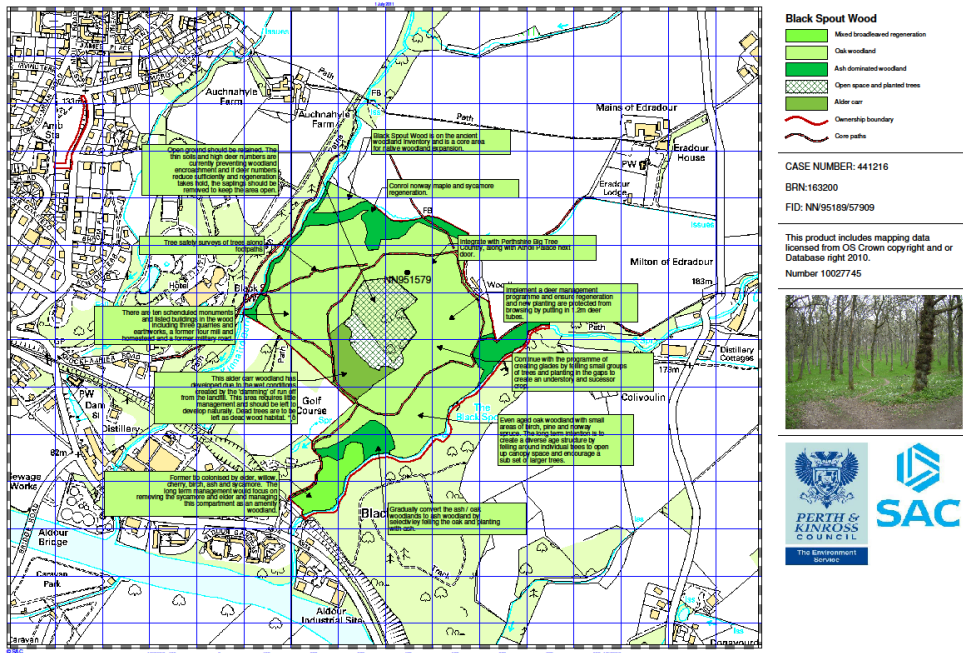


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**PERTH AND KINROSS COUNCIL FOREST PLAN (Black Spout extract)
2015 – 2035**

34 Black Spout Wood

34.1 Location and Background



Property

The site is part-owned by Perth and Kinross Council and part-leased from Pitlochry Estates. The Forest Plan has been written by Friendly Forestry Ltd and Perth and Kinross Council is the payee for any grant monies.

Location and Area

Black Spout wood is located at the south eastern end of Pitlochry Estates on the slopes of Tummel Valley and covers an area of 21.9 ha of which 18.4 ha is owned by the Council and 3.5 ha is leased from Pitlochry Estate.

Altitude

At its highest point the Wood is at 140 m above sea level – the lowest is 90 m above sea level.

Soils

The soils are predominantly brown forest soils that are freely draining with some small gleyed pockets throughout the wood.

History

The wood is clearly seen on the 1755 maps and remains a wood on all the maps until present day, making it one of the oldest mapped woodlands in Perthshire. It has therefore been permanently wooded for at least 250 years. It is categorised as ancient semi-natural woodland.

The following features are apparent from the 1862 and 1899 maps.

- The extent/boundaries of the woodland are very similar to the present. The dykes shown at the boundaries of the property are still visible today.
- There is a small clearing in the wood west of Woodhouse.
- In 1862 there is a Farina Mill at the entrance to the wood presumably powered by Edradour Burn.
- In 1899 the Farina mill has gone and is replaced by Aldour Quarry (plus several 'old quarries').
- In 1862 the following tracks through the wood exist: down from Woodhouse; up beside the Edradour Burn to Black Spout; and from Coilvoulin to Woodhouse via a ford above Black Spout. By 1899 most of the main paths in the wood are present, except in the lower (leased) part of the wood which is occupied by Aldour Quarry. This suggests a period of path creation coinciding with the building of the major hotels in Pitlochry.
- The area in the centre of the wood currently occupied by the landfill site is scattered large conifers with a large element of open space i.e. little deciduous woodland.
- Larger deciduous trees are confined to near the entrance and occasional ones beside the Kinnaird Burn. There are no obvious signs of 'standard trees' having been left in the coppice crop.
- The oak coppice is well stocked except for a strip running up the wood to the north of the tip, which has many gaps.
- The powerline wayleave is apparent.⁵

History of Timber Management

The wood appears to have been last cut in about 1915 and the trees are about 95 years old. Following this cutting, the coppice shoots were singled to give a wood which now has largely 'maiden' trees rather than multi-stemmed coppice trees. Thinning may have been carried out in the first half of the 20th century, but the wood does not appear to have been thinned in recent decades. This history is similar to most local oakwoods. Since 1989 there

⁵ taken from the Black Spout Wood management plan 2008 - 2021

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has been a useful programme of management aimed at diversifying the structure and composition of the wood.

In the 18th and 19th centuries the wood would have been managed for tanbark and coppice poles – usually on a cycle of 20 to 28 years. Establishment of such woodland usually took the form of ‘enhancing’ and expanding existing oakwoods – a process in which oak monocultures were cultivated by cutting out other species and planting oak onto ‘non-oak’ (usually ash woodland) sites.

History of Quarrying

Quarrying of stone and gravel in the southernmost part of the wood appears to have started between 1862 and 1874 to supply stone for buildings being erected in Pitlochry following the arrival of the railway. Some of the stone for the Atholl Palace Hotel is known to have originated here; likewise sand and gravel for the construction of the railway northwards to Inverness. In 1957 a second quarry was developed in the centre of the wood extending to 2.2 ha, with the primary aim of providing a landfill site for the town of Pitlochry.

History of Tipping

The area near the entrance (Compartment 12) was used both formally and informally as a tip starting around the turn of the century and is referred to as the ‘Victorian tip’. This has never been restored (though it was landscaped in 1989), but has been allowed to revegetate naturally; a process which has only been partially successful. The area is still visited by bottle collectors, causing unsightly erosion. The landfill in the centre of the wood (Compartment 6) operated from 1958 until 1987 – and regularly saw 15,000 tonnes of domestic and trade waste being dumped annually. Starting in 1988 it was restored under a joint initiative between the Council and local community interests. This involved addition of topsoil and planting with a mixture of broadleaved trees.

The wood has a long history of settlement as demonstrated by the homestead site located on the edge of the Edradour Burn. This is a circular enclosure of around 20 m in diameter bounded by a stone-built wall that would have contained substantial timber buildings. Such settlements usually date to between the late Iron Age and the Early Medieval period.

Community Interest

There is a high level of interest and usage of the site. The paths are well used and form part of the Core Path network. The Iron Age homestead was excavated by volunteers from the Heritage Trust. Interpretation of the history of the site should be installed.

Stakeholder Engagement

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A community consultation meeting was held on 21 May 2013. No comments were made and no comments were submitted online in response to the concept map. From the correspondence received, SEPA and the RSPB asked for UKWAS guidelines to be followed. The Scoping Report is attached as Appendix A.

Long Term Vision

The long term vision is for an attractive native woodland that is well used by the public.

Management Objectives

- 1) To increase structural diversity by selective thinning.
- 2) Increase tree species diversity and encourage a shrub layer.
- 3) Control Norway maple and sycamore.
- 4) Sell some of the better quality oaks.
- 5) Control invasive ground flora.
- 6) Enhance the recreational potential of the wood.
- 7) Enhance the appearance of the wood.
- 8) Increase interpretation.

Site and Species Descriptions

The woodland can be categorised into three distinct areas:

- 1) Ancient semi-natural woodland (82% of area).
- 2) Recently planted broadleaved woodland on the landfill site (12% of area).
- 3) Areas of naturally seeded trees and shrubs on the smaller areas of tipping near the entrance (6% of area).

Ancient Semi-natural Woodland

Ancient semi-natural woodland extends to 16.8 ha and accounts for 82% of the area. The woodland comprises largely oak-birch woodland (W11, a little W17 – National Vegetation Classifications); with a little ash woodland (W9) and alder-ash wet woodland (W7) in hollows and along watercourses.

Oak-birch woodland occurs across almost the entire wood. The canopy is oak-dominated, with a small but noticeable component of birch. Other native tree and shrub species include: aspen, occasional ash saplings, hazel and broom. Hazel and broom are found mainly on steep slopes beside the watercourses, presumably where grazing pressure is less. Rowan and holly occur mainly as seedlings. There is a scattering of large old Scots pine and Norway spruce.

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The trees appear to be in fairly good condition, though they have small crowns and correspondingly small diameter stems as a result of the relatively high stocking levels. The lack of larger trees reduces the ecological value of the wood because trees with spreading crowns provide micro-habitats for epiphytic plants, lichens and deadwood invertebrates as the trees age. There is very little standing deadwood and regeneration is generally unsuccessful.

There are a few small areas of group felling and thinning which were done under the previous woodland plan to provide possible sites for establishing young trees and shrubs to give greater age diversity). Species planted included Scots pine, hazel, holly, rowan, birch, and cherry although many of these have died.

A small area of oak and ash woodland to the south west of the site, and the ground flora, suggests that this used to be a predominantly ash woodland. There is also some elm, goat willow, bird cherry and hazel. There are also some polestage sycamore trees, some of which are seeding.

Alder-ash woodland (W7) developing into an alder carr woodland occurs in two small patches of seasonally waterlogged level ground beside the Kinnaird Burn. Alder trees also appear sporadically at the margins of the Edradour and Kinnaird Burns.

Planted Woodland on Landfill

Some planting took place on the restored tip in 1989 and a large number of these have died. An area has also been left as open ground. Some regeneration is taking place, especially willow and alder.

Naturally Seeded Trees and Shrubs on Victorian Tip Areas

The area has an uneven cover of shrubs and trees including: elder (which is widespread), goat willow, bird cherry, silver and downy birch, sycamore, ash, and aspen. In addition hazel and cherry have been planted near the car park. Most of these trees are fairly young (20 to 40 years).

Figure 21: The Oaks at Black Spout Wood



Figure 22: The Former Tip



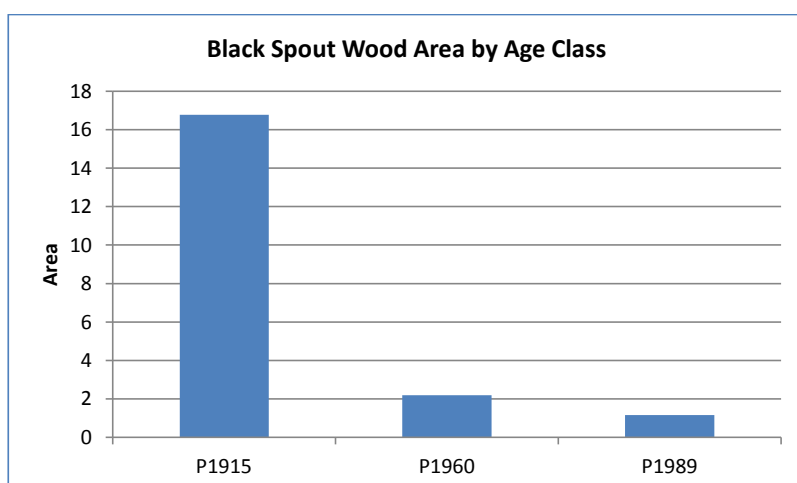
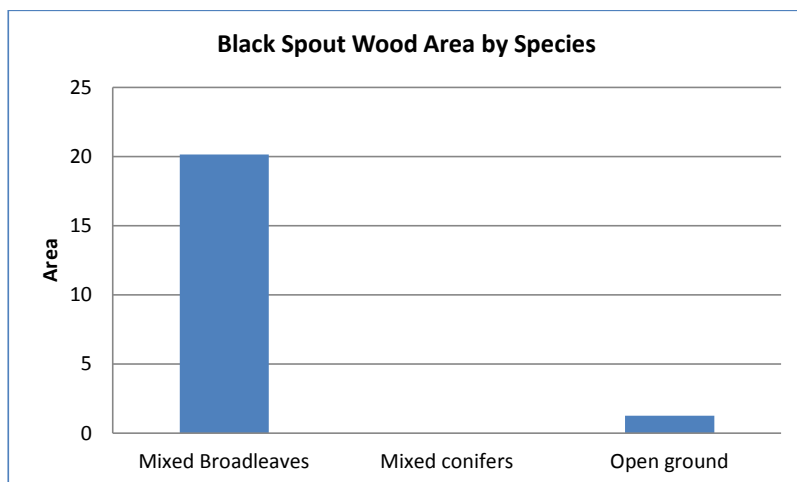
Stand Data

The oak stands are about 95 to 100 years old and are uniform in age and with little variation in size – though larger trees occur in places where the stocking is lower. The stands are generally well stocked, though there are occasional gaps. Trees are generally 20 to 24 m tall with diameters mainly in the range 25 to 40 cm (averaging close to 30 cm) but

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with a scattering of individual trees up 50 to 60 cm. It is relatively slow growing (Yield Class 4).

Woodland type	Species and woodland type	Compartment Number	Area (ha)	Yield Class	Percentage	P year.
Ancient semi-natural woodland	Oak – birch (W11)	2a	7.11	4		1915
	Oak-birch (W11, some W17)	4	6.12	4		1915
	Ash (W9)	5a	0.83	6		1915
	Ash (W9) with oak overstorey	2b, 2c, 5b	1.58	6		1915
	Alder carr	3	1.15	4		Unknown
<i>Total</i>			<i>16.79</i>		<i>82%</i>	
Planted native woodland on landfill	Oak, birch, hazel, ash, poplar, alder	6a	1.54	4		1989
Regeneration/planting beside landfill	Alder, goat willow, downy birch	6b	0.66	4		1989
Open space on landfill		6c	0.25	4		
Total planted on landfill				2.54	12%	
Naturally seeded native trees and shrubs on Victorian tip	Elder, birch, goat willow	1a	0.54			c.1960
	Elder, bird cherry, sycamore, ash, alder	1b	0.61			c. 1960
<i>Total</i>			<i>1.15</i>	<i>6%</i>		
<i>Total</i>				<i>20.39</i>		



Survey Data

Two surveys have previously been undertaken: flora (including mosses and liverworts) in 2008 and birds and mammals also in 2008. These are attached as Appendix B.

34.2 Analysis of Constraints and Opportunities

Landscape

The woodland does not have any landscape designations on it, although it is an attractive feature on the landscape. The SNH Landscape Character Assessment for the area considers the mosaic of woodlands and agricultural land to be a key feature. Black Spout Wood is not

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visible from Pitlochry town and is partly visible from Dunfallandy, the Fonab Caravan park and the section of the A9 as it crosses the Strath.

The main landscape challenge will be to increase the area with a varied age structure, whilst maintaining the open feel of the woodland. In addition, views out to the surrounding countryside should be maintained and there are five key viewing sites within the wood that should be kept free from undergrowth and regeneration. These are marked on the concept map.

The management proposals will have negligible effect on the landscape value of the wood due to the small scale works proposed and the long timescales the work will be undertaken over.

Archaeological

There are three historic monuments in Black Spout Wood:

Black Spout Homestead (NGR: NN 9523 5768)

1. Farina Mills (Flour mill) (NGR: NN 95063 57590).
2. Aldour Quarry / Black Spout Wood Quarries (Sandstone5 quarry) (NGR: NN 95204 57645)

Along with the waterfall, two dams and the bridge from the hotel which are RCAHMS sites.

Ecological

The woodland is a climax oak woodland and as such supports a wide variety of ground flora, lichens, mosses, invertebrates and birds and mammals. This is to be maintained, and enhanced, by creating a slightly more varied age structure in the oaks.

Herbivore

Squirrels (both grey and red) are present in the wood and there is a significant population of roe deer. There are also foxes and rabbits resident in the wood.

The deer cause significant damage to the young trees and are preventing regeneration and limited in the aim of having a varied age structure. Deer numbers will be controlled as discussed with SNH.

Social

There are few anti-social problems here. A small amount of litter is left on site.

Public Access

There is a high level of public access, both as circular walks within the wood and as a part of longer walks that cut through the wood. The paths are of a fair quality, and three have been

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designated as Core Paths, although there are no 'all ability' paths within the wood. There is a public car-park at the entrance to the wood.

34.3 Links with Scottish Forestry Strategy

Theme	Aims	Priority
Climate change	The oaks that are felled should be used as beams or furniture and will therefore retain the carbon within, however as this is a climax wood at the point of maximum mean annual volume increment the carbon sequestration plateaued.	Low
Timber	Oak wood is attractive and attracts a high premium, with trees that are suitable as oak beams getting the highest prices. The amount felled will be low, at most 10 m ³ year.	Medium
Business development	The site is well used by visitors and locals and adds to the attractiveness of Pitlochry. Many people visit the area for the landscape and the views and Black Spout wood is a key landscape feature.	Medium
Community development	There are a number of local naturalists who enjoy and study the woods.	Low
Access and health	Walking in the woods is good for mental and physical health and the network of paths through the wood makes it an interesting place to spend time in.	Medium
Environmental quality	The interception of precipitation reduces surface run off and reduces the risk of flooding downstream. Woodlands also absorb noise and the audio impact of the A9 will be reduced by the presence of the woodland.	Medium
Biodiversity	110 species of ground flora and 17 ferns and horsetails have been recorded on the site. W11 (Oak woodlands) are a key habitat in the UK Biodiversity Action Plan and this type of oak woodland is a climax woodland with a strong associated woodland floral community.	High

34.4 Links with other Council Policy

Perth and Kinross Corporate Plan

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The management of Black Spout Wood as an attractive, accessible, ecologically important woodland that also provides some high quality timber for local markets helps the Council achieve objective three of its corporate plan: to build a prosperous, sustainable and inclusive economy. In addition it also provides a natural space for exercise and community interaction which supports objective five: to support a confident, active and inclusive community.

Perth and Kinross Community Plan

Of the three key aims of the Community Plan, building a vibrant and successful area is at the heart of the management of Black Spout Wood. It supports tourism, increases the desirability of Pitlochry as a place to live and will provide local timber merchants with a supply of locally grown oak.

34.5 Silvicultural Policy

To continue managing the wood as a continuous cover oak woodland.

Management objectives are:

- To increase structural diversity by selective thinning.
- To also encourage appropriate sub species such as ash, rowan and pine.
- To control Norway maple and sycamore.

Standard Forestry Practice

Oak stands of yield class 4 usually reach the age of maximum mean annual increment at around 95 years. This point defines the maximum average rate of volume increment which a stand of trees can achieve. At this point, in theory, if a stand of trees were repeatedly felled, and replanted there will be no loss of site productivity. This site is not to be managed on a clear fell regime, so we then have to consider thinning.

Good practice is to first thin oaks when they reach around 10 m top height and to take out around 70% of the yield annually. 70% of the yield is regarded as the marginal thinning intensity which is the maximum annual volume/ha that can be taken out without incurring any loss of cumulative volume production.

As the stand has been thinned in the past, but there are no records of the volumes taken out, it should be managed to this standard practice in order to maintain the integrity of the timber in the wood.

This would mean that around 14 m³/ha should be taken out on a five year thinning cycle. However, because the oaks are fairly widely spaced and a heavy thin would probably be unpopular with visitors/users of the wood this should be reduced to 6 m³/ha. By doing this

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not only is Black Spout Wood being managed for what it was originally planted for, but it also achieves the other management objectives at the same time.

Felling and Thinning

With an average dbh of 30 cm (and volume of 0.6 m³), approximately three mature oak trees should be removed per hectare every five years. This is around 40 trees in total. Trees of good form should be selected and the operation should be managed as an open market standing sale with the trees to be felled marked beforehand. If possible, selling the wood as firewood/biomass should be avoided.

Around 15 sycamore trees should also be taken down per felling period.

All forest operation should be managed in line with UKWAS guidelines.

Due to the uncertainties over the Chalara outbreak, the oak overstory in the ash woodland areas should not be removed. These areas should be left to develop naturally with little intervention

Restructuring and New Planting

The gaps created should be replanted with oaks grown from acorns collected on site. This could be a community activity undertaken with local schools/scouts/guides. In the spaces of each felled tree, three oaks should be planted and protected with 1.2 m tree shelters and stakes.

34.6 Work Plan

Activity	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Collect and grow on acorns.											
Selectively fell 6 m ³ /ha from comps 2a and 4.											
Remove sycamore.											
Plant/protect											

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Activity	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
regeneration of oak, pine and rowan.											
Remove rubbish and any tree shelters that are no longer required.											

34.7 Production Forecast

Year	Oak	Sycamore
2013	0	0
2014	0	0
2015	25 m ³ *	10 m ³
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	25 m ³	10 m ³
2021	0	0
2022	0	0
2023	0	0

* Overbark