



# Cluden to Lochfoot Pipeline

Appendices

AUGUST 2015



## PROJECT REPORT

### RSK General Notes

**Project No:** 190418





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**Client:** GNI (UK) Ltd

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<b>Date</b>	03.08.2015	<b>Date</b>	03.08.2015

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## **APPENDICES**

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## APPENDIX A – CONSULTATION MATRIX

QA Ref	Scoping Ref	Organisation	Address	Contact Details	Key Issues/ Concerns Identified	Data Previously Requested	Actions Taken	Consultation Response
01		Association for the Protection of Rural Scotland	Gladstone's Land (3rd Floor) 438 Lawnmarket Edinburgh EH1 2NT	John Mayhew – Director Tel.0131 225 7012 Fax 0131 225 6592 <a href="mailto:info@ruralscotland.org">info@ruralscotland.org</a>			Letter + email (Ref 12) sent 13/02/14 informing that an EIA is taking place	No response received to date
02		British Geological Survey	Environmental Science Centre Keyworth Nottingham NG12 5GG	Tel. 0115 936 3100 Fax 0115 936 3200 <a href="mailto:enquiries@bgs.ac.uk">enquiries@bgs.ac.uk</a> Marcus Mulcahy Enquiries & Visitor Services, British Geological Survey, Murchison House, West Mains Road, Edinburgh, EH9 3LA Tel. 0131 6671000 <a href="mailto:scotsales@bgs.ac.uk">scotsales@bgs.ac.uk</a>		(Geology Maps)	Letter + email sent 13/02/14 consultation to confirm no change	Email 6/3/15 (Ref 20) Superficial layer: Boundaries similar to DigiMap although not all. Coding is significantly off i.e. DigMap shows wrong layering type. Bedrock layer: Bedrock layer OK but key hard to link with map due to transparency on the GIS. Suggestions purchasing BGS Sheet 9E for description of formation. Soils layer: Not BGS data – contact James Hutton (Action performed)
			British Geological Survey Natural History Museum	Tel 0800 800 865 Tel 01689 502 345 Fax 01698 502 340				
		BT Cable and wireless	National Notice Handling Centre Post Point 404B Telecom House Trinity Street Hanley	Tel. 0800 800 865 Tel. 1689 502 345 Fax 01698 502 340  Yvonne Gilmour Tel. 01698 502 461			BGE/Penspen to approach if required.	



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			Stoke on Trent ST1 5ND Plant Enquiries 1 Dovewind Strathclyde Business Park Bellshill Lanarkshire ML4 3AL					
03		River Dee Trust & Dee District Salmon Fishery Board	River Office Mill of Dinnet Aboyne Aberdeenshire AB34 5LA	Tel. 01339 880411 Int. +44 1339 880411 General: <a href="mailto:info@riverdee.org">info@riverdee.org</a>		Any information or comment of relevance	No longer relevant in 7km diversion. No consultation.	N/A
04	Scoping meeting 27/02/15  Attending: Robert Duncan, Andrew Nicholson	Dumfries and Galloway Council  Planning Department  Roads and Planning	Planning and Environment Services, Development Management, Kirkbank House, English Street Dumfries DG1 2HS	Mr. Robert Duncan (Planning Manager – Major Projects), Tel. 01387 260199 <a href="mailto:robert.duncan@dumgal.gov.uk">robert.duncan@dumgal.gov.uk</a>  Dean Clapworthy (Planner) Tel. 01387 260830 Tel. 07919300801 <a href="mailto:Dean.clapworthy@dumgal.gov.uk">Dean.clapworthy@dumgal.gov.uk</a>	Previous meetings 15/3/2007 - D&G requested a letter from the Scottish Executive confirming the validity of the PCA for the works - Section 69 agreement followed for Cluden to Bighouse section - Hold early scoping meetings with SEPA, SNH and County Archaeologist (Updated action: Performed) - Temporary	- Details of planning applications made within the last 5 years for the area of search - Any landscape designations - Details of the location of any Rights of Way within the area - (Any other information of use)	Letter + email sent 13/02/14 Request update on any other planned infrastructure improvements (e.g. rail) in the area of search + notify of EIA  Email sent 02/03/15 provided GIS files for planning search.  Scoping letter sent 17/02/15 to Robert Duncan for the attention of the Environmental Health Officer (Noise)	Letter 23/2/15 (Ref 14) Confirm receipt of letter – enquiry being examined. Will respond within 21 days. Given Dean Clapworthy as contact in the meantime  Email 06/03/15 (Ref 22) Provided plan and annotations of planning applications since 2008. Gave planning portal link to check status of applications. Confirmed that Council’s response to SGECDU will be determined by Planning Applications Committee.  Email 23/03/15 (Ref 27) Confirmed no mineral extraction planning applications have been submitted

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					<p>construction yard not to be located adjacent to the pipeline</p> <p>Meeting 24/11/2014 D&amp;G noted that the route planned through several Local Community Councils (LCC) and they would expect consultation and possibly funding in a similar fashion to that provided by wind energy enterprises.</p>			No scoping response received to date
05			Militia House, English Street, Dumfries DG1 2HR	<p>Gillian Flack (Contaminated land) Tel. 01387 260374 Tel. 07921038702 <a href="mailto:Gillian.flack@dumgal.gov.uk">Gillian.flack@dumgal.gov.uk</a></p> <p>Christine Whittle Senior Planner Department of Planning Dumfries and Galloway Council Tel. 01387 260 126</p>		<ul style="list-style-type: none"> <li>- Details of any waste disposal sites</li> <li>- Past, present or future mineral extraction sites</li> <li>- Past present or future landfill sites</li> <li>- Areas of potentially contaminated land</li> <li>- (Any other information of use</li> </ul>	<p>Letter sent 13/02/14 – notify of EIA</p> <ul style="list-style-type: none"> <li>- details of any waste disposal sites</li> <li>- past/present/future mineral extraction sites</li> <li>- past/present/future landfill sites</li> <li>- Areas of potentially contaminated land</li> <li>- Confirmation there has been no update to the baseline</li> </ul>	<p>Email 08/02/14 (Ref 08)</p> <ul style="list-style-type: none"> <li>- No contaminated land or landfill within area of search</li> </ul> <p>Email 20/03/15 (Ref 29)</p> <p>Confirmed no mineral reserves</p>

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06	04- Scoping meeting 27/02/15		Militia House, English Street, Dumfries DG1 2HR	Andrew Nicholson HER Officer Tel. 01387 260154 <a href="mailto:Andrew.nicholson@dumgal.gov.uk">Andrew.nicholson@dumgal.gov.uk</a> <a href="mailto:archaeology@dumgal.gov.uk">archaeology@dumgal.gov.uk</a>		- SMR (Sites and Monuments Record) data - Listed structures - Building conservation areas (if practical) - Scheduled monuments - Inventory and non-inventory HGDs (Historic gardens and designed landscapes)	Letter sent 13/02/14 Confirming we have the data and notified of EIA taking place  Scoping letter sent 17/02/15  Contacted Sarah Revens – provided descriptive data to SR and GIS to Faye 26/02/15	Scoping opinion provided during Scoping meeting 17/02/15
07	02		Dumfries and Galloway Council, DGFirst, Cargen Tower, Garroch Business Centre, Dumfries, DG2 8PN, Drop Point 244	Ken Drewett – Team leader , Roads and Planning Tel. 01387 271100 Tel. 07803145792 <a href="mailto:Ken.drewett@dumgal.gov.uk">Ken.drewett@dumgal.gov.uk</a>		Information on the A75/A76 - 2 way traffic flows - AADT - Modal split, particularly HGV - Growth factor Traffic data (if available for other roads local to pipeline route)	Letter + email sent 13/02/14 notified of EIA, Requested any relevant data for the A75/A76  Transport Scotland have been contacted following recommendation  Scoping letter sent 17/02/15  Scoping response received 13/3/15 (letter)	Email 13/02/15 (Ref 01) Confirmed public roads crossed (does not have traffic data for these); C221n Milton – Water of Cairn, C14n Terregles U232n Collochan (2crossings) C56n Seeside Runs adjacent to C44s Trunk roads crossed; A75(T) Gave contact of George Smith of JMP – represents Transport Scotland – Possibly provide required information Commented EIA should address identified crossing points on public roads Points of access for construction traffic (may require consented by Planning who should advise),



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								<p>Off-site accommodation works on public roads network, Traffic management plan with site specific mitigation measures.</p> <p>Scoping response 13/03/15</p> <ul style="list-style-type: none"> <li>- No objections in principle.</li> <li>- No issues with the proposed assessment scope or methodology outlined in the Scoping Request.</li> <li>- Noted relevant roads are:               <ul style="list-style-type: none"> <li>- C112n – Milton Water of Cairn</li> <li>- C14n Terregles</li> <li>- U232n Collochan</li> <li>- C56n Seeside</li> <li>- C44s Lochanhead</li> </ul> </li> <li>- Gave the following comments on the proposal               <ul style="list-style-type: none"> <li>- Notes that the supplied 'Pipeline Route' plan is based on an out-of-date map showing an earlier alignment of the A75 Trunk Road, prior to the 'Glen Improvement' being implemented. – Only directly impacts the proposal on the line of the C44s public road which was also realigned at the same time and now links to the A75 Trunk Road at Drummore roundabout as does the C56n Seeside public road.</li> <li>- Gives list of observations that should be considered and addressed by any future EIA/submissions</li> </ul> </li> </ul>

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08			Militia House, English Street, Dumfries DG1 2HR	Peter Norman Biodiversity Officer Tel. 01387 260172 <a href="mailto:Peter.norman@dumgal.gov.uk">Peter.norman@dumgal.gov.uk</a>		- Details of any sites of Special Scientific Interest, international/locally designated sites - Areas of woodland - Areas listed in the county 'Inventory of Ancient Woodland'	Letter sent 13/02/14 request any locally or regionally important sites and records of American Crayfish  Contacted DGERC as suggested	Email 19/02/15 (Ref 11) No SSSIs No local designated sites Long established woodland in search area – but route avoids them No information on species or non-designated habitats in the area Likely otters and badgers Potentially 2 nearby semi-natural habitats Recommends contacting DumGal enviro resource centre to carry out search of the route
09		Forestry Commission Scotland-South Scotland Conservancy  South Scotland Conservancy Area Office	55/57 Moffat Road Dumfries DG1 1NP  Weavers Court Forest Mill Selkirk TD7 5NY	Tel: 01387 272 440 Fax: 01387 257 888 <a href="mailto:southscotland.cons@forestry.gsi.gov.uk">southscotland.cons@forestry.gsi.gov.uk</a>  Conservator: John Dougan Tel: 01896 750222 Fax: 01387 257888			Letter + email sent 13/02/14 Letter informing that an EIA is taking place	Email 16/02/15 (Ref 05) Requested involvement at early state in updating the ES in respect to any matters relating to trees or forestry interests.
10	03	Historic Scotland	Longmore House Sailsbury Place Edinburgh EH9 1SH	Ruth Cameron Tel. 0131 668 8600		-SMR (Sites and monuments record) data -Listed structures (building conservation areas as well if practical) - Scheduled monuments	Letter sent 13/02/15 Request monuments proposed for scheduling and confirmation of data up to date  Scoping letter sent 17/02/15	Scoping response received (Ref 25) 18/3/15 - Content that direct impacts can be scoped out - Impacts on settings of heritage and can be scoped out

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						- Inventory and non-inventory HGDL		
11		Nith District Salmon Fishery Board	37 George Street Dumfries DG1 1EB	Jim Henderson – Fishery Director Tel/fax:01387 740 043 07785300015 <a href="mailto:board@river-nith.com">board@river-nith.com</a>		Any information or comment which may be of particular relevance	<p>Letter + email sent 13/02/14 Confirm that the 7km diversion is within the relevant catchment for this Fishery Trust, notify of EIA and Records of American Crayfish</p> <p>Email sent 27/02/15 Request previous baseline data, location of American signal crayfish, cost of surveys and any further suggestions</p> <p>WH to consult with client as to what surveys to commission</p> <p>Method statement for American Signal Crayfish emailed (11/05/15) for review</p>	<p>Email 17/02/15 (Ref 07) - Confirmed NDSFB responsible - Confirmed American signal crayfish present - Conducted pre/post baseline surveys of previous two BGE pipelines in area – no long term impacts experienced - Be kept informed about project</p> <p>Email 18/02/15 (Ref 12) - invertebrate monitoring should be included prior, during and post construction</p> <p>Email 27/02/2015 (Ref 19) Provided detailed list of surveys recommended - with costings ; Confirmed American Signal Crayfish are present in watercourses within 1km area of search Able to conduct pre-construction summer electro fishing survey Conducted desktop assessment and consider it will be necessary to conduct electrofishing surveys – 6days Necessary to conduct invertebrate monitoring and report Full invasive species survey along the route</p>

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								Provided detailed list of surveys recommended - with costings
		Railtrack PLC	2nd Floor Bushanan House 58 Port Dundas Road Glasgow G4 0LQ	Ronnie McCrone National Portfolio Surveyor Tel. 0141 335 3858	Contact for new rail development in area. Looking at possibility of new freight terminal near plastics park. We have not contacted him direct.	No existing railways along the diversion route	BGE/Penspen to approach Network Rail if required.	
			Outside Parties Engineer Railtrack Scotland B332 Buchanan House 58 Port Dundas Road Glasgow G4 0LQ	Ian Cameron Tel. 0141 335 3759	Rail Crossing at NX 942 828			
12		RSPB	Scotland Headquarters 2 Lochside View Edinburgh Park Edinburgh EH12 9DH	Chris Rollie (Area Manager) Tel. 01556 670472 Tel. 0131 317 4100		Any information or comment of relevance	Letter sent 13/02/15 informing that an EIA is taking place	No response received to date
13	Scoping Meeting 9/03/15 John Gorman	Scottish Environment al Protection Agency (SEPA)	Penkilm Bridge Court Minigaff Newton Stewart Office	John Gorman Tel. 01671 402 618 Fax 01671 404 121 <a href="mailto:john.gorman@sepa.org.uk">john.gorman@sepa.org.uk</a>	Previous meetings 15/03/07 (Joint with SNH) - SEPA advised contacting West	Details of Sites of Special Scientific Interest, international or locally designated	Request new/updated data as requested previously plus info on pollution incidents, confirm exact extent of	Email 06/03/15 (Ref 21) Return if diligence request form. Info supplied as follows: Provided breakdown of Water Framework Directive and individual

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			DG8 6AA  Rivers House, Irongray Road, Dumfries, DG2 0JE	Dumfries Office Tel 01387 720502 Fax 01387 721154  Diligence/info request: <a href="mailto:Science.advice@sepa.org.uk">Science.advice@sepa.org.uk</a>	Galloway Fisheries Trust (Updated Action – Have contacted and confirmed this area not relevant for the diversion) - SEPA would require seeing details of the site management plan and containment of dirty water with appropriate mitigation - SEPA would issue General Binding Rules where appropriate - Considers a Reg 19 Licence appropriate for management of surplus material  Meeting 25/11/2014  Private boreholes close to the gas pipeline route. (SEPA) advised to consult the Environmental Health Electronic	sites - Information on watercourses crossed by the proposed pipeline route (Overall classification and breakdown of individual elements - Additional surface water and groundwater quality data - Licensed abstractions and discharges within the area - Areas of known contamination - Any nitrate sensitive areas or other areas of particular sensitivity Information on aquatic wildlife and fisheries within and downstream from the area - Locations and status of any areas of landfill or other waste	floodplains  Information request submitted via website form 17/02/15  Diligence request form submitted 20/02/15 (ref 13)  Method statement for American Signal Crayfish emailed (11/05/15) for review	elements in excel spreadsheet, Cargen Pow/Bogrie designated as sensitive area, Area surrounding proposed pipeline route, Lower Nithsdale, designated as Nitrate Vulnerable Zone, Provided list of discharges at the site and commented search did not return results for landfills or waste disposal (Dumgal already confirmed) Whole area of search is within Nitrate Vulnerable Zone and Drinking water protected catchment, Area from approx NX92585 78789 to end point is within UWWTD sensitive catchment, Provided floodmaps for area of search – medium to high risk of fluvial and surface water flooding, No pollution incidents within area of search  Email 11/05/15 Request to ensure wording of statement includes the requirement to position washing areas and sprays away from burns, drains, etc to avoid spillage or vectors for chemicals to enter watercourses and cause pollution; and the ensure proper disposal of empty containers.

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					<p>Register of Potable Supplies to identify these.</p> <p>SEPA advised that the Water Regulations 2011 would now apply and that design and construction work at water crossings and in proximity to boreholes should take these into account. SEPA would be responsible for water management whilst Scottish Water remit would cover public water assets, aquifers etc</p> <p>The Nith, Dee and Urr Fishery Board and the Galloway Fishery Trust should be co-ordinated within their respective catchment areas</p> <p>SEPA and SNH expressed an interest in</p>	<p>disposal sites - Any other appropriate information on the pipeline route - Details of other organisations which may hold further information</p> <p>Attended meeting – John Gorman – 3rd July 2007</p>		<p>Email 11//05/2015 (Ref 32) from John Gorman providing information to inform the Crayfish Method Statement.</p>



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					<p>reviewing the contractor's method statement, when available, particularly with regard to run-off mitigation, which had been seen to be a problem on some similar works.</p> <p>Silt fencing was a suitable mitigation measure. They noted that the EU Bathing Waters Directives have improved the standards to be maintained and many of the river crossings involved were relatively close to the coastline</p>			
14		The Scottish Government Energy and Climate Change Directorate	5 Atlantic Quay Glasgow G2 8LU	<p>Lesley McNeil Tel. 0300 244 1243 <a href="mailto:Lesley.mcneil@scotland.gsi.gov.uk">Lesley.mcneil@scotland.gsi.gov.uk</a></p> <p>Frances Pacitti (Head of Technical Support for Energy Consents and Deployment Unit,</p>	<p>Meeting 26/11/2014 ECDU requested that they be involved in the scoping for both the new ES for the reroute and the addendum to pipeline's original</p>		Email sent (WH) 20/02/15 (ref 15) – Informed of EIA, list of scoping letters/meetings	

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				ECDU), Tel. 0300 244 1064 <a href="mailto:Frances.Pacitti@scotland.gsi.gov.uk">Frances.Pacitti@scotland.gsi.gov.uk</a>	ES  A meeting hosted by the ECDU was proposed for all parties concerned once BGE's environmental consultant had been appointed to the project			
15		Animal and Plant Health Agency	Animal and Plant Health Agency Russell House King Street Ayr KA8 0BE	Tel: 01292 291350 Fax: 01292 291351 <a href="mailto:apha.scotland@apha.gsi.gov.uk">apha.scotland@apha.gsi.gov.uk</a>		- Comments or concerns relating to Notifiable Scheduled Animal Diseases along the pipeline route - Legislation of relevance regarding the prevention of spread of animal diseases - Any other concerns, comments or observations	Letter + email sent 13/02/14 .Ask for new data; check any precautions required for site visits (e.g. disinfecting footwear when crossing landownership boundaries), notified of EIA	Letter (Ref: 26) 23/3/15 - No concerns relating to Notifiable Animal Diseases along the pipeline route. - No record of burial sites within search area - If any excavations reveal evidence of animal remains they should be disposed of according to: Article 16 The Animals Order 1927 and The Animal By-Products Scotland 2013 - Gave details of site visit procedure i.e. strict bio security protocol - no other comments, concerns or observation
16	Scoping meeting 25/02/15 Attendee: Stewart Graham	Scottish Natural Heritage (SNH)	Holmpark Industrial Estate New Galloway Road Newton Stewart DG8 1PW	Mr Stuart Graham, Tel. 01671 401075, <a href="mailto:stuart.graham@snh.gov.uk">stuart.graham@snh.gov.uk</a>	Previous Meetings 15/03/2007 (Joint meetings with SEPA) - Wish detailed species surveys to be undertaken for Otters 100m	- Details of any Sites of Special Scientific Interest, international or locally designated sites within the area - Areas of	Letter + email sent 13/02/14, what baseline data we have and/or are gathering, whether they have any other relevant data Records of American Crayfish, notified of EIA	Email response (26/2/15) - Two designated geese species North of Castle Douglas. Geese are only around in the winter thus summer construction would greatly mitigate any effects – SNH does not consider summer work do have an effect on Greylag

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			Greystone Park, 55/57 Moffat Road, Dumfries, DG1 1NP 01387 272 440		<p>upstream and downstream of the route</p> <ul style="list-style-type: none"> <li>- Woodland surveys and bat roosts should be undertaken on woods, tree belts and any individual trees</li> <li>- Confirmed they hold all the previous correspondence on the project</li> </ul> <p>02/07/07</p> <ul style="list-style-type: none"> <li>- Protected species surveys required prior to submission of the ES</li> <li>- Amphibian species survey not required</li> <li>Mammal species – otters badgers and bats surveys required</li> </ul> <p>Meeting 25/11/2014 SNH advised of new legislation regarding protected species,</p>	<p>woodland, in particular areas listed in the county 'Inventory of Ancient Woodland'</p> <ul style="list-style-type: none"> <li>- Records of protected species within the study area;</li> <li>Badgers</li> <li>Great crested newts, otter, water vole</li> <li>Bats</li> <li>Birds</li> <li>- Phase 1 habitat survey information for the area</li> <li>- Priority habitats and priority species (biodiversity, red list) and availability of the Local Biodiversity Action Plan</li> <li>- A list of other organisation which may hold further information</li> <li>- Any other information</li> </ul>	<p>Method statement for American Signal Crayfish emailed (11/05/15) for review</p>	<p>Geese</p> <ul style="list-style-type: none"> <li>- Sword cover should be established by the start of winter and any temporary fencing removed</li> </ul> <p>Email 03/06/2015 (Ref 32) from Stuart Graham providing information to inform the Crayfish Method Statement.</p>

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					<p>for example the Natural Conservation Act 2004. The list of species for which surveys should be undertaken should include Great Crested Newts, Water Voles, Otters, Bats and Badgers</p> <p>SEPA and SNH were concerned about the spread of invasive plants by the works. These include Japanese Knotweed, Himalayan Balsam and Great Hogweed. Chemicals approved by SEPA should be used to kill them and the roots removed as far as practical in advance of the construction works commencing. Care should be taken in the disposal of the remains</p>	<p>regarding areas of ecological sensitivity</p> <p>Attended meeting (Stuart Graham) – 2nd July 2007 Attended meeting (Paul Sutherland) – 3rd July 2007</p>		

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					<p>Concern was also expressed regarding the spread of American Crayfish to local waters. This would be prevented by good practice; especially ensuring wheel washing of site vehicles using light disinfectant was carried out.</p> <p>Meeting 25/02/15 Suggested contacting Scottish Badgers to obtain records. Main concern is American Signal Crayfish.</p>			
		Scottish power		Derek Middleton New Connections Tel 0845 2727 765			Penspen/BG to contact and confirm	
17		Scottish Wildlife Trust	Harbourside House 110 Commercial Street Edinburgh EH6 6NF	Tel 0131 312 7765 Web site: <a href="http://www.swt.org.uk">www.swt.org.uk</a>  Dumfries and Galloway  Andy Adamson (Vice Chair)		Records of protected species within the study area, especially: Badgers great crested newts, otter, water vole bats	Letter sent 13/02/15 Request previous data up to date and info on American crayfish; Email sent 24/02/15 to John McTay – consultation letter and map (Original letter sent not	Email 24/02/15 (Ref 16) Gave weblinks to species data and reserves boundaries Unable to provide other data services at this time

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				<p>Graham Smith (Secretary) Richard Middleton (Treasurer) Tel:01644 420 881</p> <p>John McTague 0131 312 4771 <a href="mailto:jmctague@scottishwildlifetrust.org.uk">jmctague@scottishwildlifetrust.org.uk</a></p>		<p>birds</p> <ul style="list-style-type: none"> <li>- Phase 1 Habitat Survey information for the area, if available;</li> <li>- Priority habitats and priority species (biodiversity, red list etc.,) and availability of the Local Biodiversity Action Plan;</li> <li>- A list of other organisations which may hold further information on the area</li> <li>- Any other information regarding areas of ecological sensitivity.</li> </ul>	received)	
18	01	Scottish Water	Marchmount House Marchmount Avenue Dumfries DG1 1PW	<p>Mr Nigel Graham-Smith Tel. 01387 244905, <a href="mailto:nigel.graham-smith@scottishwater.co.uk">nigel.graham-smith@scottishwater.co.uk</a></p> <p>Mr David McMath</p>	<p>Previous meetings 14/03/07</p> <ul style="list-style-type: none"> <li>- Advised that the main water supplies for Dumfries are from the Terregles Boreholes and Glenkiln Reservoir</li> <li>- They have no</li> </ul>	Any underground service lines within the proposed areas and if so, mapping and details	<p>Email + letter sent 12/02/15 – Notifying of EIA and asking for confirmation of no change for</p> <ul style="list-style-type: none"> <li>- Source protection zone</li> <li>- nitrate vulnerability zone</li> </ul>	<p>Email 29/05/15 (Ref 30)</p> <ul style="list-style-type: none"> <li>- Scottish Water asked to be provided with appropriate method statements for the crossing of Scottish Water assets (pipelines). Including agreed contingency plans to ensure alternative supplies are available should the assets be damaged/knocked out of service.</li> <li>- Ask that a method statement be</li> </ul>



QA Ref	Scoping Ref	Organisation	Address	Contact Details	Key Issues/ Concerns Identified	Data Previously Requested	Actions Taken	Consultation Response
					<p>alternative supply options should water from either supply be affected</p> <p>- In addition to the pipeline running near the Terregles Bore Hole it also crossed both the main water supply pipelines which feed Dumfries</p> <p>Current meetings Meeting 25/11/2014 No concern provided reasonable measures to prevent ground contamination during construction were employed</p>		Scoping letter sent 17/02/15	<p>produced where access routes for the gas pipeline crosses Scottish Water assets.</p> <p>- Identified the location of an operational groundwater (borehole) and the edge of a source protection zone being close to the pipeline route. Request that when working within or near this protection zone, precautions are taken to contain any contamination, and produce a method statement.</p>
19	05	Transport Scotland	Buchanan House 58 Port Dundas Road Glasgow G4 0HF	<p>Tel: 01412727100 <a href="mailto:info@transportscotland.gsi.gov.uk">info@transportscotland.gsi.gov.uk</a></p> <p>Stuart Hay TSOISC Data Specialist (Amey) Tel. 01312440458 <a href="mailto:Stuart.Hay@transportscotland.gsi.gov.uk">Stuart.Hay@transportscotland.gsi.gov.uk</a></p>			<p>Letter + email sent 13/02/14</p> <p>Requested information relating: A75/A76 and notified of EIA</p> <ul style="list-style-type: none"> <li>- 2 way traffic flows</li> <li>- AADT</li> <li>- Modal Split – HGV</li> <li>- Growth factor</li> <li>- Any other data</li> <li>- Any info relating to</li> </ul>	<p>Email 17/02/15 (Ref 06)</p> <ul style="list-style-type: none"> <li>- Transport Scotland do not operate any traffic counters within area of search</li> <li>- Supplied two sites – daily average flows data by moth since Jan 11</li> </ul> <p>Email 23/02/15 (Ref 14)</p> <ul style="list-style-type: none"> <li>-trunk road data not available</li> <li>- directed to ‘dft.gov.uk’ and Transport Scotland’ websites</li> </ul>

QA Ref	Scoping Ref	Organisation	Address	Contact Details	Key Issues/ Concerns Identified	Data Previously Requested	Actions Taken	Consultation Response
							<p>other local roads</p> <p>Scoping letter sent 17/02/15</p> <p>Email 25/02/15 (Ian Wickett) Requested data for traffic flows on A76 for counters ATC09052 and JTC00378</p> <p>Call: 04/03/15 Chased up previous request: Will supply data 05/03/15 to Ian</p> <p>Scoping response received (letter) 20/03/15</p>	<p>Email 17/03/15 (Ref 24) - Issued previously requested A76 traffic data</p> <p>Scoping response - Content that the traffic generated by the proposed development is unlikely to trigger the 30% impact threshold for further detailed assessments - Satisfied there will be no air quality or noise impacts based on the expected traffic flows - Notes that the pipeline crosses the A75(T) at its southern extent. Advises that the Transport Scotland Route Manager must be consulted prior to any further design work. Directs to David Allan on 0141 272 7944</p>
		TRANSCO	<p>LDZ Office 9 Inchmuir Road Whitehill Industrial Estate Bathgate EH48 2EN</p> <p>Commercial Team NTS 31 Homer Road SOLIHULL B91 3LT</p>	Jonathan Maughan Tel. 01506 635 792 Tel. 0121 623 2789			BGE/Penspen to follow up. Contact details not updated since 2007	

QA Ref	Scoping Ref	Organisation	Address	Contact Details	Key Issues/ Concerns Identified	Data Previously Requested	Actions Taken	Consultation Response
20		Urr District Salmon Fishery Board	Glenlair Knockvennie Castle Douglas DG7 3DF  G.M. Thomson & Co 35 Buccleuch Street, Dumfries DG1 2AB	Captain Duncan Ferguson (Previous contact/chairman) Tel 01556 650 209 Fax 01556 650 260 <a href="mailto:fergie@glenlair.org">fergie@glenlair.org</a> <a href="http://www.glenlair.org">.uk</a>  George Gourlay (Chairman) Tel. 01387 254424 <a href="mailto:george.gourlay@gmthomson.co.uk">george.gourlay@gmthomson.co.uk</a>		Any information or comment of relevance	Letter + email sent 13/02/14 - To confirm that the 7km diversion is within the relevant catchment for this Fishery Trust - Records of American Crayfish	Email 13/02/15 (Ref 02) forwarding consultation onto the new chairman of the Board – George Gourlay.  Letter 16/02/15 (Ref 09) Confirmed area not within Urr District
21		Galloway Fisheries Trust	Fisheries House, Station Industrial Estate, Newton Stewart, Dumfries & Galloway, Scotland. DG8 6ND	Jamie Ribbens (Senior Biologist) Tel. 01671 403011 Mobile: 07740 771 303 Fax: 01671 402248 <a href="mailto:mail@gallowayfisheriustrust.org">mail@gallowayfisheriustrust.org</a>			Confirm that the 7km diversion is within the relevant catchment for this Fishery Trust Records of American Crayfish  Method statement for American Signal Crayfish emailed (11/05/15) for review	Email 15/02/15 (Ref 04) Confirmed that the project area all lies within the Nith catchment – Galloway trust not involved. Email 2105/2015 (Ref 31) from Jackie Graham providing information to inform the Crayfish Method Statement.
22		Macaulay Institute – Now James Hutton Institute	The James Hutton Institute Invergowrie Dundee DD2 5DA Scotland UK	David Donnelly (GIS) Tel. 0844 928 5428 <a href="mailto:David.donnelly@hutton.ac.uk">David.donnelly@hutton.ac.uk</a>  Euan Caldwell (Head of Farms, Field and Glasshouse) <a href="mailto:Euan.caldwell@hutton.ac.uk">Euan.caldwell@hutton.ac.uk</a>		Land Capacity for Agriculture – sheet 84; Fig 5.1	Letter sent 13/02/15 - Contacted regarding confirmation Figure 5.1 provided by Macaulay is up to date	Email 25/02/15 (Ref 17) Confirming LCA figure is up to date and granted permission for commercial use

QA Ref	Scoping Ref	Organisation	Address	Contact Details	Key Issues/ Concerns Identified	Data Previously Requested	Actions Taken	Consultation Response
				<a href="http://ton.ac.uk">ton.ac.uk</a>				
23		RCAHMS				NMRS data	NMRS data already updated and obtained. – consultation not required	N/A
24		Dumfries and Galloway Environmental Resources Centre (DGERC)	DGERC Studio 1 Hillhead Mill Kirkgunzeon Dumfries DG2 8LA	Mark Pollitt DGERC Manager Tel. 01387 760274 <a href="mailto:mpollitt@dgerc.org.uk">mpollitt@dgerc.org.uk</a>			Email sent 20/02/15 Notifying of EIA and requesting records on; Protected species Statutory and non statutory designated sites Email sent 23/02/15 (2) Data enquiry form and map sent	Email 20/02/15 (Ref 13) Data enquiry and charges forms provided.  Emails (2) 26/03/15 (Ref 28) Issued data from quest - Broad habitats - Key habitats - Designated sites - Non statutory sites - Data search results
25		Scottish Badgers	13 Eddie Avenue, Brechin, DD9 6YD	Andrew Riches Tel. 07792 142446 <a href="mailto:datasearch@scottishbadgers.org.uk">datasearch@scottishbadgers.org.uk</a>		None	Email sent 26/02/15 Asked for badger records within area of search  Purchase order submitted for records 02/03/15 – requested data sent to Ruth Morton and Kieran Shaw	Email 26/02/15 (Ref 18) Gave admin price – suggested 1km buffer rather than 2km – confirmed.  Email 05/03/15 (Ref 23) Data received

## APPENDIX C – TARGET NOTES AND ANIMAL NOTES

### *Target Notes*

1. Area of semi-improved grassland located to the south-east of the wet grassland area, c. 15 - 20 m<sup>2</sup>. Species primarily include *Lolium perenne* (Perennial rye-grass) and *Poa trivialis* (Rough meadow-grass) with strands of *Poa annua* (Annual meadow-grass) also being present.
2. Area of wet grassland immediately south-west of Maryfield Loch occupying an area of c. 15 m<sup>2</sup>. Species primarily include *Juncus conglomeratus* (Compact rush) with patches of *Juncus effusus* (Soft rush) and *Poa annua* (Annual meadow-grass) also being present.
3. Expanse of wet grassland with patches of saturated ground. Species primarily include *Juncus conglomeratus* (Compact rush) and *Juncus effusus* (Soft rush). Strands of *Potentilla erecta* (Tormentil) and *Ranunculus repens* (Creeping buttercup) were also present, in addition *Chamerion angustifolium* (Rosebay Willowherb) was also observed in small quantities.
4. Small area of wet grassland on field boundary less than 15 m<sup>2</sup> in size directly next to access track to Dromore. Grassland is very species poor and consists of only *Juncus conglomeratus* (Compact rush) and *Lolium perenne* (Perennial rye-grass).

### *Animal Notes*

1. Mature to Veteran *Fraxinus excelsior* (Ash) featuring hole larger than 2cm in diameter on south side of the trunk, at about 5 m in height. Tree is largely covered in *Hedera helix* (Ivy) from base to the beginning of the crown. Both features provide potential roosting opportunity for various bat species. Tree will need to be climbed to confirm bat presence/absence. Tree is located at National Ordnance Survey Grid Reference (GR): NX 93340 79590.
2. Dead *Fraxinus excelsior* (Ash) featuring multiple holes on the south side of the trunk larger than 2cm in diameter, providing potential for roosting bat species. Tree is dead and therefore is unable to be climbed; further bat surveys in the way of a dusk survey will be required to confirm bat presence/absence. Tree is located at GR: NX 93293 79594.
3. Mature *Quercus robur* (Pedunculate oak) c. 200 – 250 years in age with numerous holes, (notably at 15 m) and crevices larger than 2cm in diameter on the south and east face of the trunk. Broken limbs also present exposing cavities on south side of trunk, likely a result of storm damage. All features providing potential for various roosting bat species, will need to be climbed to confirm bat presence/absence. Located at GR: NX 92350 78197.
4. Mature Tree (species not known) located on field boundary south of Terregles Road and adjacent to Rambank. Tree features multiple holes larger than 2 cm on its south facing trunk. Features provide potential for roosting bat species and will need to be climbed to determine bat presence/absence. Tree is located at GR: NX 92323 77727.
5. Dying *Fraxinus excelsior* (Ash) featuring hole on trunk larger than 2cm in diameter, providing potential for roosting bat species. Further bat surveys in the way of a dusk survey will be required to confirm bat presence/absence. Tree is located at GR: NX 91898 76925.
6. Single Snipe (*Gallinago gallinago*) observed exiting wet grassland area when surveyor approached.

7. Relic nest observed in a *Picea sitchensis* (Sitka spruce) within north-east corner of conifer plantation. Possible Sparrow hawk (*Accipiter nisus*) past residence due to structure and formation of nest, located at GR: NX 93047 78998.
8. Relic nest observed in *Crataegus monogyna* (Hawthorn) hedgerow at location GR: NX 92788 78891.
9. c.1000 Pink-footed geese (*Anser brachyrhynchus*) located in field at the southern extent of the proposed pipeline route. No feeding behaviour was observed and it is considered that the species were taking rest before continuing with migration route. Located at GR: NX 89868 74475.



## **APPENDIX D- DATA SEARCH**

# Dumfries and Galloway Environmental Resources Centre

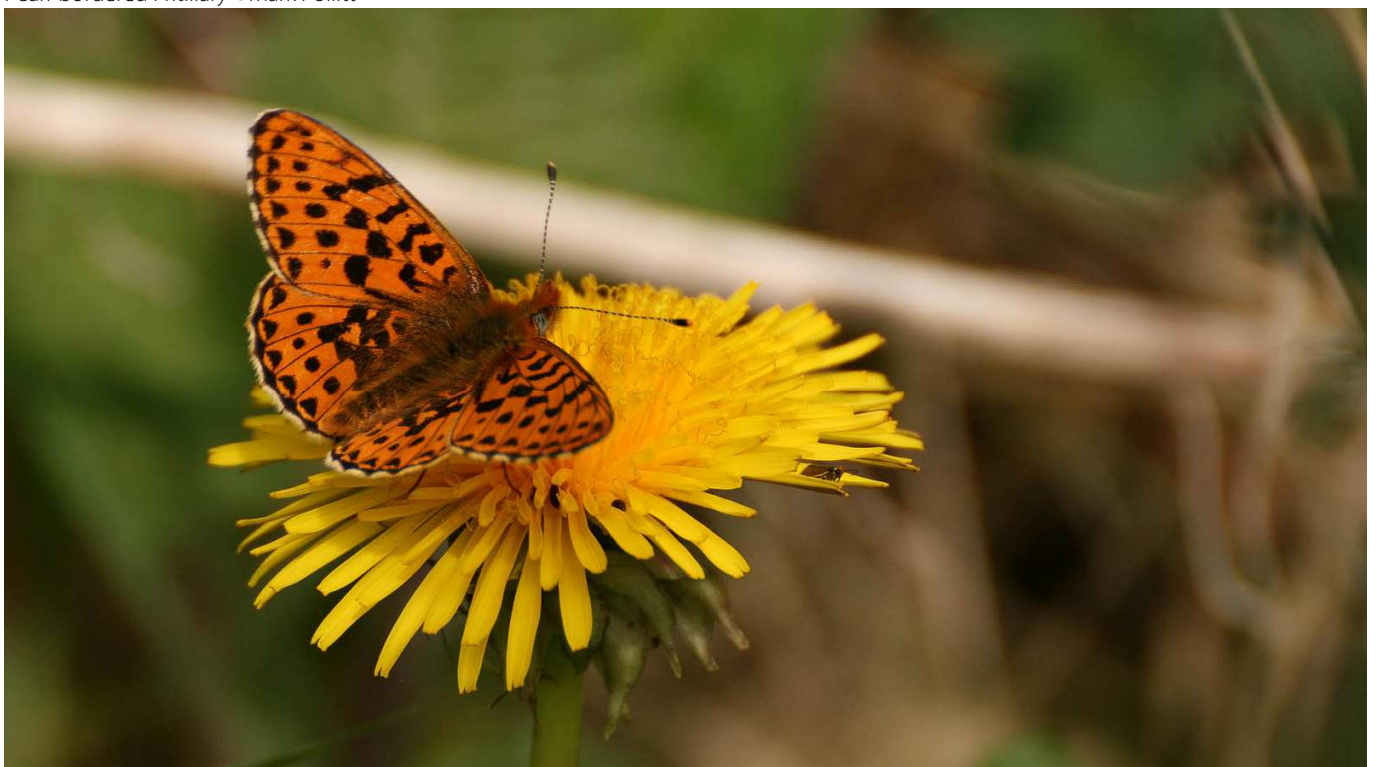
Data Search Results: **Lochfoot-Cluden**

Ref. **DR44415**

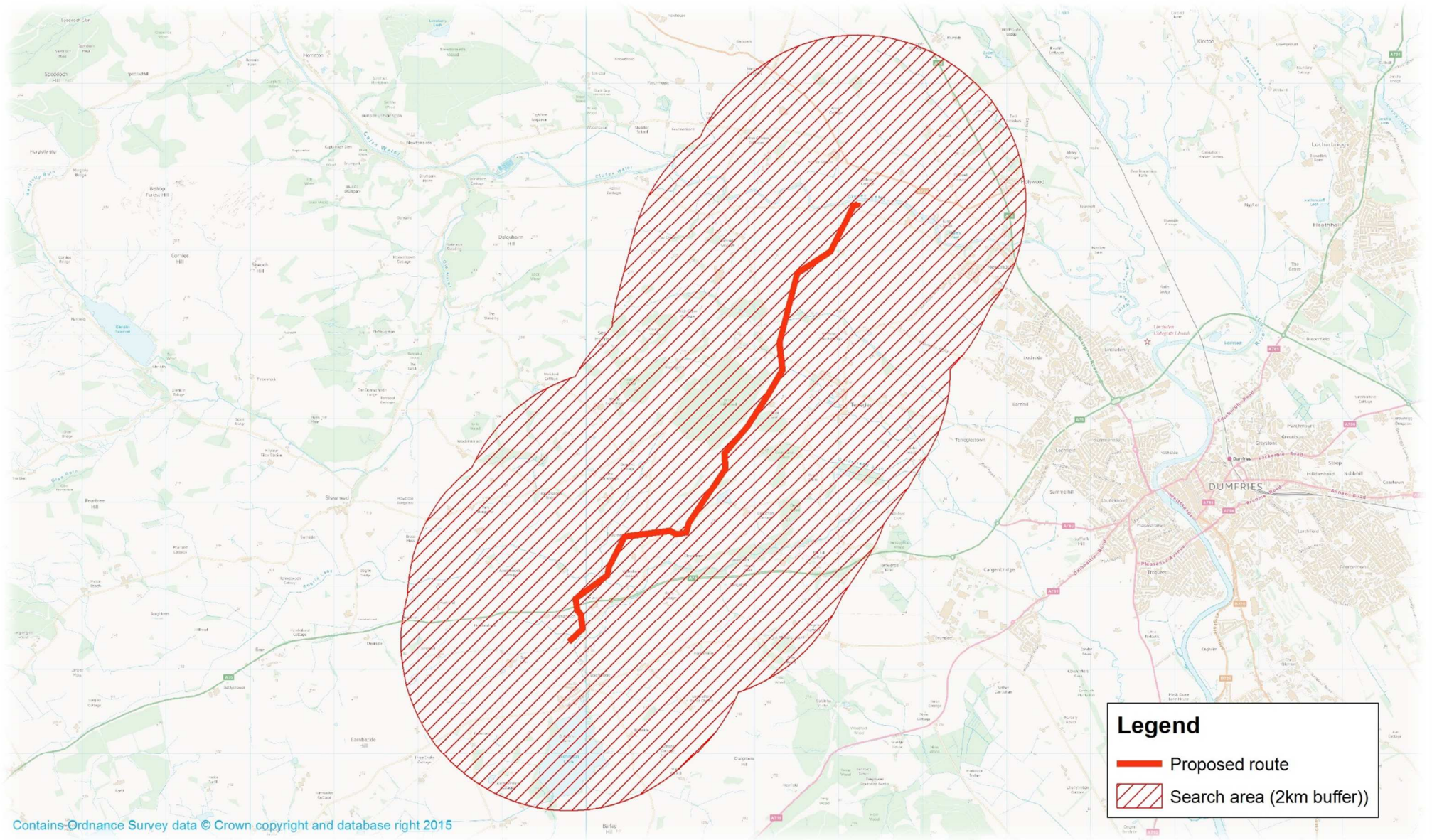
25 March 2015

📍 DGERC, Studio 1, Hillhead Mill, Kirkgunzeon, Dumfries DG2 8LA  
☎ 01387 760274  
✉ info@dgerc.org.uk

Pearl-bordered Fritillary ©Mark Pollitt



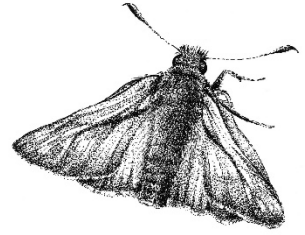
# Study area





## Data search

The DGERC maintains a database of wildlife sightings throughout the region. Wherever possible these are verified with local/national experts, although this is not possible for all records and species groups. For some records further details may be available on request. Any queries over records should be directed to the DGERC manager. Where information about the status or designations is presented, a key to the abbreviations used and full description of each status is given in [Appendix 1](#).



**Please note that the absence of records for any species does not imply the absence of the species**, since only information that DGERC presently has access to is available. There are other datasets (e.g. Raptor Study Group, Scottish Badgers) which DGERC does not currently have access to and there are data which are yet to be incorporated into the central DGERC database that are currently not accessible through searches (e.g. local bird data). DGERC continues to use its available resources to broaden and expand the range of data available to clients.

Enquirers are advised to contact the following organisations directly for access to these important datasets:-  
Scottish Raptor Study Groups <http://www.scottishraptorgroups.org>  
Scottish Badgers <http://scottishbadgers.org.uk>

- Standard species search (Protected Species Report, Biodiversity List Report, Rare and Scarce Species Report, Invasive Non-Native Species Report)
- Full Species Search
- Taxa specific search
  
- Statutory Sites Search
- Non-statutory Sites Search
- Habitats Search

A search was carried out for protected/designated/notable species within 2 km of the linear study site between Cluden and Lochfoot. The results are summarised below and the associated records are provided in the accompanying spreadsheet. In addition searches were carried out for statutory and non-statutory sites within the study area and available habitat maps provided.

Please note that the search results include records where the grid reference allocated is at a spatial scale of 2km square (tetrad) or better where these overlap the study area (e.g. NX25A, NX2051, NX203516 etc.). It should be noted therefore that not all species listed will necessarily occur within the study area. For records with low spatial accuracy (e.g. tetrad and 1km square records) which are not wholly within the study area it may not be possible to definitively determine if a species record occurred within or outwith the study site. When interpreting the results of the search consideration should be given to the likelihood of finding these species within the site using other factors (e.g. site names and descriptions, associated comments, availability of suitable habitats etc.).

### *Confidential/sensitive records*

The search results may include records which are considered sensitive (for example species that are particularly vulnerable to human disturbance or prejudice on account of their rarity). This may include species where widespread dissemination of detailed locality data could adversely affect the conservation of these species. As the manager of numerous datasets, DGERC respects the conditions of our data suppliers within the terms of the Environmental Information Regulations, to ensure that the best interest of biodiversity is served. To this end, whilst we accept the need for such data to be identified to consultants, we ask you to respect the sensitivity and confidentiality of these data. This sensitive information is made available on the understanding that the detailed records are not made publicly available, and any details should be included in confidential annex to any document.

All confidential records are provided on a separate worksheet in the accompanying spreadsheet and are marked as 'True' in the field marked 'Sensitive'.

## Species list

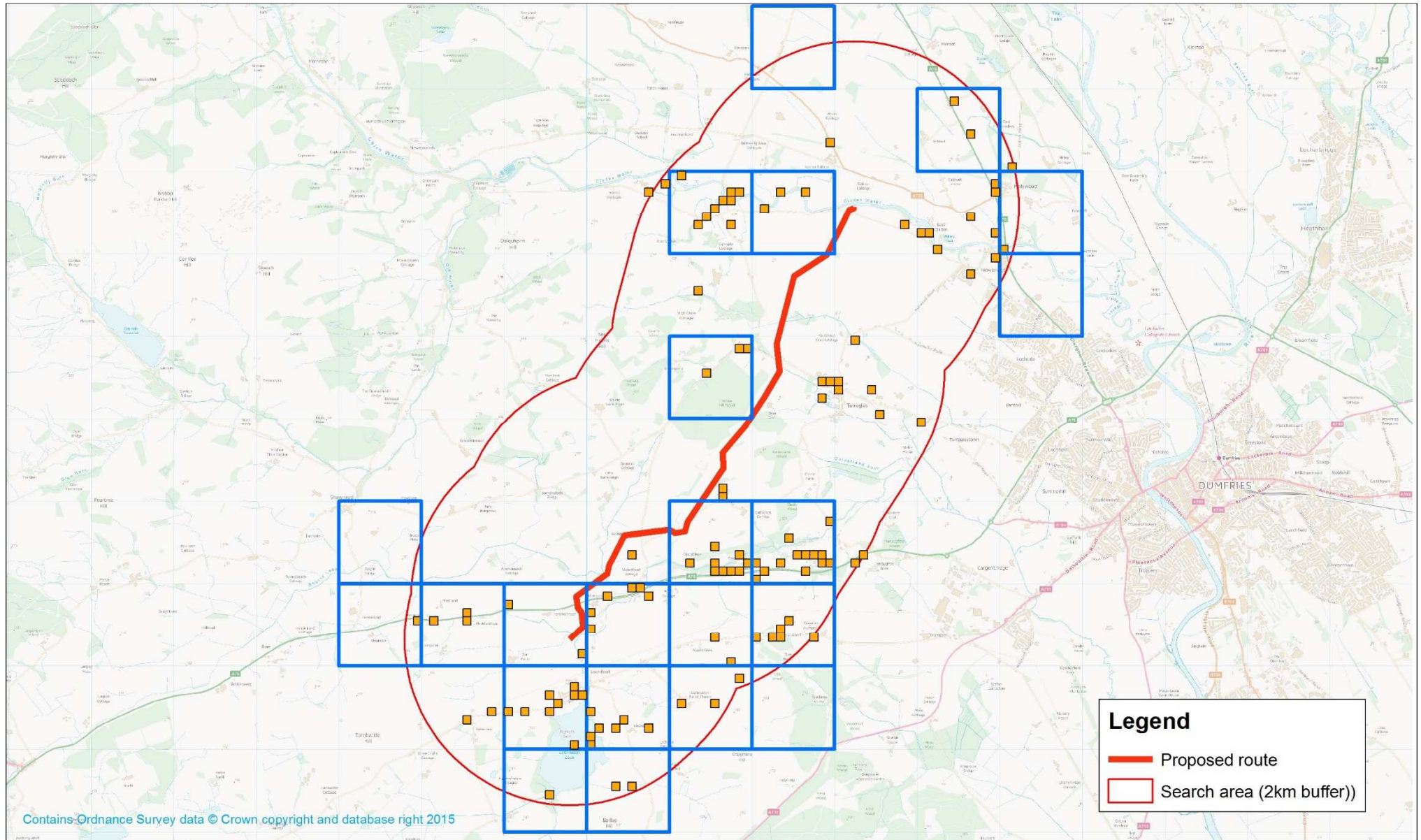
Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
insect - beetle (Coleoptera)	<i>Gymnetron veronicae</i>	Brooklime Gall Weevil	1919	1
insect - beetle (Coleoptera)	<i>Hygrotus quinquelineatus</i>	insect - beetle (Coleoptera)	1919	1
insect - true fly (Diptera)	<i>Nephrotoma dorsalis</i>	insect - true fly (Diptera)	1944	6
insect - moth	<i>Arctia caja</i>	Garden Tiger	2008 - 2013	9
insect - moth	<i>Spilosoma lubricipeda</i>	White Ermine	2008 - 2013	21
insect - moth	<i>Spilosoma luteum</i>	Buff Ermine	2010 - 2012	4
insect - moth	<i>Tyria jacobaeae</i>	Cinnabar	2011	1
insect - moth	<i>Cossus cossus</i>	Goat Moth	1870	1
insect - moth	<i>Eudonia delunella</i>	Pied Grey	1994	1
insect - moth	<i>Chesias legatella</i>	Streak	1862	1
insect - moth	<i>Chiasmia clathrata</i> subsp. <i>clathrata</i>	Latticed Heath	2010 - 2012	3
insect - moth	<i>Ecliptopera silaceata</i>	Small Phoenix	1862 - 2013	13
insect - moth	<i>Epirrhoe galiata</i>	Galium Carpet	1862 - 2009	2
insect - moth	<i>Orthonama vittata</i>	Oblique Carpet	2013	1
insect - moth	<i>Pelurga comitata</i>	Dark Spinach	1862	1
insect - moth	<i>Xanthorhoe decoloraria</i> subsp. <i>decoloraria</i>	Red Carpet	2013	1
insect - moth	<i>Xanthorhoe ferrugata</i>	Dark-barred Twin-spot Carpet	2010 - 2012	2
insect - moth	<i>Hepialus humuli</i> subsp. <i>humuli</i>	Ghost Moth	2011	2
insect - butterfly	<i>Erynnis tages</i>	Dingy Skipper	1929	1
insect - moth	<i>Acronicta psi</i>	Grey Dagger	2007 - 2013	3
insect - moth	<i>Acronicta rumicis</i>	Knot Grass	2011	1
insect - moth	<i>Agrochola helvola</i>	Flounced Chestnut	1862	1
insect - moth	<i>Allophytes oxyacanthae</i>	Green-brindled Crescent	2011 - 2012	2
insect - moth	<i>Amphipoea oculea</i>	Ear Moth	2008	1
insect - moth	<i>Apamea remissa</i>	Dusky Brocade	2008 - 2013	5
insect - moth	<i>Atethmia centrigo</i>	Centre-barred Sallow	2013	1
insect - moth	<i>Caradrina morpheus</i>	Mottled Rustic	2007 - 2009	3
insect - moth	<i>Diarsia rubi</i>	Small Square-spot	2008 - 2013	29
insect - moth	<i>Eugnorisma glareosa</i>	Autumnal Rustic	2008 - 2011	3
insect - moth	<i>Hydraecia micacea</i>	Rosy Rustic	2007 - 2013	20
insect - moth	<i>Melanchra persicariae</i>	Dot Moth	2007 - 2011	3
insect - moth	<i>Melanchra pisi</i>	Broom Moth	2010 - 2013	4
insect - moth	<i>Mesoligia literosa</i>	Rosy Minor	2009 - 2010	2
insect - moth	<i>Mythimna comma</i>	Shoulder-striped Wainscot	2010 - 2011	3
insect - moth	<i>Orthosia gracilis</i>	Powdered Quaker	2010 - 2013	9
insect - moth	<i>Tholera cespitis</i>	Hedge Rustic	2007	2
insect - moth	<i>Xanthia icteritia</i>	Sallow	2008 - 2013	7
insect - butterfly	<i>Coenonympha pamphilus</i>	Small Heath	2009 - 2011	4
amphibian	<i>Bufo bufo</i>	Common Toad	2009	1
amphibian	<i>Rana temporaria</i>	Common Frog	2000	1
amphibian	<i>Lissotriton helveticus</i>	Palmate Newt	2012	1
amphibian	<i>Lissotriton vulgaris</i>	Smooth Newt	2012	1
bird	<i>Anas crecca</i>	Teal	2011	1
bird	<i>Anas platyrhynchos</i>	Mallard	2000 - 2007	6
bird	<i>Anser anser</i>	Greylag Goose	2006 - 2014	5
bird	<i>Anser brachyrhynchus</i>	Pink-footed Goose	2009 - 2014	8
bird	<i>Aythya fuligula</i>	Tufted Duck	2002	1
bird	<i>Bucephala clangula</i>	Goldeneye	2002 - 2006	3

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
bird	<i>Cygnus cygnus</i>	Whooper Swan	2006	1
bird	<i>Mergellus albellus</i>	Smew	2002	1
bird	<i>Apus apus</i>	Swift	2007 - 2009	3
bird	<i>Haematopus ostralegus</i>	Oystercatcher	2006 - 2009	6
bird	<i>Vanellus vanellus</i>	Lapwing	1948 - 2008	8
bird	<i>Chroicocephalus ridibundus</i>	Black-headed Gull	2000 - 2008	4
bird	<i>Actitis hypoleucos</i>	Common Sandpiper	2002 - 2007	4
bird	<i>Gallinago gallinago</i>	Snipe	2014	1
bird	<i>Numenius arquata</i>	Curlew	2006 - 2008	3
bird	<i>Tringa nebularia</i>	Greenshank	2006	1
bird	<i>Tringa ochropus</i>	Green Sandpiper	2006	1
bird	<i>Columba oenas</i>	Stock Dove	2005 - 2009	4
bird	<i>Alcedo atthis</i>	Kingfisher	2006 - 2009	3
bird	<i>Cuculus canorus</i>	Cuckoo	2009	1
bird	<i>Aquila chrysaetos</i>	Golden Eagle	2008	1
bird	<i>Milvus milvus</i>	Red Kite	2011 - 2014	5
bird	<i>Falco peregrinus</i>	Peregrine	2009	1
bird	<i>Falco tinnunculus</i>	Kestrel	2006 - 2014	8
bird	<i>Acrocephalus scirpaceus</i>	Reed Warbler	2000 - 2005	22
bird	<i>Alauda arvensis</i>	Skylark	2008 - 2013	3
bird	<i>Emberiza calandra</i>	Corn Bunting	2002	1
bird	<i>Emberiza citrinella</i>	Yellowhammer	2006 - 2014	8
bird	<i>Emberiza schoeniclus</i>	Reed Bunting	2000 - 2013	17
bird	<i>Acanthis cabaret</i>	Lesser Redpoll	2005 - 2013	4
bird	<i>Fringilla montifringilla</i>	Brambling	2009 - 2013	4
bird	<i>Linaria cannabina</i>	Linnet	2006 - 2011	5
bird	<i>Pyrrhula pyrrhula</i>	Bullfinch	2005 - 2008	2
bird	<i>Spinus spinus</i>	Siskin	2000 - 2013	12
bird	<i>Delichon urbicum</i>	House Martin	2000 - 2013	9
bird	<i>Hirundo rustica</i>	Swallow	2000 - 2014	23
bird	<i>Riparia riparia</i>	Sand Martin	2002 - 2014	9
bird	<i>Anthus pratensis</i>	Meadow Pipit	2007 - 2012	5
bird	<i>Anthus trivialis</i>	Tree Pipit	2006	1
bird	<i>Motacilla cinerea</i>	Grey Wagtail	2006 - 2014	6
bird	<i>Erithacus rubecula</i>	Robin	2000 - 2011	12
bird	<i>Muscicapa striata</i>	Spotted Flycatcher	2000 - 2013	18
bird	<i>Oenanthe oenanthe</i>	Wheatear	2006 - 2014	28
bird	<i>Phoenicurus phoenicurus</i>	Redstart	2005 - 2014	12
bird	<i>Saxicola rubetra</i>	Whinchat	2007 - 2008	3
bird	<i>Turdus iliacus</i>	Redwing	2002 - 2014	4
bird	<i>Turdus philomelos</i>	Song Thrush	2000 - 2009	3
bird	<i>Turdus pilaris</i>	Fieldfare	2007 - 2014	7
bird	<i>Turdus viscivorus</i>	Mistle Thrush	2013	1
bird	<i>Poecile montana</i>	Willow Tit	2000	2
bird	<i>Passer domesticus</i>	House Sparrow	2000 - 2009	2
bird	<i>Passer montanus</i>	Tree Sparrow	2008 - 2014	11
bird	<i>Phylloscopus sibilatrix</i>	Wood Warbler	2005	1
bird	<i>Phylloscopus trochilus</i>	Willow Warbler	2000 - 2014	34
bird	<i>Prunella modularis</i>	Dunnock	2005	6
bird	<i>Sylvia communis</i>	Whitethroat	2000 - 2012	6
bird	<i>Tachybaptus ruficollis</i>	Little Grebe	2006 - 2007	2
bird	<i>Tyto alba</i>	Barn Owl	2002 - 2011	9
terrestrial mammal	<i>Capreolus capreolus</i>	Roe Deer	2006 - 2014	6

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
terrestrial mammal	<i>Lutra lutra</i>	European Otter	1978 - 2008	9
terrestrial mammal	<i>Meles meles</i>	Eurasian Badger	2000 - 2014	59
terrestrial mammal	<i>Chiroptera</i>	Bats	1997 - 2004	4
terrestrial mammal	<i>Nyctalus noctula</i>	Noctule Bat	1998 - 2009	10
terrestrial mammal	<i>Pipistrellus</i>	Pipistrelle Bat species	2000 - 2008	3
terrestrial mammal	<i>Pipistrellus pipistrellus</i>	Pipistrelle	2005 - 2009	4
terrestrial mammal	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	1998 - 2005	4
terrestrial mammal	<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	2005 - 2009	10
terrestrial mammal	<i>Plecotus auritus</i>	Brown Long-eared Bat	2008	1
terrestrial mammal	<i>Erinaceus europaeus</i>	West European Hedgehog	1967 - 2009	4
terrestrial mammal	<i>Lepus europaeus</i>	Brown Hare	1981 - 2014	19
terrestrial mammal	<i>Sciurus vulgaris</i>	Eurasian Red Squirrel	2004 - 2013	19
mollusc	<i>Anodonta cygnea</i>	Swan Mussel	2009	1
moss	<i>Dicranum flagellare</i>	Whip Fork-moss	1961	1
moss	<i>Rhynchostegium megapolitanum</i>	Megapolitan Feather-moss	1961	1
moss	<i>Gymnostomum calcareum</i>	Blunt-leaf Tufa-moss	1955 - 1964	3
flowering plant	<i>Carum verticillatum</i>	Whorled Caraway	2014	1
flowering plant	<i>Hyacinthoides non-scripta</i>	Bluebell	1978 - 2014	3
flowering plant	<i>Cirsium arvense</i>	Creeping Thistle	2000 - 2014	6
flowering plant	<i>Cirsium palustre</i>	Marsh Thistle	2000 - 2014	4
flowering plant	<i>Cirsium vulgare</i>	Spear Thistle	2000 - 2014	2
flowering plant	<i>Sambucus ebulus</i>	Dwarf Elder	2014	1
flowering plant	<i>Vicia orobus</i>	Wood Bitter-vetch	1978	1
flowering plant	<i>Quercus</i>	Oak	1978	1
flowering plant	<i>Quercus petraea</i>	Sessile Oak	2000 - 2014	4
flowering plant	<i>Quercus robur</i>	Pedunculate Oak	2000	3
flowering plant	<i>Meconopsis cambrica</i>	Welsh Poppy	1978 - 2014	2
conifer	<i>Pinus sylvestris</i>	Scots Pine	2000	2



Location of records (excluding invasive non-native species)



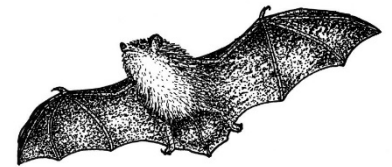
Too many species to label individually – all data provided in separate spreadsheet.



# Protected Species Report

## European Protected Species

European Protected Species (EPS) are those listed on Annex IV of the Habitats Directive whose natural range includes Great Britain. In Britain, the Directive is enacted through the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (often referred to as the Habitat Regulations). In England and Wales the various amendments were consolidated in The Conservation of Habitats and Species Regulations 2010 and some of the schedules re-numbered. Species listed on Schedules 2 (animals) and 5 (plants) of the Regulations for which records are present within the search area are listed below. These species of animals and plants are afforded strict levels of protection and licensing may be required when carrying out activities which may affect these species. For further details see:



<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/legal-framework/habitats-directive/euro/>

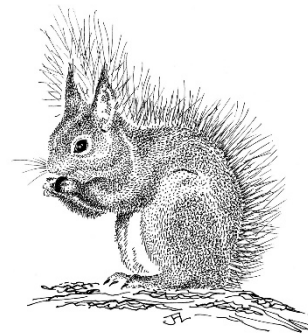
**Eight** European Protected Species were recorded within the search area. The **designations and statuses** are given in the 'Legally Protected Species' column in the spreadsheet of records provided and will appear with the abbreviation 'HabsRegsX'.

## Species List

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
terrestrial mammal	<i>Lutra lutra</i>	European Otter	1978 - 2008	9
terrestrial mammal	<i>Chiroptera</i>	Bats	1997 - 2004	4
terrestrial mammal	<i>Nyctalus noctula</i>	Noctule Bat	1998 - 2009	10
terrestrial mammal	<i>Pipistrellus</i>	Pipistrelle Bat species	2000 - 2008	3
terrestrial mammal	<i>Pipistrellus pipistrellus</i>	Pipistrelle	2005 - 2009	4
terrestrial mammal	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	1998 - 2005	4
terrestrial mammal	<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	2005 - 2009	10
terrestrial mammal	<i>Plecotus auritus</i>	Brown Long-eared Bat	2008	1

## Other Legally Protected species

A number of other species are afforded special protection through the legal system. The main legislation covering protected species is the Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act 1992 (as amended).



Those species present within the search area and on the key schedules listed here are given in the table below.

- Wildlife and Countryside Act Schedules, 1, 5 and 8
- Protection of Badgers Act 1992

For further details about protected species in Scotland and the associated legislation please visit:

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/>

**21** legally protected species (excluding EPS listed above) were recorded within the search area. The **designations and statuses** are given in the 'Legally Protected Species' column in the spreadsheet of records provided.

### Species list

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
amphibian	<i>Bufo bufo</i>	Common Toad	2009	1
amphibian	<i>Rana temporaria</i>	Common Frog	2000	1
amphibian	<i>Lissotriton helveticus</i>	Palmate Newt	2012	1
amphibian	<i>Lissotriton vulgaris</i>	Smooth Newt	2012	1
bird	<i>Anser anser</i>	Greylag Goose	2006 - 2014	5
bird	<i>Bucephala clangula</i>	Goldeneye	2002 - 2006	3
bird	<i>Cygnus cygnus</i>	Whooper Swan	2006	1
bird	<i>Tringa nebularia</i>	Greenshank	2006	1
bird	<i>Tringa ochropus</i>	Green Sandpiper	2006	1
bird	<i>Alcedo atthis</i>	Kingfisher	2006 - 2009	3
bird	<i>Aquila chrysaetos</i>	Golden Eagle	2008	1
bird	<i>Milvus milvus</i>	Red Kite	2011 - 2014	5
bird	<i>Falco peregrinus</i>	Peregrine	2009	1
bird	<i>Fringilla montifringilla</i>	Brambling	2009 - 2013	4
bird	<i>Turdus iliacus</i>	Redwing	2002 - 2014	4
bird	<i>Turdus pilaris</i>	Fieldfare	2007 - 2014	7
bird	<i>Tyto alba</i>	Barn Owl	2002 - 2011	9
terrestrial mammal	<i>Meles meles</i>	Eurasian Badger	2000 - 2014	59
terrestrial mammal	<i>Sciurus vulgaris</i>	Eurasian Red Squirrel	2004 - 2013	19
flowering plant	<i>Hyacinthoides non-scripta</i>	Bluebell	1978 - 2014	3

# Notable Species Report

The Notable Species Report lists all taxa that are on the following lists

- All species in the British Red Data Books, including all Notable fauna and Nationally Scarce flora and British endemic taxa
- Internationally rare taxa cited in IUCN Red Data lists,
- Bird species featuring as Amber or Red listed in the current review of *Birds of Conservation Concern: Population Status of Birds in the UK*.

In addition the list will be updated to include regional and county rarities as and when relevant information are published.



**64** notable species were recorded within the search area. The **designations and statuses** are given in the 'Rare/Notable/Scarce' column in the spreadsheet of records provided.

## Species List

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
insect - beetle (Coleoptera)	<i>Gymnetron veronicae</i>	Brooklime Gall Weevil	1919	1
insect - beetle (Coleoptera)	<i>Hygrotus quinquelineatus</i>	insect - beetle (Coleoptera)	1919	1
insect - true fly (Diptera)	<i>Nephrotoma dorsalis</i>	insect - true fly (Diptera)	1944	6
insect - moth	<i>Eudonia delunella</i>	Pied Grey	1994	1
insect - butterfly	<i>Erynnis tages</i>	Dingy Skipper	1929	1
insect - butterfly	<i>Coenonympha pamphilus</i>	Small Heath	2009 - 2011	4
bird	<i>Anas crecca</i>	Teal	2011	1
bird	<i>Anas platyrhynchos</i>	Mallard	2000 - 2007	6
bird	<i>Anser anser</i>	Greylag Goose	2006 - 2014	5
bird	<i>Anser brachyrhynchus</i>	Pink-footed Goose	2009 - 2014	8
bird	<i>Aythya fuligula</i>	Tufted Duck	2002	1
bird	<i>Bucephala clangula</i>	Goldeneye	2002 - 2006	3
bird	<i>Cygnus cygnus</i>	Whooper Swan	2006	1
bird	<i>Mergellus albellus</i>	Smew	2002	1
bird	<i>Apus apus</i>	Swift	2007 - 2009	3
bird	<i>Haematopus ostralegus</i>	Oystercatcher	2006 - 2009	6
bird	<i>Vanellus vanellus</i>	Lapwing	1948 - 2008	8
bird	<i>Chroicocephalus ridibundus</i>	Black-headed Gull	2000 - 2008	4
bird	<i>Actitis hypoleucos</i>	Common Sandpiper	2002 - 2007	4
bird	<i>Gallinago gallinago</i>	Snipe	2014	1
bird	<i>Numenius arquata</i>	Curlew	2006 - 2008	3
bird	<i>Tringa ochropus</i>	Green Sandpiper	2006	1
bird	<i>Columba oenas</i>	Stock Dove	2005 - 2009	4
bird	<i>Alcedo atthis</i>	Kingfisher	2006 - 2009	3
bird	<i>Cuculus canorus</i>	Cuckoo	2009	1
bird	<i>Aquila chrysaetos</i>	Golden Eagle	2008	1
bird	<i>Milvus milvus</i>	Red Kite	2011 - 2014	5
bird	<i>Falco tinnunculus</i>	Kestrel	2006 - 2014	8
bird	<i>Alauda arvensis</i>	Skylark	2008 - 2013	3
bird	<i>Emberiza calandra</i>	Corn Bunting	2002	1
bird	<i>Emberiza citrinella</i>	Yellowhammer	2006 - 2014	8
bird	<i>Emberiza schoeniclus</i>	Reed Bunting	2000 - 2013	17

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
bird	<i>Acanthis cabaret</i>	Lesser Redpoll	2005 - 2013	4
bird	<i>Linaria cannabina</i>	Linnet	2006 - 2011	5
bird	<i>Pyrrhula pyrrhula</i>	Bullfinch	2005 - 2008	2
bird	<i>Delichon urbicum</i>	House Martin	2000 - 2013	9
bird	<i>Hirundo rustica</i>	Swallow	2000 - 2014	23
bird	<i>Riparia riparia</i>	Sand Martin	2002 - 2014	9
bird	<i>Anthus pratensis</i>	Meadow Pipit	2007 - 2012	5
bird	<i>Anthus trivialis</i>	Tree Pipit	2006	1
bird	<i>Motacilla cinerea</i>	Grey Wagtail	2006 - 2014	6
bird	<i>Muscicapa striata</i>	Spotted Flycatcher	2000 - 2013	18
bird	<i>Oenanthe oenanthe</i>	Wheatear	2006 - 2014	28
bird	<i>Phoenicurus phoenicurus</i>	Redstart	2005 - 2014	12
bird	<i>Saxicola rubetra</i>	Whinchat	2007 - 2008	3
bird	<i>Turdus iliacus</i>	Redwing	2002 - 2014	4
bird	<i>Turdus philomelos</i>	Song Thrush	2000 - 2009	3
bird	<i>Turdus pilaris</i>	Fieldfare	2007 - 2014	7
bird	<i>Turdus viscivorus</i>	Mistle Thrush	2013	1
bird	<i>Poecile montana</i>	Willow Tit	2000	2
bird	<i>Passer domesticus</i>	House Sparrow	2000 - 2009	2
bird	<i>Passer montanus</i>	Tree Sparrow	2008 - 2014	11
bird	<i>Phylloscopus sibilatrix</i>	Wood Warbler	2005	1
bird	<i>Phylloscopus trochilus</i>	Willow Warbler	2000 - 2014	34
bird	<i>Prunella modularis</i>	Dunnock	2005	6
bird	<i>Sylvia communis</i>	Whitethroat	2000 - 2012	6
bird	<i>Tachybaptus ruficollis</i>	Little Grebe	2006 - 2007	2
bird	<i>Tyto alba</i>	Barn Owl	2002 - 2011	9
moss	<i>Dicranum flagellare</i>	Whip Fork-moss	1961	1
moss	<i>Gymnostomum calcareum</i>	Blunt-leaf Tufa-moss	1955 - 1964	3
flowering plant	<i>Vicia orobus</i>	Wood Bitter-vetch	1978	1
flowering plant	<i>Meconopsis cambrica</i>	Welsh Poppy	1978 - 2014	2
conifer	<i>Pinus sylvestris</i>	Scots Pine	2000	2

# Biodiversity List Report

## UK Biodiversity Action Plan Species

The UK Biodiversity Action Plan, published in 1994, was the UK Government's response to signing the Convention on Biological Diversity (CBD) at the 1992 Rio Earth Summit.

The plan set out a programme for conserving the UK's biodiversity. It also led to the production of 436 action plans between 1995 and 1999 to help many of the UK's most threatened species and habitats to recover. Details of these plans can be found at the UK Biodiversity Partnership website.

A review of the UK BAP priority list in 2007 led to the identification of 1,150 species and 65 habitats that meet the BAP criteria at UK level.



**60** UK BAP species were recorded within the search area. The **designations and statuses** are given in the 'Biodiversity Lists' column in the spreadsheet of records provided.

## Species List

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
insect - moth	<i>Arctia caja</i>	Garden Tiger	2008 - 2013	9
insect - moth	<i>Spilosoma lubricipeda</i>	White Ermine	2008 - 2013	21
insect - moth	<i>Spilosoma luteum</i>	Buff Ermine	2010 - 2012	4
insect - moth	<i>Tyria jacobaeae</i>	Cinnabar	2011	1
insect - moth	<i>Cossus cossus</i>	Goat Moth	1870	1
insect - moth	<i>Chesias legatella</i>	Streak	1862	1
insect - moth	<i>Chiasmia clathrata</i> subsp. <i>clathrata</i>	Latticed Heath	2010 - 2012	3
insect - moth	<i>Ecliptopera silaceata</i>	Small Phoenix	1862 - 2013	13
insect - moth	<i>Epirrhoe galiata</i>	Galium Carpet	1862 - 2009	2
insect - moth	<i>Orthonama vittata</i>	Oblique Carpet	2013	1
insect - moth	<i>Pelurga comitata</i>	Dark Spinach	1862	1
insect - moth	<i>Xanthorhoe decoloraria</i> subsp. <i>decoloraria</i>	Red Carpet	2013	1
insect - moth	<i>Xanthorhoe ferrugata</i>	Dark-barred Twin-spot Carpet	2010 - 2012	2
insect - moth	<i>Hepialus humuli</i> subsp. <i>humuli</i>	Ghost Moth	2011	2
insect - butterfly	<i>Erynnis tages</i>	Dingy Skipper	1929	1
insect - moth	<i>Acronicta psi</i>	Grey Dagger	2007 - 2013	3
insect - moth	<i>Acronicta rumicis</i>	Knot Grass	2011	1
insect - moth	<i>Agrochola helvola</i>	Flounced Chestnut	1862	1
insect - moth	<i>Allophyes oxyacanthae</i>	Green-brindled Crescent	2011 - 2012	2
insect - moth	<i>Amphipoea oculea</i>	Ear Moth	2008	1
insect - moth	<i>Apamea remissa</i>	Dusky Brocade	2008 - 2013	5
insect - moth	<i>Atethmia centrago</i>	Centre-barred Sallow	2013	1
insect - moth	<i>Caradrina morpheus</i>	Mottled Rustic	2007 - 2009	3
insect - moth	<i>Diarsia rubi</i>	Small Square-spot	2008 - 2013	29
insect - moth	<i>Eugnorisma glareosa</i>	Autumnal Rustic	2008 - 2011	3
insect - moth	<i>Hydraecia micacea</i>	Rosy Rustic	2007 - 2013	20
insect - moth	<i>Melanchra persicariae</i>	Dot Moth	2007 - 2011	3
insect - moth	<i>Melanchra pisi</i>	Broom Moth	2010 - 2013	4
insect - moth	<i>Mesoligia literosa</i>	Rosy Minor	2009 - 2010	2
insect - moth	<i>Mythimna comma</i>	Shoulder-striped Wainscot	2010 - 2011	3
insect - moth	<i>Orthosia gracilis</i>	Powdered Quaker	2010 - 2013	9

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
insect - moth	<i>Tholera cespitis</i>	Hedge Rustic	2007	2
insect - moth	<i>Xanthia icteritia</i>	Sallow	2008 - 2013	7
insect - butterfly	<i>Coenonympha pamphilus</i>	Small Heath	2009 - 2011	4
amphibian	<i>Bufo bufo</i>	Common Toad	2009	1
bird	<i>Vanellus vanellus</i>	Lapwing	1948 - 2008	8
bird	<i>Numenius arquata</i>	Curlew	2006 - 2008	3
bird	<i>Cuculus canorus</i>	Cuckoo	2009	1
bird	<i>Alauda arvensis</i>	Skylark	2008 - 2013	3
bird	<i>Emberiza calandra</i>	Corn Bunting	2002	1
bird	<i>Emberiza citrinella</i>	Yellowhammer	2006 - 2014	8
bird	<i>Emberiza schoeniclus</i>	Reed Bunting	2000 - 2013	17
bird	<i>Acanthis cabaret</i>	Lesser Redpoll	2005 - 2013	4
bird	<i>Linaria cannabina</i>	Linnet	2006 - 2011	5
bird	<i>Pyrrhula pyrrhula</i>	Bullfinch	2005 - 2008	2
bird	<i>Anthus trivialis</i>	Tree Pipit	2006	1
bird	<i>Muscicapa striata</i>	Spotted Flycatcher	2000 - 2013	18
bird	<i>Turdus philomelos</i>	Song Thrush	2000 - 2009	3
bird	<i>Poecile montana</i>	Willow Tit	2000	2
bird	<i>Passer domesticus</i>	House Sparrow	2000 - 2009	2
bird	<i>Passer montanus</i>	Tree Sparrow	2008 - 2014	11
bird	<i>Phylloscopus sibilatrix</i>	Wood Warbler	2005	1
bird	<i>Prunella modularis</i>	Dunnock	2005	6
terrestrial mammal	<i>Lutra lutra</i>	European Otter	1978 - 2008	9
terrestrial mammal	<i>Nyctalus noctula</i>	Noctule Bat	1998 - 2009	10
terrestrial mammal	<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	2005 - 2009	10
terrestrial mammal	<i>Plecotus auritus</i>	Brown Long-eared Bat	2008	1
terrestrial mammal	<i>Erinaceus europaeus</i>	West European Hedgehog	1967 - 2009	4
terrestrial mammal	<i>Lepus europaeus</i>	Brown Hare	1981 - 2014	19
terrestrial mammal	<i>Sciurus vulgaris</i>	Eurasian Red Squirrel	2004 - 2013	19

## Local Biodiversity Action Plan Species

The Dumfries and Galloway Biodiversity Action Plan (LBAP) was published in April 2009. The LBAP has identified a number of species as Priority Species due to their

- i) National importance
- ii) Local importance in a national context
- iii) Local rarity
- iv) Local decline
- v) Local distinctiveness.



The list is reviewed and updated periodically.

**40** LBAP Priority Species were recorded within the search area. The **designations and statuses** are given in the 'Biodiversity Lists' column in the spreadsheet of records provided.

### Species List

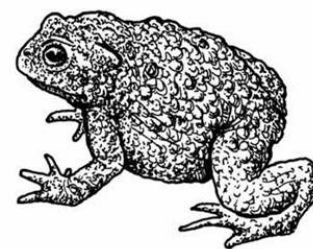
Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
insect - butterfly	<i>Erynnis tages</i>	Dingy Skipper	1929	1
bird	<i>Cygnus cygnus</i>	Whooper Swan	2006	1
bird	<i>Apus apus</i>	Swift	2007 - 2009	3
bird	<i>Vanellus vanellus</i>	Lapwing	1948 - 2008	8
bird	<i>Chroicocephalus ridibundus</i>	Black-headed Gull	2000 - 2008	4
bird	<i>Numenius arquata</i>	Curlew	2006 - 2008	3
bird	<i>Alcedo atthis</i>	Kingfisher	2006 - 2009	3
bird	<i>Aquila chrysaetos</i>	Golden Eagle	2008	1
bird	<i>Milvus milvus</i>	Red Kite	2011 - 2014	5
bird	<i>Falco peregrinus</i>	Peregrine	2009	1
bird	<i>Falco tinnunculus</i>	Kestrel	2006 - 2014	8
bird	<i>Acrocephalus scirpaceus</i>	Reed Warbler	2000 - 2005	22
bird	<i>Alauda arvensis</i>	Skylark	2008 - 2013	3
bird	<i>Emberiza calandra</i>	Corn Bunting	2002	1
bird	<i>Emberiza citrinella</i>	Yellowhammer	2006 - 2014	8
bird	<i>Emberiza schoeniclus</i>	Reed Bunting	2000 - 2013	17
bird	<i>Linaria cannabina</i>	Linnet	2006 - 2011	5
bird	<i>Pyrrhula pyrrhula</i>	Bullfinch	2005 - 2008	2
bird	<i>Spinus spinus</i>	Siskin	2000 - 2013	12
bird	<i>Muscicapa striata</i>	Spotted Flycatcher	2000 - 2013	18
bird	<i>Turdus philomelos</i>	Song Thrush	2000 - 2009	3
bird	<i>Poecile montana</i>	Willow Tit	2000	2
bird	<i>Passer domesticus</i>	House Sparrow	2000 - 2009	2
bird	<i>Passer montanus</i>	Tree Sparrow	2008 - 2014	11
bird	<i>Phylloscopus sibilatrix</i>	Wood Warbler	2005	1
bird	<i>Tyto alba</i>	Barn Owl	2002 - 2011	9
terrestrial mammal	<i>Lutra lutra</i>	European Otter	1978 - 2008	9
terrestrial mammal	<i>Nyctalus noctula</i>	Noctule Bat	1998 - 2009	10
terrestrial mammal	<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	1998 - 2005	4
terrestrial mammal	<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	2005 - 2009	10
terrestrial mammal	<i>Plecotus auritus</i>	Brown Long-eared Bat	2008	1
terrestrial mammal	<i>Lepus europaeus</i>	Brown Hare	1981 - 2014	19
terrestrial mammal	<i>Sciurus vulgaris</i>	Eurasian Red Squirrel	2004 - 2013	19
mollusc	<i>Anodonta cygnea</i>	Swan Mussel	2009	1
moss	<i>Dicranum flagellare</i>	Whip Fork-moss	1961	1
moss	<i>Rhynchostegium megapolitanum</i>	Megapolitan Feather-moss	1961	1

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
flowering plant	<i>Carum verticillatum</i>	Whorled Caraway	2014	1
flowering plant	<i>Hyacinthoides non-scripta</i>	Bluebell	1978 - 2014	3
flowering plant	<i>Sambucus ebulus</i>	Dwarf Elder	2014	1
flowering plant	<i>Vicia orobus</i>	Wood Bitter-vetch	1978	1



## Scottish Biodiversity List Species

The Scottish Biodiversity List is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation.



The primary purpose of the list is to help public bodies carry out their duty 'to further the conservation of biodiversity' as introduced in The Nature Conservation (Scotland) Act 2004 by identifying the species and habitats which are the highest priority for biodiversity conservation in Scotland. It is also a useful source of information for anyone interested in nature conservation in Scotland.

The criteria for selecting species featuring on the list include scientific criteria and a social criterion based on a survey of the Scottish public.

The Scottish Biodiversity List was published in 2005 to satisfy the requirement under Section 2(4) of The Nature Conservation (Scotland) Act 2004.

For more details please see

<http://www.snh.gov.uk/protecting-scotlands-nature/biodiversity-scotland/scottish-biodiversity-list/>

**51** Scottish Biodiversity List species were recorded within the search area. The **designations and statuses** are given in the 'Biodiversity Lists' column in the spreadsheet of records provided.

### Species List

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
insect - moth	<i>Cossus cossus</i>	Goat Moth	1870	1
bird	<i>Cygnus cygnus</i>	Whooper Swan	2006	1
bird	<i>Mergellus albellus</i>	Smew	2002	1
bird	<i>Apus apus</i>	Swift	2007 - 2009	3
bird	<i>Vanellus vanellus</i>	Lapwing	1948 - 2008	8
bird	<i>Chroicocephalus ridibundus</i>	Black-headed Gull	2000 - 2008	4
bird	<i>Numenius arquata</i>	Curlew	2006 - 2008	3
bird	<i>Tringa ochropus</i>	Green Sandpiper	2006	1
bird	<i>Alcedo atthis</i>	Kingfisher	2006 - 2009	3
bird	<i>Aquila chrysaetos</i>	Golden Eagle	2008	1
bird	<i>Milvus milvus</i>	Red Kite	2011 - 2014	5
bird	<i>Falco peregrinus</i>	Peregrine	2009	1
bird	<i>Falco tinnunculus</i>	Kestrel	2006 - 2014	8
bird	<i>Acrocephalus scirpaceus</i>	Reed Warbler	2000 - 2005	22
bird	<i>Alauda arvensis</i>	Skylark	2008 - 2013	3
bird	<i>Emberiza calandra</i>	Corn Bunting	2002	1
bird	<i>Emberiza schoeniclus</i>	Reed Bunting	2000 - 2013	17
bird	<i>Fringilla montifringilla</i>	Brambling	2009 - 2013	4
bird	<i>Linaria cannabina</i>	Linnet	2006 - 2011	5
bird	<i>Pyrrhula pyrrhula</i>	Bullfinch	2005 - 2008	2
bird	<i>Spinus spinus</i>	Siskin	2000 - 2013	12
bird	<i>Erithacus rubecula</i>	Robin	2000 - 2011	12
bird	<i>Muscicapa striata</i>	Spotted Flycatcher	2000 - 2013	18
bird	<i>Turdus iliacus</i>	Redwing	2002 - 2014	4
bird	<i>Turdus philomelos</i>	Song Thrush	2000 - 2009	3
bird	<i>Poecile montana</i>	Willow Tit	2000	2
bird	<i>Passer montanus</i>	Tree Sparrow	2008 - 2014	11
bird	<i>Phylloscopus sibilatrix</i>	Wood Warbler	2005	1

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
bird	<i>Tyto alba</i>	Barn Owl	2002 - 2011	9
terrestrial mammal	<i>Capreolus capreolus</i>	Roe Deer	2006 - 2014	6
terrestrial mammal	<i>Lutra lutra</i>	European Otter	1978 - 2008	9
terrestrial mammal	<i>Meles meles</i>	Eurasian Badger	2000 - 2014	59
terrestrial mammal	<i>Nyctalus noctula</i>	Noctule Bat	1998 - 2009	10
terrestrial mammal	<i>Pipistrellus pipistrellus</i>	Pipistrelle	2005 - 2009	4
terrestrial mammal	<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	2005 - 2009	10
terrestrial mammal	<i>Plecotus auritus</i>	Brown Long-eared Bat	2008	1
terrestrial mammal	<i>Lepus europaeus</i>	Brown Hare	1981 - 2014	19
terrestrial mammal	<i>Sciurus vulgaris</i>	Eurasian Red Squirrel	2004 - 2013	19
mollusc	<i>Anodonta cygnea</i>	Swan Mussel	2009	1
moss	<i>Dicranum flagellare</i>	Whip Fork-moss	1961	1
moss	<i>Rhynchostegium megapolitanum</i>	Megapolitan Feather-moss	1961	1
flowering plant	<i>Hyacinthoides non-scripta</i>	Bluebell	1978 - 2014	3
flowering plant	<i>Cirsium arvense</i>	Creeping Thistle	2000 - 2014	6
flowering plant	<i>Cirsium palustre</i>	Marsh Thistle	2000 - 2014	4
flowering plant	<i>Cirsium vulgare</i>	Spear Thistle	2000 - 2014	2
flowering plant	<i>Sambucus ebulus</i>	Dwarf Elder	2014	1
flowering plant	<i>Vicia orobus</i>	Wood Bitter-vetch	1978	1
flowering plant	<i>Quercus</i>	Oak	1978	1
flowering plant	<i>Quercus petraea</i>	Sessile Oak	2000 - 2014	4
flowering plant	<i>Quercus robur</i>	Pedunculate Oak	2000	3
conifer	<i>Pinus sylvestris</i>	Scots Pine	2000	2

# Invasive Non-native Species Report

Numerous species have been introduced, either deliberately or accidentally, into the UK. Many of these are benign and pose little or no threat to our native flora and fauna. However, a minority of these can have a significant effect on the environment where they may impact on native species, habitats and cause environmental harm. An invasive non-native species (INNS) is thus considered to be any non-native animal or plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live.



Section 14 of the Wildlife and Countryside Act 1981 prevents the release into the wild of certain plants and animals which may cause ecological, environmental, or socio-economic harm. It is illegal introduction into the wild of any animal of a kind which is not ordinarily resident in, and is not a regular visitor to, Great Britain in a wild state, or any species of animal or plant listed in Schedule 9 to the Act. In the main, Schedule 9 lists non-native species that are already established in the wild, but which continue to pose a conservation threat to native biodiversity and habitats, such that further releases should be regulated. The Schedule also includes some native species (e.g. the Barn Owl) in order to provide a level of control to ensure that releases, in particular re-introduction programmes, are carried out in an appropriate manner and biodiversity is properly safeguarded.

The DGERC list of Invasive Non-native Species is compiled from the Schedule 9 species with the addition of INNS identified by other organisations. These primarily include the GB Non-native Species Secretariat, which has responsibility for helping to coordinate the approach to INNS in Great Britain, and the Rivers and Fisheries Trusts of Scotland (RAFTS) invasive species and biosecurity programme which has identified INNS of greatest concern in and around riparian habitats.

Further details on non-native species legislation can be found on the [GB Non-native Species Secretariat](#) and [RAFTS Invasive Programme](#) websites.

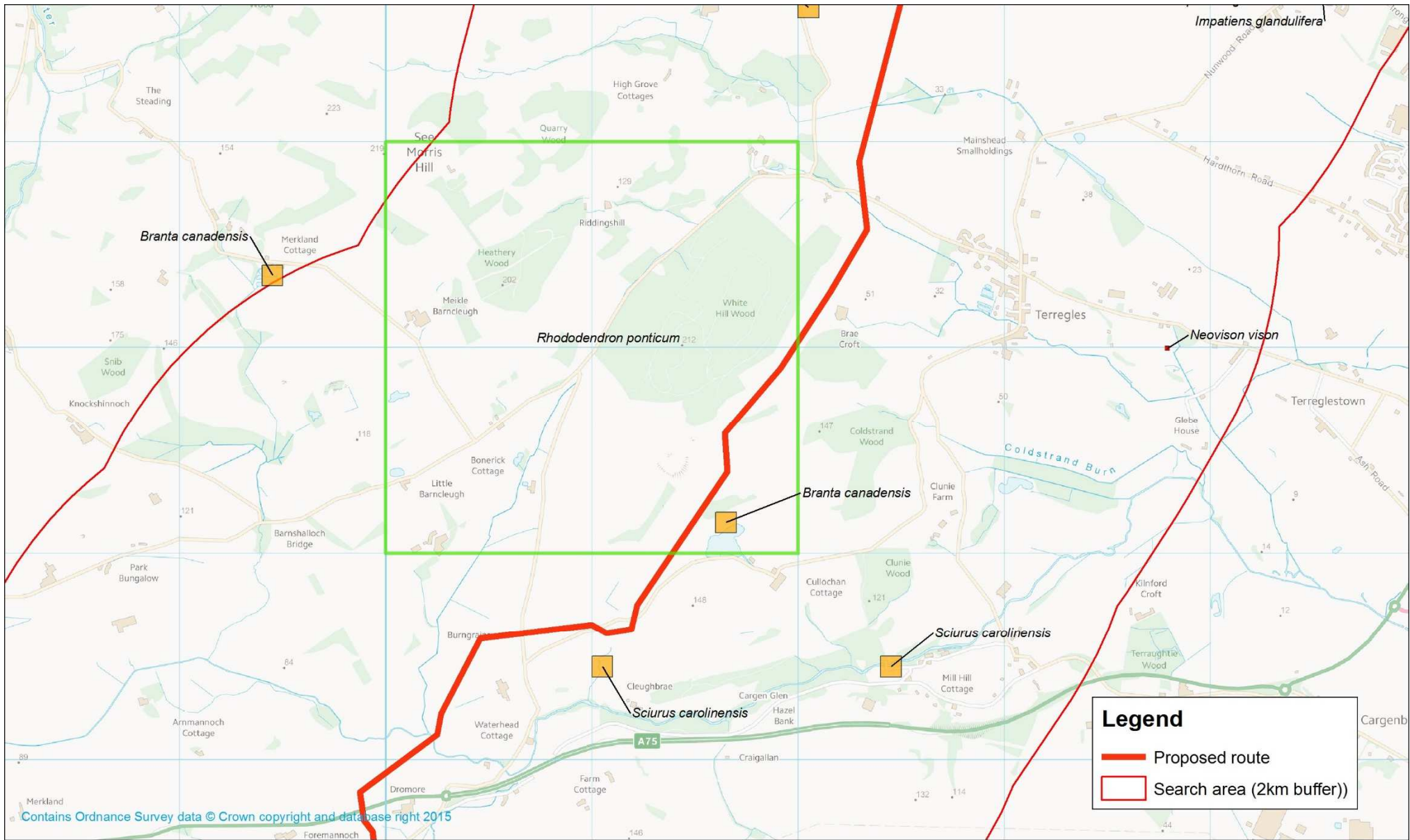
**Seven** INNS were recorded within the search area.

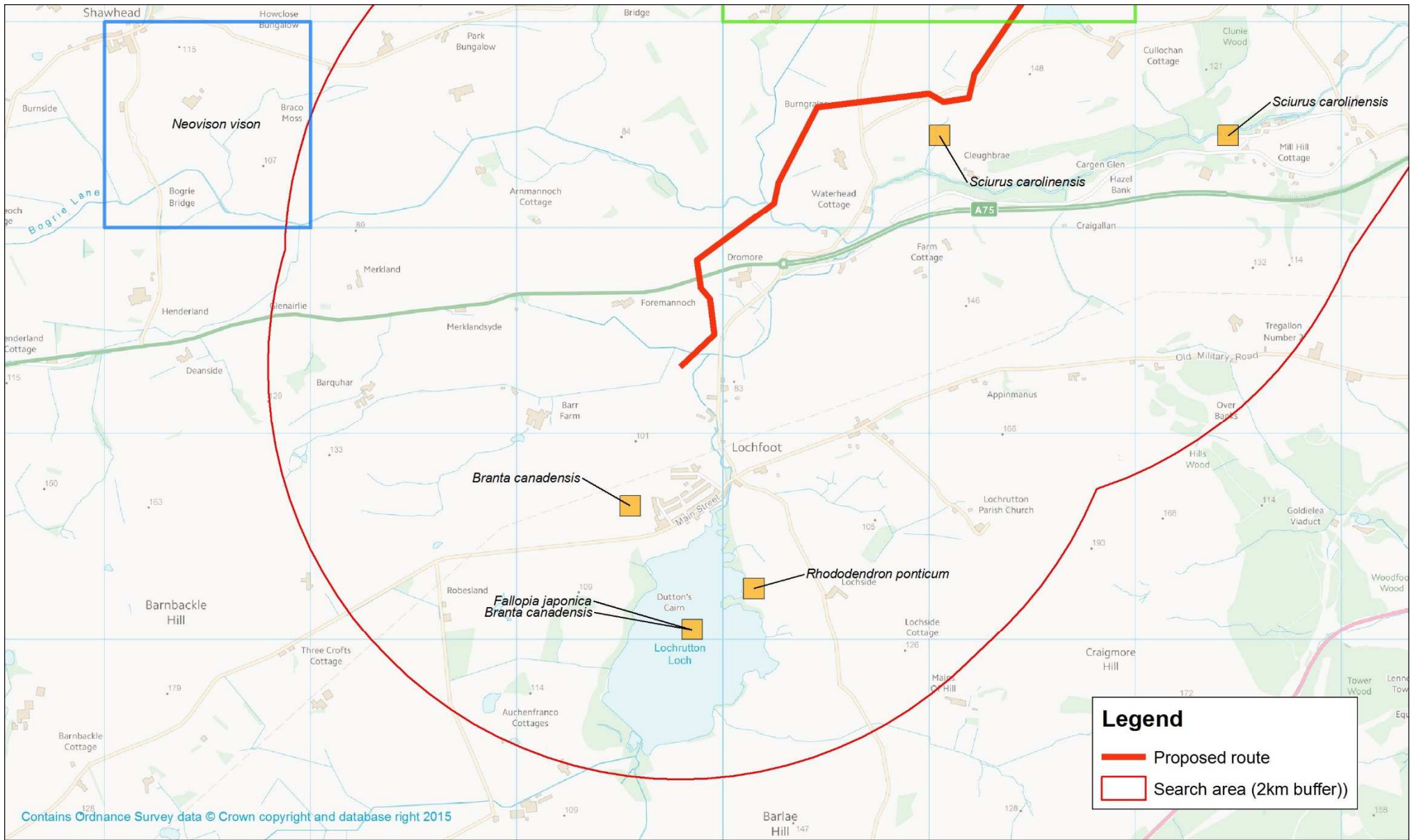
## Species List

Taxon group	Scientific Name	Common Name	Dates recorded	Number of Records
bird	<i>Branta canadensis</i>	Canada Goose	2000 - 2009	5
terrestrial mammal	<i>Neovison vison</i>	American Mink	1967 - 2013	2
terrestrial mammal	<i>Sciurus carolinensis</i>	Eastern Grey Squirrel	1997 - 2005	4
flowering plant	<i>Elodea canadensis</i>	Canadian Waterweed	1978	1
flowering plant	<i>Fallopia japonica</i>	Japanese Knotweed	1978 - 2013	7
flowering plant	<i>Impatiens glandulifera</i>	Indian Balsam	2007 - 2008	30
flowering plant	<i>Rhododendron ponticum</i>	Rhododendron	2000 - 2014	3









## Statutory Designated Sites

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Scottish Natural Heritage is the key statutory agency in Scotland for advising Government and for acting as the Government's agent in the delivery of conservation designations in Scotland. One of their major responsibilities is to ensure the conservation and enhancement of habitats, species and landscapes. One mechanism to enable this is the system of 'protected' areas which operates both on a UK and an international basis. In Scotland protected areas form some 20% of the land area. The main protected area designations are:

- National Nature Reserves (NNRs)
- Sites of Special Scientific Interest (SSSIs)
- Ramsar Sites
- Special Protection Areas (SPAs)
- Special Areas of Conservation (SACs)
- National Scenic Areas (NSAs)

### Site of Special Scientific Interest

SSSIs are key areas of nature conservation and wildlife importance. In the coastal context they can include dunes, cliffs and intertidal foreshore as far as the mean low water spring mark. SSSIs are designated by Scottish Natural Heritage (SNH) under the Nature Conservation (Scotland) Act (formerly under the provision of the Wildlife and Countryside Act 1981). SSSI status does not change the use of the land but local authorities, owners and occupiers must consult with SNH on any developments or activities which may affect the site. Citations are available for each site stating the features of interest for which the site was designated.

### National Nature Reserve

NNRs are areas of national importance for nature conservation and include some of the most important natural and semi-natural habitats in Great Britain. NNRs are designated by Scottish Natural Heritage (SNH) under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981. All NNRs are SSSIs and the land is either owned by SNH or managed under agreement between SNH and the owner specifically for nature conservation.

### Special Protection Areas

SPAs are classified under EC Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). The Directive requires the Member States of the European Community to identify and classify the most suitable territories, in size and number, for certain rare or vulnerable species (listed in Annex I of the Directive) and for regularly occurring migratory species. SPAs are intended to safeguard the habitats of the species for which they are selected and to protect the birds from significant disturbance. SPAs together with Special Areas of Conservation form the Natura 2000 network of sites.

### Special Areas of Conservation

SACs are designated under EC Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive). Candidate sites are identified to the European Commission and agreed at biogeographic region level as qualifying for designation. Almost all terrestrial candidate SACs are SSSIs. Together with SPAs, SACs will form a network of European sites to be known as Natura 2000.

### Ramsar Sites

Ramsar Sites are wetlands of international importance particularly those containing large numbers of waterfowl. They include estuaries, open water and intertidal marine areas. They are listed under "The Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971", known as the Ramsar Convention, which was ratified by UK Government in 1976. All Ramsar Sites in Scotland are SSSIs and nearly all are SPAs under the EC Directive on the Conservation of Wild Birds 1979.

No statutory designated sites were found within 2km of the study site.

## Non-Statutory Sites

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### Nature Reserves

Local Nature Reserves (LNRs) can be declared by local authorities in conjunction with Scottish Natural Heritage (SNH) to reflect areas of local nature conservation importance or amenity and to give access to the public. A management agreement, often in the form of a management plan, is usually required and bylaws may be introduced to regulate the use of the LNR. The legislative basis is the Wildlife and Countryside Act 1981 (as amended by the Local Government and Planning (Scotland) Act 1982).

In addition a number of conservation organisations own or lease land as nature reserves.

No nature reserves were found within 25km of the study site.

### Local Wildlife Sites

Local Wildlife Sites (or Local Biodiversity Sites) are identified to recognise places of local biodiversity importance outside statutory designated areas. Each candidate site is surveyed and assessed by a team of local experts against agreed criteria. Sites meeting or exceeding an agreed standard are classified as Local Wildlife Sites. This dataset includes the records from these surveys, each of which was carried out by a professional ecological surveyor. Surveys were carried out predominantly from 1998 onwards.

One Local Wildlife Site occurs within 2km of the study site:

#### Lochrutton LWS

Lochrutton is a lowland site that comprises a large area of open mesotrophic water and whose main interest is the reeds that provide shelter for a variety of bird species, including reed warbler, a nationally rare species which only breeds in two sites in the region (the only ones in Scotland). It also includes areas of marginal vegetation, semi-natural broad-leaved woodland, coniferous plantation, broad-leaved plantation, marshy and neutral grassland, with a total of 152 vascular species including greater tussock-sedge *Carex paniculata* and bluebell *Hyacinthoides non-scriptus*, a local priority species.

The site is flat with altitude ranging from 95 to 100m. It is situated approximately 6 miles to the south-west of Dumfries. To access the site follow the A75 (from Dumfries) and turn for Lochfoot following a minor road. Lochfoot is adjacent to the north end of the site.

The site should be considered in context as it is surrounded by agricultural land. Its importance lies in the reedbeds, for which it has been included in the Dumfries and Galloway BAP as a key habitat. It is rich in bird species including nationally rare ones. It is also important for its large area of mesotrophic water, the biggest habitat on the site.

It is mainly natural although there are improved areas by the loch and there are areas of coniferous and broad-leaved plantation. The wooded area to the south-west of the site and by Mains of Franco is managed for conservation.

It has a high amenity value as it is frequently used by anglers.

### Other non-statutory sites.

The DGERC holds datasets pertaining to a number of non-statutory designations. These include Important Bird Areas, Marine Consultation Zones, Priority Woodlands for Red Squirrels and numerous others.

#### Important Bird Areas

These data are for the UK and Isle of Man Important Bird Areas (IBAs) identified for the 2000 review and published in:



Heath, MF and Evans MI, eds. (2000) *Important Bird Areas in Europe: priority sites for conservation*. 2 vols. Cambridge, UK: BirdLife International (BirdLife Conservation Series No 8)

For details of thresholds, criteria and methods, please see that publication.

All information ©RSPB

### *Red Squirrel Priority Woodlands*

Woodlands that have been identified using the Reynolds and Bentley selection criteria as priority woodland for Red Squirrel conservation.

Reynolds, J and Bentley, S (2001) *Selecting Refuge Sites for Red Squirrel Conservation*. Paper prepared for UK Red Squirrel Group.

Further information may be available from Red Squirrels South Scotland project officers: [www.red-squirrels.org.uk](http://www.red-squirrels.org.uk)

Whilst these areas have now been superseded in terms of strategic priorities by the Red Squirrel strongholds (<http://scotland.forestry.gov.uk/supporting/strategy-policy-guidance/biodiversity/conserving-scotlands-red-squirrels/stronghold-sites>), these sites indicate habitats considered to be of local importance for Red Squirrels.

No other sites were found within 2km of the study site.

# Habitats

## Broad Habitat Map

Information on the habitats across Dumfries and Galloway was gathered as part of the 1998 Environmental Audit To digitally capture habitat information about Dumfries and Galloway, in a form suitable for incorporation into the Geographic Information System, ArcView.

Based on aerial photographs taken in A complete colour aerial photographic survey of Dumfries and Galloway consisting of over 4,000 photos with 60% overlap had been carried out at scale of 1:10,000 in 1997/98. This covered the whole of Dumfries and Galloway, approximately 650,000 hectares in extent.

These seamless GIS aerial photo layers were overlaid with screen tracings of polygons and each assigned one of 51 habitat categories. A stereo viewer to investigate texture, height of vegetation and slope to classify any "difficult" polygons.

Approximately 39,000 habitat parcels were mapped.

## Habitat classification used in the survey

Code	Habitat
SC	Scree, rock exposure
RB	River bank sand/mud
CS	Coastal Sand Pits
Q	Quarry
BM	Blanket mire (mostly heather)
BM:AG	Blanket mire/Acid grassland
BMP	Blanket mire with pools
PDW	Degraded Peatland (wooded)
CL	Sea Cliffs
GH	Grass-heath
UH	Upland heath
UH:AG	Upland heath/Acid grassland
UHR	Heath on rock exposure
LH	Lowland heath
LH:AG	Lowland heath/Acid grassland
DH	Dune Heath
LRM	Lowland raised mire (pure)
LRMF	Lowland raised mire (conifer)
LRMW	Lowland raised mire (wooded)
LRMC	Lowland raised mire (cut)
LRMD	Lowland raised mire (degraded)
VM	Valley Mire
IG	Improved grassland
AS	Semi-improved agricultural
AM	Amenity
ING	Inundated improved grassland
COG	Coastal Grassland
MG	Neutral grassland
MGR	Neutral grassland/Rush pasture
DRUM	Drumlins
ASB	Agricultural Scrubland
AG	Acid grassland
AG:BR	Acid grassland/Bracken
BR	Bracken (total cover)
CG	Calcareous Grassland
MISC	Rural/scattered development

Code	Habitat
URB	Urban development
CEM	Cemetery
RD	Roads and tracks
OW	Open water
WL	Wetland (swamp, fen, etc.)
RW	Running water
RC	River Corridor
MWL	Maritime wetland
MT	Montane
CPW	Coniferous Plantation
BW	Broad-leaved woodland
MXW	Mixed woodland
SB	Scrub
PL	Parkland
ST	Upland scattered trees

## Notes on Habitat Classification

### Mires

Blanket mire types have been restricted to upland blanket mire. Mires at lower altitudes, which have some of the properties of blanket, mire or are part of more extensive mire complexes are generally mapped as either one of the subtypes of Lowland Raised Mire or Valley Mire, according to location and terrain. Those tracts towards the north of the region, in the vicinity of Moffat for example, that are mapped as a mosaic of Blanket Mire and Acid Grassland have extensive tracts of *Nardus*, *Molinia* or otherwise grassy degraded mire that is visibly devoid of heather cover.

Lowland Raised mire subtypes are mapped wherever there is still some ground cover of the original peatland and this has not been subject to extensive improvement. Thus, coniferous plantation is considered to be modified raised mire if developed over peatland, while it is simple conifer plantation if there had previously been significant management of the land.

Grass-heath is a broad category of transitional low-lying, gently sloping peatlands most in evidence at the margins of upland areas where they border on the mesotrophic habitats of the lowlands and valleys. It consists of wet heaths, *Molinia* tracts and other vegetation types typical of degrading mires, such as *Juncus squarrosus* mires.

### Grasslands

Calcareous grasslands have only been identified where these are known from survey or can be clearly identified as distinct in areas where there are calcareous conditions.

Neutral grasslands have been identified where there are clear tracts of unimproved types, such as *Arrhenatherum*, *Deschampsia* or rarely riverbank *Holcus* or *Cynosurus* swards. It is impossible to clearly distinguish between semi-improved acid grasslands and more mesotrophic types, so they have been mapped generally as semi-improved agricultural grassland (with or without scrub). Lowland rush pasture however has been separated out.

Bracken cover is also identified, either as continuous blocks, or more often as mosaics with acid grassland. However, some of the aerial photograph coverage was taken early in the year when bracken cover could not be visually identified in all cases, therefore there is a patchier representation of the true extent in these areas, which are mainly towards the west. Also, bracken cover has not been separately identified in more complex habitats such as river corridor, heath or blanket mire. An exception to this exclusion is that bracken cover has been identified where survey information was available.

### Water and wetland habitats

Many watercourses in some parts of the upland regions pass along linear tracts of various habitats that are closely commingled, and so cannot be clearly separated. These may have woodland or scrub, mixed grassland, fen or bracken. Along these lengths the extent of the mosaic is mapped as a river corridor habitat, without distinction of the various components. Other stretches of running water, usually in the lower valleys, which have widened to an average of 6 meters or more are mapped as an area coverage, while narrower streams are represented by linear features. Each distinct length of running water is mapped only once however.

Wetland as a habitat covers areas of fen, mire and swamp in both lowland and upland stations, the condition being a significant presence of static or moving surface water. There is also a separate category for maritime wetland, which is mainly confined to the merse.

A map of the study area showing the broad habitats overlaying an Ordnance Survey background is provided separately as a PDF file.

## **Ancient Woodlands**

### *Ancient Woodland Inventory*

In response to a 1980 select committee which recommended that ancient woods should be recognised and treated as a separate category, the NCCs compiled the Inventories of Ancient, Long-established and Semi-natural woodlands. A more sophisticated classification was developed for woodlands in Scotland due to the nature of the available historical sources. For Scottish woods, the category Ancient' comprises woods recorded as being of semi-natural origin on EITHER the 1750 Roy maps OR the 1st Edition Ordnance Survey maps of 1860. This is due a) to the likelihood of the latter having been omitted from the Roy maps and b) to render the Scottish classification compatible with that for England and Wales. © SNH

### *Semi-natural Ancient Woodland Inventory*

This dataset contains information gathered by remote means using 1970s sources (maps, aerial photos) about the woodland cover present on Ancient & Long-Established Woodland Inventory sites. It does not contain information about woods not on the Inventory. More accurate and complete information about the current (1988) woodland cover of all Scottish woods, ancient or otherwise, may be derived from the Caledonian Partnership's 'Millennium Guide to Scotland's Forest Resource'.

## **Bog habitats**

A subset of "An inventory of lowland raised bogs in Great Britain" a study to determine the extent and condition of raised bog in Great Britain. Intermediate bogs also covered. ©SNH

A map of the study area showing the woodland inventory areas and bogs overlaying an Ordnance Survey background is provided separately as a PDF file.

## Image captions/acknowledgements

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Perennial Flax (p1) ©Mark Pollitt  
 Large Skipper (p3) ©Scottish Natural Heritage  
 Bat (p8) ©Scottish Natural Heritage  
 Red Squirrel (p9) ©Scottish Natural Heritage  
 Sticky Catchfly (p10)  
 Skylark (p12) ©Scottish Natural Heritage  
 Perennial Flax (p14)  
 Natterjack (p16) ©Scottish Natural Heritage  
 Canadian Pondweed (p18)

DGERC are grateful to the following organisations whose data has been made available for use within this report:

Organisation	Dataset
Bat Conservation Trust	Noctule, Serotine and Pipistrelle Field Survey
Biological Records Centre	Crane fly (Diptera; Tipuloidea) records for Britain to 2007
Biological Records Centre	Crane fly (Diptera; Tipuloidea) records for Britain to 2007 updated
Biological Records Centre	iRecord data (August 2014)
Biological Records Centre	Mammal records from Britain from the Atlas of Mammals (1993), with some later records
British Bryological Society	Bryophyte data for Great Britain from the British Bryological Society held by BRC
British Plant Gall Society	British Plant Gall Society field trip 2014
Butterfly Conservation	Butterfly Conservation Records
County Moth Recorder	Macro-moth records for Dumfries and Galloway
County Moth Recorder	Micro-moth records for Dumfries and Galloway
Glasgow Museums	Crowson & Fergusson records (coleoptera)
Joint Nature Conservation Committee	Scotland Otter Survey Database
Kirkcudbrightshire Botany Group	Kirkcudbrightshire Botanic Surveys
Nith District Salmon Board	Invasive Plant Survey of the Nith Catchment
Red Squirrels in South Scotland	Red and Grey Squirrel Records (RSSS/Red Alert)
Scottish Ornithological Club	Dumfries and Galloway County Bird Records 2000 onwards (incomplete)
SNH	Bat Records for Scotland 1970-2007
South of Scotland Wildlife Hospital	South of Scotland Wildlife Hospital

# Appendix 1

## Summary of Designations and Statuses

Abbreviation	Name	Description
BAmb	Bird Population Status - amber	Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
BD1	Birds Directive Annex 1	Birds which are the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution. As appropriate, Special Protection Areas to be established to assist conservation measures. Note that the contents of this annex have been updated in April 2003 following the Treaty of Accession.
BD2.1	Birds Directive Annex 2.1	Birds which may potentially be hunted under national legislation within the geographical land and sea area to which the Directive applies. (Note that some species are protected by the national legislation of some Member States although hunting would potentially be legal under the Directive).
BD2.2	Birds Directive Annex 2.2	Birds which may potentially be hunted under national legislation only within certain specified Member States. (Note that some species are protected by the national legislation of some Member States although hunting would potentially be legal under the Directive).
Bern1	Bern Convention Appendix 1	Special protection ('appropriate and necessary legislative and administrative measures') for the plant taxa listed, including prohibition of deliberate picking, collecting, cutting, uprooting and, as appropriate, possession or sale.
Bern2	Bern Convention Appendix 2	Special protection ('appropriate and necessary legislative and administrative measures') for the animal taxa listed, including all forms of deliberate capture and keeping and deliberate killing; the deliberate damage to or destruction of breeding or resting sites; the deliberate disturbance of wild fauna, particularly during the period of breeding, rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Convention; the deliberate destruction or taking of eggs from the wild or keeping these eggs even if empty; the possession of and internal trade in these animals, alive or dead, including stuffed animals and any readily recognisable part or derivative thereof, where this would contribute to the effectiveness of the provisions of this article.
Bern3	Bern Convention Appendix 3	Special protection through 'appropriate and necessary legislative and administrative measures', of the listed wild fauna species.
BRed	Bird Population Status - red	Red list species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.
CITESA	EC CITES Annex A	All CITES Appendix I species. Some CITES Appendix II and III species, for which the EU has adopted stricter domestic measures. Some non-CITES species.
CITESB	EC CITES Annex B	All other CITES Appendix II species not listed in Annex A. Some CITES Appendix III species. Some non-CITES species.

Abbreviation	Name	Description
CITESC	EC CITES Annex C	All other CITES Appendix III species not listed in Annex A or Annex B.
CITESD	EC CITES Annex D	Some CITES Appendix III species for which the EU holds a reservation (CITES reservations - English, French, Spanish). Some non-CITES species.
CMS_A1	Convention on Migratory Species, Appendix 1	Endangered migratory species in danger of extinction throughout all or a significant portion of their range, and for which Range States are obliged to prohibit taking and to take protective measures to conserve. (Note that taking may be permitted in some circumstances as outlined in Article III.5.)
CMS_A2	Convention on Migratory Species, Appendix 2	Migratory species having an unfavourable conservation status for which Range States are encouraged to conclude international agreements for their benefit.
CMS_AEWA-A2	Convention on Migratory Species, African-Eurasian Waterbirds Agreement - Annex II	Conservation of migratory waterbirds, giving special attention to endangered species as well as to those with an unfavourable conservation status.
CMS_ASCOBANS	Convention on Migratory Species, Small Cetaceans Agreement, Baltic, NE.Atlantic, Irish, N Seas	Conservation of small cetacean species to achieve favourable conservation status, conscious that the management of threats to their existence, such as bycatch, habitat deterioration and other anthropogenic disturbance, requires concerted and coordinated responses.
CMS_EUROBATS-A1	Convention on Migratory Species, EUROBATS - Annex I	Protection and enhancement of species populations through legislation, education, conservation measures and international co-operation.
DGLBAP09	Dumfries and Galloway Local Biodiversity Action Plan Priority Species	Species which have been identified as Priority Species in the Dumfries and Galloway Local Biodiversity Action Plan due to their i) National importance, ii) Local importance in a national context, iii) Local rarity, iv) Local decline or v) Local distinctiveness.
HabRegs2	The Conservation (Natural Habitats, &c.) Regulations 2010 (Schedule 2)	Schedule 2- European protected species of animals.
HabRegs4	The Conservation (Natural Habitats, &c.) Regulations 2010 (Schedule 4)	Schedule 4- Animals which may not be taken or killed in certain ways
HabRegs5	The Conservation (Natural Habitats, &c.) Regulations 2010 (Schedule 5)	Schedule 5- European protected species of plants.
HSD2np	Habitats Directive Annex 2 - priority species	Species which are endangered, the conservation of which the Community has a particular responsibility in view of the proportion of their natural range which falls within the territory of the Community. They require the designation of special areas of conservation.
HSD2p	Habitats Directive Annex 2 - non-priority species	Animal and plant species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) whose conservation requires the designation of special areas of conservation. Note that the contents of this annex have been updated in April 2003 following the Treaty of Accession.
HSD4	Habitats Directive Annex 4	Animal and plant species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) in need of strict protection. They are protected from killing, disturbance or the destruction of them or their habitat. Note that the contents of this annex have been updated in April 2003 following the Treaty of Accession.
HSD5	Habitats Directive Annex 5	Animal and plant species of Community interest whose taking in the wild and exploitation may be subject to management measures.

Abbreviation	Name	Description
N	Nationally Notable	Species which are estimated to occur within the range of 16 to 100 10km squares. (subdivision into Notable A and Notable B is not always possible because there may be insufficient information available). Superseded by Nationally Scarce, and therefore no longer in use.
Na	Nationally Notable A	Taxa which do not fall within RDB categories but which are none-the-less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid or, for less well-recorded groups, within seven or fewer vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
Nb	Nationally Notable B	Taxa which do not fall within RDB categories but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups between eight and twenty vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
NR-excludes	Nationally Rare. Excludes Red Listed taxa	Nationally Rare - Occurring in 15 or fewer hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
NRMar	Nationally rare marine species	Species which occur in eight or fewer 10km X 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit.
NS-excludes	Nationally Scarce. Excludes Red Listed taxa	Nationally Scarce - Occurring in 16-100 hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
NSMar	Nationally scarce marine species	Species which occur in nine to 55 10km X 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit.
OSPAR	OSPAR Convention	OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic. OSPAR List of Threatened and/or Declining Species and Habitats.
PBA	Protection of Badgers Act (1992)	The Protection of Badgers Act 1992 protects badgers from taking, injuring, killing, cruel treatment, selling, possessing, marking and having their setts interfered with, subject to exceptions.
RDBGB.EN	IUCN (pre 1994) - Endangered	Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating. Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RDBGB.EX	IUCN (pre 1994) - Extinct	Taxa which are no longer known to exist in the wild after repeated searches of their localities and other known likely places. Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RDBGB.ID	RDB - Indeterm	Taxa not seen since 1970 but require further survey before they can be declared extinct known to be Extinct, Endangered, Vulnerable or Rare, but where there is not enough information to say which of these categories is appropriate. Superseded by new IUCN categories in 1994, so no longer in use.
RDBGB.IK	RDB - Insuff known	Taxa that are suspected but not definitely known to belong to any of the above categories (i.e. Endangered, Vulnerable, Rare), because of the lack of information. Superseded by new IUCN categories in 1994, so no longer in use.
RDBGB.R	IUCN (pre 1994) - Rare	Taxa with small populations that are not at present Endangered or Vulnerable, but are at risk. (In GB, this was interpreted as species which exist in fifteen or fewer 10km squares). Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RDBGB.Thre	RDB - Threatened endemic	Taxa which are not known to occur naturally outside Britain. Taxa within this category may also be in any of the other RDB categories or not threatened at all.



Abbreviation	Name	Description
RDBGB.VU	IUCN (pre 1994) - Vulnerable	Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating. Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RDBGLB.EN	IUCN (pre 1994) - Endangered	Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating. Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RDBGLB.EX	IUCN (pre 1994) - Extinct	A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historical range have failed to record an individual. Surveys should be over a time scale appropriate to the taxon's life cycle and life form.
RDBGLB.R	IUCN (pre 1994) - Rare	Taxa with small populations that are not at present Endangered or Vulnerable, but are at risk. (In GB, this was interpreted as species which exist in fifteen or fewer 10km squares). Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RDBGLB.VU	IUCN (pre 1994) - Vulnerable	Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating. Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RLGB.CR	IUCN (2001) - Critically endangered	A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria A to E.
RLGB.CR	IUCN (1994) - Critically endangered	A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria A to E.
RLGB.DD	IUCN (2001) - Data Deficient	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat or Lower Risk. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that a threatened category is appropriate.
RLGB.DD	IUCN (1994) - Data Deficient	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat or Lower Risk. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that a threatened category is appropriate.
RLGB.EN	IUCN (2001) - Endangered	A taxon is Endangered when it is not Critically endangered but is facing a very high risk of extinction in the wild in the near future.
RLGB.EN	IUCN (1994) - Endangered	A taxon is Endangered when it is not Critically endangered but is facing a very high risk of extinction in the wild in the near future.
RLGB.EW	IUCN (2001) - Extinct in the wild	A taxon is Extinct in the wild in Great Britain when it is known to survive only in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual) throughout its range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

Abbreviation	Name	Description
RLGB.EX	IUCN (1994) - Extinct	Taxa which are no longer known to exist in the wild after repeated searches of their localities and other known likely places. Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RLGB.EX	IUCN (2001) - Extinct	A taxon is Extinct in Great Britain when there is no reasonable doubt that the last individual in Great Britain has died. A taxon is presumed extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historical range have failed to record an individual. Surveys should be over a time scale appropriate to the taxon's life cycle and life form.
RLGB.Lr(NT)	IUCN (2001) - Lower risk - near threatened	Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
RLGB.Lr(NT)	IUCN (1994) - Lower risk - near threatened	Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
RLGB.RE	IUCN (2001) - Regionally Extinct	Category for a taxon when there is no reasonable doubt that the last individual potentially capable of reproduction within the region has died or has disappeared from the wild in the region, or when, if it is a former visiting taxon, the last individual has died or disappeared in the wild from the region. The setting of any time limit for listing under RE is left to the discretion of the regional Red List authority, but should not normally pre-date 1500 AD.
RLGB.VU	IUCN (2001) - Vulnerable	A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future.
RLGB.VU	IUCN (1994) - Vulnerable	A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future.
RLGLB.CR	IUCN (2001) - Critically endangered	A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V), and it is therefore considered to be facing an extremely high risk of extinction in the wild.
RLGLB.CR	IUCN (1994) - Critically endangered	A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria A to E.
RLGLB.DD	IUCN (2001) - Data Deficient	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and a threatened status. If the range of a taxon is suspected to be relatively circumscribed, and a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.
RLGLB.DD	IUCN (1994) - Data Deficient	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat or Lower Risk. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that a threatened category is appropriate.

Abbreviation	Name	Description
RLGLB.EN	IUCN (2001) - Endangered	A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V), and it is therefore considered to be facing a very high risk of extinction in the wild.
RLGLB.EN	IUCN (1994) - Endangered	Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating. Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
RLGLB.EX	IUCN (2001) - Extinct	A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
RLGLB.LR(cd)	IUCN (1994) - Lower risk - conservation dependent	Taxa which are the focus of a continuing taxon-specific or habitat-specific conservation programme targeted towards the taxon in question, the cessation of which would result in the taxon qualifying for one of the threatened categories above within a period of five years.
RLGLB.Lr(NT)	IUCN (1994) - Lower risk - near threatened	Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
RLGLB.NT	IUCN (2001) - Lower risk - near threatened	A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.
RLGLB.VU	IUCN (2001) - Vulnerable	A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable (see Section V), and it is therefore considered to be facing a high risk of extinction in the wild.
RLGLB.VU	IUCN (1994) - Vulnerable	Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating. Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
ScotBL	Scottish Biodiversity List of species of principal importance for biodiversity conservation	The Scottish Biodiversity List is a list of flora, fauna and habitats considered by the Scottish Ministers to be of principal importance for biodiversity conservation. The development of the list has been a collaborative effort involving a great many stakeholders overseen by scientists from the Scottish Biodiversity Forum. Completion of the list is the first time such a stocktake has been done in Scotland. The Scottish Biodiversity List is a tool for public bodies and others doing their Biodiversity Duty. The publication of the Scottish Biodiversity List satisfies the requirements of Section 2(4) of The Nature Conservation (Scotland) Act 2004.
Sect.41	Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England (sec	Species "of principal importance for the purpose of conserving biodiversity" covered under section 41 (England) of the NERC Act (2006) and therefore need to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity.
Sect.42	Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in Wales (secti	Species "of principal importance for the purpose of conserving biodiversity" covered under Section 42 (Wales) of the NERC Act (2006) and therefore need to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity.
UKBAP	UK Biodiversity Action Plan priority species	The UK List of Priority Species and Habitats contains 1150 species and 65 habitats that have been listed as priorities for conservation action under the UK Biodiversity Action Plan (UK BAP).
WCA1i	Wildlife and Countryside Act 1981 (Schedule 1 Part 1)	Birds which are protected by special penalties at all times.
WCA1ii	Wildlife and Countryside Act 1981 (Schedule 1 Part 2)	Birds which are protected by special penalties during the close season.

Abbreviation	Name	Description
WCA5/9.1k/l	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.1 (killing/injuring))	Section 9.1. Animals which are protected from intentional killing or injuring.
WCA5/9.1t	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.1 (taking))	Section 9.1 Animals which are protected from taking.
WCA5/9.2	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.2)	Section 9.2 Animals which are protected from being possessed or controlled (live or dead).
WCA5/9.4.a	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.4, subdivision a)	Section 9.4 subdivision a - Animals which are protected from intentional damage or destruction to any structure or place used for shelter or protection.
WCA5/9.4A*	Wildlife and Countryside Act 1981 (Schedule 5)	Ceteaca/basking shark that are not allowed to be intentionally or recklessly disturbed.
WCA5/9.4b	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.4b)	Section 9.4 Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection.
WCA5/9.4c	Wildlife and Countryside Act 1981 (Schedule 5)	Animals which are protected from their access to any structure or place which they use for shelter or protection being obstructed.
WCA5/9.5a	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.5a)	Section 9.5 Animals which are protected from being sold, offered for sale or being held or transported for sale either live or dead, whole or part.
WCA5/9.5b	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.5b)	Section 9.5 Animals which are protected from being published or advertised as being for sale.
WCA8	Wildlife and Countryside Act 1981 (Schedule 8)	Plants which are protected from intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).
WCA9/INV	Invasive Non-native Species	Includes all non-native species listed in Schedule 9 (parts 1 and 2) covering animals and plants which may not be released or allowed to escape into the wild plus additional invasive non-native species.

## **APPENDIX E – METHOD STATEMENT FOR NORTH AMERICAN SIGNAL CRAYFISH**

## Contents

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## Introduction

GNI (UK) Limited's Main Works Contractor (MWC) will be responsible for the installation, construction and commissioning of the gas pipeline from Cluden to Lochfoot. Under the construction contract, the MWC will be required to work to specific procedures to protect against the spread of North American Signal Crayfish.

Alien crayfish are not native to Britain; North American Signal Crayfish are the most common of four species that have invaded UK rivers.

North American Signal Crayfish are known to compete with fish and cause habitat changes such as vegetation clearance, river bank erosion and collapse. As crayfish are a controlled species there are legal issues when dealing with them. Under the Import of Live Fish (Scotland) Act 1978, the Prohibition of Keeping of Live Fish (Crayfish) Scotland Order 1996 is made, meaning it is an offence to keep non-native crayfish without a licence. In addition to this, the Wildlife and Countryside Act 1981 prevents the release of non-native crayfish into the wild.

The Wildlife and Natural Environment (Scotland) Act 2011 changed the release offences detailed in the Wildlife and Countryside Act 1981 and added new sections on keeping, notification and control. Therefore, it is illegal to keep and/or release crayfish without the appropriate licences from the Scottish Government. This means that the capture and transportation of crayfish is illegal. Moving live crayfish from the location they were found is illegal and can lead to prosecution. The release of live crayfish after their capture can also lead to prosecution.

Crayfish live within watercourses, wet and ephemeral drains and can burrow within banks (burrows can be over 1m in length). When working in areas where crayfish are present there is a risk that adults, juveniles or eggs, could become attached to plant and equipment and be transported to areas with no crayfish. Larger crayfish can be easily seen; however juvenile crayfish (~0.5cm in length) are hard to see and could be trapped in soil/mud which has not been cleaned off plant or equipment.

## Scope of Works

The following procedures will be enforced as part of the MWC contract at all watercourses for both the enabling works and construction works:

- Iodine based disinfectant (e.g. FAM 30) will be sprayed on all machinery and footwear entering or leaving watercourses;
- The MWC will be required to ensure that the selected disinfectant is approved by Scottish Natural Heritage (SNH) prior to use;
- The iodine based disinfectant (e.g. FAM 30) will be allowed to dry (where possible);
- All plant and equipment will be power washed to remove mud/substrate in addition to disinfecting;
- Station wheel washes and hand held jet spray machines will be available at all watercourses;
- Particular attention will be paid removing mud/soil/substrates from plant, e.g. digger buckets, tracks, wheels, wheel arches and any hand held equipment or clothing/boots;
- If any evidence of crayfish is found during works then the relevant fisheries organisation will be contacted immediately to provide advice on any additional measures required to protect neighbouring waters, and to provide a licensed person in the event that any crayfish handling is required. Relevant fisheries organisations are:



- Nith Catchment Fishery Trust or Nith District Salmon Fishery Board for the Nith Catchment (Cluden to Lochfoot area).
- Galloway Fisheries Trust for the Urr, Kirkcudbrightshire Dee and coastal catchment.
- In addition, the Scottish Environment Protection Agency (SEPA) and SNH shall also be advised.
- Under no circumstances should live crayfish be moved from where they were found;
- Any dead crayfish found must be left on-site and not moved;
- Construction of the pipeline will progress from north to south (Cluden to Lochfoot) i.e. towards rivers known already to be infested.

The proposed pipeline route crosses five principal watercourses as listed below:

- Tributary of Lochfoot Burn;
- Bogrie Lane;
- Tributary of Bogrie Lane (originating at Beltonhill farm);
- Tributary of Cargen Water (originating at 'The Grove'); and
- Two tributaries of Maryfield Loch (originating at Cogershaw wood).

In addition to the crossings identified above there are several other watercourses within or near the pipeline corridor that may be affected by construction activity. The procedure above will apply to all watercourses crossed by the pipeline.

## Responsibilities

It is the responsibility of all parties to ensure that the above is followed when gaining entry into and between individual land plots where watercourses are encountered. Disciplinary action will be carried out on individuals who are found not to comply with the procedure.

## Requirements- Enabling Works

The enabling works consists of preparation of the working width including hedge removal and fence installation. The following procedures will to be adhered to by the MWC during the enabling works:

- Footwear and vehicle tyres/ tracks will be sprayed using an iodine based disinfectant (e.g. FAM 30) prior to and following entry to watercourses;
- All plant and equipment will be power washed to remove mud/substrate in addition to disinfecting;
- Particular attention will be paid to removing mud/soil/substrates from any clothing or boots; Chemical washing areas and pressurised spray dispensers will be positioned away from watercourses, drains and drainage channels etc to avoid spillage and potential conduits for chemicals to enter watercourses and cause pollution; and
- Empty disinfectant containers will be removed for appropriate disposal.

## Requirements – Main Construction Works

The following procedures will to be adhered to by the MWC during the main construction works:

### Foot Traffic

- All foot entry points to watercourses will have suitable foot baths containing disinfectant (e.g. FAM 30);
- All personnel being transported onto the land within vehicles will also use the foot bath;
- All plant and equipment will be power washed to remove mud/substrate in addition to disinfecting;
- Particular attention will be paid to removing mud/soil/substrates from any clothing or boots;
- A pressurised spray dispenser will be used to spray boots prior to entry and exit from watercourses whilst standing in the foot bath;
- Chemical washing areas and pressurised spray dispensers will be positioned away from watercourses, drains and drainage channels etc to avoid spillage and potential conduits for chemicals to enter watercourses and cause pollution; and
- Empty disinfectant containers will be removed for appropriate disposal.

### Vehicle Traffic

- At the access and egress points to watercourses, ALL vehicle tyres/tracks will be sprayed using a water jetter located inside a drive-through bund container to remove mud/substrate and be disinfected with an iodine based disinfectant (e.g. FAM 30). Particular attention will be paid removing mud/soil/substrates from plant, e.g. digger buckets, tracks, wheels, wheel arches;
- Chemical washing areas and pressurised spray dispensers will be positioned away from watercourses, drains and drainage channels etc to avoid spillage and potential conduits for chemicals to enter watercourses and cause pollution; and
- Empty disinfectant containers will be removed for appropriate disposal.

## Related Documentation

COSHH for the disinfectant (e.g. FAM 30) will be included in this procedure and must be approved by SNH.

## Appendix F: Gazetteer of Archaeological and Heritage Resources

RSK No.	Reference(s) HER/NMRS/LB	Coordinates (NX)	Site Name	Description	Period	Sensitivity	Impact	Significance of Impact
1	MDG16597/ NX87SE24	89992E 73951N	MILL COTTAGE, LOCHFOOT	Ruined building on 1 ed. OS	Post-medieval to 18th century	Medium	Negligible	Negligible
2	MDG16771/ NX97NW67	91199E 75271N	CLEUGHBRAE	Farmstead on 1 ed. OS	Post-medieval to 18th century	Medium	Negligible	Negligible
3	MDG16772/ NX97NW68	90700E 75082N	WATERHEAD	Farmstead? on 1 ed. OS	Post-medieval to 18th century	Medium	Negligible	Negligible
4	MDG16778/ NX97SW37	90000E 73891N	JUNA, LOCHFOOT	Farmstead on 1 ed. OS	Post-medieval to 18th century	Medium	Negligible	Negligible
5	MDG4730/ NX97NW50	91178E 75878N	COLLOCHAN	Burnt mound excavated during pipeline works 1993	Early Bronze Age to Late Bronze Age	Medium	Negligible	Negligible
6	MDG5457/ NX87SE1	89758E 73931N	MOAT OF LOCHRUTTON	Roman fortlet and associated hearths	Roman	Medium	Negligible	Negligible
7	MDG5458/ NX87SE10	89899E 73899N	MOAT HILL, LOCHFOOT	Drystone earthwork	Late Prehistoric to 18th century	Medium	Negligible	Negligible
8	MDG5459/ NX87SE11	89859E 73907N	MOAT OF LOCHRUTTON	Post-built timber structure	Late Prehistoric to Medieval	Medium	Negligible	Negligible
9	MDG5467/ NX87SE2	89630E 74462N	DRUMMORE FARM	Possible circular enclosure	Unknown	Medium	Negligible	Negligible
10	MDG6098/ NX97NW15	91392E 76429N	BEACON HILL	Hillfort	Iron Age	Medium	Negligible	Negligible
11	MDG6108/ NX97NW24	93271E 79710N	FIDDLERS FORD	Enclosure identified by aerial photograph	Iron Age	Medium	Negligible	Negligible
12	MDG6109/ NX97NW25	92100E 78601N	INGLESTON	Cropmarks visible on aerial photographs	Unknown	Unknown	Negligible	Negligible
13	MDG6121 NX97NW36	92249E 77720N	AIKIEBUSH	Possible enclosure visible on aerial photographs	Unknown	Medium	Negligible	Negligible
14	MDG6129 NX97NW7	92780E 77447N	LADYE WELL	Site of holy well	Medieval to modern	Medium	Negligible	Negligible
15	MDG6130/ NX97NW8	92679E 77354N	LADYE CHAPEL	Earthworks and chapel dedicated to St Mary	Medieval to 19th century	Medium	Negligible	Negligible

RSK No.	Reference(s) HER/NMRS/LB	Coordinates (NX)	Site Name	Description	Period	Sensitivity	Impact	Significance of Impact
16	MDG8577/ NX97NW43	92152E 78360N	COGERSHAW WOOD	Possible enclosure visible on aerial photographs	Unknown	Medium	Negligible	Negligible
17	MDG17953/ NX97NW34/10359	91830E 77994N	THE GROVE, HOUSE AND GATEPIERS	Listed building: 18 <sup>th</sup> to 19 <sup>th</sup> century mansion house	19th Century	High	Negligible	Negligible
18	MDG20709/NX97 SW57/9714	90120E 74744N	DRUMMORE FARMHOUSE, RETAINING WALL AND GATEPIERS	Listed building: 18 <sup>th</sup> century farmhouse	Late 18th century	High	Negligible	Negligible
19	N/A	91000E 75600N	N/A	Area of peat identified by BGS	Unknown	Low	Negligible	Negligible
20	N/A	90470E 75190N	N/A	Four structures visible on 1957 aerial photograph	Modern	Low	Negligible	Negligible
21	N/A	90720E 75560N	N/A	Circular cropmark visible on aerial photograph, visible as raised area during FRS	Unknown	Unknown	Negligible	Negligible
22	N/A	91060E 75580N	N/A	Watercourse marked on 1 ed. OS, drained by 1956, not visible during FRS	Unknown	Low	Small	Minor
23	N/A	91600E 75740N	N/A	Circular parchmark visible on aerial photographs	Unknown	Unknown	Negligible	Negligible
24	N/A	90690E 75950N	N/A	Gravel pit/ quarry mark on 1 and 2 eds. OS	Post-medieval to modern	Negligible	Negligible	Negligible
25	MDG26958	92440E 78520N	Carsewell	Farmstead shown on Ordnance Survey map of 1854. \\\\\\visible as large platform and bank during FRS	Post-medieval to 19th Century	Medium	Large	Significant
26	N/A	93000E 79230N	N/A	Possible palaeochannel visible as cropmark on AP; reinterpreted as hillslope during FRS	N/A	Negligible	Negligible	Negligible
27	N/A	93160E 79450N	N/A	Possible palaeochannel, visible as cropmark on AP; reinterpreted as hillslope	N/A	Negligible	Negligible	Negligible

RSK No.	Reference(s) HER/NMRS/LB	Coordinates (NX)	Site Name	Description	Period	Sensitivity	Impact	Significance of Impact
				during FRS				
28	N/A	93380E 79710N	Holyn Bush	Structure displayed on 1 ed. OS	Post-medieval	Medium	Negligible	Negligible
29	N/A	92850E 78990N	N/A	Collapsed linear stone structure (drystone wall?) located during FRS	Post-medieval	Low	Small	Minor
30	N/A	92820E 78970N	N/A	Two small cairns located during FRS	Unknown	Medium	Small	Minor
31	N/A	92000E 76980N	N/A	Track located during FRS	Medieval to modern	Low	Small	Minor
32	N/A	91590E 76300N	Collochan Bank	Bedrock outcrops located during FRS	Unknown	Unknown	Large	Moderate
33	N/A	91830E 77994N	The Grove	Non-inventory designed landscape	Low	Low	Negligible	Negligible
34	N/A	91120E 75650N	N/A	Uneven ground surface noted during FRS	Unknown	Low	Moderate	Minor
35	MDG26959	90910E 75640N	Brockholes	Farmstead shown as 'Burghholes' on Roys Map of 1755 and Brokholes on Ainslie's map of 1797. Uneven ground surface noted during FRS	Medieval to 18 <sup>th</sup> Century	Low	Negligible	Negligible
36	N/A	90110E 75030N	N/A	Line of hawthorns along possible track located during FRS	Post-medieval to modern	Low	Small	Negligible
37	N/A	89920E 74720N	N/A	Area of palaeoenvironmental potential located during FRS	Unknown	Low	Small	Negligible
38	N/A	89840E 74360N	N/A	Area of palaeoenvironmental potential located during FRS	Unknown	Low	Small	Negligible
39	N/A	91670E 76620N	N/A	Uneven ground surface noted during FRS. Possibly rig and furrow	Unknown	Low	Large	Moderate

RSK No.	Reference(s) HER/NMRS/LB	Coordinates (NX)	Site Name	Description	Period	Sensitivity	Impact	Significance of Impact
40	MDG6128/ NX97NW6	92620E 79420N	Gateside	Mound - natural feature	Unknown	Low	Negligible	Negligible
41	NX97NW13	93000E 79000N	Cluden Water	Findspot - iron spearhead	Unknown	Low	Negligible	Negligible
42	NX97NW14	93000E 79000N	Cluden Water	Findspot - flat axehead	Unknown	Low	Negligible	Negligible
43	MDG26951	92149E 77735N	Akiebush	Farmstead	Post-medieval	Low	Negligible	Negligible
44	MDG6095/ NX97NW112	92700E 77600N	Mainshead Smallholdings	Find spot – Flat axe head (Bronze)	Bronze Age	Medium	Negligible	Negligible
45	MDG6099/ NX97NW16	90200E 76000N	Barncleugh	Find spot – Whinstone perforated hammer stone and upper end of a second Whinstone hammer stone	Prehistoric	Medium	Negligible	Negligible
46	MDG21537	91210E 75360N	Clueghbrae	Find spot	Unknown	Unknown	Negligible	Negligible
47	MDG6196/ NX97SW21	90570E 74950N	Waterhead Bridge	Road bridge	Unknown	Unknown	Negligible	Negligible
48	MDG13290/ NX97SW31	90600E 74900N	Waterhead Bridge	Possible quarry	Post-medieval	Low	Negligible	Negligible
49	MDG5461	89829E 73886N	Moat Farm	Find spot	Unknown	Unknown	Negligible	Negligible
50	MDG26960	90568E 75335N	Beltonhill farm	Farmstead shown as 'Beltanhill' on Bleau's map of 1654	Medieval to Modern	Low	Negligible	Negligible
51	N/A	91220E 76210N	Beacon Hill	Boundary bank	Late Prehistoric to Post Medieval	Low	Negligible	Negligible
52	N/A	91110E 76130N	Beacon Hill	Boundary bank	Late Prehistoric to Post Medieval	Low	Negligible	Negligible
53	N/A	91490E 75730N	Collochan	Boundary bank	Late Prehistoric to Post Medieval	Low	Negligible	Negligible
54	MDG26961	92311E 76812N	Prospect Hall	Farmstead	Post Medieval to 19 <sup>th</sup> century	Medium	Negligible	Negligible





## **APPENDIX G**

### **Published Landscape Assessments: Landscape Character Types – Key Characteristics and Summary Guidelines**

#### **Characteristics of the Terregles Ridge National Scenic Area**

**Published Landscape Assessments: Landscape Character Types and Summary Guidelines**
**Table 1**
**Landscape Character Types and Units crossed by The Project**

(Taken from: *Dumfries and Galloway Landscape Assessment*, Scottish Natural Heritage Review 94, Land Use Consultants, 1998)

**Landscape Character Type and Unit: 6 Lower Dale type, Lower Nithsdale Unit; pipeline sections:**
**Key Characteristics**

- *'wide, flat or gently undulating section of the major valleys;*
- *improved pasture and arable fields of medium to large size;*
- *hedgerow field boundaries (beech and hawthorn) with occasional walls;*
- *hedgerow tree lines and tree avenues, predominantly beech and sycamore; Beech trees are an essential feature of Lower Annandale;*
- *broadleaf shelterbelts;*
- *open character, medium to long views determined by tree lines and shelterbelts;*
- *wide, meandering river channels;*
- *network of communication lines: minor and major roads and railway lines;*
- *many settlements including main towns at river bridging points, isolated developments and suburban expansion;*
- *strong 'red-earth' qualities in Annandale and Nithsdale; and*
- *archaeological features particularly Roman and medieval forts and castles.'*

**Summary Guidelines**

- *'support the reinstatement of hedgerows and the restoration of original field sizes;*
- *investigate the potential for establishing herb- rich meadows;*
- *encourage the planting of new tree lines;*
- *develop design guidance and urban expansion strategies to allow proactive responses to development proposals;*
- *support the extension of shelterbelts as a means of integrating/screening new developments; and*

**Table 1**
**Landscape Character Types and Units crossed by The Project**

 (Taken from: *Dumfries and Galloway Landscape Assessment*, Scottish Natural Heritage Review 94, Land Use Consultants, 1998)

- *seek sensitive road engineering solutions to future road improvement projects.'*

**Landscape Character Type and Unit: 16 Upland Fringe type, Cairn Unit; pipeline sections:**
**Key Characteristics**

- *'elevated rolling pastures;*
- *improved and rough grassland in close proximity;*
- *hedgerow banks and tree lines along roads in some lower areas;*
- *dry stone dykes;*
- *squared forest blocks, increasing afforestation evident;*
- *contrast between wide open areas and more intimate landform;*
- *panoramic views over valley lowlands;*
- *small bridges over incised burns; and*
- *iron age fortifications.'*

**Summary Guidelines**

- *'support further planting of beech and hawthorn hedgerows and of tree lines especially along roads;*
- *maintain stone wall boundaries, reflecting where appropriate, local styles;*
- *forest proposals should be guided to achieve medium-scale informal patterns of forest and mixed woodland, well integrated with open space and valley woods;*
- *restoration of derelict buildings should be done with reference to vernacular tradition, using where appropriate local crafts and styles;*
- *careful siting of new development is required; the use of local materials and colours in new building projects should be encouraged; and*
- *planning policies should indicate that small-scale, wind-power development may be suitable in restricted [viewshed?] areas away from highly visible hill flanks."*

**Table 1****Landscape Character Types and Units crossed by The Project**

(Taken from: *Dumfries and Galloway Landscape Assessment*, Scottish Natural Heritage Review 94, Land Use Consultants, 1998)

**Landscape Character Type and Unit: 13 Drumlin Pastures Type, Milton Unit; pipeline sections:****Key Characteristics**

- *‘smooth, convex slopes of improved pasture, grazed by sheep and cattle;*
- *localised rugged knolls with gorse; and*
- *medium scale fields with prominent wall and hedgerow patterns accentuating topography.’*

**Summary Guidelines**

- *‘conserve and restore field boundary walls and hedgerows;*
- *identify opportunities for re-establishing herb-rich pastures;*
- *encourage broadleaf woodland management and small-scale planting schemes;*
- *encourage the sympathetic restoration and re-use of redundant buildings in the countryside;*
- *provide special planning guidance and control for development sites in individual villages;*
- *avoid severance of drumlin landforms in future road routeing; and*
- *some very limited search potential for wind power development.’*

**Table 2**
**Characteristics of the Terragles Ridge RSA**

(Taken from Dumfries and Galloway LDP Technical Paper )

**Description**

*‘Terregles ridge contains and forms the western setting to Dumfries, separating the Nith Valley from the contrasting drumlin landscapes stretching west to Castle Douglas. The designated area is based on the northern section of the Nith Estuary and Criffel Uplands RSA, but has been differentiated because it has its own separate character, identity, and reasons for designation.*

*The area under designation has been amended to follow the foot of the ridge between the two lowlands, and to reflect the visual envelopes of Glenkiln and the lower Cairn and upper Cluden valleys, to the north and west of which the topography becomes gentler and the landscape less varied.*

*The ridge is dissected by the Old Water and other tributaries of the Nith to create a very diverse landscape of transitional uplands and steep-sided valleys concentrated within a small area. It is criss-crossed by lanes serving scattered farms and hamlets, and traversed by major through routes. It is readily accessible from the adjacent, well-populated lowlands and forms part of the setting to Dumfries and the Drumlin Pastures to the west. Within the designated area, each of the three contrasting landscape types exhibits its own internal diversity. The Upland Fringe has an attractive knolly topography with areas of enclosed, improved pastures and rough grazing, interspersed with gorse knolls and scattered woodlands, whilst the Foothills have a wilder landscape of open heather moorland, bracken and rock outcrops. The Intimate Pastoral Valleys include the valley floor pastures and arable lands of the Cluden, which are flanked by a mosaic of grasslands, heather, bracken, native woodlands and plantation forestry, as well as the wild moorland landscape of Glenkiln reservoir with its sculptures, and the steep-sided, wooded, lower Cairn valley.’*

**Landscape Character Types and Units**

*Intimate Pastoral Valley (5) Type Cairn and Old Unit: Old Water, lower Cairn and upper Cluden Water valleys, where a concentration and juxtaposition of diverse valley and upland landscapes are found within a small area*

*Upland Fringe (16) Type, Cairn and Terregles Units. Sections, which form the western setting to Dumfries and the prominent ridge between the Nith valley and the Drumlin Pastures to the west, plus the flanks of the above valleys*

*Foothills Type (18) Dalmacallan Unit: Bishop Forest Hill Unit and western flanks of Glenkiln and Barbuie Burn valleys where steeper slopes of attractive, rocky heather moorland are juxtaposed with varied valley landscapes*

**Table 3****Characteristics of the The Grove non-inventory HER GDL**

(Taken from Dumfries and Galloway Historic Environment Viewer )

**Description**

*'Designed landscape associated with the late 18<sup>th</sup> Century house the Grove and its successors.'*

*The historic garden and designed landscape consists of Drummond House which is a country house and Grove Auxiliary Hospital surrounded by parkland to the north and east with scattered individual deciduous trees and areas of dense mixed woodland along the south and south-east boundaries. In addition the designation includes Cogershaw Wood with Garden Cottage located within and a tree lines access track to the cottage that divides the open parkland into two parts. Local paths cross diagonally within Cogershaw Wood as well as tracks located close to the east boundary where views east are filtered by mature hedgerow trees along minor road as well as tracks along the west boundary with views out to the west and north-west.*

**Landscape Character Types and Units**

*Upland Fringe (16) Type, Cairn Unit. Section, which form the western setting to Dumfries and the prominent ridge between the Nith valley and the Drumlin Pastures to the west.*