

Appendix IV

DRAFT Site of Special Scientific Interest management plan

Artilligan and Abhainn Srathain Burns SSSI

Start date of plan: TBC

End date of plan: TBC

Supporting Documents

Annex 1 – map of extent of scheduled area (at 1:10,000 scale) including Forestry and Land Scotland area of ownership/management and existing and planned forest roads.

Annex 2 – Aerial photograph of extent of scheduled area (at 1:5,000 scale) including all of the above information.

Annex 3 – Map of the extent of the scheduled area (at 1:10,000 scale) including the felling years of the coupes adjacent to the site.

Annex 4 – Citation (last updated March 2010).

Annex 5 – List of Operations Requiring Consent.

Annex 6 – Site Management Statement (last reviewed March 2010).

Description

A full description of the site can be found within the citation and site management statement.

This SSSI consists of 2 separate areas, the Artilligan Burn section and the Abhain Srathain section, designated for upland oak woodlands. Both of these comprise deeply cut wooded gorges, with coastal oak and birch woodlands with a well developed hazel and holly understorey. The woodland canopy varies across the site with oak dominating the lower slopes and birch increasing upslope. Alder and willow carr is found on the lowland marshy ground adjacent to the burns. Ash and elm are locally dominant in the base rich areas of the site.

The woodland supports a rich ground flora including an abundance of mosses, liverworts and ferns. Notable species of fern include hay scented buckler fern, filmy fern and beech fern. The boulder-strewn, bryophyte-rich lower slopes of the Artilligan section grades into heathland on the upper slopes. Bracken has dominated some of the glades and open areas. Other glades and open areas include species-rich bog in which pale butterwort occurs.

The abundance of both standing and fallen dead wood on the site creates an important invertebrate habitat. There are many wood ant nests throughout the woodland, some up to 1 metre high.

Long Term Management Aims

1. Maintain and enhance woodland
2. Maintain assemblages of lower plants

Management Objectives

1. Maintain and enhance woodland.

- Control rhododendrons, non-native and other non native species during the timespan of this plan.
- Prevent re-colonisation and re-growth of non-native species in areas where they have been cleared
- Monitor and work with the deer management team to monitor deer pressure.
- Continue culling deer within the SSSI boundaries and on land adjoining the SSSI
- Expand the native woodland resource where ecologically and economically possible by fencing a wider area of Artilligan including buffer zone between productive softwood and the SSSI and potentially including some of the private land to the north if agreement reached with neighbouring landowners.
- Where the existing native woodland resource allows, to create native woodland habitat networks within the wider forest matrix, as far as is consistent with the required forest-wide balance with timber production, landscape and recreation objectives, focusing especially on riparian corridors.
- Promote natural regeneration in open areas.

2. Maintain assemblages of lower plants

- Maintain suitable habitat for bryophytes.
- Leave the wood of all native trees to supplement the deadwood resource.
- Promote the deadwood reserve on clearfells opposite the SSSI's and along riparian corridors.
- Protect ferns from spraying operations.

Designated Sites covered by this Plan

Designated Site Name	Site Code	Site Type	Total designated area (ha)	% on NFE
Artilligan	92	SSSI	47.47	78
Abhain Srathain	92	SSSI	13.75	89

Features on the NFE and condition

Feature description:

- Upland Oak Woodlands

SCM Condition (Date assessed):

- 21 October 2008

Condition on NFE:

- Favourable/Recovering

Pressures and proposed actions

Site Type	Feature description	Pressures	Proposed action	Timescale	Map highlighting work & other key limiting factors
SSSI	Oak Woodlands	Regeneration of Oak Woodlands	Remove <i>Rhododendron ponticum</i> and other invasive non-native plants. Prevent re-colonisation and re-growth of INNS in areas where they have been cleared, via spraying and removal of seedlings. Consider native seed collection and growing on from within the SSSI boundary to ensure a suitable supply of saplings to restock the site and boost regeneration. Fell two productive coupes of Sitka spruce, bordering and within Abhainn Srathain. Restock with trees deemed sufficiently non invasive to prevent any spread of invasives into the SSSI.	On-going through the lifetime of this plan On-going until complete control is achieved On-going through the lifetime of this plan Coupe is planned to be felled in 2026/27	

Site Type	Feature description	Pressures	Proposed action	Timescale	Map highlighting work & other key limiting factors
			Remove regenerating Sitka Spruce, non-natives and Rhododendron from broadleaf/open ground area on the northern bank of Abhain Srathain Burn outwith the SSSI to remove seed source and protect the broadleaf interest within the SSSI.	Every 5 years. Next clearance 2030	
		Deer Grazing	Complete Habitat Impact Assessments to monitor herbivore grazing pressures set the level of stalking effort required to allow significant increases in broadleaf natural regeneration. Investigate options for erecting deer fence along southeastern boundary of Abhain Srathain Burn SSSI to minimise the effects of deer grazing. Investigate options for erecting deer fencing around the boundary of Artilligan SSSI, extending into	Every 2 to 3 years, during winter season. Within the lifetime of this plan Within the lifetime of this plan	

Site Type	Feature description	Pressures	Proposed action	Timescale	Map highlighting work & other key limiting factors
			the current buffer zone where possible.		
	Wood Ants	Over shading and lack of management	Carry out focused wood ant surveys within SSSI and within the forest block to inform future management recommendations.	Within the lifetime of this plan	
	Mosses, Liverworts and Ferns	Lack of suitable habitat	Where timber production, landscape, recreation and existing native woodland resources allow, create broadleaf woodland habitat networks within the wider forest matrix focusing in particular on riparian corridors. Leave the wood of all native trees to supplement the deadwood resource	LTP is under review currently and this objective has been incorporated into restocking plans. As and when management occurs.	

Operations that could impact on the designated features on the NFE

Operation Type	Detailed description of operation and method	Mitigation measures to be applied	Timing	Map reference & other relevant comments
Clearfell	Coupe 27024 in programme year 2026-27 (see Annex 3). A portion of this coupe (~ 1.74 ha) is within the designated area, and the conifers will be cut and extracted from this area. This coupe continues into the area adjacent to the SSSI boundary. Coupe 27034 in programme year 2026-27 (see Annex 3). A portion of this coupe (~ 0.3 ha) is within the designated area, and the conifers will be cut and extracted from this area. This coupe continues into the area adjacent to the SSSI boundary.	Forests and Water Guidelines will be applied. All conifers which are accessible to safely harvest will be felled and removed. If there are any exception to this, these will be agreed with NatureScot, this could include; • Trees being killed standing and left as a deadwood resource • Trees being felled to waste and left as a deadwood resource • Inaccessible trees being left in situ		

Operation Type	Detailed description of operation and method	Mitigation measures to be applied	Timing	Map reference & other relevant comments
		The route of the extraction rack will be agreed with H&M forester and NatureScot at the time of the works.		
Rhododendron control – 6: application of pesticides 8: burning of vegetation 11: destruction or pruning of any plant	Rhododendron control will be carried out in line with the Forestry Commission Practice Guide “Managing and Controlling Invasive Rhododendron” C. Edwards, 2006.	Spraying will be targeted to cut stumps and regrowth to avoid damage to native ground flora. Spraying will only be done on days with light wind to avoid the risk of spray drift. Burning sites will be assessed to avoid areas of high ground flora or lower plant interest.	During the course of this plan	
Conifer restock – 9: introduction of any plant or seed	Inappropriate choice of species planted close to the SSSI, acting as a seed source for non-native to invade. Maintain a 200m buffer free of Sitka spruce, Western hemlock, Cypresses and most Fir species around the SSSI area.	Ensure restock choices are checked and deemed sufficiently non-invasive to prevent any invasion from non-natives	At the time of felling adjacent coupes and through LTP revisions.	
Exotics removal - 11: destruction or pruning of any plant	Fell conifer coupes which are adjacent to, or slightly within, the SSSI as per Annex 3. Fell individual conifers growing as regen.	Minimise damage to native trees during operations. Survey for protected species before felling commences.	As per Annex 3, and during the plan for	

Operation Type	Detailed description of operation and method	Mitigation measures to be applied	Timing	Map reference & other relevant comments
			individual tree removal.	
Deer fencing – 21: construction of tracks, fences etc.	Investigate the possibilities of deer fencing Artilligan Burn in conjunction with neighbouring landowners, or if no agreement reached, along edge of FLS ownership. Fence the FLS landownership boundary to prevent deer ingress from the south.	Final fence lines to be discussed with NatureScot	Within the lifetime of this plan.	

Appropriate Assessment/s undertaken on work contained within the FDP

Approvals, agreements & signatures

I confirm that the above management plan which covers the section of Artillian and Abhainn Srathain Burn SSSI (Site code 92) within Forest Design Plan South Knapdale contains the necessary detail, content and mitigation measures to comply with the statutory requirements contained within the Nature Conservation (Scotland) Act 2004 and in particular in relation to Part 2, Chapter 1, Section 14 (d), which covers consents via an agreed management plan (i.e. “SNH’s consent under section 13 is not required in relation to carrying out an operation of the type described in subsection (1) of that section –(d) in accordance with the terms of a management agreement between SNH and the public body or office-holder carrying out the operation”).

SNH Signature Date

SNH Name

SNH Job Title

Address.....

Email

Contact telephone number

FLS has a corporate requirement under UKWAS (5th edition) and under the FCS Framework Document for FES (2010) to manage all designated sites in accordance with plans approved by the statutory authority, I therefore sign below to approve the contents of this plan in relation to the designated site Artilligan and Abhainn Srathain Burn SSSI that falls within its boundary on the NFE.

FLS Signature Date

FLS Name