been various versions of the Masterplan and numerous planning applications. A revision of the Masterplan in line with the IMFPLDP allocation is currently under consideration by The Highland Council.
LA31	Montrose Hollow	IMFPLDP Development Allocation AU1	5.42ha for 39 residential units.	05/00080/OUTNA. PPP for 65 dwellings granted in 2007 and development of the site has commenced. Planning application 13/01655/FUL approved in July 2013 for the erection of 3 no dwellings within the site.
LA32	Meadowfield	IMFPLDP Development Allocation AU2	0.65ha for 10 residential units.	-
LA33	Meadowfield Steadings	IMFPLDP Development Allocation AU3	1.1ha for 12 residential units.	-

Table 4: Extant planning applications (Nairn Bypass)

No.	Planning Application Reference	Application Site	Description of Application	Application Status
PA11	11/01226/FUL	The Longhouse, Gollanfield, Ardersier, Inverness.	Proposed amendment to site boundary (10/02819/FUL – Erection of bungalow).	Planning permission granted.
PA12	13/03560/MSC	Land 40m to north-east of Stoneyfield Cottage, Gollanfield, Inverness.	Erection of house.	MSC granted.
PA13	13/01689/PIP	Former Fabrication Yard, Ardersier, Nairn.	Establish a port and port related services.	PPP granted (site forms part of land allocation WH1 for industry uses in the IMFPLDP. However the allocation itself is located outside the study area).
PA14	12/01709/MSC	Land 30m north of Elim, Moss-Side, Nairn.	Erection of house.	MSC granted.
PA15	13/03494/PIP	Land 65m west of Balnaspirach House, Nairn.	Erection of house.	PPP granted.
PA16	13/03595/PIP	Balnaspirach House, Nairn.	Erection of house.	PPP granted.
PA17	11/03634/FUL	Land 52m south-west of Lochdhu House, Nairn.	Erection of a house and garage.	PPP granted.
PA18	12/01578/PIP	Plot at rear of Blairlyn, Moss-Side Road, Nairn.	Renewal of planning consent for house plot.	PPP granted.
PA19	09/00077/FULNA	10-12 Seaforth Road, Nairn.	Erection of 2 semi-detached replacement houses.	Planning permission granted
PA20	11/02064/FUL	Little Balblair House, Moss-Side Road, Nairn.	Alterations to form 6 no apartments.	Planning permission granted.
PA21	11/02234/FUL	Lochdu Farm, Nairn.	Erect cattle shed.	Planning permission granted.
PA22	11/02147/FUL	Nairn Academy, Duncan Drive, Nairn.	Erection of 10m high wind turbine.	Planning permission granted.
PA23	09/00048/FULNA	Nairn Academy, Duncan Drive, Nairn.	Erect new science lab and library.	Planning permission granted.
PA24	11/04730/FUL	John Gordon and Son Sawmill, Balblair Road, Nairn.	Erection of building to house new timber sorting line.	Planning permission granted. See Development Land Allocation LA21 in Table 3.
PA25	11/04355/FUL	Land at Cawdor Road, Nairn South, Nairn.	Residential development consisting of 319 units and associated infrastructure and public open space.	Refused (at time of writing (June 2014) this is under appeal) See Development Land Allocation LA24 in Table 3.
PA26	08/00047/FULNA	Land north of Harmony, Raitloan, Nairn.	Erection of cattle court and storage building (re-submission).	Planning permission granted.
PA27	12/03584/FUL	Househill Mains Farmhouse, Nairn.	Livestock Shed.	Planning permission granted.
PA28	12/04592/FUL	Land 85m east of Lawrie Drive, Nairn.	Erect Housing development of 24 Affordable units, with roads and associated infrastructure.	Planning permission granted. See Development Land Allocation LA30 in Table 3.

No.	Planning Application Reference	Application Site	Description of Application	Application Status
PA29	12/02848/FUL	Land 180m north-east of The Cottage, Newton of Park, Nairn	Erect new dwelling house and agricultural store.	Planning permission granted.
PA30	13/01375/FUL	East Lodge Cottage, Nairn	Erection of storage/wood shed & formation of vehicular access.	Planning permission granted.
PA31	10/02690/FUL	Lion Hotel, High Street, Auldearn	Residential development on site of former Lion Hotel, comprising 10 flats with associated car parking and landscaping.	Planning permission granted.
PA32	11/02308/MSC	Bogside of Boath, Nairn	Proposed conversion and replacement to form 6 units.	MSC granted.
PA33	13/01655/FUL	Housing Development Area, George Wilson Road, Auldearn	Erection of 3 no dwellings.	Planning permission granted See Development Land Allocation LA31 in Table 3.
PA34	11/00188/PIP	Land south-east of Alder's Edge, Broombank, Auldearn	Formation of house plot.	Planning in principle granted.
PA35	11/03247/PIP	Land 100m south-east of The Meadows, Auldearn	Erect house and formation of new access track.	Planning in principle granted.
PA36	13/02055/FUL	New House at land to south of Courage Farm, Nairn	Erection of dwelling.	Planning permission granted
PA37	09/00026/FULNA	Wester, Hardmuir, Nairn	Erection of 8 polytunnels.	Planning permission granted.
PA38	11/00959/FUL	Land 180m south of Heathfield, Nairn	Erection of dwelling.	Planning permission granted.

A96 Dualling Inverness to Nairn (including Nairn Bypass)

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Part 6: Appendices

A16.2: Development Land – Impact Assessment Tables

Note: Development land (including Local Development Plan land allocations and extant planning permissions) that is not expected to be impacted as a result of the route options are not included in the tables below. Development land is not expected to be impacted due to either its location in relation to the route options or as a result of the nature of its development.

Note: Where a planning application falls within the boundary of a Local Development Plan land allocation, the impact is assessed as an impact on the Local Development Plan land allocation. Where this is the case, reference to the relevant development land allocation is provided against the associated extant planning permission.

Table 1: Potential impacts on Local Development Plan land allocations (Inverness to Gollanfield)

Ref	Site/Area	Development Plan Allocation	Overview	Planning Permissions	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
LA03	Ashton Farm and Adjoining Land	Inner Moray Firth Proposed Local Development Plan (IMFPLDP) Development Allocation IN82 Highland-wide Local Development Plan (HwLDP) (No specific policy, refers to IMFPLDP)	105.2ha for residential, community, business, industrial, leisure and non-residential institution.	-	All Options	-	Yes	No	Potential impacts on amenity due to the allocation including housing and the proximity of the main route option alignment and Smithton Junction to the development. No impact on the development capacity of the site is expected.
LA04	Stratton	IMFPLDP Development Allocation IN83 HwLDP Policy 12 Stratton	73.7ha site for mixed use including 2,475 residential units, retail, business, community and leisure.	09/00141/OUTIN Planning permission in principle (PPP) was granted in 2011 and the approved Masterplan accounts for a new A96 alignment. Matters Specified in Conditions (MSC) applications have not yet been lodged.	All Options	12.5	Yes	No	Direct land-take and potential impacts on amenity due to the allocation including housing and as a result of the main route option alignment and Smithton Junction being located within the boundary of the development site. No impact on the development capacity of the site is expected and as no MSC applications have been submitted to date there is likely to be flexibility to accommodate the route options.

Ref	Site/Area	Development Plan Allocation	Overview	Planning Permissions	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
LA05	Stratton Lodge, Milton of Culloden	IMFPLDP Development Allocation IN76 HwLDP Policy 12 Stratton	2.5ha for 25 residential units.	-	All Options	-	Yes	No	Potential impacts on amenity due to the allocation including housing and as a result of the proximity of the main route option alignment to the development site. No impacts on the development capacity of the site are expected.
LA06	Milton of Culloden	IMFPLDP Development Allocation IN84 HwLDP (no specific policy but refers to IMFPLDP)	24.9ha mixed use site including 375 residential units, business and community.	-	All Options	1.0	Yes	No	All route options have a small amount of direct land-take and potential for impacts on the amenity of the site due to its allocation including housing. No impacts on the development capacity are expected.
LA07	Land North East of Culloden Academy (East of Barn Church Road)	IMFPLDP Development Allocation IN86	10.1ha for the relocation and expansion of school playing fields.	-	1C, 1C (MV), 1D, 1D (MV)	-	Yes	No	Potential impacts on amenity are expected due to the nature of the land allocation (e.g. community) and as a result of Newton Junction A. No impacts on the development capacity of the site are expected.
LA09	Upper Cullernie Farm	IMFPLDP Development Allocation IN79 Inverness Local Plan City Centre Policy 97x	Approximately 0.4ha for 12 residential units.	12/03711/FUL and 13/02472FUL. Full planning permission was granted in 2013 for seven residential units.	All Options	-	Yes	No	All route options are expected to have an impact of the amenity of this land allocation due to the allocation including housing and as a result of Newton Junction A (Options 1A and 1B), Newton Junction B (Options 1C - 1D (MV)) and Newton Junction C (Options 1A (MV) and 1B (MV)). No impact is expected on the development capacity of the site.



Ref	Site/Area	Development Plan Allocation	Overview	Planning Permissions	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
LA11	Castle Stuart	IMFPLDP Development Allocation CS1	36.5ha for business, leisure and tourism.	-	1A, 1A (MV), 1B, 1B (MV)	-	Yes	No	Potential impacts on amenity for the site as a result of Newton Junction A (Option 1A, 1B) or Newton Junction C (1A (MV), 1B (MV)). No impact is expected on the development capacity of the site.
LA14	Inverness Airport Business Park	IMFPLDP Development Allocation IA1 HwLDP (no specific policy but refers To IMFPLDP) Inverness Local Plan A96 Corridor Policy 3	200ha for business/research and development park/hotel/conferen ce centre/transport interchange/distribu tion centre/industry/war ehouse.	08/00215/OUTIN, 13/01826/MSC and 13/04789/MSC. PPP has been granted for the overall Masterplan of the site. Two MSC permissions have also approved in February 2014.	1A, 1A (MV), 1C, 1C (MV)	12	Yes	No	Approximately 12ha of direct land-take is associated with Options 1A, 1A (MV), 1C and 1C (MV), mainly as a result of Mid Coul Junction A. PPP is extant for the overall Masterplan and two MSC permissions have been approved. The Masterplan includes an indicative route for the new road which is in line with these route options and it is likely that potential conflict with allocated land should be low.

Ref	Site/Area	Development Plan Allocation	Overview	Planning Permissions	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
LA14	Inverness Airport Business Park	IMFPLDP Development Allocation IA1 HwLDP (no specific policy but refers To IMFPLDP) Inverness Local Plan A96 Corridor Policy 3	200ha for business/research and development park/hotel/conferen ce centre/transport interchange/distribution centre/industry/war ehouse.	08/00215/OUTIN, 13/01826/MSC and 13/04789/MSC. PPP has been granted for the overall Masterplan of the site. Two MSC permissions have also approved in February 2014.	1B, 1B (MV), 1D, 1D (MV)	5.5	Yes	Yes (Partially)	Approximately 5.5ha of direct land-take is associated with Options 1B, 1B (MV), 1D and 1D (MV), mainly as a result of Mid Coul Junction B. PPP is extant for the overall Masterplan and two MSC permissions have been approved. The Masterplan includes an indicative route for the new road; however these route options do not align with the Masterplan. While the main route option alignment of the route options skirts the southern boundary of the proposed development; the associated junction is expected to impact the design of the Masterplan. Although the route options would not result in the total loss of development capability of the site the route options may partially impact on the development capacity of the site.
LA15	Tornagrain	IMFPLDP Development Allocation TG1 HwLDP Policy 13 Tornagrain	226ha New Town with the potential to deliver 4,960 new homes, shops, schools and community facilities over a series of phases.	09/00038/OUTIN. PPP granted for the overall Masterplan of the site in 2013.	1A, 1A (MV), 1C, 1C (MV)	-	Yes	No	Due to the nature of the land allocation (mixed use including some residential) there are potential amenity impacts as a result of the main route option alignment and Mid Coul Junction A. However, this is not expected to impact on the development capacity of the site.



Ref	Site/Area	Development Plan Allocation	Overview	Planning Permissions	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
LA15	Tornagrain	IMFPLDP Development Allocation TG1 HwLDP Policy 13 Tornagrain	226ha New Town with the potential to deliver 4,960 new homes, shops, schools and community facilities over a series of phases.	09/00038/OUTIN. PPP granted for the overall Masterplan of the site in 2013.	1B, 1B (MV), 1D, 1D (MV)	19	Yes	Yes	Approximately 19ha of direct land-take and amenity impacts as a result of the main route option alignment, Mid Coul Junction B and its associated local roads. While the main route option alignment skirts the northern boundary of the proposed development, the associated junction and local roads are expected to impact on the development capacity of the site.

Table 2: Potential impacts on extant planning permissions (Inverness to Gollanfield)

Ref	Planning Reference	Name	Overview	Planning Permission	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
PA01	09/00121/FULIN	Tesco, West Seafield	Erection of 3 micro wind turbines and associated works.	Planning permission granted.	All Options	0.14	-	No	A small amount of direct land-take is expected however due to the nature of the development no impact is expected on the amenity or development capacity of site.
PA02	09/00141/OUTIN	Land at Stratton and East Seafield	New Town comprising town centre, housing and commercial development.	PPP granted. Refer to Development Land Allocations LA4.	Refer to LA4	Refer to LA4	Refer to LA4	Refer to LA4	Refer to LA4
PA06	12/03711/FUL and 13/02472/FUL	Land to east of Upper Cullernie Cottages.	2 no. new build residential terraces (7 dwellings).	Planning permission granted. Refer to Development Land Allocation LA9.	Refer to LA9	Refer to LA9	Refer to LA9	Refer to LA9	Refer to LA9
PA08	08/00215/OUTIN and 13/01826/MSC 13/04789/MSC	Land to west and south of Inverness Airport.	Business park	PPP granted and approval of some MSC. Refer to Development Land Allocation LA14.	Refer to LA14	Refer to LA14	Refer to LA14	Refer to LA14	Refer to LA14
PA09	09/00038/OUTIN	Land north east of Tornagrain, Dalcross	New Town	PPP granted. Refer to Development Land Allocation LA15.	Refer to LA15	Refer to LA15	Refer to LA15	Refer to LA15	Refer to LA15
PA10	13/02215/S42	Taste of Moray.	Renewal of consent: erection of hotel (09/00539/FULI N).	Planning permission granted	All Options	0.16	Yes	Yes	Direct land-take and potential impacts on amenity as a result of the Brackley Junction. These impacts are expected to impact on the development capacity of the site.

Table 3: Potential impacts on Local Development Plan land allocations (Nairn Bypass)

Ref	Site/Area	Development Plan Allocation	Overview of Allocation	Details of Associated Extant Planning Applications	Route Options	Land-take (ha)	Amenity	Development Capacity	Potential Impacts
LA19	Ord View	Nairn Local Plan Policy 10(c)	1.2ha for 25 houses.	-	2A, 2B, 2C, 2D	-	Yes	No	Potential impacts on amenity of the site due to its allocation for housing and the proximity of the main route option alignment. This is not expected to impact on the development capacity of the site.
LA23	Firhall	Nairn Local Plan Policy 10(e)	4ha for housing development.	Planning permission was granted in 1999 for the development of a concept village providing a managed environment for people of middle age and advancing years (conversion of house into 6 flats, office and shop, erection of 12 new flats, erection of 84 houses). The site has since been largely developed and has not been included as a land allocation in the IMFPLDP.	2A, 2B, 2C, 2E, 2F, 2G	-	Yes	No	Potential impacts on amenity due to its allocation for housing and the proximity of the main route option alignment. This is not expected to impact on the development capacity of the site.
LA24	Nairn South	IMFPLDP Development Allocation NA8 HwLDP Policy 18 Nairn South	25.9ha including 520 residential units, business and community.	11/04355/FUL Planning permission for a residential development consisting of 319 units was refused in 2013 and at the time of writing (June 2014) is currently under appeal.	2A, 2B, 2C	0.4	Yes	No	Direct land-take and potential impacts on amenity as a result of the allocation including housing and the proximity of the main route option alignment and local roads. The realignment of the local roads could impact the site layout along the boundaries, as proposed by planning application 11/04355/FUL (currently under appeal). However, due to the small area of land-take, potential impacts on the development capacity of this site are not expected.

Ref	Site/Area	Development Plan Allocation	Overview of Allocation	Details of Associated Extant Planning Applications	Route Options	Land-take (ha)	Amenity	Development Capacity	Potential Impacts
LA24	Nairn South	IMFPLDP Development Allocation NA8 HwLDP Policy 18 Nairn South	25.9ha including 520 residential units, business and community.	11/04355/FUL Planning permission for a residential development consisting of 319 units was refused in 2013 and at the time of writing (June 2014) is currently under appeal.	2E, 2F, 2G	-	Yes	No	Potential impacts on amenity as a result of the allocation including housing and the proximity the main route option alignment and local roads. These impacts are not expected to impact on the development capacity of the site.
LA25	Nairn South Long Term	IMFPLDP Development Allocation NA9	17.6ha for retail, 410 residential units, business and community development.	-	2A, 2B, 2C	2.17	Yes	No	Direct land-take and potential impacts on amenity as a result of the allocation including housing and the proximity of the main route option alignment and local roads. The realignment of the local roads could impact the site layout along the boundaries. However, due to the small area of land-take from the edge of the site, potential impacts on the development capacity of this site are not expected.
LA25	Nairn South Long Term	IMFPLDP Development Allocation NA9	17.6ha for retail, 410 residential units, business and community development.	-	2E, 2F, 2G	0.8	Yes	No	Direct land-take and potential impacts on amenity as a result of the allocation including housing and the proximity of the main route option alignment and local roads. These impacts are not expected to impact on the development capacity of the site.



Ref	Site/Area	Development Plan Allocation	Overview of Allocation	Details of Associated Extant Planning Applications	Route Options	Land-take (ha)	Amenity	Development Capacity	Potential Impacts
LA27	Grigorhill - West of Granny Barbours Road	IMFPLDP Development Allocation NA10	3.1ha for a new cemetery.	-	2A, 2B, 2E, 2F, 2H	-	Yes	No	Potential impacts on amenity as a result of the sensitive nature of the proposed site (cemetery) and its proximity to the main route option alignment. These impacts are not expected to impact on the development capacity of the site.
LA31	Montrose Hollow	IMFPLDP Development Allocation AU1	5.42ha for 39 residential units.	05/00080/OUTNA PPP was granted under application in 2007 for 65 dwellings and development of the site has commenced. Planning application 13/01655/FUL was approved in July 2013 for the erection of 3 no dwellings within the site.	2C, 2D, 2G, 2I	-	Yes	No	Potential impacts on amenity due to its allocation for housing and the proximity of the main route option alignment. These impacts are not expected to impact on the development capacity of the site.
LA32	Meadowfield	IMFPLDP Development Allocation AU2	0.65ha for 10 residential units.	-	2B, 2C, 2D, 2F, 2G, 2I	-	Yes	No	Potential impacts on amenity due to its allocation for housing and the proximity of the main route option alignment and local roads (2B and 2F) and Nairn East Junction D (2C, 2D, 2G, 2I). These impacts are not expected to impact on the development capacity of the site.
LA33	Meadowfield Steadings	IMFPLDP Development Allocation AU3	1.1ha for 12 residential units.	-	2B, 2C, 2D, 2F, 2G, 2I	-	Yes	No	Potential impacts on amenity due to its allocation for housing and the proximity of the main route option alignment and local roads (2B and 2F) and Nairn East Junction D (2C, 2D, 2G, 2I). These impacts are not expected to impact on the development capacity of the site.



Table 4: Potential impacts on extant planning permissions (Nairn Bypass)

Ref	Planning Reference	Name	Overview	Planning Permission	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
PA13	13/01689/PIP	Former Fabrication Yard	Establish a port and port related services.	PPP granted.	2A, 2B, 2C, 2D	0.33	-	No	A small amount of land-take is expected as a result of a local road. No impacts on the amenity of the site due to the type of application (industry). No impacts on the development capacity of the site are expected overall.
PA13	13/01689/PIP	Former Fabrication Yard	Establish a port and port related services.	PPP granted.	2E, 2F.2G, 2H, 2I	0.64	-	No	A small amount of land-take is expected as a result of a local road associated with Nairn West Junction B. No impacts on the amenity of the site due to the type of application (industry). No impacts on the development capacity of the site are expected overall.
PA14	12/01709/MS C	Land 30m north of Elim, Moss-Side	Erection of house.	Planning permission granted.	All Options	-	Yes	No	Potential impacts on amenity due to the type of application (housing) and the proximity of the main route option alignment and junctions to the site. No impact on the development capacity of the site is expected.
PA15	13/03494/PIP	Land 65m west of Balnaspirach House	Erection of house.	PPP granted.	All Options	-	Yes	No	Potential impacts on amenity as a result of the type of application (housing) and the proximity of the main route option alignment. No impact on the development capacity of the site is expected.
PA16	13/03595/PIP	Balnaspirach House	Erection of house.	PPP granted.	All Options	-	Yes	No	Potential impacts on amenity as a result of the type of application (housing) and the proximity of the main route option alignment. No impact on the development capacity of the site is expected.

Ref	Planning Reference	Name	Overview	Planning Permission	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
PA17	11/03634/FUL	Land 52m south-west of Lochdhu House, Nairn	Erection of a house and garage.	Planning permission granted.	2A, 2B, 2C, 2D	-	Yes	No	Potential impacts on amenity as a result of the type of application (housing) and the proximity of the local road and main route option alignment. However, these impacts are not expected to impact on the development capacity of the site.
PA25	11/04355/FUL	Land at Cawdor Road, Nairn South	Residential development consisting of 319 units and associated infrastructure and public open space.	Refused (Under appeal). See Development Land Allocation LA24.	Refer to LA24	Refer to LA24	Refer to LA24	Refer to LA24	Refer to LA24
PA29	12/02848/FUL	Land 180m north-east of The Cottage.	Erect new dwelling house and agricultural store.	Planning permission granted.	2C, 2D, 2G, 2I	-	Yes	No	Potential amenity impacts as a result of type of application (housing) and the proximity of the main route option alignment. No impact on the development capacity of the site is expected.
PA32	11/02308/MS C	Bogside of Boath	Proposed conversion and replacement to form 6 units.	Planning permission granted.	2A, 2E, 2H	-	Yes	No	Potential impacts on amenity as a result of the type of application (housing) and the realigned local road and the proximity of the main route option alignment. However, these impacts are not expected to impact on the development capacity of the site.
PA33	13/01655/FUL	Housing Development Area	Erection of 3no dwellings.	Planning permission granted. Refer to Development Land Allocation LA31.	Refer to LA31	Refer to LA31	Refer to LA31	Refer to LA31	Refer to LA31



Ref	Planning Reference	Name	Overview	Planning Permission	Route Option	Land-take (ha)	Amenity	Development Capacity	Potential Impact
PA34	11/00188/PIP	Land south- east of Alder's Edge	Formation of house plot.	PPP granted.	2B, 2F	-	Yes	No	Potential amenity impacts as a result of type of application (housing) and the proximity of the main route option alignment. No impact on the development capacity of the site is expected.
PA35	11/03247/PIP	Land 100m south-east of The Meadows	Erect house and formation of new access track.	PPP granted.	2B, 2C, 2D, 2F, 2G, 2I	-	Yes	No	Potential impacts on the amenity as a result of the type of application (housing) and the proximity of the main route option alignment and local roads (2B, 2F) and Nairn East D Junction (2C, 2D, 2G, 2I). No impact on the development capacity of the site is expected.
PA36	13/02055/FUL	New House at land to south of Courage Farm	Erection of dwelling.	Planning permission granted.	All Options	-	Yes	No	All route options have the potential to impact on the amenity as a result of the type of application (housing) and the proximity of the main route option alignment (Options 2A, 2B, 2E, 2F, 2H) and Nairn East Junction D (Options 2C, 2D, 2G and 2I). No impact on the development capacity of the site is expected.

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Part 6: Appendices

A16.3: Agricultural Land Classification

Table 1: Agricultural land classification (Inverness to Gollanfield) - Land-take per option (ha)

Land Capability for	Land-take/Option (ha)								
Agriculture Class	1A	1A (MV)	1B	1B (MV)	1C	1C (MV)	1D	1D (MV)	
LCA Class 2	10.74	10.20	11.16	9.51	17.50	18.19	17.94	17.07	
LCA Class 3.1	37.05	34.18	30.96	27.87	29.32	28.01	23.20	22.47	
Total prime land-take	47.79	44.38	42.12	37.38	46.82	46.20	41.14	39.54	
LCA Class 3.2	43.40	49.14	41.04	48.45	38.68	41.94	36.27	41.85	
LCA Class 4.1	3.37	2.92	2.17	1.40	2.65	1.42	1.24	0.02	
LCA Class 4.2	3.75	4.00	3.64	5.56	3.75	3.86	3.85	5.67	
LCA Class 5.2	0.75	-	0.75	-	0.75	-	0.75	-	
LCA Class 6.2	0.01	0.01	0.01	0.01	-	-	-	-	
Total non-prime land-take	51.28	56.07	47.59	55.42	45.83	47.22	42.11	47.54	
Total land-take	99.07	100.45	89.71	92.80	92.65	93.42	83.25	87.08	

Table 2: Agricultural land classification (Nairn Bypass) - Land-take per option (ha)

Land Capability for	Land-take/Option (ha)										
Agriculture Class	2A	2B	2C	2D	2E	2F	2G	2H	21		
LCA Class 2	21.52	14.80	9.64	6.92	21.35	14.68	9.46	18.56	6.71		
LCA Class 3.1	0.09	0.09	2.55	13.44	7.14	7.14	9.60	8.34	19.10		
Total prime land-take	21.61	14.89	12.19	20.36	28.49	21.82	19.06	26.90	25.81		
LCA Class 3.2	85.15	80.70	88.12	83.51	68.00	63.59	70.80	80.06	63.38		
LCA Class 4.1	7.73	6.95	7.51	8.54	10.52	9.83	10.40	13.01	12.84		
LCA Class 4.2	6.12	8.63	12.20	16.05	5.59	8.08	11.07	3.40	10.40		
LCA Class 5.2	0.86	0.62	0.72	0.72	0.86	0.62	0.72	0.86	0.72		
LCA Class 5.3	2.48	2.48	5.89	5.25	2.21	2.21	5.62	2.21	4.98		
LCA Class 6.2	1.16	1.16	1.39	1.12	0.86	0.86	0.62	-	-		
Total non-prime land-take	103.50	100.54	115.83	115.19	88.04	85.19	99.23	99.54	92.32		
Total land-take	125.11	115.43	128.02	135.55	116.53	107.01	118.29	126.44	118.13		

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A16.4: Agricultural and Forestry Land - Impact Assessment Tables

Table 1: Option 1A: Potential impacts on agricultural and forestry land

Land Interest	Land-tak	e (ha)		No. fields	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total		
60	-	-	-	-	-
239	-	0.11	0.11	3	Low
258	-	0.98	0.98	1	Low
268	0.14	3.53	3.67	9	Low
269A	17.54	16.26	33.80	27	High
269X	-	-	-	-	-
269E	3.99	6.15	10.14	9	Medium
269B	1.43	12.68	14.11	9	Medium
290	-	2.75	2.75	4	Low
312	6.73	4.56	11.29	6	Medium
313	6.18	1.74	7.92	8	Medium
315	0.82	-	0.82	1	Low
316	-	-	-	-	-
317	5.53	2.51	8.04	8	Medium
321	1.03	-	1.03	5	Low
331	0.48	-	0.48	1	Low
337	1.49	-	1.49	3	Low
338	0.38	-	0.38	2	Low
339	1.76	-	1.76	9	Low
340	0.29	0.01	0.30	2	Low
TOTAL	47.79	51.28	99.07	107	



Table 2: Option 1A (MV): Potential impacts on agricultural and forestry land

Land Interest	Land-take	Land-take (ha)		No. Fields	Magnitude of Land Llee Impact
Reference	Prime	Non-Prime	Total	No. Fields	Magnitude of Land Use Impact
60	-	-	-	-	-
239	-	0.11	0.11	3	Low
258	-	0.98	0.98	1	Low
268	0.14	3.76	3.90	9	Low
269A	21.3	25.44	46.74	35	High
269X	-	-	-	-	-
269E	3.99	6.15	10.14	9	Medium
269B	1.43	12.68	14.11	9	Medium
290	-	2.76	2.76	4	Low
312	1.36	0.21	1.57	1	Low
313	4.38	1.47	5.85	8	Medium
315	0.82	-	0.82	1	Low
316	-	-	-	-	-
317	5.53	2.50	8.03	8	Medium
321	1.03	-	1.03	5	Low
331	0.48	-	0.48	1	Low
337	1.49	-	1.49	3	Low
338	0.38	-	0.38	2	Low
339	1.76	-	1.76	9	Low
340	0.29	0.01	0.30	2	Low
TOTAL	44.38	56.07	100.45	110	

Table 3: Option 1B: Potential impacts on agricultural and forestry land

Land Interest	Land-take (ha)		No. Fields	Magnitude of Land Use Impact	
Reference	Prime	Non-Prime	Total		
60	0.01	0.21	0.22	1	Low
239	-	0.11	0.11	3	Low
258	-	0.98	0.98	1	Low
268	0.21	3.46	3.67	12	Low
269A	14.40	16.24	30.64	31	High
269X	-	0.06	0.06	1	Low
269E	1.36	4.13	5.49	6	Medium
269B	1.43	13.41	14.84	12	Medium
290	-	0.21	0.21	6	Low
312	6.73	4.56	11.29	6	Medium
313	6.20	1.71	7.91	8	Medium
315	0.82	-	0.82	1	Low
316	-	-	-	-	-
317	5.53	2.50	8.03	8	Medium
321	1.03	-	1.03	5	Low
331	0.48	-	0.48	1	Low
337	1.49	-	1.49	3	Low
338	0.38	-	0.38	2	Low
339	1.76		1.76	9	Low
340	0.29	0.01	0.30	2	Low
TOTAL	42.12	47.59	89.71	118	

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Table 4: Option 1B (MV): Potential impacts on agricultural and forestry land

Land Interest	Land-take (ha)			No. Fields	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total		
60	0.01	0.21	0.22	1	Low
239	-	0.11	0.11	3	Low
258	-	0.98	0.98	1	Low
268	0.28	5.16	5.44	12	Medium
269A	16.78	26.96	43.74	37	High
269X	-	0.06	0.06	1	Low
269E	1.36	4.13	5.49	6	Medium
269B	1.43	13.41	14.84	12	Medium
290	-	0.21	0.21	6	Low
312	1.36	0.20	1.56	1	Low
313	4.38	1.47	5.85	8	Medium
315	0.82	-	0.82	1	Low
316	-	-	-	-	-
317	5.53	2.51	8.04	8	Medium
321	1.03	-	1.03	5	Low
331	0.48	-	0.48	1	Low
337	1.49	-	1.49	3	Low
338	0.38	-	0.38	2	Low
339	1.76	-	1.76	9	Low
340	0.29	0.01	0.30	2	Low
TOTAL	37.38	55.42	92.8	119	

Table 5: Option 1C: Potential impacts on agricultural and forestry land

Land Interest	Land-take (ha)		No. Fields	Magnitude of Land Use Impact	
Reference	Prime	Non-Prime	Total		
60	-	-	-	-	-
239	-	0.11	0.11	3	Low
258	-	0.98	0.98	1	Low
268	0.14	3.53	3.67	9	Low
269A	18.50	14.43	32.93	23	High
269X	-	-	-	-	-
269E	4.00	6.21	10.21	9	Medium
269B	1.43	12.68	14.11	9	Medium
290	-	2.75	2.75	4	Low
312	8.46	5.14	13.60	7	Medium
313	1.56	-	1.56	2	Low
315	-	-	-	-	-
316	3.52	-	3.52	2	Low
317	2.23	-	2.23	3	Low
321	2.56	-	2.56	3	Low
331	0.64	-	0.64	1	Low
337	1.39	-	1.39	2	Low
338	0.34	-	0.34	2	Low
339	1.76	-	1.76	9	Low
340	0.29	-	0.29	2	Low
TOTAL	46.82	45.83	92.65	91	

Part 6: Appendices

Table 6: Option 1C (MV): Potential impacts on agricultural and forestry land

Land Interest	Land-take (ha)		No. Fields	Magnitude of Land Use Impact	
Reference	Prime	Non-Prime	Total		
60	-	-	-	-	-
239	-	0.11	0.11	3	Low
258	-	0.98	0.98	1	Low
268	0.14	3.63	3.77	9	Low
269A	17.88	15.77	33.65	25	High
269X	-	-	-	-	-
269E	4.00	6.16	10.16	9	Medium
269B	1.43	12.68	14.11	9	Medium
290	-	2.75	2.75	4	Low
312	8.46	5.14	13.60	7	Medium
313	1.56	-	1.56	2	Low
315	-	-	-	-	-
316	3.52	-	3.52	2	Low
317	2.23	-	2.23	3	Low
321	2.56	-	2.56	3	Low
331	0.64	-	0.64	1	Low
337	1.39	-	1.39	2	Low
338	0.34	-	0.34	2	Low
339	1.76	-	1.76	9	Low
340	0.29	-	0.29	2	Low
TOTAL	46.20	47.22	93.42	93	

Table 7: Option 1D: Potential impacts on agricultural and forestry land

Land Interest	Land-tak	e (ha)		No. Fields	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total		
60	0.01	0.21	0.22	1	Low
239	-	0.11	0.11	3	Low
258	-	0.98	0.98	1	Low
268	0.22	3.46	3.68	12	Low
269A	15.37	14.41	29.78	27	High
269X	-	0.06	0.06	1	Low
269E	1.36	4.13	5.49	6	Medium
269B	1.43	13.41	14.84	12	Medium
290	-	0.21	0.21	6	Low
312	8.46	5.13	13.59	7	Medium
313	1.56	-	1.56	2	Low
315	-	-	-	-	-
316	3.52	-	3.52	2	Low
317	2.23	-	2.23	3	Low
321	2.56	-	2.56	3	Low
331	0.64	-	0.64	1	Low
337	1.39	-	1.39	2	Low
338	0.34	-	0.34	2	Low
339	1.76	-	1.76	9	Low
340	0.29	-	0.29	2	Low
TOTAL	41.14	42.11	83.25	102	



Table 8: Option 1D (MV): Potential impacts on agricultural and forestry land

Land Interest	Land-tak	e (ha)		No. Fields	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total		
60	0.01	0.21	0.22	1	Low
239	-	0.11	0.11	3	Low
258	-	0.98	0.98	1	Low
268	0.28	5.25	5.53	12	Medium
269A	13.71	18.05	31.76	28	High
269X	-	0.06	0.06	1	Low
269E	1.36	4.13	5.49	6	Medium
269B	1.43	13.41	14.84	12	Medium
290	-	0.21	0.21	6	Low
312	8.46	5.13	13.59	7	Medium
313	1.56	-	1.56	2	Low
315	-	-	-	-	-
316	3.52	-	3.52	2	Low
317	2.23	-	2.23	3	Low
321	2.56	-	2.56	3	Low
331	0.64	-	0.64	1	Low
337	1.39	-	1.39	2	Low
338	0.34	-	0.34	2	Low
339	1.76	-	1.76	9	Low
340	0.29	-	0.29	2	Low
TOTAL	39.54	47.54	87.08	103	

Table 9: Option 2A: Potential impacts on agricultural and forestry land

Land	Land-tak	e (ha)		No.	
Interest Reference	Prime	Non-Prime	Total	Fields	Magnitude of Land Use Impact
1	-	0.97	0.97	3	Low
4	-	0.03	0.03	1	Low
9	-	1.34	1.34	2	Low
10	-	0.90	0.90	1	Low
11	-	-	-	-	-
12	-	-	-	-	-
14	-	-	-	-	-
15	-	2.16	2.16	1	Low
16	-	1.35	1.35	1	Low
18	0.54	5.42	5.96	3	Medium
22	-	0.72	0.72	2	Low
24	9.94	2.11	12.05	5	Medium
29	-	-	-	-	-
31	0.19	-	0.19	4	Low
32	-	3.84	3.84	5	Low
38	-	-	-	-	-
41	-	-	-	-	-
45	-	-	-	-	-
52	-	-	-	-	-
54	-	0.05	0.05	2	Low
55	-	2.12	2.12	4	Low
78	-	-	-	-	-
81	6.37	3.77	10.14	10	Medium
91	-	-	-	-	-
102	-	2.56	2.56	3	Low
103	-	-	-	-	-
104	-	4.58	4.58	3	Low
106	-	-	-	-	-
108	-	-	-	-	-
111	-	_	-	-	-
112	-	-	-	-	-
119	-	11.21	11.21	6	Medium
123	-	4.09	4.09	4	Low
138	-	0.57	0.57	1	Low
139	0.36	4.72	5.08	4	Medium
140	-	1.16	1.16	3	Low
159	_	6.61	6.61	18	Medium
160	-	14.95	14.95	8	Medium
163	3.99	21.04	25.03	23	High
161, 162, 163	0.12	0.13	0.25	1	Low
164	_	1.06	1.06	2	Low
165	_	-	-	-	- -
215	_	0.81	0.81	2	Low
216	-	0.98	0.01	3	Low
410	_	0.90	0.50	٦	LOW

Land	Land-take ((ha)		No.	
Interest Reference	Prime	Non-Prime	Total	Fields	Magnitude of Land Use Impact
223	-	1.19	1.19	4	Low
229	-	1.39	1.39	3	Low
230	-	0.58	0.58	2	Low
239	-	0.89	0.89	3	Low
XX/1	0.10	-	0.10	2	Low
XX/2	-	0.20	0.20	1	Low
TOTAL	21.61	103.5	125.11	140	

Table 10: Option 2B: Potential impacts on agricultural and forestry land

Land Interest Reference	Land-tak	e (ha)		No.	Magnitude of Land Has Impact
	Prime	Non-Prime	Total	Fields	Magnitude of Land Use Impact
1	-	0.98	0.98	3	Low
4	-	0.04	0.04	1	Low
9	-	1.34	1.34	2	Low
10	-	0.92	0.92	1	Low
11	-	-	-	-	-
12	_	-	-	-	-
14	-	-	-	-	-
15	_	1.92	1.92	1	Low
16	-	1.02	1.02	1	Low
18	2.50	3.95	6.45	3	Medium
22	_	0.84	0.84	2	Low
24	-	-	-	-	-
29	-	0.29	0.29	1	Low
31	0.07	-	0.07	3	Low
32	7.78	6.48	14.26	11	Medium
38	-	-	-	-	-
41	-	-	-	-	-
45	_	-	_	-	-
52	-	_	_	-	-
54	-	0.60	0.60	3	Low
55	_	2.10	2.10	4	Low
78	_	_	-	-	-
81	_	0.87	0.87	5	Low
91	-	-	-	-	-
102	_	2.58	2.58	3	Low
103	_	-	-	-	-
104	_	8.23	8.23	3	Medium
106	_	-	-	-	-
108	_	-	_	-	-
111	_	_	_	_	-
112	-	-	-	-	-
119	_	7.88	7.88	6	Medium
123	_	4.30	4.30	4	Low
138	_	0.56	0.56	1	Low
139	0.36	4.67	5.03	4	Medium
140	-	1.16	1.16	3	Low
159	_	6.70	6.70	18	Medium
160	_	14.94	14.94	8	Medium
163	3.96	20.99	24.95	23	High
161, 162, 163	0.12	0.13	0.25	1	Low
164	_	1.06	1.06	2	Low
165	_	-	-	-	-
215	-	0.81	0.81	2	Low

Land Interest	Land-take (ha)			No.	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total	Fields	
223	-	1.19	1.19	4	Low
229	-	1.36	1.36	3	Low
230	-	0.59	0.59	2	Low
239	-	0.87	0.87	3	Low
XX/1	0.10	-	0.10	2	Low
XX/2	-	0.19	0.19	1	Low
TOTAL	14.89	100.54	115.43	137	

Table 11: Option 2C: Potential impacts on agricultural and forestry land

Land Interest Reference	Land-tak	e (ha)		No Fields	Magnitude of Land Use Impact
	Prime	Non-Prime	Total	No. Fields	
1	-	1.00	1.00	3	Low
4	-	0.04	0.04	1	Low
9	-	1.34	1.34	2	Low
10	-	0.87	0.87	1	Low
11	-	0.01	0.01	1	Low
12	-	0.06	0.06	1	Low
14	-	0.15	0.15	2	Low
15	-	2.29	2.29	1	Low
16	-	1.09	1.09	1	Low
18	3.49	7.37	10.86	7	Medium
22	-	0.88	0.88	2	Low
24	-	-	-	-	-
29	-	-	-	-	-
31	0.01	-	0.01	1	Low
32	1.65	10.01	11.66	11	Medium
38	-	0.45	0.45	1	Low
41	2.46	7.69	10.15	7	Medium
45	-	0.89	0.89	1	Low
52	-	-	-	-	-
54	-	0.35	0.35	2	Low
55	-	5.24	5.24	5	Medium
78	-	-	-	-	-
81	-	-	-	-	-
91	_	-	-	-	-
102	-	8.52	8.52	8	Medium
103	-	3.45	3.45	3	Low
104	-	7.13	7.13	4	Medium
106	-	0.37	0.37	1	Low
108	-	-	-	-	-
111	-	0.05	0.05	1	Low
112	-	-	-	-	-
119	-	-	-	-	-
123	-	-	-	-	-
138	-	1.24	1.24	1	Low
139	0.38	4.61	4.99	4	Low
140	-	0.92	0.92	3	Low
159	-	6.70	6.70	18	Medium
160	-	14.94	14.94	8	Medium
163	3.98	20.99	24.97	23	High
161, 162, 163	0.12	0.13	0.25	1	Low
164	-	1.06	1.06	2	Low
165	-	-	-	-	-
215	_	0.80	0.80	2	Low
216	_	0.98	0.98	3	Low



Land Interest	Land-take (ha)			No. Fields	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total	No. 1 lolus	magnitude of Land Ooc impact
223	-	1.19	1.19	4	Low
229	-	1.37	1.37	3	Low
230	-	0.59	0.59	2	Low
239	-	0.87	0.87	3	Low
XX/1	0.10	-	0.10	2	Low
XX/2	-	0.19	0.19	1	Low
TOTAL	12.19	115.83	128.02	147	

Table 12: Option 2D: Potential impacts on agricultural and forestry land

Land	Land-tak	e (ha)		No.	
Interest Reference	Prime	Non-Prime	Total	Fields	Magnitude of Land Use Impact
1	-	1.00	1.00	3	Low
4	-	0.04	0.04	1	Low
9	-	1.34	1.34	2	Low
10	-	0.87	0.87	1	Low
11	-	0.01	0.01	1	Low
12	-	0.06	0.06	1	Low
14	-	0.15	0.15	2	Low
15	-	2.29	2.29	1	Low
16	-	1.09	1.09	1	Low
18	3.49	7.36	10.85	7	Medium
22	-	0.88	0.88	2	Low
24	-	-	-	-	-
29	-	-	-	-	-
31	0.01	-	0.01	1	Low
32	1.65	15.45	17.10	14	High
38	-	0.45	0.45	1	Low
41	3.75	6.10	9.85	10	Medium
45	-	0.89	0.89	1	Low
52	-	0.05	0.05	1	Low
54	-	0.07	0.07	1	Low
55	0.36	10.25	10.61	7	Medium
78	-	-	-	-	-
81	-	-	-	-	-
91	-	0.60	0.60	1	Low
102	-	0.09	0.09	1	Low
103	-	0.07	0.07	1	Low
104	-	-	-	-	-
106	1.70	0.09	1.79	2	Low
108	4.07	1.96	6.03	6	Medium
111	0.86	-	0.86	1	Low
112	0.03	0.22	0.25	1	Low
119	-	-	-	-	-
123	-	-	-	-	-
138	-	-	-	-	-
139	0.25	0.72	0.97	2	Low
140	-	-	-	-	-
159	-	15.16	15.16	23	High
160	-	15.04	15.04	8	High
163	2.51	24.06	26.57	24	High
161, 162, 163	-	-	-	-	-
164	-	0.32	0.32	2	Low
165	1.68	2.70	4.38	4	Low
215	-	0.81	0.81	2	Low
216	-	0.98	0.98	3	Low



Land Interest	Land-take (ha)			No.	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total	Fields	magnitude of Land Ose impact
223	-	1.19	1.19	4	Low
229	-	1.37	1.37	3	Low
230	-	0.59	0.59	2	Low
239	-	0.87	0.87	3	Low
XX/1	-	-	-	-	-
XX/2	-	-	-	-	-
TOTAL	20.36	115.19	135.55	151	



Table 13: Option 2E: Potential impacts on agricultural and forestry land

Land	Land-tak	e (ha)		No.	
Interest Reference	Prime	Non-Prime	Total	Fields	Magnitude of Land Use Impact
1	-	0.97	0.97	3	Low
4	-	0.03	0.03	1	Low
9	-	1.34	1.34	2	Low
10	-	0.90	0.90	1	Low
11	-	-	-	-	-
12	-	-	-	-	-
14	-	-	-	-	-
15	-	2.16	2.16	1	Low
16	-	1.35	1.35	1	Low
18	0.54	5.42	5.96	3	Medium
22	-	0.72	0.72	2	Low
24	9.89	2.11	12.00	5	Medium
29	-	-	-	-	-
31	0.19	-	0.19	4	Low
32	-	3.84	3.84	5	Low
38	-	-	-	-	-
41	-	-	-	-	-
45	-	-	-	-	-
52	-	-	-	-	-
54	-	0.05	0.05	2	Low
55	-	2.17	2.17	4	Low
78	-	-	-	-	-
81	6.37	3.78	10.15	10	Medium
91	-	_	-	-	-
102	-	2.61	2.61	4	Low
103	-	-	-	-	-
104	_	4.51	4.51	3	Low
106	_	-	-	-	-
108	_	_	-	_	-
111	_	-	-	-	-
112	-	-	-	_	-
119	_	11.18	11.18	6	Medium
123	-	4.08	4.08	4	Low
138	-	2.12	2.12	1	Low
139	0.40	2.99	3.39	5	Low
140		1.16	1.16	3	Low
159	-	5.84	5.84	6	Medium
		-	5.04	-	
160	4.94	_			- High
163	4.94	16.97	21.91	13	High
161, 162, 163	0.11	0.07	0.18	1	Low
164	-	0.36	0.36	2	Low
165	6.05	4.14	10.19	6	Medium
215	-	4.10	4.10	3	Low
216	-	-	-	-	-



Land	Land-take (ha)			No.	Manufact and the law of
Interest Reference	Prime	Non-Prime	Total	Fields	Magnitude of Land Use Impact
223	-	0.01	0.01	1	Low
229	-	2.06	2.06	3	Low
230	-	0.11	0.11	2	Low
239	-	0.89	0.89	3	Low
XX/1	-	-	-	-	-
XX/2	-	-	-	-	-
TOTAL	28.49	88.04	116.53	110	

Table 14: Option 2F: Potential impacts on agricultural and forestry land

Land	Land-tak	e (ha)		No.	
Interest Reference	Prime	Non-Prime	Total	Fields	Magnitude of Land Use Impact
1	-	0.98	0.98	3	Low
4	-	0.04	0.04	1	Low
9	-	1.34	1.34	2	Low
10	-	0.91	0.91	1	Low
11	-	-	-	-	-
12	-	-	-	-	-
14	-	-	-	-	-
15	-	1.92	1.92	1	Low
16	-	1.01	1.01	1	Low
18	2.50	3.94	6.44	3	Medium
22	-	0.84	0.84	2	Low
24	-	-	-	-	-
29	-	0.29	0.29	1	Low
31	0.07	-	0.07	3	Low
32	7.78	6.47	14.25	11	Medium
38	-	-	-	-	-
41	-	-	-	-	-
45	-	-	-	-	-
52	-	-	-	-	-
54	-	0.60	0.60	3	Low
55	-	2.17	2.17	4	Low
78	-	-	-	-	-
81	-	0.88	0.88	5	Low
91	-	-	-	-	-
102	-	2.61	2.61	4	Low
103	-	-	-	-	-
104	-	8.21	8.21	3	Medium
106	-	-	-	-	-
108	-	-	-	-	-
111	-	-	-	-	-
112	-	-	-	-	-
119	-	7.81	7.81	6	Medium
123	-	4.29	4.29	4	Low
138	-	2.12	2.12	1	Low
139	0.40	2.99	3.39	5	Low
140	-	1.16	1.16	3	Low
159	-	5.83	5.83	6	Medium
160	-	-	-	-	-
163	4.91	17.02	21.93	13	High
161, 162, 163	0.11	0.07	0.18	1	Low
164	-	0.37	0.37	2	Low
165	6.05	4.15	10.2	6	Medium
215	-	4.09	4.09	3	Low
216	-	-	-	-	-

Land Interest	Land-take (ha)			No.	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total	Fields	magintado or zana oco impact
223	-	0.01	0.01	1	Low
229	-	2.07	2.07	3	Low
230	-	0.11	0.11	2	Low
239	-	0.89	0.89	3	Low
XX/1	-	-	-	-	-
XX/2	-	-	-	-	-
TOTAL	21.82	85.19	107.01	107	



Table 15: Option 2G: Potential impacts on agricultural and forestry land

Land Interest	Land-take (ha)			No.	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total	Fields	, maganana ar amar aca mipuca
1	-	1.00	1.00	3	Low
4	-	0.04	0.04	1	Low
9	-	1.34	1.34	2	Low
10	-	0.87	0.87	1	Low
11	-	0.01	0.01	1	Low
12	-	0.06	0.06	1	Low
14	-	0.15	0.15	2	Low
15	-	2.29	2.29	1	Low
16	-	1.09	1.09	1	Low
18	3.49	7.37	10.86	7	Medium
22	-	0.88	0.88	2	Low
24	-	-	-	-	-
29	-	-	-	-	-
31	0.01	-	0.01	1	Low
32	1.65	9.86	11.51	11	Medium
38	-	0.45	0.45	1	Low
41	2.46	7.69	10.15	7	Medium
45	-	0.89	0.89	1	Low
52	-	-	-	-	-
54	-	0.35	0.35	2	Low
55	-	5.27	5.27	5	Medium
78	-	-	-	-	-
81	-	-	-	-	-
91	-	-	-	-	-
102	-	8.27	8.27	8	Medium
103	-	3.45	3.45	3	Low
104	-	7.13	7.13	4	Medium
106	-	0.37	0.37	1	Low
108	-	-	-	-	-
111	-	0.05	0.05	1	Low
112	-	-	-	-	-
119	-	-	-	-	-
123	-	-	-	-	-
138	-	2.07	2.07	1	Low
139	0.39	2.77	3.16	5	Low
140	-	0.92	0.92	3	Low
159	-	5.84	5.84	6	Medium
160	-	-	-	-	-
163	4.90	17.02	21.92	13	High
161, 162, 163	0.11	0.07	0.18	1	Low
164	-	0.36	0.36	2	Low
165	6.05	4.14	10.19	6	Medium
215	-	4.09	4.09	3	Low
216	-	-	-	-	-

Land Interest	Land-take (ha)			No.	Magnitude of Land Use Impact
Reference	Prime	Non-Prime	Total	Fields	
223	-	0.01	0.01	1	Low
229	-	2.06	2.06	3	Low
230	-	0.11	0.11	2	Low
239	-	0.89	0.89	3	Low
XX/1	-	-	-	-	-
XX/2	-	-	-	-	-
TOTAL	19.06	99.23	118.29	116	

Table 16: Option 2H: Potential impacts on agricultural and forestry land

Land Interest Reference	Land-tak	Land-take (ha)			Magnitude of Land Has Immed
	Prime	Non-Prime	Total	No. Fields	Magnitude of Land Use Impact
1	-	0.97	0.97	3	Low
4	-	0.03	0.03	1	Low
9	-	1.34	1.34	2	Low
10	-	0.90	0.90	1	Low
11	-	-	-	-	
12	-	-	-	-	
14	-	-	-	-	
15	-	2.16	2.16	1	Low
16	-	1.35	1.35	1	Low
18	0.54	5.42	5.96	3	Medium
22	-	0.72	0.72	2	Low
24	9.89	2.11	12.00	5	Medium
29	-	-	-	-	-
31	0.19	-	0.19	4	Low
32	-	8.55	8.55	12	Medium
38	-	-	-	-	-
41	-	-	-	-	-
45	-	-	-	-	-
52	-	-	-	-	-
54	-	0.05	0.05	2	Low
55	-	4.42	4.42	4	Low
78	-	-	-	-	-
81	6.39	3.87	10.26	10	Medium
91	-	-	-	-	-
102	-	2.93	2.93	3	Low
103	-	-	-	-	-
104	-	8.71	8.71	5	Medium
106	-	-	-	-	-
108	-	-	-	-	-
111	-	-	-	-	-
112	-	-	-	-	-
119	-	11.36	11.36	6	Medium
123	-	1.77	1.77	3	Low
138	-	-	-	-	-
139	0.22	1.65	1.87	4	Low
140	-	1.20	1.20	3	Low
159	-	14.08	14.08	11	Medium
160	-	0.07	0.07	1	Low
163	3.54	12.90	16.44	13	High
161, 162, 163	-	-	-	-	-
164	-	0.36	0.36	2	Low
165	6.13	5.03	11.16	7	Medium
215	-	4.52	4.52	3	Low
216	-	-	-	-	-



A96 Dualling Inverness to Nairn (including Nairn Bypass) DMRB Stage 2 Scheme Assessment Report Part 6: Appendices

Land Interest	Land-take	(ha)		No.	Magnitude of Land Use Impact				
Reference	Prime	Non-Prime	Total	Fields					
223	-	0.01	0.01	1	Low				
229	-	2.06	2.06	3	Low				
230	-	0.11	0.11	2	Low				
239	-	0.89	0.89	3	Low				
XX/1	-	-	-	-	-				
XX/2	-	-	-	-	-				
TOTAL	26.90	99.54	126.44	121					



A96 Dualling Inverness to Nairn (including Nairn Bypass) DMRB Stage 2 Scheme Assessment Report Part 6: Appendices

Table 17: Option 2I: Potential impacts on agricultural and forestry land

Land	Land-tak	e (ha)		No.	
Interest Reference	Prime	Non-Prime	Total	Fields	Magnitude of Land Use Impact
1	-	1.00	1.00	3	Low
4	-	0.04	0.04	1	Low
9	-	1.34	1.34	2	Low
10	-	0.87	0.87	1	Low
11	-	0.01	0.01	1	Low
12	-	0.06	0.06	1	Low
14	-	0.15	0.15	2	Low
15	-	2.29	2.29	1	Low
16	-	1.09	1.09	1	Low
18	3.49	7.37	10.86	7	Medium
22	-	0.88	0.88	2	Low
24	-	-	-	-	-
29	-	-	-	-	-
31	0.01	-	0.01	1	Low
32	1.65	15.44	17.09	14	High
38	-	0.45	0.45	1	Low
41	3.75	6.10	9.85	10	Medium
45	-	0.89	0.89	1	Low
52	-	0.06	0.06	1	Low
54	-	0.07	0.07	1	Low
55	0.36	10.25	10.61	7	Medium
78	-	-	-	-	-
81	-	-	-	-	-
91	-	0.60	0.60	1	Low
102	-	0.09	0.09	1	Low
103	-	0.07	0.07	1	Low
104	-	-	-	-	-
106	1.70	0.09	1.79	2	Low
108	4.07	1.95	6.02	6	Medium
111	0.86	-	0.86	1	Low
112	0.03	0.22	0.25	1	Low
119	-	-	-	-	-
123	-	-	-	-	-
138	-	-	-	-	-
139	0.22	0.70	0.92	2	Low
140	-	-	-	-	-
159	-	14.29	14.29	11	Medium
160	-	0.07	0.07	1	Low
163	3.54	12.90	16.44	13	High
161, 162, 163	-	-	-	-	-
164	-	0.36	0.36	2	Low
165	6.13	5.03	11.16	7	Medium
215	-	4.52	4.52	3	Low
216	-	-	-	-	-

A96 Dualling Inverness to Nairn (including Nairn Bypass) DMRB Stage 2 Scheme Assessment Report Part 6: Appendices

Land Interest	Land-take	(ha)		No.	Magnitude of Land Use Impact				
Reference	Prime	Non-Prime	Total	Fields	magnitude of Land Ose impact				
223	-	0.01	0.01	1	Low				
229	-	2.06	2.06	3	Low				
230	-	0.11	0.11	2	Low				
239	-	0.89	0.89	3	Low				
XX/1	-	-	-	-	-				
XX/2	-	-	-	-	-				
TOTAL	25.81	92.32	118.13	119					

A96 Dualling Inverness to Nairn (including Nairn Bypass)

DMRB Stage 2 Scheme Assessment Report

Part 6: Appendices

A22.1: Stage 2 Value for Money Workshop Report

This appendix contains the report prepared by Capital Value and Risk Ltd on behalf of Transport Scotland of the Stage 2 Scheme Options Assessment Value for Money Workshop held on 7 May 2014.





A96 INVERNESS TO NAIRN DUALLING (INCLUDING NAIRN BYPASS)

STAGE 2 SCHEME OPTIONS ASSESSMENT VALUE FOR MONEY WORKSHOP

(CVRL Ref: 6064)

REPORT

Version: 26 June 2014



CONTACTS

Alasdair Graham/Craig Cameron Transport Scotland Major Transport Infrastructure Projects (MTRIPS)

Email: <u>Alasdair.Graham@transportscotland.gsi.gov.uk</u>

<u>Craig.Cameron@transportscotland.gsi.gov.uk</u>

Graeme Herd Jacobs

E-Mail: <u>Graeme.Herd@jacobs.com</u>

Glyn Harrison Capital Value & Risk Limited

E-mail: cvrlglynharrison@btconnect.com

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1 INTRODUCTION

1 INTRODUCTION

A one day Stage 2 Value for Money Workshop for the dualling improvement options associated with the A96 Inverness to Nairn including the Nairn Bypass scheme was held on 7th May 2014 with representatives of Transport Scotland (TS) and their consultants, Jacobs.

Transport Scotland required an independent facilitator to manage the VfM study. Capital Value & Risk Limited (CVRL) was commissioned to undertake the study which incorporated the workshop.

The workshop was preceded by a briefing meeting on 22 April 2014 with TS, Jacobs and CVRL. Glyn Harrison facilitated the workshop with support from Amanda Harrison.

This is the report from the workshop comprising background information related to the scheme and the workshop, workshop outputs, attendees/agenda and presentation slides.

2 WORKSHOP BACKGROUND

2.1 SCHEME BACKGROUND

On 6 December 2011, the then Cabinet Secretary for Infrastructure and Capital Investment launched the Infrastructure Investment Plan (IIP) which provides an overview of the Scottish Government's plans for infrastructure investment over the coming decades. Contained within the document is a commitment to complete the dualling of the A96 between Inverness and Aberdeen by 2030.

The A96 between Inverness and Aberdeen is approximately 99 miles (160km) long and consists mostly of single carriageway and climbing lanes in places with sections of dual carriageway at each end. On 9 May 2013 the Minister for Transport and Veterans set out how the A96 dualling programme would be taken forward over the next few years. This includes taking forward route option design work between Inverness and Nairn, including a Nairn Bypass (approximately 30km total route length).

The Strategic Transport Projects Review (STPR), published in 2008, set out the Scottish Government's transport investment priorities over the coming decades. Specific trunk road interventions emerging from the review included upgrading the A96 between Inverness and Nairn to dual carriageway and a bypass of Nairn.

In 2010, Transport Scotland commissioned Jacobs to undertake a Design Manual for Roads and Bridges (DMRB) Stage 2 Assessment study in relation to upgrading the A96 between Inverness and Nairn to dual carriageway and a (single carriageway) bypass of Nairn. In February 2012, Transport Scotland and The Highland Council undertook a joint consultation on the emerging Local Development Plan proposals and options for the supporting trunk road infrastructure.

Following the Scottish Government's commitment to dual the A96 between Inverness and Aberdeen by 2030, the proposals for the A96 Inverness to Nairn, including a Nairn Bypass, are in the process of being updated to reflect that commitment. In December 2012, work commenced on further DMRB Stage 2 Scheme Assessment work to consider full dual carriageway provision with grade separated junctions and to facilitate and support the objective of dualling the A96 between Inverness and Aberdeen. In November 2013, further consultation was undertaken on the route options currently under consideration.

The DMRB Stage 2 Scheme Assessment is now nearing completion.

2.2 SCHEME OBJECTIVES

The scheme objectives are:

- Δ To improve the operation of the A96 and inter-urban connectivity through:
 - Reduced journey times
 - Improved journey time reliability
 - Increased overtaking opportunities
 - Improved efficiency of freight movements along the transport corridor
 - Reduced conflicts between local traffic and other traffic in urban areas
- Δ To improve safety for motorised and non-motorised users through:
 - Reduced accident rates and severity
 - Reduced driver drfY ag
 - Reduced Non-Motorised User conflicts with strategic traffic
- Δ To provide opportunities to grow the regional economies on the corridor through:
 - Improved access to the wider strategic transport network
 - Enhanced access to jobs and services
- Δ To facilitate active travel in the corridor.
- Δ To facilitate integration with Public Transport facilities.
- Δ $\,$ To minimise the environmental effect on the communities in the corridor.

Route option assessment criteria have been developed which are based on STAG criteria and aligned to these scheme objectives.

2.3 KEY ENGINEERING CONSTRAINTS

Key engineering constraints that have been considered in route option development include:

- Δ The existing A96
- Δ General topography of the area the landscape is low lying and flat close to the coast, but quickly becomes undulating to the south
- Δ The River Nairn and its associated flood plain will require a bridge with a clear central span in the region of 90m
- Δ $\,$ The flood plains of the Alton and Auldearn Burns and their associated tributaries
- Δ Inverness Airport

- Δ Access to proposed development areas
- Δ Areas of soft alluvium
- Δ The local road network
- Δ Numerous private accesses
- Δ The Inverness to Aberdeen single-track railway
- Δ Active and redundant quarry and gravel pit workings
- Δ Areas of peat bog
- Δ Scattered residential and industrial development
- Δ Significant agricultural holdings.
- Δ Utilities including high pressure gas pipeline, 132kV transmission power lines, BT fibre optics, and a government fuel pipeline.

2.4 KEY ENVIRONMENTAL CONSTRAINTS

Key environmental constraints that have been considered in route option development include:

- Δ Loch Flemington SPA
- Λ River Nairn
- Δ SSSI's Longman and Castle Stuart Bays and Kildrummie Kames.
- Δ Flood plains River Nairn, Alton Burn, Ardersier Burn, Cairnlaw Burn and Auldearn Burn
- Δ Auldearn battlefield 1645
- Δ Scheduled monuments
- Δ Planned development areas
- Δ Ancient and plantation woodlands
- Δ Ecology Red squirrel, badgers, bats, migrating birds
- Δ Landscape and visual impacts
- Δ Listed buildings
- Δ Outdoor access core paths and National Cycle Network

2.5 ROUTE OPTIONS

The existing A96 within the study area is a single carriageway, approximately 30km long. The rural sections of the route are generally of a good standard in terms of cross-section and horizontal and vertical alignment. However, the existing route has frequent junctions and accesses.

Route options have been developed to provide a category 7A dual carriageway with grade separated junctions. At the west end of the scheme, the route options tie-in to the existing A96 dual carriageway at the roundabout for Inverness Retail Park.

At the east end of the scheme, the route options tie-in to the existing single carriageway at Easter Hardmuir with a dual carriageway to single carriageway transition in such a way that a future dualling scheme can be developed eastwards to Forres.

The scheme is divided into two distinct sections: Nairn Bypass and Inverness to Gollanfield. The option assessment process considered these two sections separately. The following sub-sections describe the routes and options that were under consideration.

2.5.1 Nairn Bypass

The Nairn Bypass options pass to the south of the town of Nairn as well as passing the village of Auldearn (options both north and south of Auldearn). All options continue to a common tie-in point near Hardmuir. This section is approximately 16km long.

All options begin with on-line widening of the long straight section of the existing A96 from Gollanfield. Some routes leave the line of the existing A96 near Blackcastle, while others continue to Delnies Wood. There are two potential crossings over the River Nairn: the northern crossing is at Broadley, and the southern crossing is close to the existing road bridge at Howford. At the east, there are four alignments under consideration past Auldearn: north of Auldearn; on-line; south of Auldearn through Bognafuaran Wood but north of Newmill; or further south, south of Bognafuaran Wood and south of Newmill. Nine route options are presented for consideration: 2A to 2I. The route options are summarised in the following paragraphs and table.

Route Option 2A is one of two options passing closest to Nairn. To the west, it passes through Delnies Wood, which is popular with local residents as recreational woodland. To the east, it passes through the northern edge of the Auldearn battlefield and to the north of Auldearn through Bogside of Boath and Penick, before re-joining the line of the A96 before Wester Hardmuir.

Route Option 2B is the second option passing closest to Nairn, passing through Delnies Wood and through the northern edge of the Auldearn Battlefield. It re-joins the line of the A96 west of Auldearn running generally on-line adjacent to the village and off-line immediately to the south of the existing A96 between Broombank and Wester Hardmuir, which is retained for local access.

Route Option 2C follows options 2A and 2B through Delnies Wood and over the River Nairn, but passes through the southern part of the Auldearn Battlefield. This option passes between Newmill and Auldearn and re-joins the line of the existing A96 at Courage running off-line immediately to the south of the existing A96 which is retained for local access.

Route Option 2D also passes through Delnies Wood, but then swings further south through Lochdhu farm crossing the River Nairn at Howford. By using the southern crossing, the dual carriageway runs close to a SSSI and the proposed side road realignments pass through the edge of the SSSI. This option passes to the south of the Auldearn Battlefield and rejoins the line of the existing A96 at Courage.

Route Option 2E leaves the line of the existing A96 at Blackcastle and passes through Blackcastle Quarry and the Nairn West junction is sited in an area recently worked as a gravel quarry. The design has been developed as far as possible to use the land which has already been quarried, minimising impact on the remaining mineral rights. This junction provides a direct link to the existing side road which connects to the proposed development at the Port of Ardersier. From the River Nairn to the east end of the scheme, it takes the same route as Option 2A, north of Auldearn through Bogside of Boath and Penick.

Route Option 2F takes the same route as Option 2E through Blackcastle Quarry, across the River Nairn and through the northern extents of the Auldearn Battlefield. It then takes the alignment of Route Option 2B rejoining the line of the A96 west of Auldearn running generally on-line adjacent to the village and off-line immediately to the south of the existing A96 between Broombank and Wester Hardmuir which is retained for local access.

Route Option 2G takes the same route as Option 2E through Blackcastle Quarry to the River Nairn, and then takes the same route as Option 2C passing between Auldearn and Newmill and re-joining the line of the existing A96 at Courage.

Route Option 2H passes through Blackcastle Quarry and takes the southern river crossing at Howford, with the side roads being realigned through the edge of the SSSI. East of the river, this option swings north, having a greater impact on the Auldearn Battlefield, but reasonably following property boundaries, resulting in less land severance than some of the other options. This option follows the same alignment as Route Options 2A and 2E to the north and east of Auldearn.

Route Option 2I is the southern-most option, following the line of Route Option 2H through Blackcastle Quarry and crossing the River Nairn at Howford, with the associated impact on the SSSI, before following the same alignment as Route Option 2D to the south of the Auldearn Battlefield and re-joining the line of the existing A96 at Courage.

Route Option	West	River Crossing	East
2A	Delnies Wood	Northern River Crossing	North of Auldearn
2B	Delnies Wood	Northern River Crossing	Online past Auldearn
2C	Delnies Wood	Northern River Crossing	Between Auldearn and Newmill
2D	Delnies Wood	Southern River Crossing	South of Newmill
2E	Blackcastle Quarry	Northern River Crossing	North of Auldearn
2F	Blackcastle Quarry	Northern River Crossing	Online past Auldearn
2G	Blackcastle Quarry	Northern River Crossing	Between Auldearn and Newmill
2H	Blackcastle Quarry	Southern River Crossing	North of Auldearn
21	Blackcastle Quarry	Southern River Crossing	South of Newmill

2.5.2 Inverness to Gollanfield

The scheme starts at the roundabout for Inverness Retail Park and generally follows the existing A96 corridor to Gollanfield, at a point just east of the existing A96 bridge over the Aberdeen-Inverness Railway. This covers a distance of approximately 15km.

Two options have been considered between Smithton and Newton, and two options have been considered between Kerrowaird and Brackley. Combined, these give four options, which have been designated 1A to 1D. For each of these options, a variant to the south of Morayston has been considered. These Morayston Variants have been designated 1A (MV) to 1D (MV). The route options are summarised in the following paragraphs and table.

Route Option 1A is the most northerly of the routes between Inverness and Gollanfield. It includes a 1.5km on-line section near the west end of the scheme between Milton of Culloden and Allanfearn. This does

not allow the existing A96 to be retained over this section for local access. East of Allanfearn it follows the A96 corridor until Kerrowaird where is passes closer to the railway and further from the proposed new town development at Tornagrain.

Route Option 1B takes the same route as Option 1A until Kerrowaird where it then remains generally on line through Tornagrain and Mid-Coul and on to Brackley junction.

Route Option 1C runs off-line south of the A96 from Milton of Culloden South to Kerrowaird where it then takes the same route as Option 1A passing closer to the railway and further from the proposed new town at Tornagrain.

Route Option 1D takes the same route as option 1C to Kerrowaird and then, like option 1B, runs generally on-line through Tornagrain and Mid Coul.

The Morayston Variant: While the four base options run immediately to the south of the existing A96 single-carriageway between Morayston Cottages and Morayston House, this variant follows a sweeping curve around the south of Morayston House.

Route Option	Smithton to Newton	Newton to Kerrowaird	Kerrowaird to Brackley
1A	Offline to north	Online	Offline to north
1A(MV)	Offline to north	Offline to south	Offline to north
1B	Offline to north	Online	Online
1B(MV)	Offline to north	Offline to south	Online
1C	Offline to south	Online	Offline to north
1C(MV)	Offline to south	Offline to south	Offline to north
1D	Offline to south	Online	Online
1D(MV)	Offline to south	Offline to south	Online

2.6 SCHEME COSTS

Scheme cost estimates have been developed and are shown in the following tables (2014 Q1 prices excluding VAT), ranked from lowest to highest. The totals have also been included in the Option Assessment Tables in Appendix C. The cost estimates include a quantified risk allowance and 25% optimism bias.

Nairn Byr	Nairn Bypass section								
Doute Option	Scheme Total								
Route Option	(£M)								
2E	£202.4								
2F	£204.3								
2G	£214.4								
2A	£224.8								
2B	£224.8								
21	£225.8								
2C	£237.0								
2H	£239.1								
2D	£240.2								

Inverness to Gollanfield section							
Pouto Option	Scheme Total						
Route Option	(£M)						
1C(MV)	£192.0						
1C	£198.4						
1A(MV)	£200.4						
1D	£201.8						
1A	£206.6						
1D(MV)	£208.3						
1B	£212.5						
1B(MV)	£216.1						

Although having no on-line sections to reuse the existing infrastructure, Route Option 1C (MV) has the lowest cost estimate for Inverness to Gollanfield. This option has the highest estimated cost for the mainline, but the lowest estimated cost for side roads and junctions. Route Option 1B (MV), which is one of the two most on-line route options, has the highest cost estimate for Inverness to Gollanfield.

Route Option 2E has the lowest cost estimate for the Nairn Bypass due to the estimated costs for both the 2E mainline and 2E side roads being amongst the lowest. Similarly, the cost estimates for both the mainline and side roads of Route Option 2D are amongst the highest, combining to give the highest total cost estimate.

2.7 OPTIONS ASSESSMENT TABLE

The main criteria used in the Option Assessment Tables were:

- 1 Economy
- 2 Safety
- 3 Environment / Sustainability
- 4 Accessibility
- 5 Integration
- 6 Other

Under the main criteria, a number of sub-criteria were created based on the scheme objectives. The comparative assessment utilised a scoring process where the best option scored 10 points and the other options were then compared against the best.

The sub-criteria had assigned weightings to reflect their importance. The product of the weighting and the individual scores gave a utility score for the objective criteria.

The summation of all utility scores provided a total utility score for each option. The utility score, divided by capital cost, provided a Value Index measure.

Net Present Value (NPV) of benefits and the Benefit/Cost Ratio (BCR) for each option were also included in the assessment table.

2.8 WORKSHOP OBJECTIVES

As part of developing the scheme and in accordance with TS VfM procedures, the workshop was convened to undertake a value for money review of the proposed scheme options.

The purpose of the workshop was to reach consensus on the emerging preferred option for each section of the scheme. To facilitate this, the workshop participants were asked to review the Option Assessment Tables for both the Nairn Bypass and Inverness to Gollanfield route sections and challenge the provisional assessment scoring assigned by the project team.

Participants also considered the value index, the NPV and the BCR for each route option.

The workshop also addressed any specific issues/actions arising from the assessment process and for completion of Stage 2 study.

Note – due to time constraints a risk assessment of the project options was not included. A risk analysis had been undertaken by Jacobs and included in the cost estimates for each option.

3 WORKSHOP OUTPUTS

3 WORKSHOP OUTPUTS

3.1 INTRODUCTION

The workshop had two main sessions:

- 1. Nairn Bypass
- 2. Inverness to Gollanfield

Each session comprised introductory presentations, options assessment review, conclusions and actions.

Details of the workshop presentations for each session can be found in Appendix A.

The options assessment workshop process entailed presenting the initial scoring for each option, against the relevant criteria, followed by an explanation as to the basis of the assessment. The workshop participants could then question and challenge the rationale and where necessary the scoring was modified. Any supplementary workshop comments were noted as the exercise proceeded.

3.2 NAIRN BYPASS OPTIONS ASSESSMENT

The following table is the workshop output from the Nairn Bypass options assessment process.

3.2.1 Table 1 – Nairn Bypass: Workshop Options Assessment Table

	Nairn Bypass											
	Options Analysis			Route Option	Workshop Comments							
Main Criteria	Sub-Criteria	Weighting	Option 2A	2B	2C	2D	2E	2F	2G	2H	21	
Economy	EC1 - Improve the operation of the A96 and inter-urban connectivity through: - reduced journey times; - improved journey time reliability; - increased overtaking opportunities; - improved efficiency of freight movements along the transport corridor; and - reduced conflicts between local traffic and other traffic in urban areas	10	9	8	10	10	8	8	10	8	10	
	EC2 - Provide opportunities to grow the regional economies on the corridor through: - improved access to the wider strategic transport network; and - enhanced access to jobs and services.	10	8	8	7	5	10	10	9	8	7	Could increase score by add 1 point to 2D,2H and 2I since these options offer greater potential area for long- term development at Nairn South sensitivity test
	Economy sub-total		170	160	170	150	180	180	190	160	170	
	SAF1 - Improve safety for motorised road users through: - reduced accident rates and severity; and - reduced driver frustration	10	10	10	9	9	10	10	9	10	9	
Safety	SAF2 - Improve safety for Non- Motorised Users through: - reduced Non-Motorised User conflicts with strategic traffic	10	10	8	9	9	10	9	9	10	9	Due to the extent of the interface with the existing A96, workshop agreed to reduce score for 2B by 2 points and 2F by 1 point
	Safety sub-total		200	180	180	180	200	190	180	200	180	
Environment / Sustainability	ENV1 - Air quality	2	10	10	10	10	10	10	10	10	10	
	ENV2 - Noise and Vibration	2	6	4	6	8	9	8	9	10	10	
	ENV3 - Landscape and Visual	2	10	10	8	6	9	9	7	8	5	

	Nairn Bypass											
	Options Analysis			Route Option	Workshop Comments							
Main Criteria	Sub-Criteria	Weighting	2A	2B	2C	2D	2E	2F	2G	2H	21	
	ENV4 - Ecology and Nature Conservation	2	8	8	9	10	7	7	9	7	10	
	ENV5 - Geology and Soils	2	10	10	10	10	10	10	10	10	10	
	ENV6 - Road drainage and the water environment Flood Risk	1	7	6	9	9	8	7	10	8	10	
	Fluvial Geomorphology	1	10	9	8	9	9	8	7	9	8	
	Water Quality	1	10	10	10	10	10	10	10	10	10	
	ENV7 - Cultural Heritage	2	8	7	10	10	8	7	10	8	10	
	ENV8 - Materials	2	9	8	4	6	10	9	6	5	6	Routes with more structures could have an impact on material quantities – to be assessed and sensitivity test done
	ENV9 - Community and Private Assets											
	Residential, Commercial, Industrial	1	7	6	7	7	9	8	10	9	9	
	Development Land	1	7	7	7	10	8	8	8	9	9	
	Agricultural and Forestry	1	7	9	6	6	8	10	8	7	8	
	Environment sub-total		170	161	161	171	178	171	175	168	176	
Accessibility	ACC1 - Effect on All Travellers - Minimise impacts on the journeys made by pedestrians, cyclists, equestrians and vehicular travellers within their local communities	20	6	4	6	5	10	7	10	9	9	
	Accessibility sub-total		120	80	120	100	200	140	200	180	180	

	Nairn Bypass												
Main Criteria	Options Analysis Main Criteria Sub-Criteria Weighting			Route Option 2B	Route Option 2C	Route Option 2D	Route Option 2E	Route Option 2F	Route Option 2G	Route Option 2H	Route Option 2I	Workshop Comments	
Integration	INT1 - Integration with local plans and polices (development plan)	10	9 9	9	9	8	10	10	10	8	8	Options D, H and I could increase by 1 point may provide flexibility for long-term planning but noted that SSSI constrains junction development. May be a reduced score for A, B, C and D associated with access to Whiteness – sensitivity test	
	INT2 - Facilitate integration with Public Transport facilities	10	8	8	10	10	8	8	10	8	10		
	Integration sub-total		170	170	190	180	180	180	200	160	180		
	O1 - Be promotable/deliverable through the statutory process	8	6	5	2	2	10	9	6	10	6		
Other	O2 - Minimise disruption/impact to road users and local community during construction	8	9	4	9	9	10	5	10	10	10		
	O3 - Facilitate Operational Resilience	4	10	8	10	10	10	8	10	10	10		
	Other sub-total		160 990	104	128	128	200	144	168	200	168		
	Utility			855	949	909	1138	1005	1113	1068	1054		
	Cost £m (2014 Q1)			224.8	237.0	240.2	202.4	204.3	214.4	239.1	225.8		
Value Index (Utility / Cost)			4.4	3.8	4.0	3.8	5.6	4.9	5.2	4.5	4.7		
DVC cm				470.2	100.0	104.6	161.4	460.0	474.0	100.7	100.4		
	PVC £m PVB £m NPV £m			179.3 171.1	189.0 204.0	191.6 199.2	161.4	162.9 156.7	171.0 196.7	190.7 162.2	180.1 199.4		
				-8.2	15.0	7.6	7.3	-6.2	25.7	-28.5	199.4		
	ភូ	BCR	-1.6 1.0	1.0	1.1	1.0	1.1	1.0	1.2	0.9	1.1		

3 WORKSHOP OUTPUTS

3.2.2 Conclusions and Actions

Upon completion of the Nairn Bypass options assessment review the following were noted:

- 1. Conclusion from workshop is that the initial ranking of options is as follows: 1st Option E, 2nd Option G, 3rd Option I and 4th Option F.
- 2. Actions:
 - a. Give further consideration to impact on Auldearn Battlefield site and consult Historic Scotland to better understand impact and risk.
 - b. Review impact of potential flood risk in area of Nairn East junction.
 - c. Review BCR calculation and consider further improvement.
 - d. Consult further with bus companies.
 - e. Conduct sensitivity test on Utility score, where noted in 'Comments' column, including assessment of structures material quantities in environmental materials assessment criteria ENV8.
 - f. Review Nairn Flood Relief scheme and any possible impact on the scheme design.

The results of the post Workshop sensitivity testing can be found in Appendix B.

3.3 INVERNESS TO GOLLANFIELD OPTIONS ASSESSMENT

The following table is the workshop output from the Inverness to Gollanfield section, options assessment process.

3.3.1 Table 2 - Inverness to Gollanfield: Workshop Options Assessment Table

		Invern	ess to G	ollanfield	l						
Options Analysis				Route Option	Workshop Comments						
Main Criteria	Sub-Criteria	Weighting	Option 1A	1A(MV)	1B	1B(MV)	1C	1C(MV)	1D	1D(MV)	
Economy	EC1 - Improve the operation of the A96 and inter-urban connectivity through: - reduced journey times; - improved journey time reliability; - increased overtaking opportunities; - improved efficiency of freight movements along the transport corridor; and - reduced conflicts between local traffic and other traffic in urban areas	10	8	7	8	8	9	8	10	9	
	EC2 - Provide opportunities to grow the regional economies on the corridor through: - improved access to the wider strategic transport network; and - enhanced access to jobs and services.		10	10	6	6	10	10	6	6	Workshop agreed that options 1B, 1B (MV), 1D and 1D (MV) should lose 4 points rather than just 2 due to the impact on consented Tornagrain development
	Economy sub-total		180	170	140	140	190	180	160	150	
Safety	SAF1 - Improve safety for motorised road users through: - reduced accident rates and severity; and - reduced driver frustration	10	10	10	10	10	10	10	10	10	
	SAF2 - Improve safety for Non-Motorised Users through: - reduced Non-Motorised User conflicts with strategic traffic	10	8	9	8	9	9	10	9	10	
	Safety sub-total		180	190	180	190	190	200	190	200	
Environment / Sustainability	ENV1 - Air quality 2		9	9	10	10	9	9	10	10	
	ENV2 - Noise and Vibration	2	10	10	10	10	8	8	8	8	
	ENV3 - Landscape and Visual 2		9	9	10	10	6	5	7	6	
	ENV4 - Ecology and Nature Conservation 2		6	6	5	5	10	9	10	9	

Inverness to Gollanfield											
	Options Analysis				Route Option	Route Option	Route Option	Route Option	Route Option	Route Option	Workshop Comments
Main Criteria	Sub-Criteria	Weighting	1A	1A(MV)	1B	1B(MV)	1C	1C(MV)	1D	1D(MV)	
	ENV5 - Geology and Soils	2	9	10	10	9	9	9	9	9	
	ENV6 - Road drainage and the water environment Flood Risk	1	10	10	10	10	10	10	10	10	
	Fluvial Geomorphology	1	9	7	9	7	10	9	10	9	
	Water Quality	1	10	10	10	10	10	10	10	10	
	ENV7 - Cultural Heritage	2	9	10	9	10	7	7	7	7	
	ENV8 - Materials	2	9	10	9	8	9	10	9	8	Review ratings to include quantities for structures materials
	ENV9 - Community and Private Assets:										
	Residential, Commercial, Industrial	1	8	8	6	6	10	10	8	8	
	Development Land	1	10	10	6	6	10	10	6	6	
	Agricultural and Forestry	1	7	7	9	9	8	8	10	10	
	Environment sub-total		176	180	176	172	174	171	174	167	
Accessibility	ACC1 - Effect on All Travellers - Minimise impacts on the journeys made by pedestrians, cyclists, equestrians and vehicular travellers within their local communities.	20	9	10	7	8	9	9	7	7	
	Accessibility sub-total		180	200	140	160	180	180	140	140	
	INT1 - Integration with local plans and polices (development plan)	10	10	10	6	6	10	10	6	6	
Integration	INT2 - Facilitate integration with Public Transport facilities	10	6	6	6	6	10	10	10	10	
	Integration sub-total		160	160	120	120	200	200	160	160	
Other	O1 - Be promotable/deliverable through the statutory process	8	10	10	6	6	10	10	6	6	
	O2 - Minimise disruption/impact to road users and local community during construction	8	7	8	5	6	9	10	7	8	
	O3 - Facilitate Operational Resilience	4	8	8	8	8	10	10	10	10	
	Other sub-total		168	176	120	128	192	200	144	152	

Inve									
Options Analysis	Route Option	Workshop Comments							
1 14:11:	1A	1A(MV)	1B	1B(MV)	1C	1C(MV)	1D	1D(MV)	
Utili		1076	876	910	1126	1131	968	969	
Cost £ (2014 Q	70h h	200.4	212.5	216.1	198.4	192.0	201.8	208.3	
Value Index (Utility / Cos	5.1	5.4	4.1	4.2	5.7	5.9	4.8	4.7	
PVC £m PVB £m NPV £m		159.8	169.5	172.3	158.2	153.1	160.9	166.1	
		149.6	175.4	155.7	177.2	166.6	193.9	184.7	
		-10.2	5.9	-16.6	19.0	13.5	33.0	18.6	
≌ BC	R 1.0	0.9	1.0	0.9	1.1	1.1	1.2	1.1	

RANKING	Route Option 1A	Route Option 1A(MV)	Route Option 1B	Route Option 1B(MV)	Route Option 1C	Route Option 1C(MV)	Route Option 1D	Route Option 1D(MV)
Utility	4	3	8	7	2	1	6	5
Cost 1	5	3	7	8	2	1	4	6
Value Index	4	3	8	7	2	1	5	6
BCR	5=	5=	5=	8	2=	2=	1	2=

3 WORKSHOP OUTPUTS

3.3.2 Conclusions and Actions

Upon completion of the Inverness to Gollanfield section, options assessment review, the following was noted:

- 1. Conclusion: Option ranking is: 1st Option C (MV), 2nd Option C, and 3rd Option A (MV).
- 2. Actions:
 - a. Review of Newton junction to minimise impacts on cultural heritage.
 - b. Conduct sensitivity test on Utility score, where noted in 'Comments' column.
 - c. TS to consider a possible strategy for developer contributions towards scheme cost.

The results of the post workshop sensitivity testing can be found in Appendix B.

4 WORKSHOP LOGISTICS

4.1 AGENDA

9.15 Coffee

9.30 Introduction

- Δ Introductions, objectives, process, agenda, rules & roles
- Background to Dualling Programme, DMRB Stage 2 Study,
 Objectives, current status overview of route sections –
 Alasdair Graham/Craig Cameron (5-10mins)

9.45 Session 1- Nairn Bypass Dualling

A Scheme objectives, key constraints and bypass options described including Engineering, Environment, Traffic/Economics/capital costs –Jacobs (15-20mins)

Questions & Answers

10.05 Option Matrix Assessment

- Δ Option assessment criteria and weighting explained.
- Δ Confirm the scheme options to be assessed
- Δ Each evaluation criteria to be introduced and initial scoring for each to be provided by Jacobs.
- Δ Discussion on the performance of each option against the criteria.
- Δ Undertake any changes to the draft scoring for each criterion.

10.30 Coffee

10.40 Session 1 - Nairn Bypass Option Matrix Assessment cont'd

- Δ Continue undertaking comparative options scoring assessment for each criteria
- △ Incorporation of capital costs incl risk.
- A Review of utility score and value index
- Δ Review of NPV and BCR values
- Δ Discussion on the outputs from the matrix evaluation and rankings of options against key metric.
- Δ Does one option have a greater delivery risk?

Taking into account the above what is/are the preferred route option(s) to take forward?

Are there any actions arising from the workshop?

12.30 Lunch

4 WORKSHOP LOGISTICS

13.30 Session 2 - Inverness to Gollanfield Dualling

Key constraints and route options described including Engineering, Environment, Traffic/Economics/capital costs – Jacobs (15-20mins)

Questions & Answers

 Δ Options assessment process undertaken as per Session 1.

15.00 **Tea**

15.10 Session 2 -Inverness to Gollanfield Dualling cont'd

- Δ Options Assessment process cont'd
- Δ Taking into account the above what is/are the preferred route option(s) to take forward?
- Δ Are there any actions arising from the workshop?

15.30 Workshop Summary and Actions

- Δ Confirm the preferred route option(s)?
- △ Way Forward for the study process.
- △ Actions Arising from workshop– Who? What? When?

16.00 Workshop Close

4 WORKSHOP LOGISTICS

4.2 PARTICIPANTS

Name	Organisation	Email
Transport Scotland		
David Anderson	Head of Planning and Design, Project Sponsor	David.Anderson@transportscotland.gsi.gov.uk
2. Alasdair Graham	Head of Design Team 3, Project Manager	Alasdair.Graham@transportscotland.gsi.gov.uk
3. Craig Cameron	Design Team 3, Senior Engineer	Craig.Cameron@transportscotland.gsi.gov.uk
4. Adam Gould	Design Team 3, Project Engineer	Adam.Gould@transportscotland.gsi.gov.uk
5. Andrew Davidson	Head of Standards Branch	Andrew.Davidson@transportscotland.gsi.gov.uk
6. John Quail	Construction Branch	John.quail@transportscotland.gsi.gov.uk
7. Hazel McDonald	Network Bridges Manager	Hazel.McDonald@transportscotland.gsi.gov.uk
8. Wayne Hindshaw	Bridges Section	wayne.hindshaw@transportscotland.gsi.gov.uk
9. Angus Corby	Landscape Advisor	Angus.Corby@transportscotland.gsi.gov.uk
10. Malcolm Forsyth	Development Management (North)	Malcolm.Forsyth@transportscotland.gsi.gov.uk
11. Graeme Low	A96 Area Manager	Graeme.Low@transportscotland.gsi.gov.uk
12. Paul Junik	Technical Analysis Branch, Senior Transport Planner	Paul.Junik@transportscotland.gsi.gov.uk
Jacobs		
13. Helen Bradley	Scheme Manager	helen.bradley@jacobs.com
14. Graeme Herd	Principal Engineer	graeme.herd@jacobs.com
15. Euan Barr	Transport Planning Team Leader	euan.barr@jacobs.com
16. Charles Macklin	Roads Team Leader	charles.macklin@jacobs.com
17. Kate Lowe	Environmental Coordinator	kate.lowe@jacobs.com

4.3 CAPITAL VALUE & RISK TEAM

Facilitator: Glyn Harrison Assistant: Amanda Harrison

APPENDIX A – WORKSHOP PRESENTATIONS

APPENIDIX A -	 WORKSHOP PRESENTATIONS 	:
ALLEINDIV H -	- WURNSHUF FRESEINTATIONS)

The following are the presentations given at the workshop.





A96 Inverness to Nairn (including Nairn Bypass)

Route Options Assessment Workshop

07 May 2014



Background to A96 Dualling

- Strategic Transport Project Review (STPR) 2008
 - targeted programme of measures to reduce accident severity on the A96;
 - upgrade the A96 to dual carriageway from Inverness to Nairn;
 - targeted road congestion/ environmental relief schemes, including enhancements to the A96 such as a bypass at Nairn.





Background to A96 Dualling (cont.)

- Infrastructure Investment Plan 2011
 - Commitment to complete the dualling of the A96 between Inverness and Aberdeen by 2030
- Ministerial Announcement, 9th May 2013
 - Preliminary engineering and strategic environmental assessment work along A96 corridor
 - Ongoing route option design work between Inverness and Nairn, including Nairn Bypass – preferred route 2014
 - Assessment of possible route options for bypasses around Forres, Elgin, Keith and Inverurie progressed following completion of preliminary engineering work





A96 Inverness to Nairn (incl Nairn Bypass)

- Project Timeline 2010 to 2012
 - Jacobs UK Limited appointed to undertake route option design work between Inverness and Nairn (including Nairn Bypass (DMRB Stage 2 Assessment)
 - Stage 2 Route Option Assessment in relation to the STPR intervention commenced in 2010. At the time the options for a Nairn Bypass were developed as single carriageway
 - Exhibitions held in early 2012 to present options under consideration at that time





A96 Inverness to Nairn (incl Nairn Bypass)

- Project Timeline 2013 to Date
 - Review and update route options under consideration following decision to dual A96 between Inverness and Aberdeen
 - Route options (including Nairn Bypass) developed based on dual carriageway with grade separated junctions (Category 7A)
 - Route options under consideration presented to the public in November 2013 (447 Nairn, 182 Inverness)
 - Consultation responses issued with feedback taken into account during assessment process
 - DMRB Stage 2 assessment of options presented to the public
 - Ministerial commitment to announce preferred option in 2014

Inverness to Nairn (inc Nairn Bypass)

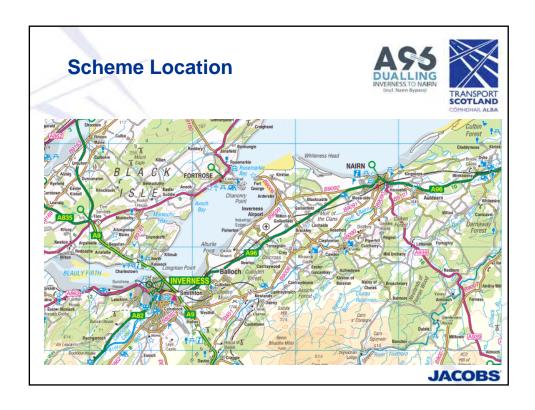




- Scheme Location
- Scheme Objectives
- Nairn Bypass
 - Key Features/Constraints
 - Route Options
 - Traffic and Economics



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Scheme Objectives



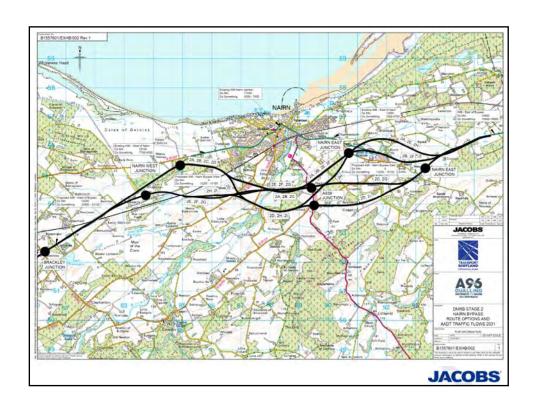
- To improve the operation of the A96 and inter-urban connectivity
- To improve safety for motorised and non-motorised users
- To provide opportunities to grow the regional economies on the corridor
- To facilitate active travel in the corridor
- To facilitate integration with Public Transport facilities
- To minimise the environmental effect on the communities in the corridor

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Nairn Bypass Key Features & Constraints



- Inverness Aberdeen Railway
- Active and redundant quarry workings
- Utilities HP Gas, 132kV transmission, fuel oil pipeline
- Flood plains River Nairn, Alton burn, Auldearn Burn
- Special Protection Areas Inner Moray Firth, Moray and Nairn Coast and Loch Flemington
- Kildrummie Kames SSSI
- Auldearn Battlefield 1645
- Ancient and plantation woodlands
- Outdoor Access Core Paths and NCN1
- Development areas Whiteness and Nairn South



Nairn Bypass Traffic & Economics





- Moray Firth Transport Model (MFTM)
- Development scenarios
- Forecast AADT flows (2031 high growth)

Location	Do Minimum	Do Something
Proposed A96 west of bypass	16,400	20,800 - 23,100
Existing A96 Nairn (centre)	17,400	6,300 - 7,600
Proposed Nairn Bypass	-	13,200 - 15,100
Existing A96 east of bypass	14,000	15,000 - 15,600

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Nairn Bypass Traffic & Economics





· Assessment Results

Option	Cost (£m 2014 Q1)	BCR
2A	224.8	1.0
2B	224.8	1.0
2C	237.0	1.1
2D	240.2	1.0
2E	202.4	1.1
2F	204.3	1.0
2G	214.4	1.2
2H	239.1	0.9
21	225.8	1.1

Nairn Bypass Public Consultation Feedback





- 206 responders provided comments
- · Key themes:
 - 74% commented on routes, usually expressing opinion for or against certain options.
 - 61% commented on land, e.g. concerned with loss of agricultural land, future restriction of development around Nairn and loss of property/business value.
 - 61% expressed environmental concerns, e.g. impact on Delnies Wood, noise, landscape & visual impacts, and ecological habitat.
- Design development Milton of Culloden South, Blackcastle Quarry, Auldearn to Hardmuir

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Nairn Bypass Option Assessment





Inverness to Gollanfield Introduction



- Inverness to Gollanfield
 - Key Features/Constraints
 - Route Options
 - Traffic and Economics



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Inverness to Gollanfield Key Features & Constraints





- Inverness Aberdeen Railway
- Utilities HP Gas, Government fuel oil pipeline
- Flood plains Ardersier Burn and Cairnlaw Burn
- Special Protection Areas Inner Moray Firth, Moray and Nairn Coast and Loch Flemington
- · Longman and Castle Stuart Bay SSSI
- Ancient and plantation woodlands
- Outdoor Access Core Paths
- Development areas Inverness East & Tornagrain



Inverness to Gollanfield Traffic & Economics





- Moray Firth Traffic Model (MFTM)
- Development scenarios
- Forecast AADT flows (2031 high growth)

Location	Do Minimum	Do Something
A96 Raigmore to Smithton	46,100	48,200 – 48,900
A96 Smithton to Newton	29,900	31,000 - 33,600
A96 Newton to Mid Coul	20,300	22,400 - 24,600
A96 Mid Coul to Brackley	17,100	22,200 - 23,600

Inverness to Gollanfield Traffic & Economics





Assessment Results

Option	Cost (£m 2014 Q1)	
1A	206.6	1.0
1A(MV)	200.4	1.0
1B	212.5	1.0
1B(MV)	216.1	0.9
1C	198.4	1.1
1C(MV)	192.0	1.1
1D	201.8	1.2
1D(MV)	208.3	1.1

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Inverness to Gollanfield Option Assessment





APPENDIX B - POST WORKSHOP SENSITIVITY TESTING

APPENDIX B POST WORKSHOP SENSITIVITY TESTING

Following the Option Assessment workshop, the Jacobs project team reviewed the comments noted during the workshop discussions and revised the final option assessment tables by incorporating the suggested changes from the workshop along with re-scoring of the materials assessment to take account of the structures quantities.

The sensitivity test concluded no variation to the outcome of the workshop.

The following tables show the results from the sensitivity analyses. Note - changes to score totals are italicised.

Table 3 – Nairn Bypass: Post Workshop Sensitivity Analysis

		Nairn	Bypass								
Options Analysis			Route Option								
Main Criteria	Sub-Criteria	Weighting	2A	2B	2C	2D	2E	2F	2G	2H	21
Economy	EC1 - Improve the operation of the A96 and inter-urban connectivity through: - reduced journey times; - improved journey time reliability; - increased overtaking opportunities; - improved efficiency of freight movements along the transport corridor; and - reduced conflicts between local traffic and other traffic in urban areas	10	9	8	10	10	8	8	10	8	10
	EC2 - Provide opportunities to grow the regional economies on the corridor through: - improved access to the wider strategic transport network; and - enhanced access to jobs and services.	10	8	8	7	6	10	10	9	9	8
	Economy sub-total	170	160	170	160	180	180	190	170	180	
264	SAF1 - Improve safety for motorised road users through: - reduced accident rates and severity; and - reduced driver frustration			10	9	9	10	10	9	10	9
Safety	SAF2 - Improve safety for Non-Motorised Users through: - reduced Non-Motorised User conflicts with strategic traffic	10	10	8	9	9	10	9	9	10	9
	Safety sub-total		200	180	180	180	200	190	180	200	180
	ENV1 - Air quality	2	10	10	10	10	10	10	10	10	10
	ENV2 - Noise and Vibration	2	6	4	6	8	9	8	9	10	10
Environment / Sustainability	ENV3 - Landscape and Visual	2	10	10	8	6	9	9	7	8	5
	ENV4 - Ecology and Nature Conservation	2	8	8	9	10	7	7	9	7	10
	ENV5 - Geology and Soils	2	10	10	10	10	10	10	10	10	10

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		Nairn	Bypass								
Main Critoria	Options Analysis Main Criteria Sub-Criteria Weighting				Route Option						
Main Criteria	ENV6 - Road drainage and the water environment Flood	weighting	2A	2B	2C	2D	2E	2F	2G	2H	21
	Risk	1	7	6	9	9	8	7	10	8	10
	Fluvial Geomorphology	10	9	8	9	9	8	7	9	8	
	Water Quality	1	10	10	10	10	10	10	10	10	10
	ENV7 - Cultural Heritage	8	7	10	10	8	7	10	8	10	
	ENV8 - Materials	9	9	8	7	9	10	9	8	8	
	ENV9 - Community and Private Assets										
	Residential, Commercial, Industrial	1	7	6	7	7	9	8	10	9	9
	Development Land	1	7	7	7	10	8	8	8	9	9
	Agricultural and Forestry	1	7	9	6	6	8	10	8	7	8
	Environment sub-total		170	163	169	173	176	173	181	174	180
Accessibility	ACC1 - Effect on All Travellers - Minimise impacts on the journeys made by pedestrians, cyclists, equestrians and vehicular travellers within their local communities	20	6	4	6	5	10	7	10	9	9
	Accessibility sub-total		120	80	120	100	200	140	200	180	180
	INT1 - Integration with local plans and polices (development plan)	10	8	8	8	8	10	10	10	9	9
Integration	INT2 - Facilitate integration with Public Transport facilities	10	8	8	10	10	8	8	10	8	10
	Integration sub-total		160	160	180	180	180	180	200	170	190
	O1 - Be promotable/deliverable through the statutory process	8	6	5	2	2	10	9	6	10	6
Other	O2 - Minimise disruption/impact to road users and local community during construction	8	9	4	9	9	10	5	10	10	10
	O3 - Facilitate Operational Resilience 4			8	10	10	10	8	10	10	10
	Other sub-total		160	104	128	128	200	144	168	200	168

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Nairn I	Bypass								
Options Analysis	Route Option 2A	Route Option 2B	Route Option 2C	Route Option 2D	Route Option 2E	Route Option 2F	Route Option 2G	Route Option 2H	Route Option 2I
Utility	980	847	947	921	1136	1007	1119	1094	1078
Cost £m (2014 Q1)	224.8	224.8	237.0	240.2	202.4	204.3	214.4	239.1	225.8
Value Index (Utility / Cost)	4.4	3.8	4.0	3.8	5.6	4.9	5.2	4.6	4.8
Change from Workshop Value Index	0.0	0.0	0.0	0.0	0.0	0.0	0.0	+0.1	+0.1
등 프 PVC £m [179.3	179.3	189.0	191.6	161.4	162.9	171.0	190.7	180.1
五 五 五 五 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日	177.7	171.1	204.0	199.2	168.7	156.7	196.7	162.2	199.4
NPV £m	-1.6	-8.2	15.0	7.6	7.3	-6.2	25.7	-28.5	19.3
BCR	1.0	1.0	1.1	1.0	1.1	1.0	1.2	0.9	1.1

RANKING	Route Option 2A	Route Option 2B	Route Option 2C	Route Option 2D	Route Option 2E	Route Option 2F	Route Option 2G	Route Option 2H	Route Option 2I
Utility	6	9	7	8	1	5	2	3	4
Cost 1	4	4	7	9	1	2	3	8	6
Value Index	6	8	7	8	1	3	2	5	4
BCR	5=	5=	2=	5=	2=	7	5=	9	2=

Table 4 - Inverness - Gollanfield: Post Workshop Sensitivity Analysis

	Inverness to Gollanfield											
Options Analysis			Route Option									
Main Criteria	Sub-Criteria	· ·					1C	1C(MV)	1D	1D(MV)		
Economy	EC1 - Improve the operation of the A96 and inter-urban connectivity through: - reduced journey times; - improved journey time reliability; - increased overtaking opportunities; - improved efficiency of freight movements along the transport corridor; and - reduced conflicts between local traffic and other traffic in urban areas	10	8	7	8	8	9	8	10	9		
	EC2 - Provide opportunities to grow the regional economies on the corridor through: - improved access to the wider strategic transport network; and - enhanced access to jobs and services.	10	10	10	6	6	10	10	6	6		
	Economy sub-total		180	170	140	140	190	180	160	150		
	SAF1 - Improve safety for motorised road users through: - reduced accident rates and severity; and - reduced driver frustration	10	10	10	10	10	10	10	10	10		
Safety	SAF2 - Improve safety for Non-Motorised Users through: - reduced Non-Motorised User conflicts with strategic traffic	10	8	9	8	9	9	10	9	10		
	Safety sub-total		180	190	180	190	190	200	190	200		
	ENV1 - Air quality	2	9	9	10	10	9	9	10	10		
	ENV2 - Noise and Vibration	2	10	10	10	10	8	8	8	8		
Environment / Sustainability	ENV3 - Landscape and Visual	2	9	9	10	10	6	5	7	6		
	ENV4 - Ecology and Nature Conservation	2	6	6	5	5	10	9	10	9		
	ENV5 - Geology and Soils	2	9	10	10	9	9	9	9	9		

	Inverne	ss to Gollai	nfield							
	Options Analysis		Route Option							
Main Criteria	Sub-Criteria	Weighting	1A	1A(MV)	1B	1B(MV)	1C	1C(MV)	1D	1D(MV)
	ENV6 - Road drainage and the water environment Flood Risk	1	10	10	10	10	10	10	10	10
	Fluvial Geomorphology	1	9	7	9	7	10	9	10	9
	Water Quality	1	10	10	10	10	10	10	10	10
	ENV7 - Cultural Heritage	2	9	10	9	10	7	7	7	7
	ENV8 - Materials	2	8	9	6	6	9	10	8	7
	ENV9 - Community and Private Assets:									
	Residential, Commercial, Industrial	1	8	8	6	6	10	10	8	8
	Development Land	1	10	10	6	6	10	10	6	6
	Agricultural and Forestry	1	7	7	9	9	8	8	10	10
	Environment sub-total		174	178	170	168	174	171	172	165
Accessibility	ACC1 - Effect on All Travellers - Minimise impacts on the journeys made by pedestrians, cyclists, equestrians and vehicular travellers within their local communities.	20	9	10	7	8	9	9	7	7
	Accessibility sub-total		180	200	140	160	180	180	140	140
	INT1 - Integration with local plans and polices (development plan)	10	10	10	6	6	10	10	6	6
Integration	INT2 - Facilitate integration with Public Transport facilities	10	6	6	6	6	10	10	10	10
	Integration sub-total		160	160	120	120	200	200	160	160
	O1 - Be promotable/deliverable through the statutory process	8	10	10	6	6	10	10	6	6
Other	O2 - Minimise disruption/impact to road users and local community during construction	8	7	8	5	6	9	10	7	8
	O3 - Facilitate Operational Resilience	8	8	8	8	10	10	10	10	
	Other sub-total		168	176	120	128	192	200	144	152

Inverness t	Inverness to Gollanfield									
Options Analysis			Route Option							
	1 14:1:45.7	1A	1A(MV)	1B 870	1B(MV) 906	1C	1C(MV)	1D	1D(MV)	
	Utility	1042	1074	670	906	1126	1131	966	967	
	Cost £m (2014 Q1)	206.6	200.4	212.5	216.1	198.4	192.0	201.8	208.3	
Value Index (Util	ity / Cost)	5.0	5.4	4.1	4.2	5.7	5.9	4.8	4.6	
Change from Workshop Va	alue Index	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	
	PVC £m	164.8	159.8	169.5	172.3	158.2	153.1	160.9	166.1	
Ĭ×	PVB £m	169.6	149.6	175.4	155.7	177.2	166.6	193.9	184.7	
HIGH	NPV £m	4.8	-10.2	5.9	-16.6	19.0	13.5	33.0	18.6	
9	BCR	1.0	0.9	1.0	0.9	1.1	1.1	1.2	1.1	

RANKING	Route Option 1A	Route Option 1A(MV)	Route Option 1B	Route Option 1B(MV)	Route Option 1C	Route Option 1C(MV)	Route Option 1D	Route Option 1D(MV)
Utility	4	3	8	7	2	1	6	5
Cost 1	5	3	7	8	2	1	4	6
Value Index	4	3	8	7	2	1	5	6
BCR	5=	5=	5=	8	2=	2=	1	2=



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