

Kilpatrick Hills Forest Design Plan Appendices

Scottish Lowlands Forest District

Kilpatrick Hills

Forest Design Plan – Appendix VI

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Appendix VI(iv) Kilpatrick Hills & Surrounding Area Strategic Framework

Appendix VI - Related Documents

In addition to those reports included here, the following documents have been referenced within this design plan:

- Glasgow & Clyde Valley LCA 5.1 Landscape Character Types
- Glasgow & Clyde Valley LCA 5.21 Rugged Moorland Hills
- West Dunbartonshire Local Development Plan Proposed Kilpatrick Hills Local Landscape Area – Draft Statement of Importance
- FES Environmental Guidance Note 4 ‘Stopping Damage by Hares to Trees’
- SLFD Deer Management Strategy 2014

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Appendix VI(i) Gavinburn Native Woodland Advisory Report

Gavin Burn – native woodland advisory report

Present

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Date: September 21st 2012

Woodland and open ground characteristics

The dominant feature of this acquisition is the Kilpatrick Braes, an east-west ridge above Old Kilpatrick supporting the remnants of a Long-Established Plantation Origin woodland. The first edition map (figure 1) shows an extensive area of plantation and this can be compared with the current extent in figure 2. The old head dyke of the LEPO can still clearly be seen on the ground and the aerial photograph. The Roy map (figure 3) suggests some open riparian woodland. Site evidence reflects the impression given by both maps in that there are a variety of exotic trees across much of the Braes; i.e. Scot pine, European Larch, Beech and most notably, old Hornbeam, some of which are characterful veteran trees (see picture 1). However, underlying this is a framework of old native trees, some of which are no doubt contemporaneous with the plantation but others which appear to date back to pre-existing “ancient” woodpasture, the seed sources for which are probably that woodland shown on Roy. Old ash and oak trees with swollen basal burrs indicate a long period in a grazed landscape (see picture 2a and 2b). There are many “phoenix trees” across the Braes which provide an important mechanism for vegetative regeneration, additional niches for epiphytes and invertebrates and attractive features for visitors to the woodland (Pic 3). Similarly, there are a number of “air” trees; regenerating in the crown of other living trees and deadwood (Pic 4). There is abundant deadwood in some localities and, given the “over-mature” condition of many of the Beech, volumes of deadwood are likely to increase significantly over the coming decades (Pic 5).

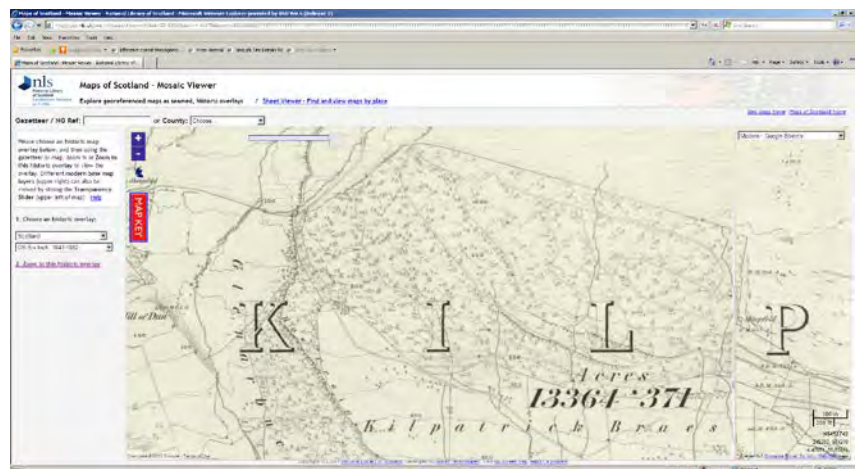


Figure 1 First Edition Map

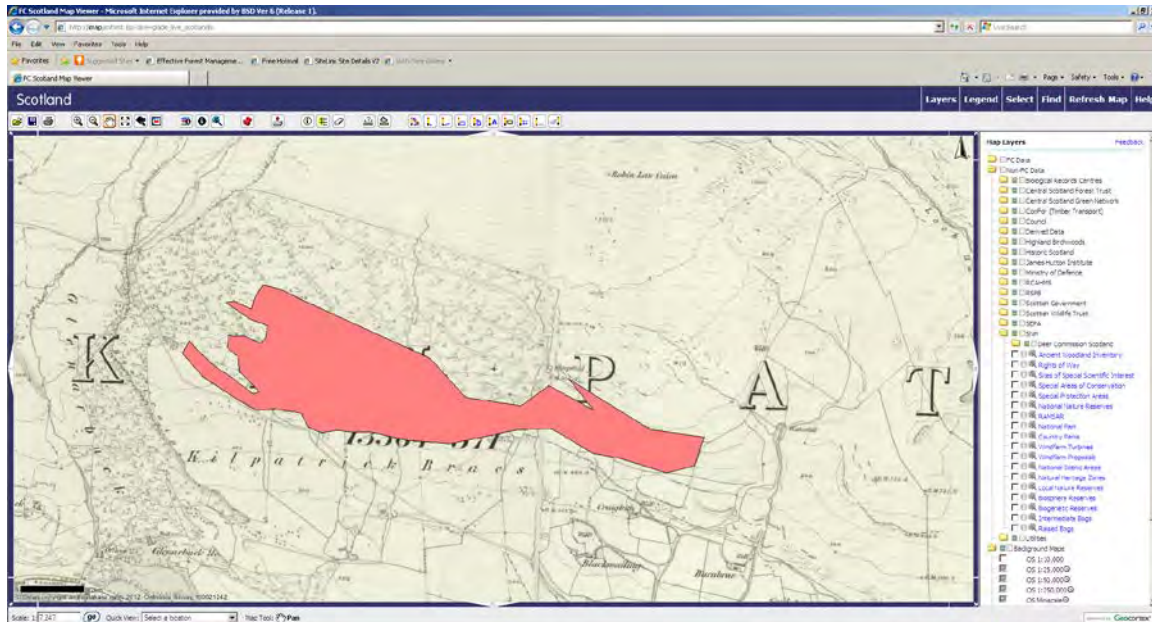


Figure 2 First Edition map overlain with polygon of remnant area of LEPO

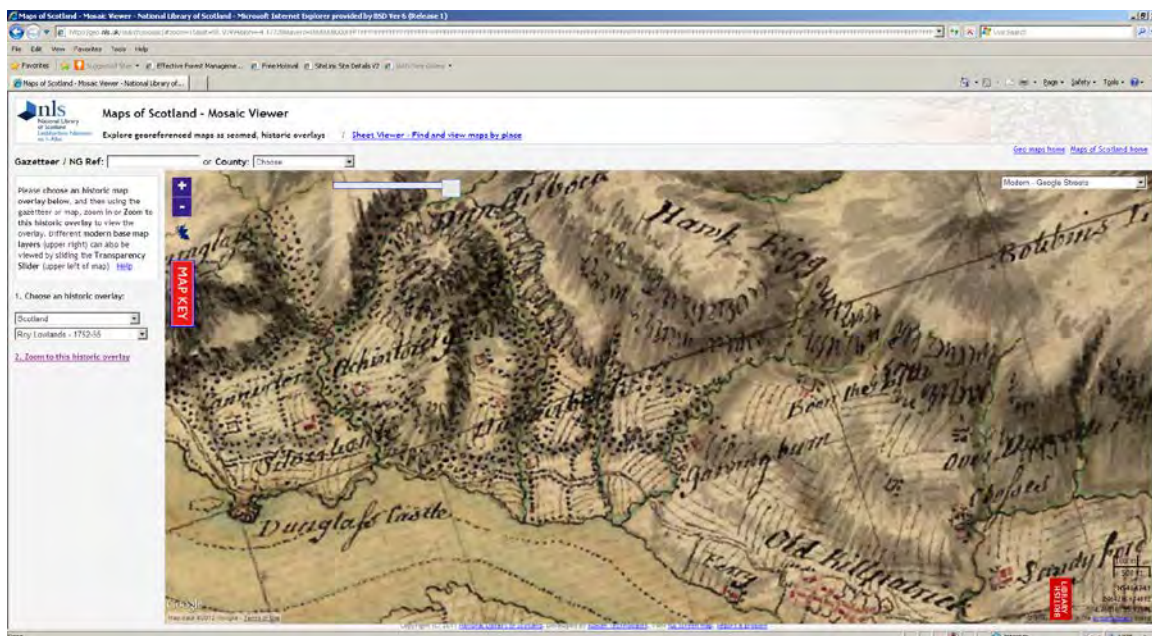


Figure 3 Roy Map

The remaining trees on the Braes generally have an open canopy and afford views to the crags within the woodland and extensive views out over west Glasgow and the Erskine Bridge. The old trackway leading up through the Braes is obviously well used by walkers, with abundant paths leading off it. The crags themselves (Pic 6) have abundant Common Polypody ferns as well as Black Spleenwort, Wood Sage, Barren Strawberry etc. Many of the more interesting old native trees are associated with the

crag and water courses/wet flushes (as are a cohort of younger, presumably naturally regenerated native trees) but there are several notable old oaks (both species and intermediates) on more even ground (Pic 7). Within the woodland are regular terraces dominated by bracken. To the east of the LEOP and above (i.e. the remaining area occupied by plantation on the first edition map) are more extensive open bracken banks (Pic 8).

Above the bracken banks are exposed plateaus and rolling hills of heath and grassland with more sheltered wet flushes (Pic 9) (Pic 10) and occasional steep bank-sides. Most of this ground lies within 270-340 m asl, with the higher ground reaching 390 m. The highest mean DAMS score for pre-acquisition adjoining blocks is 19.5.

Management options

NB: Recommendations assume low deer numbers

LEPO – option 1: Higher management input, no livestock

The removal of livestock from the LEPO increases the scope for natural regeneration around features with low vegetative competition (e.g. crags and water course margins). In the absence of livestock, there is the potential for tree density to become too great here if it is desirable to maintain open views to the crags and some clearance may be necessary in the future. Ash is likely to be one of the most prolific species regenerating.

The majority of open, more even ground is bracken dominated and there is scope for small scale “shadow planting” of exotics to maintain the policy woodland character of the hillside and demonstrate good stewardship of the ground to the many visitors. Small groups of SP, EL, BE and Hornbeam would reflect this historical phase of management and largely maintain open views to the crags.

More continuous planting could be done in the larger bracken areas to the east and north; a predominant native woodland character is suggested here (i.e. largely oak, rowan, hazel, holly and birch although some SP and EL could be inter-planted).

LEPO – option 2 Woodpasture, cattle grazing

Introduction of a small number of cattle at an early stage would perpetuate the open woodland character of the remaining LEPO and, if impacts were appropriate, facilitate the development of a patchy mosaic including some groups of natural regeneration. I understand that use of Highland Cattle would be compatible with visitors (e.g. Katrine and “Cow Hill” above Fort William). Some group planting could still be carried out using this option and low cost stock fencing around groups.

Heath and grassland – Option 1 planting patches within stock fenced enclosures

Heathland above the LEPO on upland brown earths could be planted as a native woodland (assuming that it is OK to plant this priority habitat with native woodland), stopping where soils turn to peaty rankers. Suitable species here would be those



associated with the NVC W17 community (e.g. Sessile oak, Rowan, Birch (Downy more suitable at this exposure) and Holly. As the most southerly native pinewood is only c.25 miles to the north, a small component of Scots pine would, in my opinion, be acceptable here as well, particularly as much of this ground lies within the original extent of the LEPO and is so prominent in the landscape. Wet flushes could be planted with patches of eared willow (and grey willow where less exposed). The more sheltered steep banks in the southerly grass-dominated hill ground could be planted with more demanding species (e.g. sessile oak in the most sheltered micro-sites with some hazel, hawthorn and aspen).

More extensive planting of downy birch and rowan could be undertaken within stock fenced exclosures in more exposed grassy ridges with shallow peat depth.

Outwith the exclosures, cattle or sheep could be employed to graze the significant areas of open hill.

Heath and grassland – Option 2 the “re-wilding” approach

This option would involve extensive native woodland planting on areas without significant peat depth followed at a later stage by extensive cattle grazing. Tree species would be along the lines described for option 1 but planting could cover a much larger area (Option 2, comms from RT if you start with no large herbivores (apart from a controlled deer population) then there's no need for small stock fenced exclosures so planting can be much more widely distributed to suitable micro-sites. I hope this makes sense) with varying densities depending on soils and exposure, deliberately planting some denser groups to withstand the impacts of cattle (including patches of hawthorn on better soils and eared willow on poorer but sheltered soils and inter-planting them with more palatable species). There would have to be no use of livestock in the short to medium term with consequent loss of condition in the grass sward. When the planted trees were large enough to withstand some browsing, a low stocking of traditional cattle could be employed to graze the unplanted areas and create a more semi-natural wooded mosaic, heavily browsing some trees but making little inroad to denser groups or more substantial/less palatable saplings.

This option would create a large landscape of semi-natural character on the door step of Glasgow. This would provide a valued visitor experience, a sustainable supply of forest reared beef and demonstrate our innovative approach to integration of agriculture and forestry. It would also create a much less artificial and segregated landscape to that created by Option 1.

Open crags to the north-west of the LEPO remnant.

A long line of crags runs into the remaining area of LEPO above the upper Glenarbut (Pic 11). There is great scope here for planting of ash, hazel and holly along the crags as well as extending the LEPO around this with planting of oak and birch to link into the old oaks in the far north-west corner of the LEPO.

Open woodland below the track.



This area is shown on the Roy map and First Edition map as open scattered trees and would lend itself well to wood pasture today. Some small groups of trees (ash and oak) could be planted here in stock proof exclosures at an early stage and cattle introduced to surrounding open grassland. This would not have to extend far down the bank and would link in well with Option 2 for the LEPO area (see Pic 12).

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Appendix VI : Visualisations

The following visualisations have been created to help provide an approximate indication of how the landscape may change over time:

- Auchentorlie from Bishopton
- Auchineden from Carbeth
- Auchineden from Cochno Hill
- Kilpatrick Braes from Mar Hotel
- Merkins from The Whangie



**Breeding bird survey at Gavinburn
Kilpatrick Hills, Dumbarton**

Issue record

Issue	Date	Prepared by	Checked by	Approved by
1	July 2012	M. Ginns	M. Witherall	M. Witherall

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INTRODUCTION

This report has been prepared by Peak Ecology Ltd on behalf of Forestry Commission Scotland. It provides details of a breeding bird assessment a 1515 ha area of land known as Gavinburn. This land was recently purchased by Forestry Commission Scotland with the intention of planting the land for forestry purposes. This survey was carried out to obtain baseline information on the existing ornithological interest of the site.

A two visit breeding bird survey was carried out on 13th and 14th June 2012 (Visit A), and 26th and 27th June 2012 (Visit B): The primary focus of the surveys was to assess the existing breeding bird interest of the site, however any other species of interest were also recorded. The survey aim was to map the distribution of all birds at the site and to determine the breeding status of the birds encountered.

The aim of this report is to discuss the value of the site for breeding birds and to provide recommendations to ensure (a) Any constraints to future land use posed by, in particular Wildlife and Countryside Act 1981, schedule 1, EC Birds Directive Annex 1 or Birds of Conservation Concern are clearly identified.

BACKGROUND INFORMATION

Upland farmland, woodland and scrub habitats (as present at the site) are recognised for their breeding bird interests. Several species associated with these habitats are, or have recently been, in decline (for example black grouse, lapwing and skylark). Additionally there were several species of upland birds present that are listed as priority species in the UK Biodiversity Action Plan (UKBAP).

Gavinburn is an area of upland farmland, scrub, woodland, moorland and loch located at Duntocher on the outskirts of Dunbarton in western Scotland (See site location plan in Figure 1). The land was recently purchased by Forestry Commission Scotland (FCS) who are currently developing plans for the site. The aim of this survey was to provide detailed information on the existing ornithological interest of the site to inform the plans being considered by FCS.

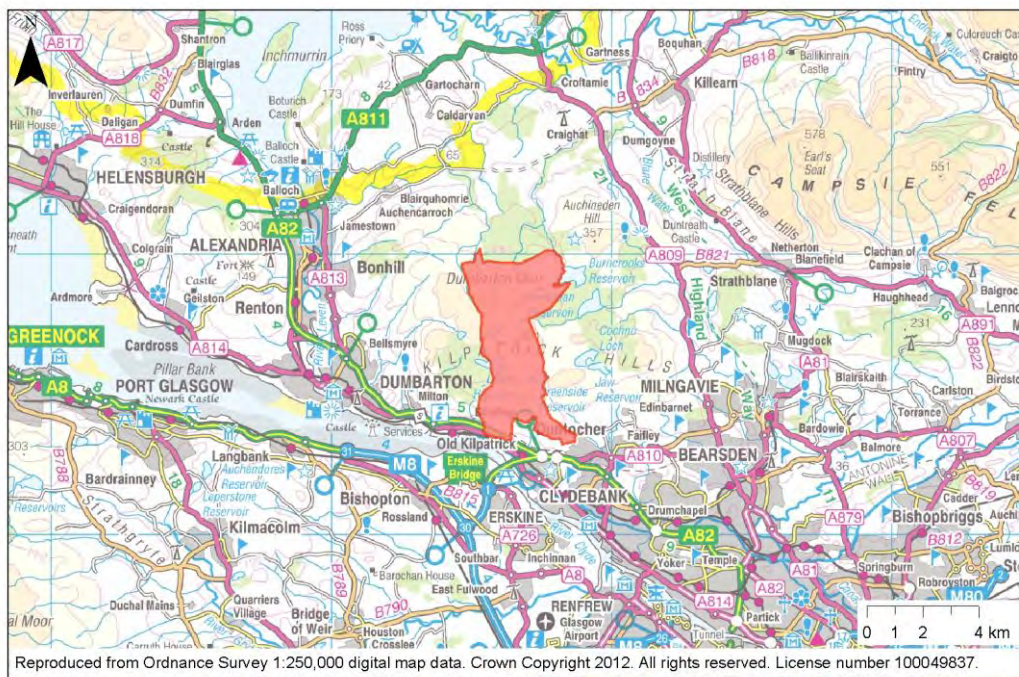


Figure 1: Site location map.

Legislative Context

All species of bird whilst actively nesting are afforded legal protection under the Wildlife & Countryside Act 1981 (as amended). All birds, their nests and eggs are protected by law and it is thus an offence, with certain exceptions, to:

- intentionally kill, injure or take a wild bird;
- intentionally take, damage or destroy the nest of any wild bird whilst in use or being built;
- intentionally take or destroy the egg of any wild bird;
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act;
- use traps or similar items to kill, injure or take wild birds;
- have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed;
- intentionally or recklessly disturb any wild bird listed on Schedules 1 or 1A while it is nest building or at a nest containing eggs or young, or disturb the dependent young of such a bird;
- intentionally or recklessly disturb, destroy, or otherwise interfere with, the nest of any wild bird listed on Schedule A1 at anytime.

In addition to UK and Scottish legislation some species of birds are also protected under Article 4 of the European Birds Directive (Directive 2009/149/EC). These species are listed on Annex 1 of the Directive and are typically referred to as 'European Protected Species'. Article 4 of the Directive dictates that Annex 1 species shall be subject to 'special conservation measures' including maintaining or creating areas of suitable habitat in order to ensure survival or to facilitate reproduction in their area of distribution.

METHODOLOGY

Desk Study

A desk based study was undertaken using Scottish Natural Heritage Interactive Website (SNHi) within 10km² tetrad nearest the site and existing data held by FCS is also included in the results below. The local biological records centre was not contacted on this occasion.

Breeding Bird Surveys

A two-visit survey was undertaken at the site based on the Brown and Shepherd (1993) and national British Trust for Ornithology (BTO) Common Bird Census (CBC) survey methodologies (Gilbert *et al*, 1998).

The study area was walked so that the surveyors came within 100m of all parts of the site. Birds were identified by sight or sound and their activity noted. Species, number, sex and activity of birds were recorded on field maps of between 1:7000 and 1:10,000 scale. The surveyors walked the site at a steady pace (of between 20-25 minutes per 500m by 500m tetrad for open areas, but slowing in wooded or other closed habitats to allow for recording of species such as warblers and cryptic species). Although a two visit survey method is not sufficient to determine territories it does provide a good measure of breeding bird diversity, distribution and relative abundance. The two visit method is significantly more robust than a single visit

survey as detailed in the original specifications presented in Schedule 3A for contract AR2/09/1213. There are a number of limitations associated with the data collected, and these need to be taken into account when reading this report. These limitations include: (1) it is not possible to determine an accurate number of breeding territories, just an estimate of the breeding populations, (b) both visits were carried out in July with no visits were undertaken earlier in the breeding season, consequently some birds may have finished breeding by the time of the survey, (c) due to the location and size of the site it was not practical to cover the site in early morning and some parts of the site were covered in late afternoon which is typically when territory displays are at their lowest rate. Maps showing bird distributions are available in Figure 1(a)-(h).

Evidence of breeding is based on the presence of active nests, presence of young, adults carrying food, pairs of birds seen together, and singing males. Although presence of pairs and singing males are not necessarily evidence of confirmed breeding.

Surveys were undertaken over the site in June 2011. The weather conditions during these surveys are shown in Table 1.

Table 1: Timetable of survey visits and weather conditions

Visit	Date	Times	Weather Conditions
Visit A	13 th June 2012	12:00 – 20:45	Southwest wind, F0-2, cloud 75-100%, visibility >3km, precipitation nil.
Visit A	14 th June 2012	09:30 – 17:30	Southerly wind, F2-3, cloud 50-75%, visibility >3km, precipitation nil.
Visit B	26 th June 2012	12:35 – 18:45	Southerly wind, F2-3, cloud 100%, visibility >3km, heavy showers of 30 minute duration.
Visit B	27 th June 2012	08:45 – 17:00	Southeast-Southerly wind, F1-2, cloud 100%, visibility varying between <1km to >3km. Mist for most of the day with heavy showers of 30 minute duration

RESULTS

Desk Study

There is part of the Dumbarton Muir Site of Special Scientific Interest (SSSI) within the boundary and to the northwest of the site boundary this is designated for its blanket and raised bog habitats and not directly for its ornithological interest.

A search of the SNHi website found records of 103 bird species within a 10km radius of the site (all data are from 1985). Of the 103 species recorded the following appear on Annex 1 of the Birds Directive: black grouse *Tetrao tetrix*, capercaillie *Tetrao urogallus*, common tern *Sterna hirundo*, dunlin *Calidris alpina*, golden plover *Pluvialis apricaria*, hen harrier *Circus cyaneus*, kingfisher *Alcedo atthis*, merlin *Falco columbarius*, peregrine *Falco peregrinus*, short-eared owl *Asio flammeus* and white-tailed eagle *Haliaeetus albicilla*. All of these are also Schedule 1 species with the exception of black grouse, common tern, golden plover and dunlin.

Priority species within the UKBAP that have been recorded within a 10km radius of the site include black grouse, capercaillie, crossbill *Loxia sp.*, cuckoo *Cuculus canorus*, curlew *Numenius arquata*, dunnock *Prunella modularis*, grasshopper warbler *Locustella naevia*, grey partridge *Perdix perdix*, house sparrow *Passer domesticus*, lapwing *Vanellus vanellus*, linnet *Carduelis cannabina*, red grouse *Lagopus lagopus*, redpoll *Carduelis cabaret*, reed bunting *Emberiza schoeniclus*, ring ouzel *Turdus torquatus*, skylark *Alauda arvensis*, song thrush *Turdus philomelos*, spotted flycatcher *Muscicapa striata*, starling *Sturnus vulgaris*, tree

pipit *Anthus trivialis*, wood warbler *Phylloscopus sibilatrix* and yellowhammer *Emberiza citrinella*. A full list of species from the desk study is included in Table 2.

The FCS own records show four black grouse *Tetrao tetrix* leks towards the south of the site, just north of the overhead power lines which transect the site. There is also a lek record from 2008 in the northwest corner of the site, although details of the numbers of birds concerned were not supplied.

Table 2: Desk study species list within 10km radius of Gavinburn

Species Common Name	Species Common Name	Species Common Name
Barn owl	Grey wagtail	Rock dove
Black grouse	Hen harrier	Rook
Blackbird	Hooded crow	Sandpiper
Blackcap	House martin	Sedge warbler
Black-headed gull	House sparrow	Short-eared owl
Blue tit	Jackdaw	Siskin
Bullfinch	Jay	Skylark
Capercaillie	Kestrel	Snipe
Carrion crow	Kingfisher	Song thrush
Chaffinch	Lapwing	Sparrowhawk
Chiffchaff	Lesser black-backed gull	Spotted crane
Coal tit	Lesser redpoll	Spotted flycatcher
Collard dove	Linnet	Starling
Common buzzard	Little grebe	Stock dove
Common gull	Long-tailed tit	Stonechat
Common tern	Magpie	Swallow
Crossbill	Mallard	Swift
Cuckoo	Meadow pipit	Tawny owl
Curlew	Merlin	Teal
Dipper	Mistle thrush	Tree pipit
Dunlin	Moorhen	Tufted duck
Duncock	Mute swan	Twite
Garden warbler	Oystercatcher	Wheatear
Goldcrest	Peregrine	Whinchat
Golden plover	Pheasant	White-tailed eagle
Goldfinch	Pied wagtail	Whitethroat
Goosander	Raven	Willow ptarmigan
Goshawk	Red grouse	Willow warbler
Grasshopper warbler	Red-breasted merganser	Wood warbler
Great crested grebe	Redshank	Woodcock
Great spotted woodpecker	Redstart	Woodpigeon
Great tit	Reed bunting	Wren
Green woodpecker	Ring ouzel	Yellowhammer
Greenfinch	Ringed plover	
Grey partridge	Robin	

Breeding Bird Surveys

Bird species recorded over the site are separated into categories of conservation concern given in Birds of Conservation Concern 3 (BoCC3) (Eaton *et al.* 2009) (Table 3).

The results of the breeding bird surveys are presented in Table 4 and distribution maps are given in Appendix A, which accompanies this report. The Table 4 is aimed to provide an 'at a glance' view of the birds recorded at the site, and to summarise their conservation status. Species sequence and nomenclature follows the British Ornithologists' Union (2002).

Table 3: BoCC categories of conservation concern.

	Red list	Severe breeding population decline over 25 years/longer term
	Amber list	Moderate breeding population decline over 25 years/longer term
	Green list	Species not currently considered of conservation concern (holding list)

Respective totals for bird species in each category are given in at the end of the list. These totals include a figure in parentheses which denotes the percentage of species in each category relative to the total number of species recorded within the site.

UK BAP, Wildlife & Countryside Act 1981 Schedule 1 and EC Birds Directive Annex 1 are denoted in column four as **UK BAP**, **Sch1** or **Ann1** respectively.

Species recorded at the site, but not assessed by BoCC3 are included at the end of the list in italics. These are non-native or introduced species that are not considered to be of conservation value.

The primary habitat generally associated with each species is given in column five followed by an estimated breeding population (number of pairs) figure in column six. The standard species codes used for surveys, and determined by the British Trust for Ornithology (BTO) appear in column three.

Table 4: List of species recorded during the breeding bird surveys.

Species	Scientific name	BTO code	UK BAP/ Sch1/Ann1	Habitat	Estimated Population (no. of pairs)
Grey Heron	<i>Ardea cinerea</i>	H.		Open ground/water	1
Greylag Goose	<i>Anser anser</i>	GJ		Open water/Open ground	3
Mallard	<i>Anas platyrhynchos</i>	MA		Open water	3
Tufted Duck	<i>Aythya fuligula</i>	TU		Open water	2

Species	Scientific name	BTO code	UK BAP/ Sch1/Ann1	Habitat	Estimated Population (no. of pairs)
Osprey ¹	<i>Pandion haliaetus</i>	OP	Sch1/Ann1	Forest/Open Water	1
Buzzard	<i>Buteo buteo</i>	BZ		Various	5
Goshawk	<i>Accipiter gentilis</i>	GI	Sch1	Forest/Forest Edge	1
Kestrel	<i>Falco tinnunculus</i>	K.		Open Ground	1
Merlin	<i>Falco columbarius</i>	ML	Sch1/Ann1	Open Ground	1
Red Grouse	<i>Lagopus lagopus</i>	RG	UK BAP	Moorland	7
Common Sandpiper	<i>Actitis hypoleucos</i>	CS		Open Ground/ Moorland/Water	2
Greenshank	<i>Tringa nebularia</i>	GK	Sch1	Open Ground/ Moorland/Water	1
Snipe	<i>Gallinago gallinago</i>	SN		Open Ground/ Moorland/Water	9
Woodcock	<i>Scolopax rusticola</i>	WK		Woodland/ Open Ground	1
Black Grouse	<i>Tetrao tetrix</i>	BK	UK BAP	Woodland Edge	3
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	BH		Open Ground	10
Common Gull	<i>Larus canus</i>	CM		Open Ground	3
Herring Gull	<i>Larus argentatus</i>	HG		Open Ground	1
Lesser Black-backed Gull	<i>Larus fuscus</i>	LB		Open Ground	7
Woodpigeon	<i>Columba palumbus</i>	WP		Woodland/Open Ground	4
Cuckoo	<i>Cuculus canorus</i>	CK	UK BAP	Woodland	2
Swift	<i>Apus apus</i>	SI		Open Ground	2

¹Whilst no evidence of an osprey nest was found on site, ospreys were seen flying to and from, and fishing on, the major waterbodies (Loch Humphrey and Burncrooks Reservoir) within the site. It is thus considered that they site forms part of their regularly used territory.

Species	Scientific name	BTO code	UK BAP/ Sch1/Ann1	Habitat	Estimated Population (no. of pairs)
Great spotted Woodpecker	<i>Dendrocops major</i>	GS		Woodland	1
Skylark	<i>Alauda arvensis</i>	S.	UK BAP	Open Ground/ Moorland	66
Swallow	<i>Hirundo rustica</i>	SL		Open Ground/ Moorland	9
Meadow Pipit	<i>Anthus pratensis</i>	MP		Open Ground/ Moorland	55
Pied Wagtail	<i>Motacilla alba</i>	PW		Various	4
Grey Wagtail	<i>Motacilla cinerea</i>	GL		Running Water	1
Wren	<i>Troglodytes troglodytes</i>	WR		Various	3
Dunnock	<i>Prunella modularis</i>	D.	UK BAP	Various	3
Robin	<i>Erithacus rubecula</i>	R.		Various	5
Redstart	<i>Phoenicurus phoenicurus</i>	RT		Woodland	2
Wheatear	<i>Oenanthe oenanthe</i>	W.		Open Ground/ Moorland	3
Stonechat	<i>Saxicola torquata</i>	SC		Open Ground/ Moorland	9
Whinchat	<i>Saxicola rubetra</i>	WC		Open Ground/ Moorland	1
Song Thrush	<i>Turdus philomelos</i>	ST	UK BAP	Various	2
Mistle Thrush	<i>Turdus viscivorus</i>	M.		Various	12
Blackbird	<i>Turdus merula</i>	B.		Various	12
Willow Warbler	<i>Phylloscopus trochilus</i>	WW		Scrub	6
Great Tit	<i>Parus major</i>	GT		Various	5
Coal Tit	<i>Parus ater</i>	CT		Various	1
Blue Tit	<i>Cyanistes caeruleus</i>	BT		Various	12
Magpie	<i>Pica pica</i>	MG		Various	4
Carrion Crow	<i>Corvus corone</i>	C.		Various	2

Species	Scientific name	BTO code	UK BAP/ Sch1/Ann1	Habitat	Estimated Population (no. of pairs)
Raven	<i>Corvus corax</i>	RN		Open Ground/Moorland	4
Chaffinch	<i>Fringilla coelebs</i>	CH		Various	11
Linnet	<i>Carduelis cannabina</i>	LI	UK BAP	Farmland	5
Lesser Redpoll	<i>Carduelis cabaret</i>	LR	UK BAP	Woodland	1
Goldfinch	<i>Carduelis carduelis</i>	GO		Farmland	1
Greenfinch	<i>Carduelis chloris</i>	GR		Farmland	1
Reed Bunting	<i>Emberiza schoeniclus</i>	RB	UK BAP	Wetland/Farmland	1
Pheasant	<i>Phasianus colchicus</i>	PH		Woodland/Forest Edge	3
Species that are Red Listed					7 (13%)
Species that are Amber Listed					24 (47%)
Species that are Green Listed					20 (38%)
Feral or Introduced Species					1 (2%)
Percentage of Estimated Population that is Red Listed					25%
Percentage of Estimated Population that is Amber Listed					46%
Percentage of Estimated Population that is Green Listed					22%

ASSESSMENT OF ORNITHOLOGICAL VALUE OF THE SITE

This section assesses the ornithological value of the site as it currently stands. It is important to note that estimates based on two visits have limitations; however they are significantly more robust than those based on single visits surveys in that they provide a greater deal of certainty of whether birds seen at a particular location are just visiting (i.e. only seen on one visit) or whether they are associated with that location on a longer-term basis (i.e. breeding). The aim of this survey was to provide a baseline description of the breeding bird interest of the site and not a definitive inventory of breeding bird populations.

General Breeding Birds

A total of 52 species were recorded on site, of these two were Annex 1, four were Schedule 1, seven were Red listed, 24 were Amber listed, 20 were Green listed and one was a feral or introduced species. Green-listed species accounted for 39% of the total species count whilst Amber and Red-listed species accounted for 47% and 11% of the species count respectively. When considering the total populations within each category Green-listed birds accounted 28% of the total count whilst Amber-listed birds accounted for 46% and Red-listed birds 25%. Species not of conservation concern accounted for the remaining 1% of the birds recorded.

Schedule 1 and European Protected Species

Four species listed on Schedule 1 of the Wildlife and Countryside Act 1981 were recorded, namely osprey, goshawk, merlin and greenshank (one pair for each species). In addition the osprey and merlin also appears on Annex 1 of the EC Birds Directive 79/409/EEC. Ospreys were seen at the site on three occasions during visit A. These sightings included a bird flying west from Burncroft Reservoir in the northeast of the site, a bird seen flying west just south of Duncolm Hill carrying a fish, and finally a bird fishing on Loch Humphrey. Whilst these sightings indicate that the nest site is outside of the study area they illustrate the routine use of the site by ospreys for fishing. A goshawk was seen in a tree on the edge of the forestry just to the southwest of Loch Humphrey. This bird was not calling or carrying out any display activity, however breeding could not be ruled out. Greenshank sightings consisted of a single female recorded on visit B on Dumbarton Muir in the north western part of the site. This bird was seen flying off, heading south.

Birds of Conservation Concern

In total thirty species bird of appearing in BoCC3 were recorded (seven being Red-listed and twenty-three Amber-listed). The most noticeable birds of conservation concern (and indeed the most noticeable species at the site) were skylarks and meadow pipits. The existing habitat at the site represents classic habitat for these species. Arguably the most important species (in terms of its conservation status) present is black grouse which prefers moorland fringe habitat with areas of broadleaved trees and conifers present. The existing suite of habitats at the site provides suitable breeding habitat for this species.

Non Breeding Species

Six species recorded were determined as not breeding on the site itself, namely black-headed gull, common gull, herring gull, lesser black-backed gull, swift and grey heron.

CONCLUSIONS AND RECOMMENDATIONS

The primary purpose of this survey was to identify the existing breeding bird interest of land at Gavinburn that has been recently purchased by Forestry Commission Scotland. This information will inform Forestry Commission Scotland's plans for the site.

There is a typical range of species on site that reflects the habitats present. Most notably there are good numbers of meadow pipits, skylarks, black grouse and Schedule 1/Annex 1 raptors merlin, goshawk and osprey breeding or using the site.

Species of conservation concern that could occur on site that were not recorded during the survey include hen harrier, short-eared owl and twite *Carduelis flavirostris*. Species such as capercaillie from the desk study are considered historical and not likely to be breeding on site as the habitat here is unsuitable.

We would recommend that further surveys are undertaken prior to any forestry planting works taking place, in particular black grouse lek surveys. A definitive black grouse survey would be recommended to assess the full extent of this species on site. Future FCS plans for the site will determine what further surveys may be required.

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Kilpatrick Hills Forest Design Plan Appendices

Appendix VI(iii) Gavinburn Archaeological Survey DSR

**Gavinburn Survey, West Dunbartonshire:
Archaeological Survey**

Data Structure Report

by Katie Sludden and Sandra Mulligan

issued 29th June 2012



Rathmell

Archaeology Ltd

Quality Assurance

This report covers works which have been undertaken in keeping with the issued brief as modified by the agreed programme of works. The report has been prepared in keeping with the guidance of Rathmell Archaeology Limited on the preparation of reports. All works reported on within this document have been undertaken in keeping with the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct.

Signed Date

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:

Checked Date

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Executive Summary

1. A programme of archaeological assessment and survey works was required by Forestry Commission Scotland in respect of their proposed planting scheme at Gavinburn, Kilpatrick Hills, West Dunbartonshire.
2. The systematic archaeological walkover survey was carried out from the 28th May 2012 to the 14th June 2012, the findings of which are presented in this report.
3. Consultation of the RCAHMS Collections (inc. Canmore & Aerial Photograph Collection), and the West of Scotland Archaeology Service Sites and Monuments Record identified some 10 archaeological sites within the scope of the catchment area. Immediately out-with the plantation boundary a further 2 sites were identified, one of which comprised a previously lost group of cup and ring marked stones (RCAHMS Canmore Id: NS47SE 6, Site 31) whose location were rediscovered during the site walkover survey. The other site was included due to its close proximity but was found not to extend within the plantation boundary (RCAHMS Canmore Id: NS47SE 6, Site 50). A further 41 new sites were recorded within the plantation boundary during the site investigation. Most were associated with medieval or later rural settlement; they were, however, varied in their character, representing a variety of monument types including upstanding farm buildings, cultivation remains, sheepfolds and clearance cairns. None of these archaeological sites are protected through statutory or non-statutory designations.
4. A series of exclusion areas from planting and other negative impacts have been recommended as a result of these survey works. These have been designed to protect the more significant monuments in accordance with the issued Forestry Guidance. Moreover with the consideration of the use of the forest for public amenity; advice on plantation designs incorporating the monument group: 'The March Stones' has also been recommended.

Introduction

5. A programme of archaeological assessment and survey works was required by Forestry Commission Scotland in respect of their proposed planting scheme at Gavinburn, Kilpatrick Hills, West Dunbartonshire. These archaeological works were designed to inform on the nature, form and extent of any archaeology present within the proposed planting area and hence to enable the development of appropriate mitigation.

Geological Background

6. The area concerned comprises a corridor of the Kilpatrick Hills running from Dumbarton Muir south to Gavinburn, West Dunbartonshire (centred NGR: 246987, 676438). The area averages 3km wide by 7km long at approximately 1,438 hectares. The site is bounded by existing forestry to the north, northeast and northwest of Dumbarton Muir. The western extents are delineated by Fyn Loch and Loch Humphrey (reservoir) to the south the Hill of Dun Forrest. The eastern extents are delineated by the Dirty Leven River, Greenside Reservoir and Loch Humphrey Burn running southeast. The southern extents include Gavinburn up to Carleith to the east but exclude Craigleith and Mount Pleasant Farmsteads.
7. The site comprises the south-facing slopes of Kilpatrick Braes over The Slacks north to the moors of Dumbarton Muir. It is a glaciated landscape with frequent drumlins and scoured bedrock outcrops ranging from 40m OD to 401 OD (Duncolm BSM). The rocks are mainly Lower Carboniferous macro-porphyrific olivine-basalt of the Dunsapie type.
8. The soil make-up of Dumbarton Muir is generally humic gleys, peaty podzols, peaty gleys and peat. These support moist Atlantic bog heather moor, flying bent grassland, bog, rough pastures, permanent and rush pastures (Macaulay Institute, 1982). The Kilpatrick braes have brown forest soils with some rankers, capable of supporting arable and permanent pastures, grassland and herb-rich Atlantic heather moor. The vegetation ranges from rough moorland grasses to tussock and blueberry moorland peat bogs.

Thistles and bracken were present over portions of the plantation area but were in their infancy, not yet intrusive enough to cause masking of the typography.

9. Sections of Dumbarton Muir are category IV Sites of Special Scientific Interest (SSSI): a habitat/species management area (WDPA ID: 135608). These areas are under protection of the IUCN (International Union for the Conservation of Nature). The protected section located within the plantation boundary is north of Duncolm, surrounding Lily Loch.

Project Works

10. The programme of works agreed with Forestry Commission Scotland commenced with a desk based assessment. This consulted resources within:
 - ❖ RCAHMS Collections (inc. Canmore & Aerial Photograph Collection);
 - ❖ WoSAS Sites & Monuments Record (known archaeological sites);
 - ❖ Historic Scotland records (Scheduled Ancient Monuments and other designations);
 - ❖ National Library of Scotland (bibliographic records, historic Ordnance Survey and pre-Ordnance Survey mapping); and
 - ❖ local museums, libraries and other archives (Old & New Statistical Accounts, local history books).
 - ❖ Forestry Commission Scotland guidelines and website (aerial photography and details of catchment areas).
11. A walkover survey of the planting area was undertaken between 28th May to the 14th June, 2012 to assist in the characterisation of those monuments previously identified by the desk-based assessment and to identify any additional upstanding archaeological sites. Site limits surveyed through the use of a DGPS system (Leica GS50) were subsequently identified on 1:2500 base maps.
12. Previous works have also been carried out within the surrounding area including a walkover survey of the Cochno Hill area by FIRAT in 2008 (Baker, 2008), as well as surveys carried out by both Ordnance Survey and the West of Scotland Archaeology Service, The results of these works have also been consulted during the desk based assessment.
13. All works complied with the Forestry Commission Scotland archaeological survey guidelines, Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.

Findings

14. The desk based assessment did not identify the presence of any sites protected for their archaeological or historical merit under the terms of the Ancient Monuments and Archaeological Areas Act 1979 or buildings protected under the Town and Country Planning Act 1997 (Historic Scotland 1998) within the proposed planting area. There were 13 sites recorded on the RCAHMS Canmore which comprise mainly of post-medieval and later agricultural buildings and associated activity such as field boundaries, rig and furrow and so on. There are however several previously recorded sites which suggest activity within the prehistoric period.



Figure 1a: Extract from Timothy Pont's Map of the East Central Lowlands; ca. 1583-1614.



Figure 1b: Extract from Blaeu's Map of 1654.



Figure 2a: Extract of William Roy's Military Survey of the Lowlands of Scotland, 1747-55.



Figure 2b: Extract from John Thompson's Atlas of Scotland, 1832.

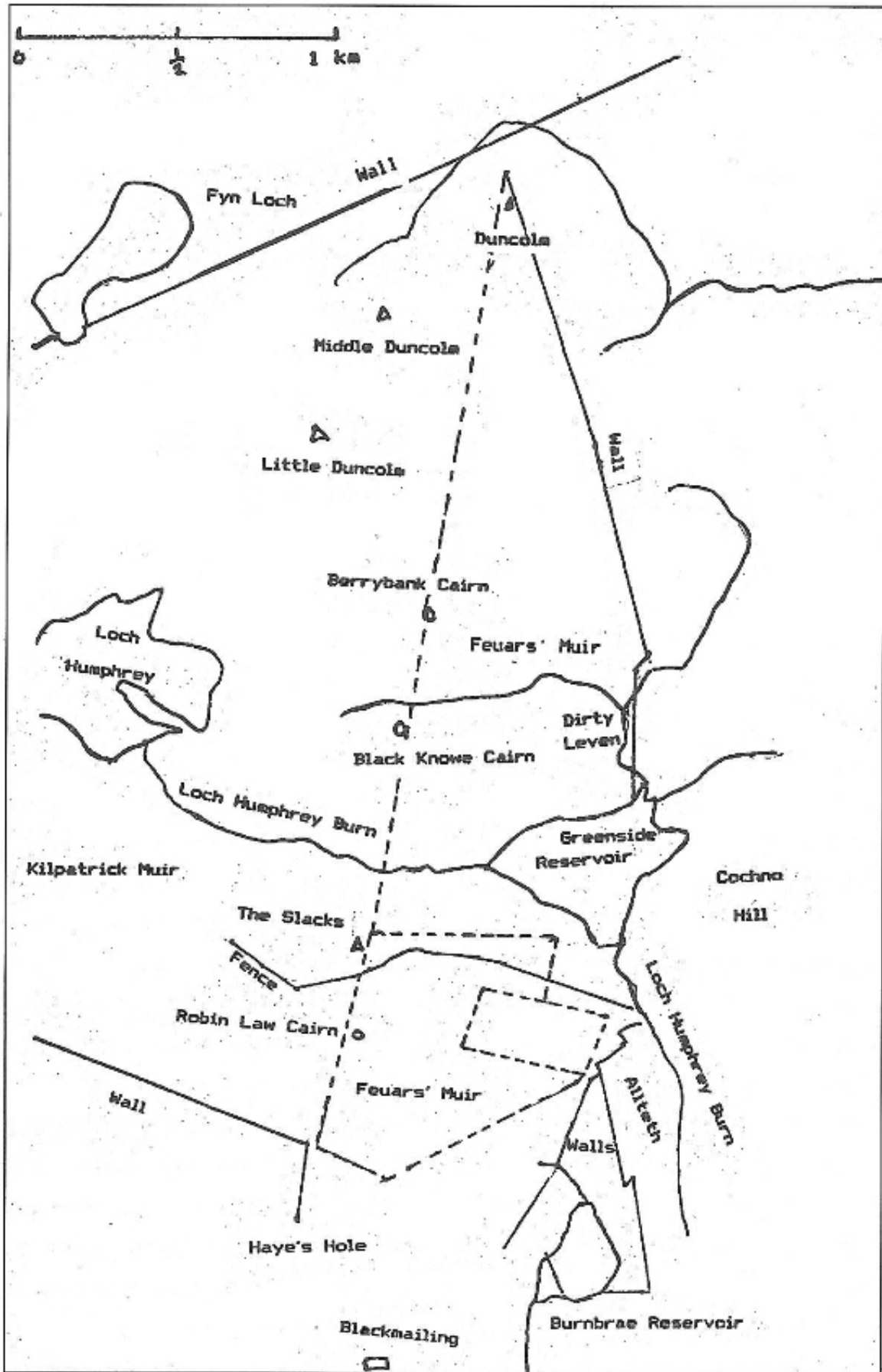


Figure 3: Layout of the March Stones (Rankin 1993).

Historic Landuse

15. The earliest map coverage available for the proposed plantation is Timothy Pont's Map of 1586-1614 (Figure 1a). This map clearly depicts the Kirk of Kilpatrick, Dunbritton Muir and Cochna Hill (Dumbarton Muir and Cochno Hill respectively) and is repeated in Robert Gordon's Map of 1580-1631 (1632). Bleau's Map of 1654 (Figure 1b) depicts Dunbrettan Moore, Loch Ufra, Cochna Loch and Duncolne (associated to the present Lily Loch). Two place-name locations in this map survive to the present day; Carlyth (Carleith or Craikleith) and Faichla (Faifley). Other locations on this map suggest habitations contiguous with Cochna Hill which are now out of use such as Sandyfurd and Dirtyglennie. These are potentially located within the plantation catchment area on The Slacks and Kilpatrick Braes to the south end of the planting area but there was no structural evidence for these encountered during site investigations.
16. Cochno contains at least one ecclesiastical site represented in Bleau's Map by a cross insignia, immediately adjacent to the plantation catchment boundary at 'Cochna' on Bleau's Map. This area was field-walked by FIRAT in 2008 (Baker, 2008) for a Forestry Commission Scotland plantation and a concentration of archaeological monuments was encountered here. This concentration however, is not reflected in the Kilpatrick Braes. The area encompassed by the proposed forestry planting is more difficult to interpret. One place is certainly shown in the vicinity of the modern Kilpatrick Braes on Bleau's Map and later in more detail on Roy's 1747-55 Military Survey of Scotland (Figure 2a); while not corresponding to any structure on the map, this name might indicate that the area was used for agriculture, a possibility which is borne out by the presence of possible terracing at Site 12, and clearance cairns at Sites 4, 10 and 11: possibly results of land improvement for mixed farming purposes.
17. Moll's map of 1745 lacks the topographical detail of Bleau's and Roy's earlier examples. It also omits all but the most important residences. John Thompson's Map of 1832 (Figure 2b) shows Cochney or Cochno Hill as a well established township conjoined with Faifley. It is with the 1st edition Ordnance Survey of Scotland in 1856-1891 that the landscape around the Kilpatrick Hills was shown in more detail and individual structures can be defined. It depicts a Herder's House just south of Burncrooks which is noted by Canmore as Burncrooks 1 (WoSAS Pin: 14193, Canmore Id: NS47NE 12, Site 35) and Burncrooks 2 (WoSAS Pin: 14194, Canmore Id: NS47NE 11, Site 36) and the presence of a drover's road running to the northwest of the plantation boundary, probably that of Gallangad Burn (WoSAS Pin: 14721, Canmore Id: NS48SE 14).

Aerial Photography

18. The historic aerial photographs and those provided by the Forestry Commission Scotland website provide detailed coverage of the proposed planting area. These images were taken on various occasions over a number of years between the 1940s and 1990s. Consultation of these proved valuable in several respects. Firstly it allowed previously recorded sites to be identified and their continuing presence or absence to be noted as appropriate. Secondly, it revealed previously undiscovered sites located within the proposed planting area. Lastly, it yielded an insight into changing land use patterns throughout the late 20th century, which in turn gave an indication of the intensity of land use within the development area. This was useful as it informed on the likelihood of the discovery and long-term survival of upstanding archaeological remains within the area of interest.
19. Though several sites had already been located within the proposed planting area using map evidence and the results of previous field surveys, close inspection of the aerial photographic evidence did not reveal a significant number of these as visible upstanding remains. In some instances this may have been due to the conditions that were prevalent at the time of the aerial survey, e.g. the location of shadows and low-lying cloud. Burncrooks 1 (Site 36), for example, a small farmstead identified by the RCAHMS field team, may be visible, though it was such a small feature at this scale that it is hard to be certain of this.

20. Consultation of aerial photographs and the site survey revealed extensive attempts at land drainage across the whole plantation scheme, an example of which can be seen in Figure 4.
21. Throughout the southern portion of the Kilpatrick Hills, land-use appears to have remained largely consistent between the earliest aerial photographic coverage (1940s) and the latest (1990s). The area is currently in use as rough grazing, with the aerial photographic evidence suggesting that only the southern portion from The Slacks southwards has been subject to intensive agricultural production. This appears to have been an important factor in the survival and visibility of the upstanding archaeological remains here.



Figure 4: View towards Little Saughen Brae from Middle Duncolm, showing drainage.

Archaeological Background

22. There are no known sites of national importance within the boundary of the plantation scheme however just beyond the boundary limits are several Scheduled Monuments noted for their potential to contribute to the understanding of prehistoric economy and upland settlement.
23. The earliest of these sites comprise of Dumbarton Muir Lang Cairn (Long Cairn) (WoSAS Pin: 7966, Canmore Id: NS48SE 1), Stockie Muir Long Cairn (WoSAS Pin: 2281, Canmore Id: 43453, NGR: 247930, 681308) and Gallangad Burn Long Cairn (WoSAS Pin: 2911, Canmore Id: NS48SE 6, NGR: 2458, 6807). The presence of these monuments would suggest a high potential for prehistoric structures to exist within the scope of the plantation.
24. Although large-scale prehistoric sites surround the plantation boundary none are mapped until the 1st edition 1 inch-to-the mile Ordnance Survey in c.1854-1856. Dumbarton Muir Lang Cairn is the first to be mapped on this edition. The Lang Cairn is a 185 feet / 62 m long stone built burial monument, called a 'horned long cairn', part of The Clyde group of chambered burial cairns and is located 2 kilometres to the north of the plantation boundary (NGR: 24578, 68154). Two other chambered cairns are noted within 2km of the plantation boundary, one disturbed by quarrying: Gallangad Long cairn and Stockie Muir Long Cairn to the northeast. These three chambered cairns represent a burial

tradition characteristic of the Neolithic people of Scotland and are sites protected through statutory and non-statutory designations.

25. The combined evidence from mapping and aerial photography suggests a lack of intensive land use since prehistoric times which would increase the survival of prehistoric remains within the scope of the plantation. Archaeological remains of such fabric and scale would be prominent in an open landscape such as Dumbarton Muir. However smaller prehistoric structures may be masked by the overgrowth of heather and other native vegetation. In view of the scarcity of evidence from mapping and aerial photography, it is only with the upstanding or built prehistoric remains that potential for identification exists.
26. There are three known prehistoric sites within the plantation boundary: an earthen mound at Wester Dumtigliennan (WoSAS Pin: 7822, Canmore Id: NS47SE 17, Site 1), a cup marked stone at Loch Humphrey (WoSAS Pin: 7790, Canmore Id: NS47NE 3, Site 52) and a Flint Flake findspot at Dumbarton Muir (WoSAS Pin: 7794, Canmore Id: NS47NE 7, Site 49). The sites here do not necessarily represent continuous or intensive use of the land during this time. Further significant prehistoric settlement or burial remains were therefore unlikely to be encountered during site investigations.
27. It can reasonably be inferred that throughout the prehistoric period, the bleak, relatively inhospitable heights of the Kilpatrick Hills would have been a place best exploited for hunting game rather than cultivating crops and founding settlements, and this is reflected by the pattern of monuments and landscape that we see today.

The Antonine Wall

28. The Antonine wall (WoSAS Pin: 7064, Canmore Id 7067 at Mount Pleasant) was built by the Romans in the AD140s during the Iron Age on the orders of the Emperor Antoninus Pius and stretches 60km from Boness on the east coast to Old Kilpatrick on the west, across what is now the Central Belt of Scotland. A section of this fortification runs immediately to the south of Gavinburn. Two possible Fortlets are noted by RCAHMS at Old Kilpatrick (WoSAS Pin: 7862, Canmore Id: NS47SE 55) and Carleith (WoSAS Pin: 7859, Canmore Id: NS47SE 52). The wall, which was constructed from turf and stone, was initially only used for 20 years then abandoned until AD208 when the Emperor Severan re-garrisoned the wall and ordered its repair. This occupation was short lived, lasting only a few years.
29. One known Iron Age site was recorded within 1km of the Wall: a Roman coin findspot on the Kilpatrick Braes (WoSAS Pin: 7848, Canmore Id: n/a). This presented the possibility of further Roman remains to be found within the plantation scheme.
30. The Antonine wall was listed as an element of the UNESCO World Heritage Site "Frontiers of the Roman Empire" on 7 July 2008. In view of this status, its landscape setting is an important consideration when new development in proximity to the Wall and associated structures is proposed. The forestry plantation would have some impact on the northerly views from the wall but given that the wall is largely built over in Duntocher and survives as a low mound on the ground, the direct visual impact is likely to be minimal (see Figure 5). However it would be appropriate to consult Historic Scotland with regard to landscape setting especially as the forest will be visible from some distance away across the opening of the Firth of Clyde.
31. Although the plantation scheme does not contain known structural remains of the Antonine Wall, the amenity buffer zone extends to a height of 250m OD on the south facing slopes of the Kilpatrick Braes. It is with cognizance of this zone that any plantation scheme below a height of 250m OD on the south facing slopes of the Kilpatrick Braes should avoid an overly commercial appearance. A more amenable plantation may take the form of Mixed Broadleaved Native Woodland in this instance.



Figure 5: View from the Kilpatrick Braes toward Duntocher.

32. The area around the Kilpatrick Braes is documented since the mid-1700s as part of the parish of Old Kilpatrick. The Old Statistical Accounts of Scotland note a marked improvement in the agricultural production in the 1790s in the parish of Old Kilpatrick, having previously been described as “most wretched” (Account of 1791-99: Old Kilpatrick, 1799, 232). The land improvement took place on the basis of seasonal rotational tillage where only a third of the land yielded crops at any one time, the other two thirds allowed to rest in the interim. Although crops were yielded on the lower slopes of the Braes this was not the case for the upland areas to the north where arable grazing was the principal activity during this period.
33. The majority of the archaeological remains encountered in FIRAT’s previous field survey on Cochno Hill are likely to have resulted from agricultural activities of similar post-medieval date. These include shieling-huts, enclosures, buildings and sheepfolds.
34. There are five known post-medieval sites located within the plantation boundary: a farmstead at Dumbarton Muir (WoSAS Pin: 7788, Canmore Id: 43235, Site 53), field clearance at Earl’s seat (WoSAS Pin: 14195, Canmore Id: 82382, Site 39), a building at Burncrooks (WoSAS Pin: 14143, Canmore Id: 82380, Site 36), an ‘L’ shaped structure at Burncrooks (WoSAS Pin: 14194, Canmore Id: 82381, Site 35), and a clearance cairn on the Kilpatrick Braes (WoSAS Pin: 7850, Canmore Id: 43300, Site 4). These sites suggest localised agricultural activity since the medieval period with large areas of unimproved land left for grazing from Dumbarton Muir south to The Slacks.

The March Stones

35. The Desk-Based Assessment identified a publication by Robert A. Rankin on “The March Stones in the Kilpatrick Hills: A Feuar’s Dispute of the 1850s” (1993). It outlines his investigations into a unique set of boundary stones in the Kilpatrick Hills. These stones according to Rankin form a parcel of land called ‘Feuar’s Muir’ from Haye’s Hole (NGR: 24650, 67420) running northeast by Robin Law Cairn (NGR: 246774, 674954) north to Duncolm (NGR: 247084, 677496) bounded by Loch Humphrey Burn to the east (see Figure 3). There were 12 numbered March stones erected in c.1857 delineating the ‘Feuar’s muir’. A Feuar in Old Scots is ‘one who holds a feu’ or the owner of land.

36. In 1784 a 'decreet arbitral' was placed on the muir for feuing purposes. In 1851 Lord Blantyre entered into proceedings to divide the muir into plots of land rather than keeping open grazing. The dispute took place between Lord Blantyre, Robert Lang of Allteth and Miss Agnes Colquhoun Jaffray and was finally settled in 1857. Land was portioned according to the value of each claimant's nearby estates. Twelve March stones were to be erected on the muir to mark out these three plots. The sub-division of land was clearly impractical for grazing purposes if fences were to be constructed, as the central plot did not have access to running water and both Lang's and Jaffrey's plots were surrounded by land owned by Lord Blantyre.
37. The stones are each fully 0.45m by 0.45m by 0.7m in size (see Figures 6a, 6b, 7a and 7b) and the carriage and instatement of these 12 stones represents a somewhat exorbitant effort at the marking of the land. Their positions adhere to an exact mapping structure resulting in a seemingly arcane positioning of the stones occasionally on slopes, under gullies and so on. The reasons for the fabric and positioning of the stones seem unclear at first but it could be argued that the entire process of the Feuar's dispute was one of monetary gain on the two claimants' behalves.
38. According to Rankin only representatives of Lord Blantyre attended the raising of the stones which may explain why out of the last two stones one is missing (Stone 12) and one is recumbent (Stone 11). Moreover Rankin couldn't find any evidence for subsequent fencing of the plots which suggests that neither Robert Lang nor Agnes Jaffray ever held sheep or cattle on the land. The feu for Agnes Jaffray's plot was purchased by Lord Blantyre in c.1863 a mere 6 years after the dispute was settled whilst Robert Lang's neighbouring estates were sold to Lord Blantyre in c.1873. However there is no mention of the feu in this purchase and the impracticalities of the land portioning for grazing may have forced the claimants' into an eventual sale.
39. Examining Rankin's findings he surmises that Lord Blantyre's land was under threat with the construction of railways and reservoirs and he fought for reparations for the loss of land to these. It could be suggested then, that these stones represent his continuing immitigable guardianship of his estate.
40. The walkover survey identified a further 2 possible stones which may signify the northernmost extents (Site 42) and eastern extents (Site 45) of the dispute (see also Figure 3). Rankin notes that the 12th stone was missing during his investigations and the cause of this may be its position on the edge of a very steep slope, 50m north of the BSM high-point of The Slacks. There was an eroded section of slipped ground on the northern slope at its approximate position and it can only be surmised that the ground has eroded and subsequently the stone fallen into the precipice below.
41. The remaining stones are in-situ but Stone 11 (Site 23) is currently in a recumbent position.
42. Rankin notes a sheepfold between Stones 4 and 5 called 'Jenny's Bucht' but no evidence of this was found during the walkover survey. He also mentions a stone called 'Gilbert Scott'. Although not in the approximate location of 'Gilbert Scott', the stone recorded at Site 42 may signify one of the boundary markers used during the feuar's dispute. He also notes the absence of cairns at Berrybank and Black-knowe Cairns. His findings were verified during the site walkover as no cairns were recorded in these locations.

Site Walkover

43. The survey took place between the 28th May and the 14th June 2012. It confirmed the core of the study area as an area of rough grazing (see Figure 9b). There were three elements to the work; firstly, the assessment of sites identified on the available map evidence; secondly, the verification of sites identified previously on field surveys carried out by other organisations, in particular the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS) and Strathclyde Regional Council/West of Scotland Archaeology Service; and, thirdly, the identification of hitherto unrecorded sites (see the section on Project Works, page 4).



Figure 6a: March Stone 11 with Greenside reservoir and Cochno Hill in background.



Figure 6b: March Stone 4 with Glasgow in the background.



Figure 7a: Top of March Stone 9.



Figure 7b: Southeast Facing face of March Stone 5.

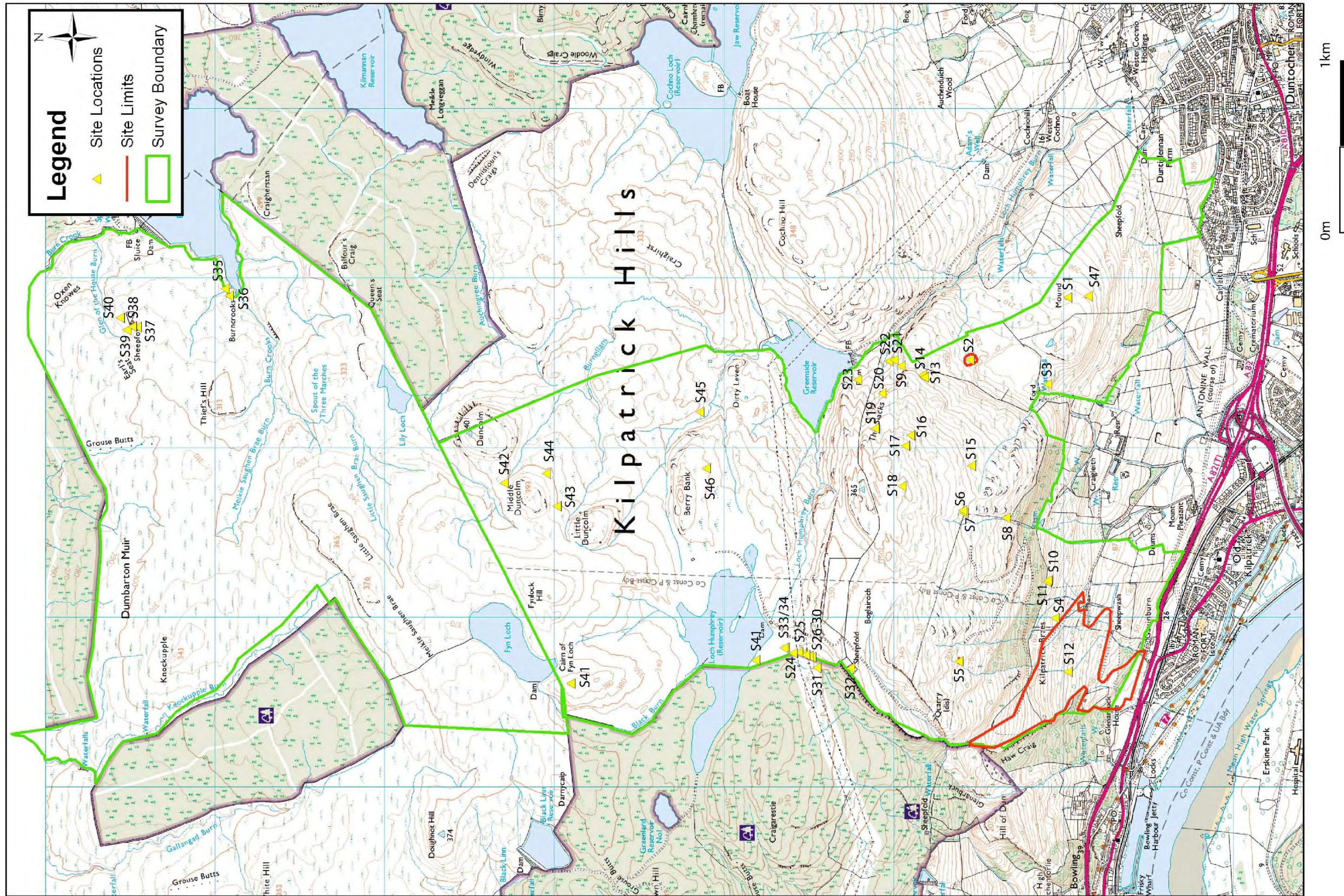


Figure 8: Location of Sites.

44. The Site numbers are our own ascription and their full details can be found on our Site Gazetteer (see Figure 8 and Appendix 1). There are a total of 53 recorded sites.
45. There were ten known sites investigated within the plantation scheme. These sites comprise cup-marked stones (Sites 51/ 52), a cairn (Site 39), a field clearance cairn (Site 4), a house and associated structure (Site 35 and 36), a farmstead (Site 53), a flint flake findspot (Site 49), a Roman coin findspot (Site 48) and an earthen mound (Site 1).
46. The site visit confirmed the condition and location of most of these monuments with two exceptions. The first was Sites 51/52, cup marked stones at Loch Humphrey (WoSAS Pin: 7790, Canmore Id: NS47NE 3). The record for this monument seems to have been duplicated with one record noting two possible locations (see Gazetteer). The SMR for this site also notes that on one visit markings were not discerned. Both of the locations provided were investigated but no cup-markings were discovered. The second exception was Site 53, a farmstead at Dumbarton Muir (WoSAS Pin: 7788, Canmore Id: NS47NE 10). The area was visited with no visible signs of archaeological remains. The previous visit in 1978 noted a 'nearby rocky crag' which was not present near the given co-ordinates. The nearest rocky outcrops were investigated with no sign of any structural remains. The dense heather on this section of the muir may also be a contributing factor in the visibility and survival of any archaeological remains therein.
47. In addition to the ten known sites a further two known sites were investigated due to their proximity to the plantation boundary. Immediately outside the boundary on Duncolm, an enclosure was previously recorded (Site 50) but the location provided for the enclosure placed it on a very steep slope and the enclosure was not found anywhere on the hill during the survey. Site 31, a group of stones with cup markings was previously lost to posterity but was relocated within existing plantation near Boglairoch (WoSAS Pin: 7793, Canmore Id: NS47SE 6, see Figure 9a). It is advisable that this relocation be considered in the future harvesting and replanting schemes for this area of plantation since the stones are currently surrounded by dense forest plantation.
48. There were 41 new sites recorded within the plantation catchment area. These comprise three possible prehistoric cairns (Sites 17, 18 and 43), see Figure 10b), the aforementioned 11 Feuar's / March Stones (Sites 6, 9, 13-16 and 19-23), two further possible Feuar's/ March stones at Sites 42 and 45 (see Figure 10c), 9 possible field clearance cairns (Sites 10, 11, 25-30 and 40), three turf banks at Sites 3, 24 and 33, a turf bank enclosure at Site 47, two drystone field boundaries (Sites 5 and 7), three sheepfolds at Sites 8, 32 and 38, an area of agricultural terracing at Site 12 (Figure 11b), an area of rig and furrow at Site 2, a possible disused quarry at Site 41 (see Figure 11a), a 20th century mound and well/shaft at Sites 33 and 34 and two modern animal (horse) stations at Site 44 and 46 (see Figure 10a).
49. Several modern sites have been recorded to highlight the present use of the landscape. The mound and well or shaft at Sites 33 and 34 associated with the Loch Humphrey reservoir were recorded solely to highlight a health and safety risk. The two animal (horse) stations at Sites 44 and 46 however, were recorded to highlight the present public use of the landscape (see Figure 10a). It seems that the landscape is used readily by the public for amenity use: walking, running, horse-riding and fishing are but some examples. The locations of these two sites are examples that could be included within amenity design for the plantation. Several animal stations were observed across the landscape of which two were recorded. These were recorded due to their positions near focal walking points, such as the station at the base of the hills around Duncolm (Site 44) and one near a viewpoint at Berrybank (Site 46).



Figure 9a: Close up of Cup marked stone at Boglairoch, Site 31.



Figure 9b: View toward Duncolm from Boglairoch with pylons.



Figure 10a: Looking Southeast from animal (horse) station at Site 44.



Figure 10b: Site 17 Cairn from the southeast.



Figure 10c: Site 45 Possible Marker Stone from the North.



Figure 11a: Possible Disused quarry at Site 41.



Figure 11b: Site 12 Possible Agricultural Terracing.

Discussion

50. The desk-based assessment and walkover survey revealed a total of fifty-three archaeological features within and immediately surrounding the proposed planting area (Figure 8). The majority of these were examples of post-medieval rural settlement.
51. The mapping evidence suggested some attempts had been made at land improvement for agricultural purposes such as the possible terraces at Site 12 and field clearance at Sites 4, 10, 11, 25-30, 37, 39, 40 and 43. The only example of visible rig and furrow was that at Site 2 on the south-eastern slopes of The Slacks. There was also extensive evidence for attempts at land drainage over most of the catchment area (see Figure 4).
52. There were two ambiguous sites which may be of some antiquity, perhaps dating back to the prehistoric period. These were two cairns at Sites 17 and 18. All of the features described above survived as upstanding remains. The cultivation remains of rig and furrow at Site 2 and terraces at Site 12, were clearly defined but not perfect examples of their type.
53. Some features which had previously been identified by other parties could not, however, be located. These were an enclosure on Duncolm (Site 50), and the duplicate entries for the cup-marked stone at Site 51 or 52.
54. The evidence for prehistoric activity from mapping evidence, aerial photography and previous investigations is relatively scarce considering the size of the plantation. It was not surprising then that few new possible prehistoric structures were encountered. These were the two possible cairns at Site 17 and 18. However, one of the field clearance cairns at Site 43 may also be of an early provenance. Totalling four possible burial cairns, including Site 1, the evidence suggests that this area was not a focus for prehistoric activity. In consideration of the statutory designated monuments nearby and their functions as mainly burial monuments, this mostly upland landscape could have mainly been used for burial purposes from the Neolithic up until the Bronze Age and even then quite sparingly.
55. There were no Iron Age sites recorded during the walkover survey. The survey by FIRAT on Cochno Hill to the south east produced a similar scarcity of Iron Age sites (Baker, 2008). There are several possible reasons for this. Firstly the proximity to the Antonine Wall and its associated structures to the south may explain the scarcity of native domestic structures. Although the wall acted as a boundary between Roman occupied south and the native-north, the wall was used more as a base of expansion, the Roman presence being felt as far north as Inverness.
56. The landscape itself may be a reason for the lack of both Roman and native enclosed and unenclosed settlement. The terrain is sometimes very difficult to pass with few areas for protection from inclement weather as well as protection from potentially aggressive neighbours. The land comprising the plantation scheme is also relatively far away from any soils capable of crop-yielding (Macaulay Institute, 1982) as attempts at land improvement have gleaned, this land is not capable of supporting large settlements, especially embryonic Iron Age farming communities. Although Duncolm provides incredible 360 degree views of all the local high points right up to Loch Lomond it is also very close to several other Iron Age upland hill-forts which may have been preferred due to their more topographically propitious positions. Examples of these are Sheep Hill (WoSAS PIN: 15838, Canmore Id: NS47SW 6) and Quinloch (WoSAS PIN:n/a, Canmore Id: NS47SW 5).
57. Medieval activity is almost completely absent from the plantation area. The surviving elements are agricultural buildings, concentrated out-with the plantation boundary on the southern portions of the catchment area and continuing in use up to the present day.
58. The abundance of post-medieval activity reflects the general increase in agricultural production at the time. Some 27 of the 53 recorded Sites represent possible post-medieval and later agricultural Sites. Moreover a further 11 Sites: the March Stones are known to be later 19th century additions to this farming tradition. Since the medieval

period then, the function of much of this landscape has been for the grazing of sheep and cattle. The evidence for permanent settlement is almost completely lacking within the plantation boundary apart from that at Burncrooks 1 and 2 (Sites 35 and 36). The building at Burncrooks 1 comprises two small add-ons representing a long-term habitation of the house with some expansion but it is not necessarily a signifier of concentrated activity.

59. All those monuments identified survived as upstanding remains, in an area which appears never to have been subject to intensive land use, either in recent years or in earlier periods. This would suggest that any substantial archaeological remains which had once been present in the area (e.g. burnt mounds, cairns, hut circles) would still survive as visible features which could be identified in the field (see also Jackson, 1978).

Recommendations

60. Presented below are our provisional recommendations for archaeological mitigation in the event of the planting proceeding. Confirmation that these recommendations are acceptable should be confirmed with the appropriate heritage bodies prior to the implementation of any works whose appropriateness may rely on these recommendations.

Value

61. All sites located or considered by this survey have been assessed for their Value against the established Forestry Commission Scotland criteria (see FES Archaeological Survey Guidelines).
62. None of the monuments identified were judged to be of national importance. Nineteen were of regional importance, though this number includes Sites not located and the 13 potential March Stones, due to their relative uniqueness and obscurity. The remaining regionally significant monuments were a prehistoric mound at Site 1 and cairns of potentially prehistoric date at Sites 17, 18 and 43.

Protection

63. Planting design and forestry working practice should meet established industry standards for the integration and maintenance of archaeologically sensitive areas in keeping with FES Archaeological Survey Guidelines (Forestry Commission Scotland, 2010).
64. Those sites which have been assessed to be of regional value (in the absence of any nationally valuable sites) should be marked out and avoided where possible by any proposed planting scheme. Appropriate guidance has been recommended in Table 1.
65. The recommended minimum protection through marking out to ensure preservation of the physical extent of the upstanding archaeological remains is a suggestive 3-5m from the readily visible elements of the site except where a clear topographic feature is present which would warrant the adjustment of this buffer (such as a stream or rocky crag edge/ escarpment etc.).
66. This assessment and survey is recommended as a sufficient appraisal of the ground and hence the unmitigated loss of other lesser significant archaeology is an acceptable loss.

Interpretation

67. For some monuments, there is the potential for them to benefit from being placed into larger clearings should there be an amenity need to introduce such clearings into the design of the planting. In particular Sites 17, 18 and 43 are of a value and suitability to benefit from such a regime due to their putative prehistoric origin.
68. Of the monuments identified in the survey the most distinctive and the ones associated with a complex historical story are the March Stones. These are the physical manifestation of a legal land dispute played out in the 19th century drawing on early 17th century entitlements. The recommendation, above, provides for the protection of these March Stones. However, we think it would be of value for the Forestry Commission

Scotland to consider retaining the capacity to interpret and utilise these remarkable stones in any amenity/access networks they may establish in due course.

69. A suggestive 'Route through the March Stones' has been provided in Figure 12 which we would suggest could be kept clear of planting to retain this capacity to utilise the stones subsequently. This use could eventually take the form of a footpath connecting the stones by their numerical ascriptions. The southern stones in particular provide the best views across the Clyde estuary on a clear day. Retaining these locations as viewpoints should also be a consideration in the plantation scheme should a route between them also be considered.
70. The March stones also happen to provide a fortuitous connection between the upper Kilpatrick Braes and Greenside Reservoir which may provide an informative and leisurely hill-walk for the local denizens of Dumbarton. One stone (Stone 11) is in a recumbent position and if an amenity route were to be approved then it is advisable that this Stone be reinstated in an upright position. This would prevent determined vandals and thieves from damaging the monument further and it would also increase the Stones visibility in the landscape. The 12th stone is missing and ultimately the end of the route would be Stone 11, so the discovery of the final stone's condition would set the tone for the completion of the walk. Possibly a challenge or proposal to members of the public to find the 12th Stone may be given at this point or they could alternatively continue to Greenside reservoir.

Table 1: Recommended protection of Archaeological Sites

Site No	Site Name	Value	Mark out and Avoid	Avoid where possible	WoSAS Site ID	Monument Type	Grid Reference
1	Earthen mound (Wester Dumtigliennan)	Regional	Yes	-	WoSAS 7822	Earthen mound	Centre Point 247886, 673977
2	Rig and Furrow	Local	No	No	None	Rig and Furrow	Centre Point 247520, 674552
3	Turf bank	Local	No	No	None	Turf bank	247369.62, 674095.04 and 247386.02, 674093.58
4	Clearance Cairn (Kilpatrick Braes)	Local	No	No	WoSAS 7850	Clearance Cairn	Centre Point 245997, 674050
5	Field Boundary	Local	No	No	None	Field Boundary	245725.05, 674619.99 and 245761.63, 674616.91
6	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 246632, 674594
7	Drystone Wall	Local	No	No	None	Drystone Wall	Corner Point 246632, 674594
8	Sheepfold	Local	Yes	-	None	Sheepfold	Centre Point 246589, 674339
9	Feuar's/March Stone	Regional	Yes	Yes	None	Boundary Stone	Centre Point 247483, 674960
10	Clearance Cairn	Nil	No	No-	None	Clearance Cairn	Centre Point 246219, 674092
11	Clearance Cairn	Nil	No	No	None	Clearance Cairn	Centre Point 246210, 674096
12	Agricultural Terracing	Local	No	No	None	Agricultural Terracing	Centre Point 245681, 673975
13	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 247417, 674821

Site No	Site Name	Value	Mark out and Avoid	Avoid where possible	WoSAS Site ID	Monument Type	Grid Reference
14	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 247429, 674833
15	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 246894, 674545
16	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 247073, 674902
17	CAIRN	Regional	Yes	-	None	CAIRN	Centre Point 247013, 674933
18	CAIRN	Regional	Yes	-	None	CAIRN	Centre Point 246776, 674952
19	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 247116, 675112
20	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 247322.855, 675069.441
21	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 247520.149, 675000.545
22	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 247511, 675030
23	Feuar's/March Stone	Regional	Yes	-	None	Boundary Stone	Centre Point 247400.982, 675214.831
24	Turf bank/upcast (?) or Robbed-out Cairn	Local	Yes	-	None	Turf bank/upcast (?) or Robbed-out Cairn	Centre Point 245750, 673813
25	Field Clearance	Nil	No	No	None	Field Clearance	Centre Point 245790.750, 675594.629
26	Field Clearance	Nil	No	No	None	Field Clearance	Centre Point 245794.966, 675560.375
27	Field Clearance	Nil	No	No	None	Field Clearance	Centre Point 245789, 675538
28	Field Clearance	Nil	No	No	None	Field Clearance	Centre Point 245774, 675500
29	Field Clearance	Nil	No	No	None	Field Clearance	Centre Point 245768, 675485
30	Field Clearance	Nil	No	No	None	Field Clearance	Centre Point 245768, 675485
31	Cup-marked stones (Boglaibroch)	Local	Yes but out-with boundary in existing plantation. Check management plan for harvesting and replanting strategy for future protection of Stones.	-	WoSAS 7793	Cup-marked stones (Boglaibroch)	Centre Point 245703.166, 675453.153 (coordinates are taken 10m to the SE of Site centre-point due to lack of signal caused by dense tree coverage).
32	Sheepfold	Local	Yes	-	None	Sheepfold	Centre Point 245701, 675257
33	Turf embankment	Nil	No	-	None	Turf embankment	245825, 675637 and

Site No	Site Name	Value	Mark out and Avoid	Avoid where possible	WoSAS Site ID	Monument Type	Grid Reference
	(semi-circular)					(semi-circular)	245813, 675650
34	Modern Well/Shaft	Nil	No	-	None	Modern Well/Shaft	Centre Point 245824, 675641
35	"L" shaped Structure (Burncrooks)	Local	Yes	-	WoSAS 14194	"L" shaped Structure (Burncrooks)	247935, 678939 and 247945, 678949
36	Building (Burncrooks)	Local	Yes	-	WoSAS 14143	Building (Burncrooks)	Centre Point 247847, 678918
37	Field Clearance / Cairn	Local	Yes	-	None	Field Clearance / Cairn	Centre Point 247714, 676459
38	Sheepfold	Local	Yes	-	None	Sheepfold	Centre Point 247715, 679487
39	Field Clearance (Earl's Seat)	Local	Yes	-	WoSAS 14195	Field Clearance (Earl's Seat)	Centre Point 247695, 679521
40	Field Clearance / Cairn	Local	Yes	-	None	Field Clearance / Cairn	Centre Point 247767, 679558
41	Disused Quarry (unmapped)	Local	Yes	-	None	Disused Quarry (unmapped)	Centre Point 245612, 676904
42	Marker Stone (standing stone)	Regional	Yes	-	None	Marker Stone / Boundary Stone / (standing stone)	Centre Point 246792, 677298
43	Field Clearance / Cairn	Regional	Yes	-	None	Field Clearance / Cairn	Centre Point 246657, 676986
44	Animal (Horse) Station	Nil	No	No	None	Animal (Horse) Station	Centre Point 246848, 677049
45	Large Glacial Erratic Stone	Regional	Yes	-	None	Large Glacial Erratic Stone, Boundary Stone	Centre Point 247211.293 and 676143.992
46	Animal (Horse) Station	Nil	No	No	None	Animal (Horse) Station	Centre Point 246879, 676107
47	Turf bank enclosure	Nil	No	No	None	Turf bank enclosure	247889.23, 673874.86 and 247907.17, 673842.73
48	Coin (Roman)	Local	No	No	WoSAS 7848	Coin (Roman)	Listed Point 246500, 673500
49	Flake (Flint)	Local	No	No	WoSAS 7794	Flake (Flint)	Listed Point 245250, 679750
50	Enclosure	Regional	No	No	WoSAS 7791	Enclosure	Listed Point 247150, 677550
51	Cup-marked stone	Regional	No	No	WoSAS 7790	Cup-marked stone	Listed Point 245760, 675800
52	Cup and ring marked stones	Regional	No	No	WoSAS 7790	Cup and ring marked stones	Listed Point 245760, 675800
53	Farmstead (Dumbarton Muir)	Local	No	No	WoSAS 7788	Farmstead (Dumbarton Muir)	Listed Point 245250, 679950

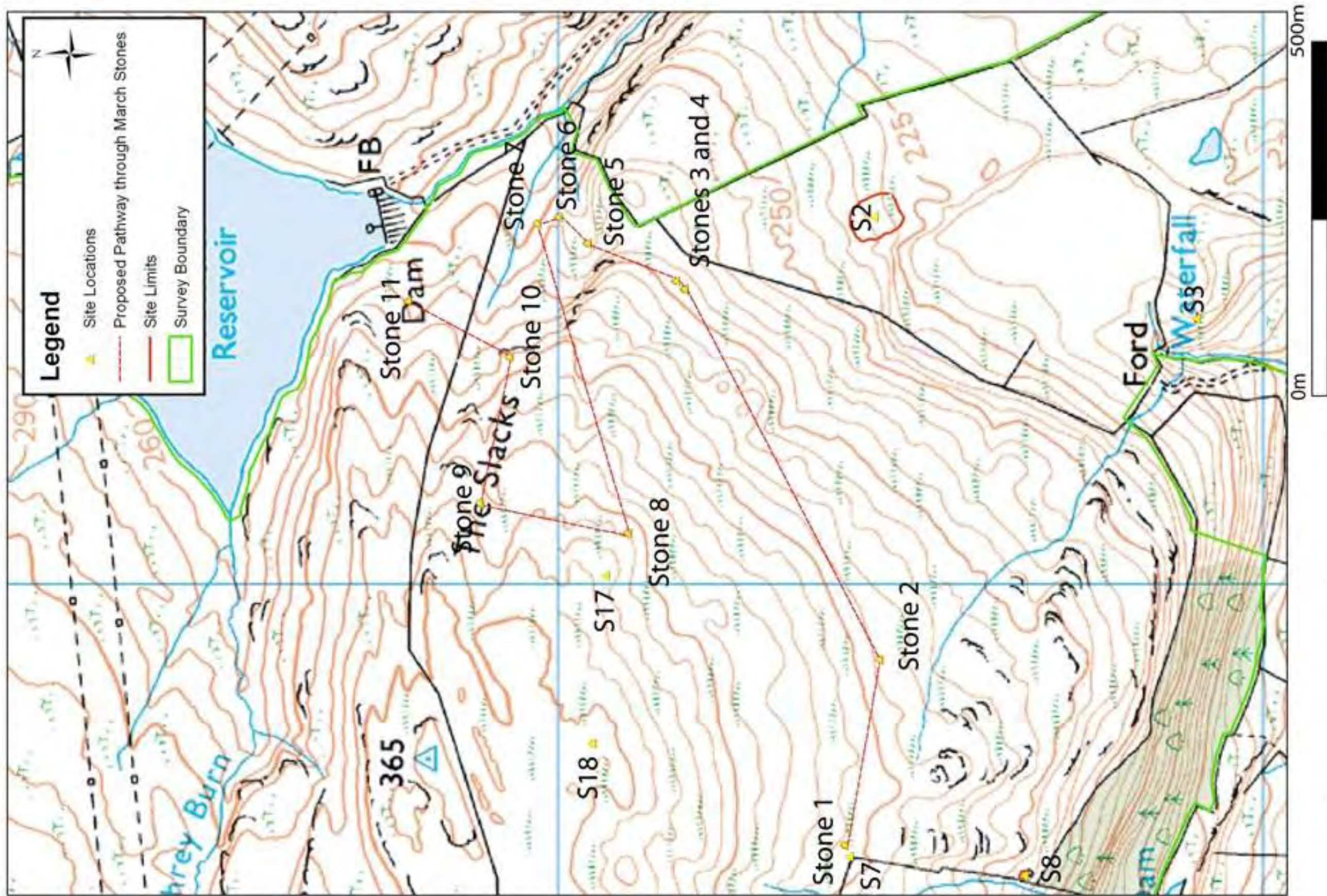


Figure 12: Proposed Amenity Route through the March Stones

Conclusion

71. A programme of archaeological assessment and survey works was required by Forestry Commission Scotland in respect of a series of defined land parcels on the Kilpatrick Hills in West Dunbartonshire (centred NGR: 246987, 676438). This land is largely open ground which is proposed for afforestation. This archaeological survey has been designed to establish a sound baseline on the archaeological resource within the landholding of the Forestry Commission Scotland and hence inform their management of the ground. The archaeological survey works were carried out during June, 2012.
72. Fifty-three potential cultural heritage sites have been identified by the assessment within the study area; forty-seven of which lie within the proposed location for the planting scheme. It is likely that twenty-seven of these sites are of a local or regional significance. Given the nature of land use within the development area these significant sites are still likely to survive in reasonably good condition.
73. Recommendations for the preservation in-situ of these twenty-seven sites have been made in keeping with best practice and suggestive recommendations for public amenity use has been incorporated into this study.

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Cartographic

Blaeu, J.	1654	Levinia Vicecomitatus (The Province of Lennox called the Shyre of Dun-Britton)
Gordon, Robert	1615?-1686	Gordon, Sterlinshyr & Lennox, [and], Sterlingshyre, wt a part of the Lennox, and sum of Clydsdail.
Moll, H	1745	The Shires of Lenox [i.e. Lennox} or Dunbarton
Ordnance Survey	1861	1 st Edition Ordnance Survey, Dumbartonshire, Sheet 13 1:10,560
Ordnance Survey	1899	2 nd Edition Ordnance Survey, Dumbartonshire, 1:10560
Ordnance Survey	1922	3 rd Edition Ordnance Survey, Dumbartonshire, 1:10,560
Pont, Timothy	1560-1614?	The East-central Lowlands (Stirling, Falkirk and Kilsyth)
Roy, W	1747-55	Military Map of Scotland
Macaulay Institute	1982	Soil Survey of Scotland: South West Scotland; Land Capability for Agriculture, Sheet 6, 1:250,000, Macaulay Institute for Soil Research, Aberdeen.
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Thomson, J	1832	Dumbartonshire

Appendix 1: Site Details

Presented below are details of the archaeological sites located within, or in immediate proximity to the area proposed for planting (see Figure 8 for location of sites).

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
1	Earthen mound (Wester Dumtighlennan)	Earthen mound	Centre Point 247886, 673977		N	WoSAS 7822	43270	NS47SE 17	Oval shaped earthen mound of turf, no visible stones. Covered in heather. Measures 6.5m x 5.5m x 0.4m. Sits on gentle W-E slope, approx. 150m from drystone wall to east. Not prominent in the landscape from any angle until within 20metres of its location.	Yes as 'Mound'	B	Regional
2	Rig and Furrow	Rig and Furrow	Centre Point 247520, 674552		F	None	None		80 square metres of rig and furrow on a hill running north-north-west to south-south-east down slope about 35m west of small burn. Surrounded by outcrops of bedrock. Post-medieval in date with no associated structures. Rig is roughly 3.5m wide on average. Visible from at least 250m away.	No	C	Local
3	Turf bank	Turf bank	247369.62, 674095.04	247386.02, 674093.58	F	None	None		Post-medieval turf bank/ wall truncated by farm track. Runs east to west from waterfall up slope over bedrock. Only western extent recorded, measures 20m long and 4m wide. Estimated length is up to 50m.	Yes	C	Local
4	Clearance Cairn (Kilpatrick Braes)	Clearance Cairn	Centre Point 245997, 674050		N	WoSAS 7850	43300	NS47SE 44	Possible post-medieval clearance cairn sub-rounded (oval) in shape, located on south facing slope. Measures 9.2m x 5.5m 1.2m. Composed of sub-rounded small basalt	No	C	Local

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
									rock 40cm x 40cm x 24cm average. Ninety percent covered in turf.			
5	Field Boundary	Field Boundary	245725.05, 674619.99	245761.63, 674616.91	F	None	None		Post-medieval drystone wall boundary rubble, runs east to west, 2km long by 3m wide. Stones average 40cm x 60cm x 30cm, basalt rock. Only eastern extents mapped due to existence on OS mapping. Recorded as a precaution.	Yes	C	Local
6	Feuar's/March Stone	Boundary Stone	Centre Point 246632, 674594		F	None	None		Feuars Stones: Sandstone. c.1857 marked '1' on its upper surface / top. Correlates to the same mapped stone. 47.5cm x 48cm in plan by 47cm (pointed surface) to 75cm full height to the grass level. Marked 'L/B' on its north face, 'B' on its west face and 'B/L' on its east face and 'B' on its south face.	No	B	Regional
7	Drystone Wall	Drystone Wall	Corner Point 246632, 674594		F	None	None		Drystone wall on OS map near (1007). Recorded for its relationship to March Stone 1 (Site 6). Upstanding to a height of 1.2m running for at least 1km WNW-ESE then directly south at the recorded point, downslope to Site 8. There is a gap in the wall near the NE corner here where Site 6, March Stone 1, was identified. You could access the March Stones from the existing path here.	Yes	C	Local
8	Sheepfold	Sheepfold	Centre Point 246589, 674339		F	None	None		Post-medieval sheepfold c.18th century. Sub-rectangular. Walls survive to a height of 1.0-1.6m and average width of 0.8m-1.3m. Two entrances at south-	Yes	C	Local

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
									west and south-east corners. Average stone size is 30cmx15cmx15cm to 50cmx40cmx30cm.			
9	Feuar's/March Stone	Boundary Stone	Centre Point 247483, 674960		F	None	None		Feurars Stones: Sandstone. c.1857 marked '5' on its upper surface / top. Correlates to the same mapped stone. 47cm x 45cm in plan by 32cm (pointed surface) to 55cm full height to the grass level. Marked 'J' on its north-west face, 'J/B' on its south-west face and 'B' on its south-east face and 'B/J' on its north-east face.	No	B	Regional
10	Clearance Cairn	Clearance Cairn	Centre Point 246219, 674092		F	None	None		Possible post-medieval clearance cairn. Measures 7m long (15m included turf)x 5.5m wide x 0.5m high. At least 3 large stones on the periphery. Cairn composed of small to medium angular stones (average 15cmx10cmx10cm).	No	D	Other
11	Clearance Cairn	Clearance Cairn	Centre Point 246210, 674096		F	None	None		Possible post-medieval clearance cairn. Sub-rounded in shape composed of turf and sub-angular stones. 6m average diameter by 0.6m- 0.8m in height.	No	D	Other
12	Agricultural Terracing	Agricultural Terracing	Centre Point 245681, 673975		F	None	None		Large area of possible agricultural terraces c. 18th century, roughly 1km wide by 0.5km long on south facing slope of Kilpatrick braes. Not a great example of terracing. Currently rough pasture for mixed grazing. Some areas of drainage evident but little else to warrant detailed recording. Not	No	C	Local

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
									an exemplar of landscaping or land improvement.			
13	Feuar's/March Stone	Boundary Stone	Centre Point 247417, 674821		F	None	None		Feuars Stones: Sandstone. c.1857 marked '3' on its upper surface / top. Correlates to the same mapped stone. 45cm x 44cm in plan by 43cm (pointed surface) to 52cm full height to the grass level. Marked 'L' on its north-west face, 'B' on its south-west face and 'B' on its south-east face and 'B/L' on its north-east face.	No	B	Regional
14	Feuar's/March Stone	Boundary Stone	Centre Point 247429, 674833		F	None	None		Feuars Stones: Sandstone. c.1857 marked '4' on its upper surface / top. Correlates to the same mapped stone. 47cm x 47cm in plan by 36cm (pointed surface) to 43cm full height to the grass level. Marked 'B/J' on its north-north-east face, 'L/B' on its south-south-west face and 'B' on its east face and 'J/L' on its west face.	No	B	Regional
15	Feuar's/March Stone	Boundary Stone	Centre Point 246894, 674545		F	None	None		Feuars Stones: Sandstone. c.1857 marked '2' on its upper surface / top. Correlates to the same mapped stone. 45cm x 43cm in plan by 44cm (pointed surface) to 69cm full height to the grass level. Marked 'L' on its north face, 'B' on its south face and 'L' on its east face and 'L/B' on its west face.	No	B	Regional
16	Feuar's/March Stone	Boundary Stone	Centre Point 247073, 674902		F	None	None		Feuars Stones: Sandstone. c.1857 marked '8' on its upper surface / top. Correlates to the same mapped stone. 44cm x 45cm in plan by 47cm (pointed	No	B	Regional

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
									surface) to 65cm full height to the grass level. Marked 'J/L' on its north face, 'L' on its south face and 'L/J' on its east face and 'L' on its west face.			
17	CAIRN	CAIRN	Centre Point 247013, 674933		F	None	None		Stone cairn of possible prehistoric date. Located 100m east of march Stone 8 (1016). Composed of several medium to large sized rounded and sub-angular stones, covered in turf and slightly exposed. Cairn may also extend to the north and south but this is not certain.	Yes	B	Regional
18	CAIRN	CAIRN	Centre Point 246776, 674952		F	None	None		Stone cairn of possible prehistoric date. Likely known as 'Robin Law Cairn'. Composed of several medium to large sized rounded and sub-angular stones, covered in turf and only partially exposed. Full extents unclear due to turf and grass coverage. Similar to cairn (1017)	Yes	B	Regional
19	Feuar's/March Stone	Boundary Stone	Centre Point 247116, 675112		F	None	None		Feuars Stones: Sandstone. c.1857 marked '9' on its upper surface / top. Correlates to the same mapped stone. 46cm x 45cm in plan by 48cm (pointed surface) to 64cm full height to the grass level. Marked 'L' on its north and west faces, L/J on its east face and 'L/J' on its south face.	Yes	B	Regional
20	Feuar's/March Stone	Boundary Stone	Centre Point 247322.855		F	None	None		Feuars Stones: Sandstone. c.1857 marked '10' on its upper surface / top. Correlates to the same mapped stone. 48cm x 47cm in plan by 44cm (pointed	Yes	B	Regional

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
			675069.441						surface) to 58cm full height to the grass level. Marked 'B/L' on its north face, 'L/J' on its west face and 'J/L' on its east face and 'J' on its south face.			
21	Feuar's/Mar ch Stone	Boundary Stone	Centre Point 247520.149 , 675000.545		F	None	None		Feuars Stones: Sandstone. c.1857 marked '6' on its upper surface / top. Correlates to the same mapped stone. 47cm x 47cm in plan by 50cm (pointed surface) to 73cm full height to the grass level. Marked 'J' on its northwest face, 'J/B' on its southwest face and 'B' on its southeast face and 'B/J' on its northeast face.	Yes	B	Regional
22	Feuar's/Mar ch Stone	Boundary Stone	Centre Point 247511, 675030		F	None	None		Feuars Stones: Sandstone. c.1857 marked '7' on its upper surface / top. Correlates to the same mapped stone. 47cm x 50cm in plan by 54cm (pointed surface) to 70cm full height to the grass level. Marked 'L' on its north face, 'J/B' on its south face and 'B' on its east face and 'L/J' on its west face.	Yes	B	Regional
23	Feuar's/Mar ch Stone	Boundary Stone	Centre Point 247400.982 , 675214.831		F	None	None		Feuars Stones: Sandstone. c.1857 Recessed Stone i.e. stone has fallen over onto its south face. Marked '11' on its upper surface / top. Correlates to the same mapped stone. 43cm x 45cm in plan by 54cm (pointed surface) to 70cm full height to the grass level. Marked 'L' on its north face, 'J/B' on its south face and 'B' on its east face and 'L/J' on its west face.	Yes	B	Regional

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
24	Turf bank/upcast (?) or Robbed-out Cairn	Turf bank/upcast (?) or Robbed-out Cairn	Centre Point 245750, 673813		F	None	None		Turf embankment, annular in shape, possible upcast remains of possible removal of cup-marked stone (WoSAS Pin: 7740). Measures 5m wide by 4m in length with a maximum height of 0.50m. Possibly prehistoric structure due to its relatively small size, a robbed-out Cairn?	No	C	Local
25	Field Clearance	Field Clearance	Centre Point 245790.750 , 675594.629		F	None	None		Possible field clearance cairn or stone debris from nearby stone wall construction. Composed of small to medium sized stones (average 15cmx 20cmx 20cm) covered densely with turf. Measures 3.5m wide by 2m long and a maximum of 0.20m in height. Part of a series of clearance cairns along western field boundary.	No	D	Other
26	Field Clearance	Field Clearance	Centre Point 245794.966 , 675560.375		F	None	None		Possible field clearance cairn or stone debris from nearby stone wall construction. Composed of small to medium sized stones (average 15cmx 20cmx 20cm) covered densely with turf. Measures 3.5m wide by 2m long and a maximum of 0.20m in height. Part of a series of clearance cairns along western field boundary.	No	D	Other
27	Field Clearance	Field Clearance	Centre Point 245789, 675538		F	None	None		Possible field clearance cairn or stone debris from nearby stone wall construction. Composed of small to medium sized stones (average 15cmx 20cmx 20cm) covered densely with turf. Measures 3.5m wide by 1m long	No	D	Other

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
									and a maximum of 0.30m in height. Part of a series of clearance cairns along western field boundary.			
28	Field Clearance	Field Clearance	Centre Point 245774, 675500		F	None	None		Possible field clearance cairn or stone debris from nearby stone wall construction. Composed of small to medium sized stones (average 15cmx 20cmx 20cm) covered densely with turf. Measures 3.5m wide by 1.5m long and a maximum of 0.20m in height. Part of a series of clearance cairns along western field boundary.	No	D	Other
29	Field Clearance	Field Clearance	Centre Point 245768, 675485		F	None	None		Possible field clearance cairn or stone debris from nearby stone wall construction. Composed of small to medium sized stones (average 15cmx 20cmx 20cm) covered densely with turf. Measures 3.5m wide by 3m long and a maximum of 0.30m in height. Part of a series of clearance cairns along western field boundary.	No	D	Other
30	Field Clearance	Field Clearance	Centre Point 245768, 675485		F	None	None		Possible field clearance cairn or stone debris from nearby stone wall construction. Composed of small to medium sized stones (average 15cmx 20cmx 20cm) covered densely with turf. Measures 3m wide by 1.5m long and a maximum of 0.30m in height. Part of a series of clearance cairns along western field boundary.	No	D	Other
31	Cup-marked	Cup-marked	Centre Point		N	WoSAS	43240	NS47SE 6	A group of stones approx.5m in diameter (local basalt, covered	No	C	Local

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
	stones (Boglaibroch)	stones	245703.166 675453.153 (co-ordinates are taken 10m to the SE of Site centre-point due to lack of signal caused by dense tree coverage).			7793			with moss) within existing plantation- 2 larger stones perviously lost c 1970. Relocated about 15-25m west of stone wall. Larger stone has unclear markings but medium stones has clear cup mrk on its north-west side (marking measuring 5cm in diameter). Medium stone measures 50cmx 40cmx 20cm.			
32	Sheepfold	Sheepfold	Centre Point 245701, 675257		F	None	None		Post-medieval sheepfold located 500m south of Loch Humphrey near Boglaibroch. Composed mostly of drystone and partially with wooden and metal fencing splitting the sheepfold into several small room compartments. Also partially with concrete flooring Still in use. Measures c. 50m x 75m.	Yes	C	Local
33	Turf embankment (semi-circular)	Turf embankment	245825, 675637	245813, 675650	F	None	None		Semi-circular turf mound/embankment surrounding modern well (1034) from the north. (1033) was likely created by the upcast caused by the construction of well (1034). Measures 30m in diameter and is a maximum 0.60m in height.	No	D	Other
34	Modern Well/Shaft	Modern Well/Shaft	Centre Point 245824,		F	None	None		Modern 19th/20th Century well / shaft(or access related to reservoir) composed of brick	No	D	Other

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
			675641						and concrete. Measures 1.60m in diameter and may be up to 50m in depth. Each brick measures 23cm x 11cm x 10cm. Iron fitted steps within interior of well from top to bottom. Well / Shaft is currently covered with lackidaisical wooden palette. Recorded to bring to the attention of FCS for health and safety precaution.			
35	"L" shaped Structure (Burncrooks)	Terrace	247935, 678939	247945, 678949	N	WoSAS 14194	82381	NS47NE 12	"L" shaped wall/terracing composed of stone and turf located west of post-medieval farm building (1035). Measuring 12mx 3m x 0.4m (south side). Only several large stones survive from the original foundation course, measuring an average 30cm x 30cm.	No	C	Local
36	Building (Burncrooks)	Building	Centre Point 247847, 678918		N	WoSAS 14143	82380	NS47NE 11	Located approx. 125m to the west of Burnscrook Reservoir. Domestic, rectangular building with two main rooms and two small agricultural add-ons. Core structure remains semi-upstanding with eastern and western add-ons described in 1989. Composed of drystone walls with sub-angular basalt stones. Various medium to large sized stones averaging 30cm x 50cm x 30cm. Overall building measures 25m x 8m with the best preserved wall at 0.70m in height x 1-1.2m wide. Rubble spread from house extends 5m to the southeast of the exterior wall.	No	C	Local

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
37	Field Clearance / Cairn	Field Clearance / Cairn	Centre Point 247714, 676459		F	None	None		Circular single layer of stones located 20m south of sheepfold (1038). Stones are an average 25cm x 15cm x 25cm in size and are basalt. (1037) measures 5m in diameter and 0.60m in maximum height. Possibly a robbed out cairn or clearance or natural bedrock due to prevalence of surrounding bedrock outcrop upon site.	No	C	Local
38	Sheepfold	Sheepfold	Centre Point 247715, 679487		F	None	None		Sheepfold located south-east of Earls Seat cairn (1037). Ad hoc re-use of 18th century Drystone walls. Some modern cord rig visible at eastern entrance. Sheepfold composed of drystone walls and wooden and metal fencing. Measures c. 100mx 30m. Currently in use.	Yes	C	Local
39	Field Clearance (Earl's Seat)	Field Clearance	Centre Point 247695, 679521		N	WoSAS 14195	82382	NS47NE 13	Earl's Seat Cairn. Field clearance cairn, circular in shape, located northwest of sheepfold (1038) as described in NMR. From southeast approach cairn is obscured by gorse, almost 80 percent coverage. Cairn of several visible stones averaging 0.10m x 0.15m in size. Cairn measures 5.5m in diameter and 0.50m in maximum height. Possibly pre-historic in date.	No	C	Local
40	Field Clearance / Cairn	Field Clearance / Cairn	Centre Point 247767, 679558		F	None	None		Possible field clearance, located north-west of sheepfold (1038) circular in shape, composed of several visible medium sub-rounded stones c. 10-15cm	No	C	Local

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
									squared. (1040) is heavily covered with turf. Measures 7m x 3m x 0.50m maximum height (on northern side).			
41	Disused Quarry (unmapped)	Quarry	Centre Point 245612, 676904		F	None	None		Site of disused quarry. Composed of a basalt rock face on the northeastern edge of Cairn of Fyn Loch Hill. "U" shaped indentation into hill face. Measuring 40m long x 20m wide and 3m in maximum height.	No	C	Local
42	Marker Stone (standing stone)	Marker Stone, Boundary Stone, (standing stone)	Centre Point 246792, 677298		F	None	None		Large basalt stone found at the convergence of walkers paths between Duncolm and Middle Duncolm. Measures 0.30m wide x 1.30m long x 0.9m in maximum height. Marker stone possibly associated with (1045).	No	B	Regional
43	Field Clearance / Cairn	Field Clearance / Cairn	Centre Point 246657, 676986		F	None	None		Possible prehistoric cairn or Field Clearance cairn, oval in shape, located at the northeastern foothill of Middle Duncolm. Composed of some very large stones (possibly natural bedrock) with smaller sub-rounded stones spread along the surface. Covered in 90% turf. (1043) measures 12m long x 7m wide x 0.70m in maximum height. Possibly of pre-historic date.	No	B	Regional
44	Animal (Horse) Station	Animal (Horse) Station	Centre Point 246848, 677049		F	None	None		Possible animal (particularly horse) station located at the eastern foothills of Middle Duncolm. Composed of three wooden posts/planks to form a wide 'H' shaped posted upright into the ground and nailed together. Small trampled area	No	D	Other

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
									(c.2.2m in diameter) surrounds station. Vertical posts measure 1m x 8cm squared, horizontal post is 1.7m long x 3cm x 7cm.			
45	Large Glacial Erratic Stone	Large Glacial Erratic Stone, Marker Stone, Boundary Stone, (standing stone)	Centre Point 247211.293 and 676143.992		F	None	None		Glacial erratic stone located in small valley between Dirty Leven and Berry Bank. Possibly used as marker stone and associated with similar stone (1042) near Duncolm. Also, may be surrounded by gorse covered bank 5m in diameter. Stone measures 1.20m wide by a maximum of 0.90m in height.	No	B	Regional
46	Animal (Horse) Station	Animal (Horse) Station	Centre Point 246879, 676107		F	None	None		Possible animal (particularly horse) station located at the top of Berry Bank. Composed of three wooden posts/planks to form a wide 'H' shaped posted upright into the ground and nailed together. Small trampled area (c.2.2m in diameter) surrounds station. Vertical posts measure 1m x 8cm squared, horizontal post is 1.7m long x 3cm x 7cm.	No	D	Other
47	Turf bank enclosure	Turf bank enclosure	247889.23, 673874.86	247907.17, 673842.73	F	None	None		Rough 'L-shaped' turf embankment/wall. 47m long, survives 1.4m (average wide), and 0.3m-0.5m in height. Estimated 25m x 25m. Intermittent heights due to heavy truncation by farmer tracks.	No	D	Other
48	Coin (Roman)	Coin	Listed Point 246500, 673500		U	WoSAS 7848	None		Roman coin findspot recorded in 1974. Site Name 'Old Kilpatrick'.	No	C	Local

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
49	Flake (Flint)	Flake	Listed Point 245250, 679750		N	WoSAS 7794	43241	NS47NE 7	Flint flake findspot recorded in 1974. Site Name 'Dumbarton Muir'.	No	C	Local
50	Enclosure	Enclosure	Listed Point 247150, 677550		N	WoSAS 7791	43238	NS47NE 4	Site of possible ditched enclosure on top of Duncolm as recorded in 1971. No evidence of ditched enclosure found during survey. NGR location is outwith plantation boundary. The noted NGR location is on a precarious slope and seems unlikely to exist there. There are many flat areas across the hill which would provide better areas for habitation should any exist there. No upstanding remains were identified during the survey.	No	B	Regional
51	Cup-marked stone	Cup-marked stone	Listed Point 245760, 675800		N	WoSAS 7790	43237	NS47NE 3	Site of possible cup marked stone found on the southern shore of Loch Humphrey reservoir in 1971. Area visited during survey with no sign of any cup-marked stones nor any rock-faces. Exposed stones were a rarity here, possibly overgrown since the 1970s survey or mistaken for Site 52.	No	B	Regional
52	Cup and ring marked stones	Cup and ring marked stones	Listed Point 245760, 675800		N	WoSAS 7790	43237	NS47NE 3	Site of possible cup and ring marked stone found south of Fyn Loch in 1971. Area visited during survey with no sign of any cup and ring marked stone. One previous visit noted that it was 'definitely not' a cup and ring marking. Same site as Site 51?	No	B	Regional
53	Farmstead (Dumbarton)	Farmstead	Listed Point 245250,		N	WoSAS	43235	NS47NE 10	Site of a rectangular steading reportedly located on the east	No	C	Local

Site Number	Site Name	Site Type	Grid Ref. Point 1	Grid Ref. Point 2 (where appropriate)	Primary Source	WoSAS PIN	Canmore Id	Canmore NMRS	Description	On OS Mapping?	FCS Category	Significance
	Muir)		679950			7788			bank of Knockupple Burn near a rocky crag during a survey in 1974. This area was visited during survey with no visible signs of any archaeology. May be a co-ordinates issue because co-ordinate points are not near a visible geographical 'rocky crag'. Not visible on Aerial photographs. Area very densely covered in heather.			

Appendix 2: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	West Dunbartonshire
PROJECT TITLE/SITE NAME:	Gavinburn Survey
PROJECT CODE:	12027
PARISH:	Old Kilpatrick and Dumbarton
NAME OF CONTRIBUTOR:	Katie Sludden
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Assessment and Survey
NMRS NO(S):	NS47SE 17, NS47SE 44, NS47SE 6, NS47NE 12, NS47NE 11, NS47NE 7, NS47NE 4, NS47NE 3, NS47NE 3, NS47NE 10.
SITE/MONUMENT TYPE(S):	Earthen Mound, Clearance Cairn, Cup marked stones, Structure, Building, Field Clearance, Coin, Flint Flake, Enclosure, Cup marked stone, cup and ring marked stones, farmstead.
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NS 46987 76438 (centred on)
START DATE (this season)	June 2012
END DATE (this season)	June 2012
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>A programme of archaeological assessment and survey works was required by Forestry Commission Scotland in respect of a series of defined land parcels on the Kilpatrick Hills in West Dunbartonshire (centred NGR: 246987, 676438). This land is largely open ground which is proposed for afforestation. This archaeological survey has been designed to establish a sound baseline on the archaeological resource within the landholding of the Forestry Commission Scotland and hence inform their management of the ground. The archaeological survey works were carried out during June, 2012.</p> <p>Fifty-three potential cultural heritage sites have been identified by the assessment within the study area; forty-seven of which lie within the proposed location for the planting scheme. It is likely that twenty-seven of these sites are of a local or regional significance. Given the nature of land use within the development area these significant sites are still likely to survive in reasonably good condition.</p> <p>Recommendations for the preservation in-situ of these twenty-seven sites have been made in keeping with best practice and suggestive recommendations for public amenity use has been incorporated into this study.</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	N/a
SPONSOR OR FUNDING BODY:	Forestry Commission Scotland
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
EMAIL ADDRESS:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Reports submitted to the West of Scotland Archaeology Service and archive to RCAHMS Collections

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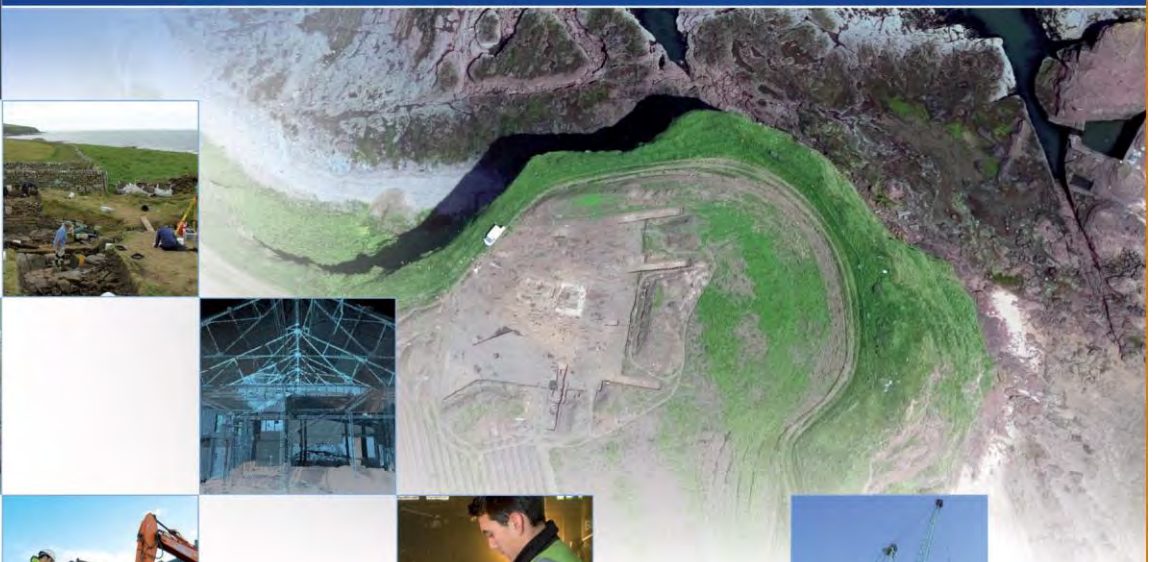
Kilpatrick Hills Forest Design Plan Appendices

Appendix VI(iii) Cochno Hill North Archaeological Survey

Kilpatrick Hills and Cochno Hill North

An archaeological survey

AOC 22339
29th March 2013



ARCHAEOLOGY

HERITAGE

CONSERVATION

Kilpatrick Hills and Cochno Hill North

An archaeological survey

On Behalf of: **Forestry Commission Scotland**
Scottish Lowlands Forest District
Five Sisters House
Five Sisters Business Park
West Calder
EH55 8PN

National Grid Reference (NGR):

AOC Project No: **22339**

Prepared by: **Graeme Cavers**

Illustration by: **Graeme Cavers**

Date of Fieldwork: **8th to 18th March 2013**

Date of Report: **29th March 2013**

This document has been prepared in accordance with AOC standard operating procedures.

Author: **Date:**

Approved by: **Date:**

Draft/Final Report Stage: **Date:**

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Plate 36: View of AOC18, grouse butt at Greenland, Auchentorlie, facing SW.
Plate 37: View of AOC19, grouse butt at Greenland, Auchentorlie, facing W.
Plate 38: View of Greenland grouse butt GB1.
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Plate 40: View of Brown Hill grouse butt GB2, facing S.
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Plate 43: View of Brown Hill grouse butt, GB6, facing S.
Plate 44: View of Brown Hill grouse butt GB7, facing S.
Plate 45: View of Brown Hill grouse butt GB8, facing S.

Maps

- Map 1: Cochno Hill North Survey Area, showing newly identified heritage features.
Map 2: Cochno Hill North Survey Area, showing newly identified heritage features on 25cm aerial photograph.
Map 3: Grouse butt groups at Craigairstie, Greenland and Brown Hill.

Abstract

This report details the results of an archaeological survey of Cochno Hill North, Kilpatrick Hills, Dumbartonshire, which was undertaken in March 2013 on behalf of the Forestry Commission Scotland. Each of the sites is assessed according to FCS guidelines on the assessment of importance, and management recommendations are made. In contrast to previous surveys of the area, prehistoric sites dominate the archaeology of the surveyed area.

Part two of the report considers the results of previous surveys of the Kilpatrick Hills, and places the archaeology of the area in its local, regional and national context. The significance and value of the heritage assets of the area is considered according to FCS and SHEP guidelines.

Part One

Archaeological Survey of Cochno Hill North

Executive Summary

1. Part One of this report details the results of a prospective archaeological survey at Cochno Hill North, the remaining unsurveyed parcel of land in the Kilpatrick Hills area of Forestry Commission Scotland property. A walkover survey of this zone was carried out, with the Forestry Commission's forester module dataset updated to include new discoveries. In total, 16 newly identified archaeological sites were recorded at Cochno Hill North, comprising boundary dykes and enclosure banks, possible relict agricultural remains, shielings, cairns and several prehistoric house stances. The results contrast with other archaeological surveys in the area in being dominated by features of potentially prehistoric date and as such fill in some of the gaps in the archaeological record of the Kilpatrick Hills.
2. In addition to the prospective survey, each of the previously known archaeological sites located in the Kilpatrick Hills forestry were visited and recorded. These sites included the remains of three chambered cairns and numerous modern grouse shooting butts.
3. Part Two of this report compiles and discusses the archaeology of the Kilpatrick Hills, placing the archaeology of the area in its regional context and considering the wider significance of this resource.

Project Background

4. The survey of the Cochno Hill North study area completes the archaeological recording of FCS land at Kilpatrick Hills, near Dumbarton. Previous surveys of the areas to the N, S and W of Cochno Hill North were carried out in 2008 (Baker 2008) and 2012 (Sludden and Mulligan 2012), recording over 150 sites of archaeological significance. The present project was designed to provide baseline data on the heritage resource of Cochno Hill North, as well as on the known archaeological sites and monuments previously recorded, but unsurveyed, on the Kilpatrick Hills forestry plantation. Seven such sites were included in the survey: the chambered cairn at Cairnhowit, an enclosure or possible shielings at Windyedge, a chambered cairn at Gallangad Burn, a chambered cairn at Boglairoch, cup and ring marked rocks (nil antiquity) at Loch Humphrey and three groups of grouse shooting butts at Criagarestie, Greenland and Brown Hill, Auchentorlie.

Desk based assessment

5. Prior to undertaking fieldwork, a range of mapping sources were consulted in order to assess the study area for potential features. These primarily involved assessment of the first (1865) and second (1896) edition (six-inch-to-the-mile) Ordnance Survey maps (Sheets XXIII and XIX). The study area is blank in each of these sources, aside from the contemporary field dykes.
6. In addition to the Ordnance Survey map assessment, 25cm vertical aerial photography (Getmapping 2012) for the study area was inspected and a series of target sites identified for verification in the field. This data was supplemented by inspection of Google and Bing satellite imagery. In general, aerial imagery was not particularly fruitful in the identification of new sites, although several of the targets identified were found to be genuine. It is notable that in some cases, sites that appeared to

be very clear in aerial imagery were found on the ground to be natural, while some well preserved sites recorded during the walkover survey were invisible in all aerial datasets. A combination of approaches is essential in prospective survey such as the one carried out at Cochno Hill North.

Character of the study area

7. The study area comprises upland moorland, with soils being virtually exclusively acidic blanket peat, formed on poorly draining basaltic bedrock geology, principally Carboniferous basalt and spilite. The Historic Landuse Assessment categorises the area as rough grazing and drained rough grazing of prehistoric to 20th century date, indicating the very marginal value of the area in agricultural terms throughout the historic period. Peat depth varies from around 20cm to well over 1.5m in places where eroding sections have made the profile visible; as a consequence, the visibility of archaeological features relating to prehistoric activity is largely confined to the higher ridges where peat accumulation is less substantial.
8. Topographically, the study area comprises rolling hills with occasional steep cliffs aligned along the main glacial flow direction roughly NE-SW. The summit of Duncolm, at 410m, dominates the area, while the ridges of Craighirst (333m) and Cochno Hill (348m) break the skyline to the south.
9. The study area has been heavily drained in modern times, and drainage ditches are a dominant feature across the Cochno Hill North area. In addition, significant sections of the area surveyed, including much of Craighirst, sections of Dennistoun's Crags and the south-eastern corner of the study area on the S-facing slopes above Jaw Loch have been recently planted with saplings. This disturbance of the ground has significantly reduced the likely visibility of archaeological sites in these areas, though some sites were identified within these zones (e.g. sites AOC14, AOC15 and AOC16).

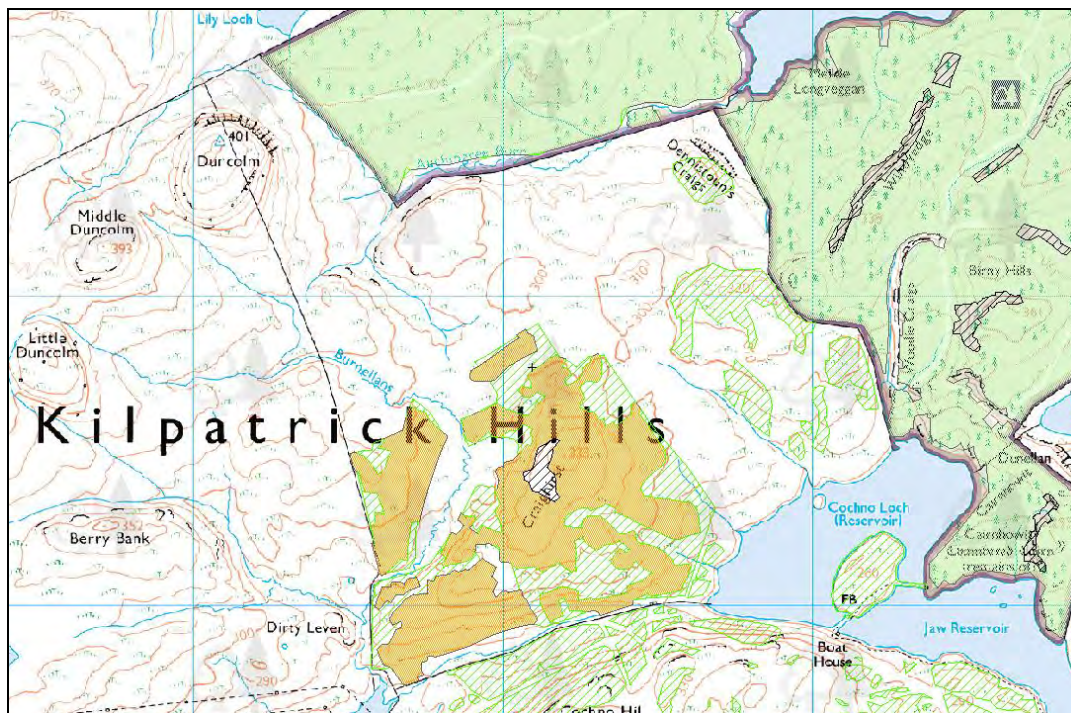


Figure 1: Extent of planted areas within the study area (green= new plantation, 'assumed woodland', orange= ground prepared form plantation).

Aims of the Survey

10. The aims of the survey were to identify archaeological sites located in the Cochno Hill North area, the remaining parcel of FCS land that had not previously been surveyed. In addition, the current survey recorded each of the known sites located in afforested areas of the Kilpatrick Hills in order to provide baseline archaeological information for the purposes of conservation management. Aside from the newly identified sites located during the prospective survey of Cochno Hill North, nine sites situated in forestry were surveyed, comprising over 30 individual structures; a small number of sites could not be verified or are suspected to have been destroyed by modern activity.

Survey Methodology

11. An archaeological walkover survey of the Cochno Hill North area of Kilpatrick Hills was carried out between the 8th and the 18th March 2013. The study area was systematically walked by a team of two archaeological surveyors following transects spaced approximately 50m apart. Newly identified sites were recorded using mapping-grade GPS and an associated GIS featureset updated for the FCS Forester module in GIS running on a ruggedised field tablet. In addition, a paper record was created using AOC Archaeology Group's standard pro-formas adapted for the FCS Forester Module assessment system, including a measured sketch. For the known sites located in afforested areas, the provided National Grid Reference was checked and updated if necessary, and an assessment record created. Digital photographs were taken of every site visited and an associated photographic register created. These are supplied in the project archive.
12. The survey was carried out by Graeme Cavers, Kevin Paton and Charlotte Douglas. Conditions during the survey ranged from heavy rain and sleet to overcast and dry, though generally archaeological visibility was acceptable.

Assessment and Recommendations: procedure

13. The assessment of significance of the archaeological sites considered in this report is based on the FCS guideline document, '*Archaeological Survey Guidelines*' and applies the categories of importance specified in that document. The designation of category 'A', reserved for sites of national importance, was applicable in only one case, at Gallagad Burn chambered cairn, which is a Scheduled Monument. Recommendations for avoidance buffers broadly follow these importance categories, though in certain instances the buffer recommendation has been modified in order to suit the perceived significance of the site.

Results

14. In total, 16 newly-identified sites were recorded during the walkover survey at Cochno Hill North, though several of these sites comprise multiple structures. In contrast to the results obtained by previous surveyors operating around Kilpatrick Hills, the majority of sites recorded relate to prehistoric activity and include several hut-circles and house platforms, as well as possible cairns. Several enclosure banks were recorded, as well as the remains of probable shieling structures and a post-medieval building of uncertain character, though possibly a mill.

15. Each of the newly identified sites recorded during the survey were allocated a study number prefixed by 'AOC' in order to avoid confusion with sites recorded by previous surveyors.

Cochno Hill North: newly identified sites

16. The following sites were newly identified during the walkover survey of Cochno Hill North:

Site Name	Duncolm
Feature ID	AOC 1
Feature description	Boundary dyke
Site description	A ruinous boundary dyke 2m in width comprising stones up to 0.8m across on S side of Duncolm. The dyke runs WSW/ENE with shallow ditch on upslope side, terminating at the crags on the SE side of Duncolm to the E, and a modern dyke to the W.
Impact Zone	5m
Importance	C
Importance notes	A field boundary, probably of modern origin.
Impact notes	
X	247195
Y	677313

Site Name	Duncolm North
Feature ID	AOC 2
Feature description	Rig and furrow (possible)
Site description	An area of possible relict field system, comprising traces of narrow rig in thick sphagnum moss. Near invisible at ground level, though visible from Duncolm. Alignment is NE/SW, and not aligned with nearby forestry ploughing.
Impact Zone	5m
Importance	C
Importance notes	Local importance only. May be modern in origin.
Impact notes	No buffer required.
X	247146
Y	677630

Site Name	Auchingree Burn
Feature ID	AOC 3
Feature description	Enclosures
Site description	A low earthen bank forming a curvilinear enclosure SW of the confluence of two streams feeding Auchingree Burn. Visible on the ground as a very indistinct bank and possible associated ditch. Curvilinear enclosure forms a semicircle to the W of the burn, while a linear bank runs

for 40m to the S. These banks probably relate to stock enclosure of the post-medieval period.

Impact Zone 5m
Importance C
Importance notes Local importance only.
Impact notes No buffer required.
X 247613
Y 677046

Site Name Burnellans
Feature ID AOC 4
Feature description Hut circle
Site description A hut circle, situated on a south facing slope at the end of a narrow ridge. The bank is visible as a low annular ridge, standing to c.0.4m in height and partly recessed into the slope on the N side. The diameter of the site is 10m; the entrance is not visible but may have been located to the S, on the downslope side where the bank is less prominent.

Impact Zone 10m
Importance B
Importance notes Regional importance. Well preserved example of a hut-circle.
Impact notes 10m exclusion buffer.
X 247606
Y 676742

Site Name Burnellans
Feature ID AOC 5
Feature description Cairn
Site description A small, circular mound of rubble 5m in diameter, situated 8m NW of hut circle AOC4. Probable clearance cairn, though date is difficult to estimate. May be associated with the prehistoric settlement in the vicinity.

Impact Zone 10m
Importance C
Importance notes Regional importance if associated with AOC4.
Impact notes Avoidance of AOC4 and AOC5 is recommended, in order to prevent damage to a potential prehistoric settlement.
X 247598
Y 676758

Site Name Burnellans
Feature ID AOC 6

Feature description	Cairn (possible)
Site description	An elongated oval mound 16m by 7m and 2m high, containing large boulders, possibly indicating the presence of cairn material. While this feature may be glacial in origin, the presence of rubble and the proximity to prehistoric features at AOC 4 and AOC 5 raises the possibility that this feature is a burial cairn.
Impact Zone	5m
Importance	C
Importance notes	Importance unknown; potentially regional.
Impact notes	No buffer required since authenticity cannot be verified.
X	247552
Y	676761

Site Name	Craighirst North
Feature ID	AOC 7
Feature description	House Platform
Site description	A series of shallow, scooped platforms, averaging c.8m to 10m across occupy the S facing slope and crest of a low knoll NE of Craighirst. These possibly indicate the presence of recessed house platforms. At least 5 possible stances are visible.
Impact Zone	10m
Importance	B
Importance notes	Regional importance.
Impact notes	Allow 10m buffer around knoll if possible.
X	248113
Y	676900

Site Name	Craighirst North
Feature ID	AOC 8
Feature description	Recessed house platforms
Site description	Two recessed hut platforms occupy a low knoll N of Craighirst, one on the N-facing slope, the other on the S-facing slope. Site A, to the N, measures 6m in diameter and is near circular, while site B, to the S, is slightly oval and larger at 7m across. Site B is visible as a patch of standard bog rushes around which is a low bank, 0.7m in width. No bank is visible around Site A. Smaller scoops to the SW of the knoll may indicate the presence of further platforms.
Impact Zone	10m
Importance	B
Importance notes	Regional importance.
Impact notes	Allow 10m buffer, excluding entire knoll from plantation if possible.
X	247950
Y	676845

Site Name	Duncolm South
Feature ID	AOC 9
Feature description	House platform (possible)
Site description	On north facing crest of ridge SE of Duncolm is a possible scooped and recessed house platform. A semi-circular platform 7m in diameter similar in character to better preserved examples in the area.
Impact Zone	10m
Importance	B
Importance notes	Regional importance.
Impact notes	10m buffer.
X	247850
Y	677326

Site Name	Auchingree Burn
Feature ID	AOC 10
Feature description	Rectangular building, mill (possible)
Site description	A rectangular building measuring 8 m by 6m and oriented E/W. The walls of the structure are 0.6m thick with a rubble core, with facing stones up to 0.6m across. A small cell has been built crudely in the SE corner in the rubble of the wall, though this is clearly secondary. The position of the entrance is not clear. The location close to a small burn raises the possibility that the structure is a mill, though no features of such a building are visible.
Impact Zone	10m
Importance	C
Importance notes	Local importance.
Impact notes	10m buffer.
X	247919
Y	677419

Site Name	Auchingree Burn South
Feature ID	AOC 11
Feature description	Buildings
Site description	Rubble located on rocky outcrop S of Auchingree Burn may indicate the presence of structures, possibly shielings. One sub-rectangular building is visible measuring 6m by 4m and rubble in vicinity, though much overgrown, suggests other buildings may be present.
Impact Zone	10m
Importance	C
Importance notes	Local importance.
Impact notes	

X 248293
Y 677380

Site Name Craighirst North
Feature ID AOC 12
Feature description Hut circle
Site description A stony bank, 0.7m wide and standing to 0.3m in height surrounds a recessed circular platform on a S facing slope. Visible as a patch of standard bog rushes, the stony bank can be identified through probing.
Impact Zone 10m
Importance B
Importance notes Regional importance.
Impact notes 10m plantation buffer.
X 248372
Y 676957

Site Name Craighirst North
Feature ID AOC 13
Feature description Cairn
Site description A small mound of boulders 6m in diameter, comprising boulders up to 0.5m across. No structure is visible, and the extents of the cairn were largely identified by probing. Probable clearance cairn.
Impact Zone 5m
Importance C
Importance notes Regional importance if association with prehistoric structure AOC12 can be established.
Impact notes 5m plantation buffer.
X 248430
Y 677019

Site Name Craighirst North
Feature ID AOC 14
Feature description Cairn (possible)
Site description A ruinous pile of boulders up to 0.5m across has been disturbed by planting. While no structure is visible, it is possible that these stones represent the remains of a cairn; though site has been disturbed.
Impact Zone 0m
Importance C
Importance notes Local importance.
Impact notes 5m plantation buffer if possible.

X 248657
Y 677007

Site Name Craighirst East
Feature ID AOC 15
Feature description Hut circle
Site description A hut-circle, comprising a stony bank 1m in width, partially recessed into a W-facing slope to the east of Craighirst. The bank comprises boulders up to 0.8m across, two of which protrude on the W side, possibly indicating the position of the entrance. The bank stands to 0.5m in height, and is 9m in diameter.

Impact Zone 10m
Importance B
Importance notes Regional importance- one of the better preserved local examples.

Impact notes 10m plantation buffer, although damage has already occurred through sapling plantation. It would be desirable to carry out excavation to record this site before further damage can be caused by tree growth.

X 248773
Y 676745

Site Name Craighirst East
Feature ID AOC 16
Feature description Hut circle
Site description A stony bank 0.8m in width and standing to 0.5m in height defines a hut circle 8m in diameter, partially recessed into a W-facing slope to the E of Craighirst, c.30m S of AOC15. The bank incorporates several boulders up to 0.6m across, though both the interior of the site and the bank have been disturbed by sapling plantation. The position of the entrance is not apparent.

Impact Zone 10m
Importance B
Importance notes Regional importance- a well preserved example.

Impact notes 10m plantation buffer, although already disturbed by planting. It would be desirable to carry out excavation to record this site before further damage can be caused by tree growth.

X 248781
Y 676716.111579

Site Name Greenland, Auchentorlie
Feature ID AOC 17

Feature description	Grouse butt
Site description	Semicircular drystone wall, 4m in diameter with an entrance to the SE. This grouse butt backs onto a turf covered bank and stands to 1.1m in height.
Importance	C
Impact Zone	5m
Importance notes	One of many grouse butts in the local area.
Impact notes	5m buffer.
X	243646
Y	675851

Site Name	Greenland, Auchentorlie
Feature ID	AOC 18
Feature description	Grouse butt
Site description	Turf covered grouse butt with entrance on SE. Stands to 1.3m in height.
Impact Zone	5m
Importance	C
Importance notes	One of many grouse butts in the local area.
Impact notes	5m buffer.
X	243658
Y	675889

Site Name	Greenland, Auchentorlie
Feature ID	AOC 19
Feature description	Grouse butt
Site description	Ruinous, turf covered grouse butt with entrance to SE. Interior is rubble filled.
Impact Zone	5m
Importance	C
Importance notes	One of many grouse butts in the local area.
Impact notes	5m buffer.
X	243660
Y	675954

Kilpatrick Hills Forestry: previously known sites

17. In addition to the prospective survey carried out at Cochno Hill North, each of the known sites located on FCS afforested land was visited as part of this survey. The following section details the results of this work.

Site Name: Cairnhowit**Class:** Chambered Cairn**FCS ID:** 6555**NMRS No.:** NS47NE 2**NGR:** NS 4944 7614**Description:**

In a clearing in forestry conifer plantation are the remains of Cairnhowit chambered cairn. The clearing is c.20m square although recent storm damage has brought down a large tree which now lies close to the remains of the chamber. All that now remains of the cairn are three large stones, two of which are upright orthostats standing to 1m and 1.2m in height, probably representing the remains of the chamber. Each slab is over 0.4m thick, the easternmost slab is 1.1m in width and the westernmost 0.55m across. A third large slab lies on the ground immediately to the E of the orthostats, and may represent a further orthostat or fallen lintel stone. This slab is nearly 1.4m in length and 0.5m across.

The cairn appears to have been almost entirely robbed of stone, and has not been damaged by forestry: the clearing has not been ploughed and no trees have encroached on the site. A few large boulders protruding from the turf in the vicinity may have derived from the body of the cairn.

Importance: B**Impact Zone:** 10m**Condition and recommendations:**

The site does not appear to be at immediate risk of further damage. A few recent fireplaces in and around the clearing show that the site is used by fishermen and campers. Removal of the fallen tree in the clearing is recommended.

Site Name: Windyedge**Class:** Shielings (possible); enclosure**FCS ID:****NMRS No.:** N/A**NGR:** NS 4921 7740**Description:**

In clear ground to the N of the cliffs at Windyedge there are several short lengths of ruinous walling, forming an enclosure and possible further structures among rubble scree. There are no obvious buildings among the rubble though one length of walling extends NE from the cliff for a length of c.12m. Though identification is difficult, it is possible that these structures represent shielings of the historic centuries.

Importance: C**Impact Zone:** 10m

Condition and recommendations:

The ruinous condition of these structures makes identification difficult and as such their significance is difficult to assess. It is recommended, however, that the current buffer of 10m from existing plantation is maintained in order to prevent damage.

Site Name: Gallangad Burn

Class: Chambered Cairn

FCS ID: 30424

NMRS No.: NS47NE 2

NGR: NS 4581 8067

Description:

Despite previous reports, this site has not been destroyed by quarrying or road construction and is much as described by Henshall (1972). The ruinous remains of the chambered cairn are located at the N side of a forest clearing. The structure comprises a sub-rectangular spread of boulders averaging c.0.4m across, and occupies a ridge of bedrock running WNW/ESE. The mound has a rounded end to the W, while the central area is sunken, and several large slabs, probably collapsed lintels, are visible in the interior. At the NE corner of the mound, two large orthostats protrude from the rubble, indicating the position of the E-facing façade. Immediately to the S and W of these orthostats are two large slabs, one disc-shaped and 1.2m across, the other cuboid and 1.1m in length. It is likely that these represent displaced lintels of the central passage. The passage itself is choked with rubble but large set stones are visible on either side, particularly on the S, and suggest that the chamber was 4.5m in length.

The cairn material either side of the chamber is slight, suggesting that the cairn body has been heavily robbed. There is no sign of the reported standing stone or shielings in the area, though there are several bedrock outcrops and a small round cairn, c.3m in diameter, 30m to the E of the cairn.

Importance: A

Impact Zone: 20m

Condition and recommendations:

The site is covered in bracken and one well established fir tree has taken root on the W side of the monument. The general area is being colonised by saplings. It is recommended that these trees are removed and a 20m buffer zone re-established around the site. Control of the bracken would be advantageous.

The site is a Scheduled Ancient Monument (SAM: 2911), though the GIS polygon provided by Historic Scotland is located c.50m east of the true position of the cairn.

Site Name: Boglairoch/Auchintorlie

Class: Chambered Cairn (possible)

FCS ID: 30424

NMRS No.: N/A

NGR: NS 4565 7531

Description:

What may be the remains of a chambered cairn are situated on a N-facing shoulder to the NW of steep cliffs at Boglairoch. Very little to suggest the presence of a cairn survives, and the site is indicated only by the presence of a single large upright boulder, surrounded by smaller stones. This large upright stone measures 1.2m by 1.4m by 1.0m, with a flat face on what would be the inside of a chamber hinted at by the presence of three other large boulders, now displaced, located to the E and S. If these stones indicate the presence of a collapsed chamber, it would have measured c.3m in internal diameter, forming a polygonal cell. No entrance survives, but the most likely position for this would be on the SW.

If this site is a chambered cairn, it has been almost totally destroyed by stone robbing; extensive dykes and a bank to the NE and S could, perhaps, account for this. However, the general rubble scree surrounding the site makes confident identification impossible, and this site should be regarded as a possible cairn.

Importance: B

Impact Zone: 10m

Condition and recommendations:

Given the ruinous state of this monument it is recommended that a 10m buffer, approximately equivalent to the current extents of forestry nearby, is sufficient mitigation.

Site Name: Loch Humphrey

Class: Cup marked stone (possible)

FCS ID: 6518

NMRS No.: NS47NE 9

NGR: NS 4515 7605

Description:

Hollows in a bedrock outcrop, possibly natural, were reported at this location in 1971. Though there are several prominent bedrock outcrops at this location they are largely overgrown with moss and heather, and no sign of cup markings was visible.

Condition and recommendations:

No action required. Site may be considered nil antiquity.

Site Name: Craigairstie, Auchentorlie

Class: Grouse butts

FCS ID:

NMRS No.: N/A

NGR: NS 4402 7567 to NS 4474 7601

Description:

Fourteen grouse butts are marked on the Ordnance Survey map lining a ridge overlooking a narrow gully at Craigairstie, Auchentorlie forest. Five of these appear to have been destroyed or badly damaged by forestry plantation, though the remaining nine are in good condition. Numbered from the NE to SW, the structures are described as follows:

GB1: A turf-covered, semicircular drystone wall standing to 1.1m in height, with an entrance to the N.

GB2: Not visible, presumed destroyed.

GB3: Not visible, presumed destroyed.

GB4: Not visible, presumed destroyed.

GB5: A well preserved semi-circular drystone wall, 0.6m thick and standing to 1.1m in height, with an entrance on the N.

GB6: Preserved to 0.8m in height, this drystone wall is 0.4m thick with an entrance to the N.

GB7: Well preserved, standing to 1m in height

GB8: Substantial and well preserved, though conifers to S are encroaching. Wall stands to 1.2m and is 0.6m thick.

GB9: Substantial and well preserved, though located within conifer plantation. Wall stands to 1.2m, 0.6m thick.

GB10: Substantial and well preserved. Located in conifer plantation and trees have damaged N side. Wall stands to 0.7m and is 0.4m thick.

GB11: Substantial and well preserved, located in conifers. Wall stands to 1.1m and is 0.5m thick.

GB12: Not visible, presumed destroyed.

GB13: Not visible, presumed destroyed.

GB14: Turf-covered, but apparently well preserved. Stands to 1m in height.

Importance: C

Impact Zone: 5m

Condition and recommendations:

The surviving grouse butts are generally in good condition, although several examples, such as GB8 and GB9, are at risk of damage from conifer growth. Establishment of a 5m buffer around remaining examples is recommended.

Site Name: Greenland, Auchentorlie

Class: Grouse butts

FCS ID:

NMRS No.: N/A

NGR: NS 4364 7585 to NS 4368 7608

Description:

In addition to the two grouse butts marked on the Ordnance Survey map at Greenland, Auchentorlie, three further such structures were recorded to the S (see AOC 17, AOC 18 and AOC 19, above). The remaining two butts are well preserved, though turf covered, standing to c.1m in height.

Importance: C

Impact Zone: 5m

Condition and recommendations:

These sites are in good condition and not at risk from current forestry. 5m avoidance buffer is recommended for future plantation.

Site Name: Brown Hill, Auchentorlie

Class: Grouse butts

FCS ID:

NMRS No.: N/A

NGR: NS 4432 7649 to NS 4466 7676

Description:

Seven grouse butts are marked on the Ordnance Survey map at Brown Hill. Taking the OS locations to be correct, it is probable that there are in fact eight butts at this location, while two have been destroyed. Numbered from the SW to NE, they are described as follows:

GB1: Not visible, presumed destroyed.

GB2: A turf-covered drystone wall, situated in a forest ride and close to the forestry track. The wall incorporates a large boulder 1m across in its W-facing entrance.

GB3: Not visible, presumed destroyed.

GB4: Turf-covered drystone wall, surviving to 1m in height, close to conifer plantation edge.

GB5: Turf-covered semi-circular drystone wall, standing to 1.3m in height. Entrance is on the NW.

GB6: As GB5.

GB7: As GB6. Nearly completely covered by moss and a fallen tree.

GB8: As GB5.

Importance: C

Impact Zone: 5m

Condition and recommendations:

Establish and maintain 5m buffer around surviving examples.

Summary and Discussion

18. An additional 19 monuments have been added to the known archaeology of the Kilpatrick Hills area as a result of the Cochno Hill North prospective survey. Of these, eleven can be considered likely to relate to prehistoric activity, considerably extending the extent of known prehistoric archaeology in the area. In contrast to previous surveys, relatively few monuments relating to settlement or agriculture in the historic centuries was recorded, perhaps reflecting the upland and marginal status of this area.
19. Each of the sites visited has been assessed for Importance and the significance of impact on the site in accordance with the Forestry Commission Scotland's archaeological survey guidelines. None of the newly identified sites can be considered of national importance, and none are likely to be considered candidates for Scheduling under the Ancient Monuments and Archaeological Areas Act (1979). One of the previously known sites, the chambered cairn at Gallangad Burn, is a Scheduled Monument and is therefore considered to be of National Importance. The encroachment of trees on this site should be considered an issue requiring immediate remedial measures.
20. Many of the other sites recorded during this survey qualify in FCS Importance category 'B', i.e. of regional importance, and should be marked out and avoided in all future planting designs. A small number of monuments- sites AOC14, AOC15 and AOC16- were located within areas prepared for planting or where planting has already occurred. For the most part this has yet to result in significant damage but the plantation of saplings on AOC15 and AOC16 has caused some disturbance to these sites and is cause for future concern. It is recommended that the saplings on these sites are removed, an appropriate 10m buffer established and the sites marked out for avoidance in future. If these mitigating measures can be put in place in the short term, no further action should be required. If, however, appropriate buffers cannot be put in place around these sites it would be necessary to carry out archaeological excavation in order to record the site fully before significant damage is inflicted by tree growth.
21. The sites recorded during this survey considerably enhance our knowledge of the human past of the Kilpatrick Hills, and provides valuable information on the archaeological context of central Scotland more widely. Part two of this report considers the results of the recent surveys of the Kilpatrick Hills and places them in their regional archaeological context.

Part Two
The Archaeology of the Kilpatrick Hills in Context

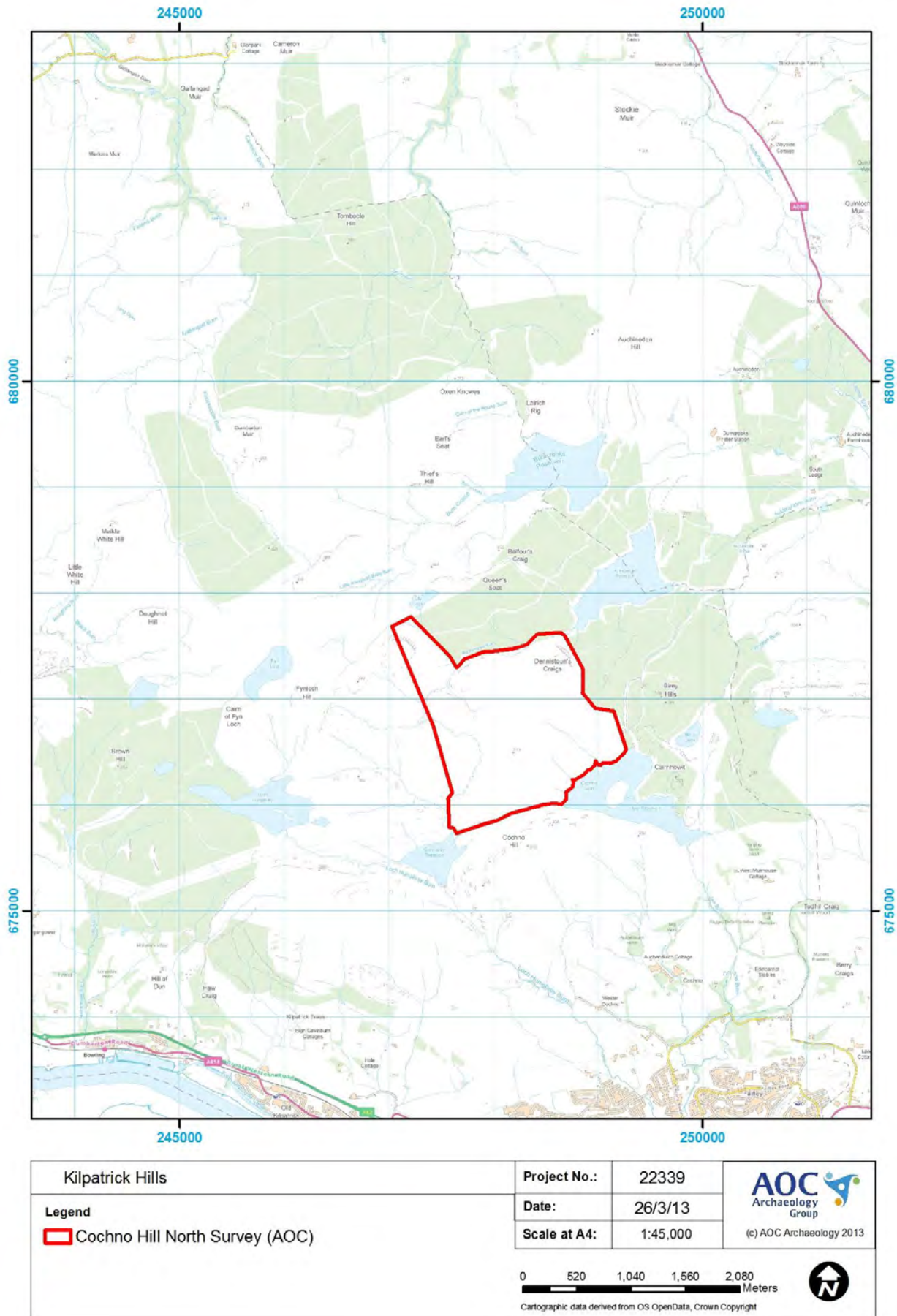


Figure 2: The Kilpatrick Hills, with the location of the Cochno Hill North study area.

An Archaeology of the Kilpatrick Hills, West Dumbartonshire

Introduction

22. Part Two of this report considers the results of the three archaeological surveys of the Kilpatrick Hills carried out in recent years, by Firat Archaeology (Baker 2008), Rathmell Archaeology (Sludden and Mulligan 2012) and AOC Archaeology Group (part one, above). Figure 2 indicates the extents of the study area and the coverage of each zone undertaken by each of the three surveys.
23. In the following sections, the archaeological sites of the Kilpatrick Hills are discussed in their local and regional context, with consideration given to their relative importance and potential. It is intended that this overview will be used to inform assessments of the importance of the cultural heritage of the Kilpatrick Hills in future management and conservation plans.

Character of the Study Area

24. The Kilpatrick Hills are predominantly upland rough grazing, comprising extensive blanket peat and sphagnum bog. Significant portions of the study area have been planted with conifers under FCS management, though numerous archaeological sites are preserved within these areas. The south facing slopes above Duntocher, Faifley and around Cochno have been extensively improved, with modern fields and farming accounting for much of this area. Archaeological survival is closely related to these different zones of historic land use, with little in the way of prehistoric archaeology recorded in improved zones.

Historic Land Use

25. To some extent, the character of the study area can be seen as a function of the climatic and agricultural history of the area. Following the climatic deterioration recorded during the early to mid first millennium BC, during which the altitudinal limits of viable arable agriculture were effectively reduced, evidence for prehistoric activity in upland zones, particularly above the 300m OD contour where much of the current study area lies, becomes much more scant and difficult to detect. Prior to this period, upland zones including those areas around Duncolm and Fynloch Hill would have been settled, with soils capable of supporting arable crops. Prehistoric activity relating to this period is well attested in the area, with several Neolithic chambered cairns and a number of hut-circles and house platforms and fragmentary relict field systems, most likely to related to the second and earlier first millennia BC found within the Kilpatrick Hills area.
26. Later prehistoric activity, i.e. relating to those centuries from the end of the Bronze Age c.800 BC to the later first millennium AD is generally underrepresented, certainly due in part to the climatic factors mentioned above, but nonetheless the complete absence of any features relating to the Iron Age is somewhat surprising. As discussed by Sludden and Mulligan (2012), it is possible that the strategic location of prominent mounds like Sheep Hill and Dumbarton Rock, overlooking the Clyde but with easier access to the river and its hinterland, were probably the preferred locations for defended enclosures in these periods and both were settled in the Iron Age; Dumbarton Rock became the later *caput regionis* of the Strathclyde Britons in the mid first millennium (Mackie 1976; Alcock and Alcock 1991). Certainly, the margins and floodplains of the Clyde were settled

extensively in the later prehistoric period, so that the absence of Iron Age archaeology in the Kilpatrick Hills seems likely to relate to the marginal status of the area by this time.

27. Assessment of historic maps of the Kilpatrick Hills confirms this apparent marginality in the historic centuries. Pont's map of the area in the late 16th century labels the hills the 'Muir of Dun-Briton', while both this map and those of Blaeu (AD 1654) and Roy (AD 1752-55) indicate that significant settlements were restricted to the lowlands in the post-medieval period. Roy's map, compiled for the purposes of military and strategic mapping, is often concerned with the extent and character of agriculture and associated settlement in rural parts of Scotland immediately prior to large scale improvements; the depiction of the upland areas of Kilpatrick as blank moorland in contrast to the field systems of the slopes overlooking Dumbarton is indication of the effective abandonment of upland areas in the region. Shielings, seasonally-occupied habitations used during the summer months when grazing livestock (discussed below), were certainly still in use, however; the labelling of occupied structures at Gallangad ('Culingad') on Roy's map may correlate to possible shieling structures reported by Henshall in the vicinity (Henshall 1972), although equally this could equate to unroofed buildings of historic date marked on the Ordnance Survey first edition map (NS48SW 25).
28. In summary, the dominance of earlier prehistory and the later post-medieval centuries in the archaeology of the Kilpatrick Hills, with scant evidence of activity in the intervening centuries, can be seen in the context of the agricultural marginality of the area from the mid-first millennium BC onwards. By the early Iron Age, the upland areas of the Kilpatrick Hills were effectively abandoned for settlement, while the configuration of settlement and farming since the medieval period has remained sufficiently static that only evidence for the later centuries of activity are likely to survive.



Figure 3: Roy's map of Old Kilpatrick (AD 1752-55), showing the agricultural focus on the lowland slopes overlooking the Clyde.

Survival and Recovery

29. All archaeological surveys must consider the processes of site formation, destruction and preservation that affect the area with which they are concerned. Distributions of archaeological sites are by definition fragmentary, with the surviving remains inevitably only a small proportion of the original number of sites. Coupled with the fragmentary nature of archaeological survival is the issue that field survey should always be considered a sample (Orton 2000), and no field survey can be considered 100% comprehensive.
30. The history of land use in the Kilpatrick Hills is varied across the widely varying topographic zones found in the area. In the lower, south facing slopes above Dumbarton and Faifley, agricultural improvements of recent centuries have been the primary erosive factor in accounting for the loss of archaeological sites, a process that can be almost entirely destructive. Consequently, the archaeology in these areas is largely restricted to agricultural remains and structures of the post-improvement period. In contrast, much of the upland areas of the Kilpatrick Hills have probably been marginal land virtually since the climatic deterioration of the early to mid first millennium BC which apparently brought about the abandonment of extensively settled upland areas in much of the British Isles, including western Scotland (Barber 1997). Blanket peat has developed extensively over the upland areas of the Kilpatrick Hills, and while such waterlogged soils can provide good conditions for the preservation of prehistoric archaeological sites, prospection in blanket peats in Argyll and northern Scotland have indicated that these areas are often not as rich in archaeological terms as the raised bogs of areas like the Carse of Stirling (Ellis 1999; 2001). Raised mires are generally restricted in area in Scotland, though examples are to be found in the Kilpatrick Hills as at Gallangad Muir (Lindsay and Immirzi 1996), and should be considered a valuable archaeological and palaeoenvironmental resource. Nonetheless, the potential for buried archaeological structures and deposits in deep blanket peat areas such as those in the upland areas of the Kilpatrick Hills is high.
31. While the physically erosive action of ploughing and field clearance in later centuries accounts for the loss of a high proportion of archaeological sites, stone robbing and the use of stone monuments as quarries can also be almost totally destructive. This is dramatically apparent in the Kilpatrick Hills at sites like Cairnhowit, where a substantial chambered cairn has been almost completely lost to stone robbing, probably for the construction of field dykes and for other agricultural purposes, to the extent that only two of the chamber orthostats survive. The level of destruction that is indicated by later stone robbing at Cairnhowit sounds a warning to the interpretation of the archaeology in the area more widely and it is important to bear in mind that the visible extents of prehistoric activity are always a function of the level of later activity in any given parcel of land.



Figure 4: The Clyde group chambered long cairn at Lang Cairn (photo: AOC Archaeology Group).

Earlier Prehistory

32. As discussed above, the archaeology of the earlier prehistoric period is dominant over later prehistory and the medieval centuries, owing largely to the agricultural viability of the uplands in the second millennium BC and earlier. Typically for southern Scotland, both settlements and funerary/ritual monuments are recorded.
33. *Chambered cairns and other funerary monuments*
34. Several chambered cairns are located within the Kilpatrick Hills, surviving in varying states of preservation. Where the necessary architectural features of these monuments survive for identification, they are classifiable as belonging to the 'Clyde Group' of chambered cairns. These monuments comprise a long cairn, generally widening to form a facade, usually constructed using orthostatic slabs with drystone coursing in the interstices. Access through this facade gave entrance to the primary burial chamber, typically rectangular in plan and formed from large edge-set slabs, characteristically divided into box-like compartments. Only a minority of Clyde type cairns appear to retain their original capping lintels, and it is probable that the upper portion of the chamber was built in drystone in most cases. In several of the excavated examples, as at Mid Gleniron I (Corcoran 1969), Cairnholy I (Piggott and Powell 1951) and Lochhill (Masters 1973), the long cairn and facade was multi-phased, indicating the addition and modification of the monument over the course of its use (Noble 2005), while the latter site produced evidence for a precursory timber structure, possibly a mortuary platform, that may be common to many such sites.
35. Clyde cairns are among the earliest evidence of permanent human occupation of western Scotland, and in the near-absence of evidence for settlements constitute the most substantial remaining structures of the Neolithic in western Scotland. Radiocarbon determinations indicate that structures of this type were beginning to be constructed by the last quarter of the fifth millennium BC, and were apparently in use throughout the fourth and into the third millennia, though dating of even the best-recorded examples is problematic (Cummings 2009:78). What is certain is that long cairns in this region were being built in the early Neolithic, while activity, remodelling and reuse continued well into the Bronze Age in some instances. The recovery of a rotary quern from Stockie Muir chambered

cairn, 2km east of Lang Cairn has, furthermore, been taken as evidence that some chambered cairns were used as dwellings in later periods (Henshall 1972:491).

36. The most spectacular example of a chambered cairn in the Kilpatrick Hills is at Lang Cairn, where a well-preserved long-cairn with an orthostatic facade is situated with panoramic views. The entrance to the cairn, although dilapidated and partially repaired, may have been blocked in a similar fashion to other Clyde cairns, using a plinth of slabs to prevent access to the chamber (Henshall 1972:424). Although much better preserved than other cairns in the area, Lang Cairn (Figure 2) was clearly a monument of some importance in the local context, and is clearly more substantial than the nearby long cairn at Gallangad Burn, though this site shares some architectural similarities. The Gallangad Burn cairn has been extensively robbed of stone, perhaps in order to construct shielings or field boundaries in the area, but the remnants of the chamber and facade survive to an extent that allows its identification as a Clyde type cairn of a similar type to Lang Cairn and Stockie Muir.
37. The surviving remains of the other chambered cairns in the area, at Cairnhowit and the possible example at Boglairoch are too fragmentary to be confident of their classification, but both could have been substantial structures, employing orthostats standing to well over 1m in height. The oval cairn recorded by Firat Archaeology at Cochno Hill South (Baker 2008, site 30; NS47SE 49) may be a further example of a substantial long cairn, but is too ruinous to allow identification of structural features.
38. The latter site was found to have several smaller satellite cairns, round stone piles around 3m in diameter that were interpreted by the 2008 surveyors as Bronze Age burial cairns (Baker 2008, sites 31-33). In the absence of excavation and with few local parallels to guide interpretation such claims must be speculative, but the presence of smaller satellite cairns at Lang Cairn and Gallangad Burn suggests that the continuity of burial around established Neolithic cairns may have extended into much later periods. Small cairns of this nature, while difficult to distinguish from field clearance in field survey, were certainly constructed for the purposes of burial, often of cremations, as excavations at sites such as Kilpatrick on Arran, dating to the early second millennium BC (Barber 1980), Achany Glen (McCullagh and Tipping 1998:84-91) and Strontollier, Argyll (Ritchie 1971), demonstrate.

39. *Ritual monuments and carved stones*

40. Earlier prehistoric monuments relating to ritual are not well represented in the Kilpatrick Hills. In the local area, the Dumgoyach standing stones are among the only such sites; this stone alignment was investigated by Mackie in the 1970s, with a radiocarbon date returned from an ashy deposit in the early third millennium BC, indicating that the stones were probably erected in the later Neolithic (Mackie 1973). A single candidate for a standing stone was recorded in 2008 by Firat (Baker 2008 site 53a), a glacial erratic close to later agricultural remains; the date of this stone cannot be easily determined however, and it is possible that it relates to the later activity in the area.
41. Typically for western Scotland, the area is well populated by cup and ring marked rocks, and several examples have been recorded in the Kilpatrick Hills, ranging from extensive panels of cups, rings and spiral incisions to simple cups on isolated boulders. Mackie's investigation of the examples at Greenland, Auchentorlie showed that the Kilpatrick cup and ring markings can be extensive and complex, with that site comprising 22 sets of concentric rings, 106 cups and a spiral on a single panel (Mackie and Davies 1991), a pattern echoed at Duntocher (Harvey 1889) and the spectacular panels at Whitehill, Cochno (Bruce 1896; Figure 5) and it is beyond doubt that many more examples

are likely to be found beneath peat on rocky outcrops across the Kilpatrick Hills. Not all of the solid geology of the Kilpatrick Hills is suitable for the carving of cup and rings, and targeted survey might be restricted to the sandstone and metamorphosed sandstones of the area; basaltic outcrops do not appear to have been used as extensively. A small number of isolated examples on boulders, such as the cup mark recorded on an isolated boulder at Boglairoch (Sludden and Mulligan 2012, site 31) and the example from the Braid Hills (Bruce 1897) indicate that both outcrops and free-standing boulders were carved. The extent and quality of these local examples indicates that cup and ring marked rocks are an outstanding feature of the prehistoric archaeology of the Kilpatrick Hills. The dating of cup and ring marked rocks is difficult, since they are virtually never associated with datable archaeological deposits, but their incorporation into funerary monuments in Kilmartin Valley, Argyll, and in some chambered cairns such as Cairnholy I, demonstrates that they were carved from the earlier Neolithic into the Bronze Age.

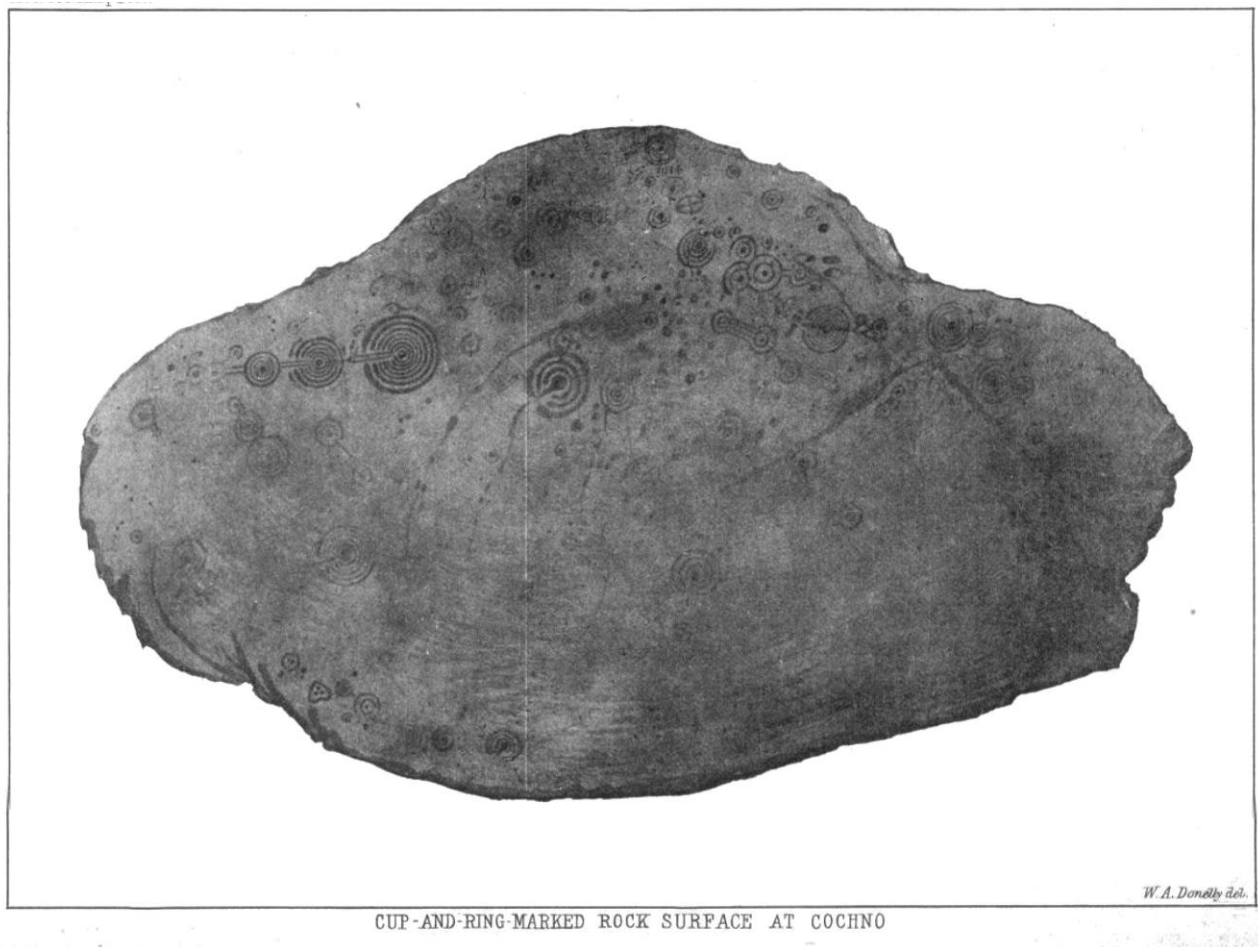


Figure 5: Cup and rings at Whitehill, Cochno (Bruce 1896)

42. Settlement and domestic activity

43. A small number of settlements relating to the earlier prehistoric activity have been recorded in the Kilpatrick Hills. The majority of these comprise ring banks indicating the presence of hut-circles, the standard settlement form of mainland Scotland from at least the middle Bronze Age onwards, commonly found in upland moorland and of the type found in the present study area. The hut-circles recorded by the present survey, and the single example recorded by Firat in 2008 (Baker 2008, site 1) comprise stony banks, typically around 1.5 to 1m in width and c. 0.5m high enclosing an internal space usually in the region of 9m in diameter, typical of the class. The examples recorded in the Kilpatrick Hills are often distinctively recessed into hill-sides, predominantly on slopes with a

southerly aspect, a pattern that is often echoed throughout the southern uplands (Halliday 1999). The best preserved examples, at sites AOC4, AOC8, AOC12, AOC15 and AOC16 were each found in association with other features likely to be broadly contemporary, including other hut-circles or small cairns, perhaps indicating the presence of a fragmentary prehistoric landscape including both settlement and agricultural remains.

44. Hut-circles of this type are typically taken to indicate activity relating to the Bronze Age centuries, generally c.2000 BC to c.800 BC, based on the results of campaigns of excavation carried out in Arran (Barber 1997), Achany Glen (McCullagh and Tipping 1998), Islay (Barber and Brown 1984) and Jura (Stevenson 1984). However, isolated examples from upland areas have also produced later dates, spanning well into the Iron Age (e.g. Maclaren 2003; Condry and Ansell 1978), so that the presence of roundhouse cannot be taken unequivocally as an indication of Bronze Age activity.



Figure 6: Hut circle AOC15, one of the best preserved such structures in the Kilpatrick Hills (AOC Archaeology Group).

45. The presence of small cairns found across the study area may be related to prehistoric agriculture associated with these hut-circle settlements. As Yates (1984) has discussed, cairn fields relating to prehistoric agriculture can be difficult to identify, and are not easily discerned from small burial monuments without excavation. While the extents of early historic and medieval agriculture in the uplands of the Kilpatrick Hills is effectively unknown, the clearance of areas above the 250m contour seems unlikely to have taken place in recent centuries, so that the small cairns recorded by each of the three archaeological surveys carried out in the Kilpatrick Hills since 2008 (e.g. AOC5, AOC6, AOC13, AOC14; Firat sites 20, 49, 63, 66,68 and 69; Rathmell sites 25, 26, 37 etc) may indicate the remnants of prehistoric farming in these zones. Upland areas such as the Kilpatrick Hills, where earthworm populations are low due to acidic, peaty soils, can provide conditions for the survival of cord rig agriculture and other traces of prehistoric agriculture (RCAHMS 1997:121); each of the three recent surveys recorded fragments of drainage, but none seem clearly to indicate prehistoric

agricultural remains. It is likely that, where such features survive, they are now buried by peat growth.

46. Further, more ephemeral traces of prehistoric buildings were recorded by both Firat's 2008 survey and the current survey of Cochno Hill North. These structures took the form of circular and semi-circular recessed platforms. Such sites are inevitably difficult to identify confidently, and rarely display any upstanding remains leading to some uncertainty in their identification: the examples recorded in the survey of Cochno Hill North (above) were noted for their clear contrast with the glacial trend of the surrounding topography. Where such sites have been excavated in neighbouring regions, they have been found to be the platforms for lightweight timber buildings, often of ring-groove and post construction. At Lintshie Gutter, Lanarkshire, some thirty such structures were found in association, and excavation demonstrated that the settlement had been occupied between the later third millennium BC and the earlier second millennium BC (Terry 1995), a pattern which echoed the results of Jobey's excavations at the unenclosed platforms at Green Knowe in Peebleshire (Jobey 1980). The identification of such structures in the Kilpatrick Hills, potentially relating to earlier Bronze Age settlement, is of considerable significance for the archaeology of western and lowland Scotland more widely.
47. The only other indication of prehistoric domestic activity in the area comes from a small number of burnt mounds, such as the scheduled example at Queen's View, Catythirst Well (NS58SW 13). A single example was recorded by Firat in 2008 (Baker 2008, site 55), and given the typical dating of burnt mounds to the Bronze Age centuries (papers in Buckley 1990), it is surprising that no further examples were recorded. Burnt mounds are the product of heating water using hot stone technology, and while most excavated examples date to the second millennium BC the technique was still in use throughout later prehistory and into the early historic centuries; several examples excavated in Scotland have produced both Bronze Age and early historic dates (e.g. Cavers et al 2013).

Later Prehistory to the Medieval Period

48. As noted above, very little in the way of later prehistoric activity can be detected in the Kilpatrick Hills. Those indications of Iron Age activity are restricted to findspots of a rotary quern at Stockie Muir, noted above, and a Roman coin found on the Kilpatrick Braes (WoSAS PIN: 7848); virtually nothing to indicate Iron Age settlement has been detected. As considered above, this is almost certainly attributable to the 'overwriting' of areas occupied throughout later prehistory by agricultural activity in the historic centuries, and the destruction of archaeology relating to this period by the construction of modern Duntocher, Faifley and Cochno.
49. At the western extremity of the Antonine Wall, the Old Kilpatrick area is notable for the presence of several Roman fortlets, at Old Kilpatrick (NS47SE 55) and Carleith (NS47SE 52), while the Golden Hill Park fort at Duntocher (NS47SE 12) was the one of the principal forts at the western end of the Antonine Wall. Built in the AD 140s under the rule of Antoninus Pius, the wall is a World Heritage Site, though much has been destroyed by modern Duntocher. To the north of the Kilpatrick Hills, fragments of Roman road survive near Gallangad Burn (Holt et al 1974); though not visible at ground level for much of this length the cobble base of the road is preserved at the Cameron Burn.
50. As considered above, it is probable that the concentration of settlement in the lowland fringes of the Clyde during later prehistory accounts for the absence of significant settlement remains in the uplands. The lower Clyde has been shown to have been extensively settled throughout the later first millennium BC, with numerous crannog sites built in the intertidal zone (Hale 2004), while palisaded

enclosures (e.g. Cavers et al *In press*) and defended forts (Ellis 2007) indicate the settlement of the lowland zone throughout this period. While the upland peaks of Duncolm and Lang Craigs might be seen as typical locations for Iron Age defended settlements, it is likely that the strategically preferable locations of Sheep Hill and Dumbarton Rock were chosen as the principal settlements of the area.

51. This principle also seems likely to account for the general lack of medieval archaeology in the study area. While many of the features recorded by the three recent surveys must be considered undated, and several are likely to have some considerable antiquity in the historic period, the continued use of the same parcels of land throughout the historic centuries has meant that very little archaeology demonstrably relating to the medieval centuries survives.

The Post-Medieval and Modern Period

52. The post-medieval centuries and the modern period account for the majority of archaeological features recorded during field survey in the Kilpatrick Hills. These are considered below, under the thematic categories of agriculture and land management, industry, settlement and leisure.

53. *Agriculture and Land Management*

54. The RCAHMS Historic Landuse Assessment identifies several areas of relict agriculture in the Kilpatrick Hills, indicating the remnants of agriculture that have escaped destruction in the post-improvement period. On the ground these areas are generally in use as upland grazing, ranging in quality from improved and semi-improved fields to drained and undrained rough grazing. In some areas, rig and furrow has been recorded, as at Rathmell site 2 (Sludden and Mulligan 2012), where rigging 3.5m in width is preserved. In most cases, areas of agriculture such as this are not associated with contemporary structures, and often the best preserved fragments of historic-period rig and furrow are found in outfield areas that have not been intensively used for agriculture other than rough grazing in the following centuries. Baker (2008:40) noted that minor dykes separate divisions of land in those areas where rig and furrow survives, suggesting that a formal run rig system may have been in operation in the pre-improvement period.

55. Broadly speaking, the level of preservation of agricultural remains decreases with altitude, with the lower, more intensively improved fields preserving less and less of the features of historic agriculture. The upper limits of historic agriculture are defined at Firat site 34, where the head dyke is preserved. The head dyke defined the outer limits of outfield agriculture from rough grazing beyond, and the preservation of the Cochno example is of local importance to the history of agriculture. In general, however, the many clearance cairns, dykes and boundaries recorded below the 250m contour are typical of rural areas of Scotland and have little archaeological significance beyond a very local level.

56. A similar level of importance is attributable to the many enclosures and boundary dykes recorded by the archaeological surveys of the Kilpatrick Hills. Enclosures such as AOC3 and Firat sites 53 and 54 are, again, typical of historic agriculture in much of rural Scotland, but this in no way prejudices interpretation of function or date. In some secluded areas such as AOC3, where the turf and stone enclosure banks abut a small stream, enclosures of this kind may have been used for the corralling of livestock during summer grazing, but the dating of such constructions is nearly impossible to refine. As such, the potential importance of some enclosures, particularly in upland zones marginal from the post-improvement period, should not be overlooked.

57. Dumbartonshire lies at the southern extremity of the distribution of shieling huts recorded by the RCAHMS Ordnance Survey 1st edition settlement project (RCAHMS 2002:30-1), but it is probable that the upland areas of the Kilpatrick Hills were used in a system of summer transhumance, and several possible shieling structures have been recorded during the course of field survey in the area. At Cochno Hill (NS47NE 14) Firat recorded 18 small rectangular stone-footed buildings, averaging c.3-4m across that are probably representative of upland seasonal occupation of the post-medieval centuries. Similar structures were recorded during the survey of Cochno Hill north at AOC11, with one structure of similar dimensions to visible among the rubble of other buildings, and the small enclosure and walling fragments visible at Windyedge (see above) may also relate to shieling activity. Again, close dating of such structures is not easy, but the majority of shielings can be placed in the post-medieval centuries prior to large scale agricultural improvements of the eighteenth and nineteenth centuries. None of the examples recorded in the Kilpatrick Hills are depicted on the Ordnance Survey first edition map, implying their disuse long before the mid nineteenth century.
58. The large number of sheepfolds and drystone dykes recorded across the Kilpatrick Hills by previous surveys are typical of nineteenth and twentieth century upland sheep farming in southern Scotland; they are considered of local or negligible significance.
59. One unique feature of the study area is a very unusual arrangement of land division implemented in the 1850s, known as the March Stones (Figure 7). The remaining stones were recorded and discussed by Sludden and Mulligan (2012), based on the description provided by Rankin (1993). The history of the stones is described in detail by the above sources, and is not rehearsed here other than to note that the March Stones, placed across the SE facing slopes of the slacks represent an unusual and distinctive feature of nineteenth century land division in the area. The recorded history of the stones, which derive from the need to divide feu plots designated in the 1780s into grazing land- with the consequent requirement to retain access to running water- and the dispute that resulted in the precise placement of the marker stones along the boundaries of agreed plots represents a distinctive aspect of Kilpatrick's local history, and a rare example of direct connection of local history to physical remains in the area. As such, care should be taken to ensure the stones are preserved and incorporated into management plans and promotion of the archaeology of the area.
60. *Industry*
61. A small number of monuments relating to industrial activities of the historic period are represented in the study area. Several quarry scoops were recorded across the study area (e.g. Rathmell site 41), though most likely to relate to small scale quarrying for the construction of dykes, tracks and buildings in relatively recent times. Two structures are notable for their relevance to local farmstead-scale industrial practices. Firat recorded the remains of what may be a kiln (Baker 2008, site 57), which they speculated may be for the production of lime, though a corn-drying function may also be postulated; few such sites are recorded in Dumbartonshire (around 8 lime kilns, including a possible example to the north of the study area at Blairquhomrie (NS48SW 11) and 7 corn drying kilns are known). Such kilns are a feature of the post-medieval farmstead landscape across rural Scotland, but the Cochno example may represent an interesting addition to the small dataset for the area.



Figure 7: One of the March Stones, the Slacks (image: Rathmell Archaeology)

62. A single possible mill structure was recorded during the survey of Cochno Hill North (AOC10). Although the building is too ruinous and overgrown to be confident, the location in close proximity to Auchingree Burn raises the possibility that the building is a mill. Findspots of unfinished millstones in similar locations, as at Finland Burn and Merkins Muir (NS48SW 12) indicate that post-medieval meal and corn mills of this type were in use in the immediate vicinity.

63. Settlement

64. Aside from the seasonally occupied shielings discussed above, there are several structures relating to more permanent farmsteadings and related settlements in the Kilpatrick Hills study area. These include the farmsteads at Dumbarton Muir, comprising a series of unroofed structures (NS47NE 10) and Burncrooks, where a series of individual buildings may comprise the remains of a farmstead. The Burncrooks example is marked as an unroofed structure on the OS 1st edition map (Sheet XIX, 1864), but the Dumbarton Muir site is not present, suggesting that both settlements were long ruined before the mid-nineteenth century survey of the area.

65. Otherwise, settlement of the Kilpatrick Hills was confined to lower altitude slopes around Faifley, Cochno and Duntocher. Modern farms such as those at Craigleith, Burnbrae and Gowkstone seem likely to have replaced previous post-medieval settlements in the improvement period.

66. Leisure

67. A series of grouse shooting butts, visible as semi-circular drystone walls c.4m across lining the ridges of Craigarestie and Brown Hill (see part one, above) are depicted on the modern Ordnance Survey map. It is uncertain when these structures were erected, but their absence from the first edition OS map implies that an early 20th century date is probable. The structures are well built and many are well preserved; these buildings provide an insight into the modern estate management and leisure activities of the Kilpatrick Hills.

Significance and Value

68. In establishing the particular cultural significance of a heritage assets in areas such as the Kilpatrick Hills, significance may be measured along several different characteristics and to a great extent; the intention of the assessor will determine which of those carries more significance in the particular instance. The significance of each of the monuments recorded during the archaeological survey of the Kilpatrick Hills has been assessed according to the FCS guidelines for assessing importance, but the following assessment has been guided by the characteristics outlined in Annex 1 of Scottish Historic Environment Policy (SHEP) (2011), which defines three groups of characteristics:

69. *Intrinsic* characteristics (those inherent in the monument, such as its condition and the potential survival of important archaeological evidence both above and below ground);

70. *Contextual* characteristics (such as landscape setting, group value or if the monument is a well-preserved example of an unusual and significant monument type); and

71. *Associative* characteristics (more subjective assessments, such as aesthetic attributes or if the site has enhanced value to the public as an accessible and significant monument type)."

72. Annex 1 of SHEP (2011) provides the following descriptions of these characteristics of heritage assets:

73. *Intrinsic characteristics*

a. the condition in which the monuments survive. 'Condition' includes the potential survival of archaeological evidence above and below ground, and goes beyond the survival of marked field characteristics;

b. the archaeological, scientific, technological or other interest or research potential of any individual monument or any part of it;

c. the apparent developmental sequence of the monument. Monuments that show a sequence of development can provide insights of importance, as can places occupied for a short time;

d. the original or subsequent functions of monuments and their parts.

74. *Contextual characteristics*

e. the present rarity or representativeness of all or any part of a monument, assessed against knowledge of the archaeology of Scotland and of the region in which the monument occurs;

f. the relationship of a monument to other monuments of the same or related classes or period, or to features or monuments in the vicinity. This is particularly important where individual monuments, themselves perhaps of limited immediate significance, form an important part of a widespread but

varied class. The diversity of the class should be a material consideration in making individual decisions

g. the relationship of monuments and their parts with the wider landscape and setting.

75. *Associative characteristics*

h. the historical, cultural and social influences that have affected the form and fabric of monuments, and vice versa;

i. the aesthetic attributes of monuments;

j. the significance in the national consciousness or to people who use or have used the area, or descendants of such people; and

k. the associations the monument has with historical, traditional or artistic characters or events."

Intrinsic Characteristics

76. While several of the sites and monuments located in the Kilpatrick Hills study area are very well preserved few display intrinsic characteristics that elevate their significance above a local or regional level. The chambered cairn at Lang Cairn is undoubtedly one of the most significant cairns in the region, and is well preserved, with high potential for the preservation of archaeological remains that provide information on the nature of prehistoric society. Aside from this monument and the damaged scheduled cairn at Gallangad Burn however, no site qualifies in the category of 'National Importance'. While the potential for buried archaeological deposits in upland areas of the study area is high, particularly beneath peat and in areas close to the prehistoric house platforms and hut circles, there is no indication that any one monument qualifies in the highest categories of significance in the area.

77. This however, is not to understate the importance of several sites, particularly the prehistoric settlements recorded at Cochno Hill North (E.g. AOC8, AOC15 and AOC16), which have high potential to provide insights into the Bronze Age settlement of west central Scotland. Similarly, while their character cannot easily be established by field survey alone, the groups of small cairns recorded across the study area have the potential to provide detailed information on the nature of prehistoric agriculture, and possibly funerary practices, when studied as a group. It is perhaps this context that adds more importance to the archaeological sites of the Kilpatrick Hills as a whole.

Contextual Characteristics

78. While fragmentary, taken as a group of monuments the archaeological sites of the Kilpatrick Hills have the potential to provide the basis for an instructive study of prehistoric and historic settlement, funerary and agricultural practices from the Neolithic to the modern period. The abandonment of the upland zone from the late Bronze Age onward has meant that traces of the earlier prehistoric landscape of the Kilpatrick Hills survive, and although the later prehistoric and medieval centuries are not represented to a significant level in the archaeological record, proxy indicators of such activity can be expected to survive and be recovered in detailed investigations of the remains of later periods. As a case study in the effects of climate change on settlement and agricultural patterns the

archaeological sites of the Kilpatrick Hills have considerable value as the record of human responses to change over the course of several millennia.

Associative Characteristics

79. The Kilpatrick Hills undoubtedly have aesthetic appeal, and are popular with walkers and cyclists. The archaeological monuments of the area are generally not of themselves spectacular, with a few exceptions in more remote areas, but their presence in an area of natural beauty enhances their importance to those who visit the hills. The contrast of the upland rural area with the highly developed areas of Dumbarton and Glasgow immediately to the south is one which holds appeal for visitors, and the cultural history of the area is as important an aspect of this value as any other. While few of the sites are likely to be viable as visitor attractions, there are exceptions, with Lang Cairn and the Gallangad Burn Cairn having potential for presentation to the public, albeit only for those prepared to walk some distance.
80. The historical associations with the March Stones add considerably to their importance, and as discussed by Sludden and Mulligan (2012) represent an unusual connection of local history to physical remains on the ground. Such heritage assets, which can link local people directly to the land and its history, are to be considered highly valuable in the Scottish landscape.
81. While more modern and only of local importance, the shooting butts of Greenland and Craigaestie provide a similar connection to the recent past, and with those examples on Greenland situated close to walkers paths their heritage value is enhanced by their relative accessibility.

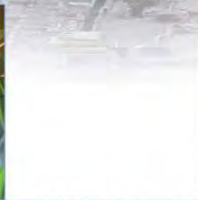
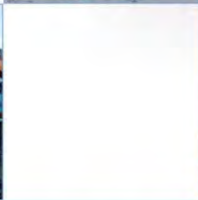
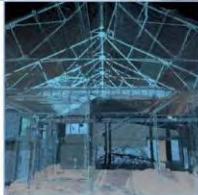
Conclusion

82. This report has attempted to place the archaeological sites and monuments of the Kilpatrick Hills in their local, regional and national archaeological context. In general, the archaeological record of the area is dominated by sites of the relatively recent centuries which are for the most part of local or regional significance. However, there are notable exceptions, and several sites indicate the preservation of potentially significant archaeological remains, with highlights including a series of chambered cairns, Bronze Age hut circles and post-medieval land boundaries. Taken as a whole, the archaeology of the Kilpatrick Hills can be considered to be of high value at a regional level, with several monuments being considered of national importance.

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Plate 1: View of AOC1, boundary dyke at Duncolm, facing W.



Plate 2: View of AOC2, area of possible relict agriculture, N of Duncolm, facing SW.



Plate 3: View of AOC3, curvilinear enclosure, facing N.



Plate 4: View of AOC4, hut-circle, facing W.



Plate 5: View of AOC5, cairn, facing NW.



Plate 6: View of AOC6, possible cairn, facing W.



Plate 7: View of AOC7, recessed house platforms, facing S, with Craighirst in the background.



Plate 8: View of AOC8, Site A, recessed hut circle, facing N.



Plate 9: View of AOC8, Site B, recessed hut circle, facing N towards Duncolm.



Plate 10: View of AOC9, possible recessed house platform.



Plate 11: View of AOC10, rectangular building, facing NE.



Plate 12: View of AOC11, possible sheilings, facing NE.



Plate 13: View of AOC12, hut-circle, facing SE.



Plate 14: View of AOC13, cairn, facing SE.



Plate 15: View of AOC14, possible cairn, facing W.



Plate 16: View of AOC15, hut-circle, facing W.



Plate 17: View of AOC16, hut-circle, facing W.



Plate 18: View of Cairnhowit chambered cairn, facing N.



Plate 19: View of orthostats of Cairnhowit chambered cairn, facing W.



Plate 20: View of possible sheilings at Windyedge, facing W.



Plate 21: View of ruinous walling at Windyedge, possible sheilings, facing S.



Plate 22: View of Gallangad Burn chambered cairn, facing W.



Plate 23: Detail of surviving facade orthostats and displaced cap lintel, Gallangad Burn chambered cairn.



Plate 24: View of possible remains of a chambered cairn at Boglairoch, facing NW.



Plate 25: View of possible chambered cairn at Boglairoch, facing SW.



Plate 26: View of Craigarestie grouse butt GB1, facing S.



Plate 27: View of Craigaestie grouse butt GB 5, facing S.



Plate 28: View of Craigaestie grouse butt 6, facing S.



Plate 29: View of Craigarestie grouse butt GB7, facing S.



Plate 30: View of Craigarestie grouse butt GB8, facing S.



Plate 31: View of Craigarestie grouse butt GB9, facing E.



Plate 32: View of Craigarestie grouse butt GB10, facing W.



Plate 33: View of Craigarestie grouse butt GB11, facing W.



Plate 34: View of Craigarestie grouse butt GB14, facing SW.



Plate 35: View of AOC17, grouse butt at Greenland, Auchentorlie, facing W.



Plate 36: View of AOC18, grouse butt at Greenland, Auchentorlie, facing SW.



Plate 37: View of AOC19, grouse butt at Greenland, Auchentorlie, facing W.



Plate 38: View of Greenland grouse butt GB1.



Plate 39: View of Greenland grouse butt GB2.



Plate 40: View of Brown Hill grouse butt GB2, facing S.



Plate 41: View of Brown Hill grouse butt GB4, facing SE.



Plate 42: View of Brown Hill grouse butt GB5, facing S.



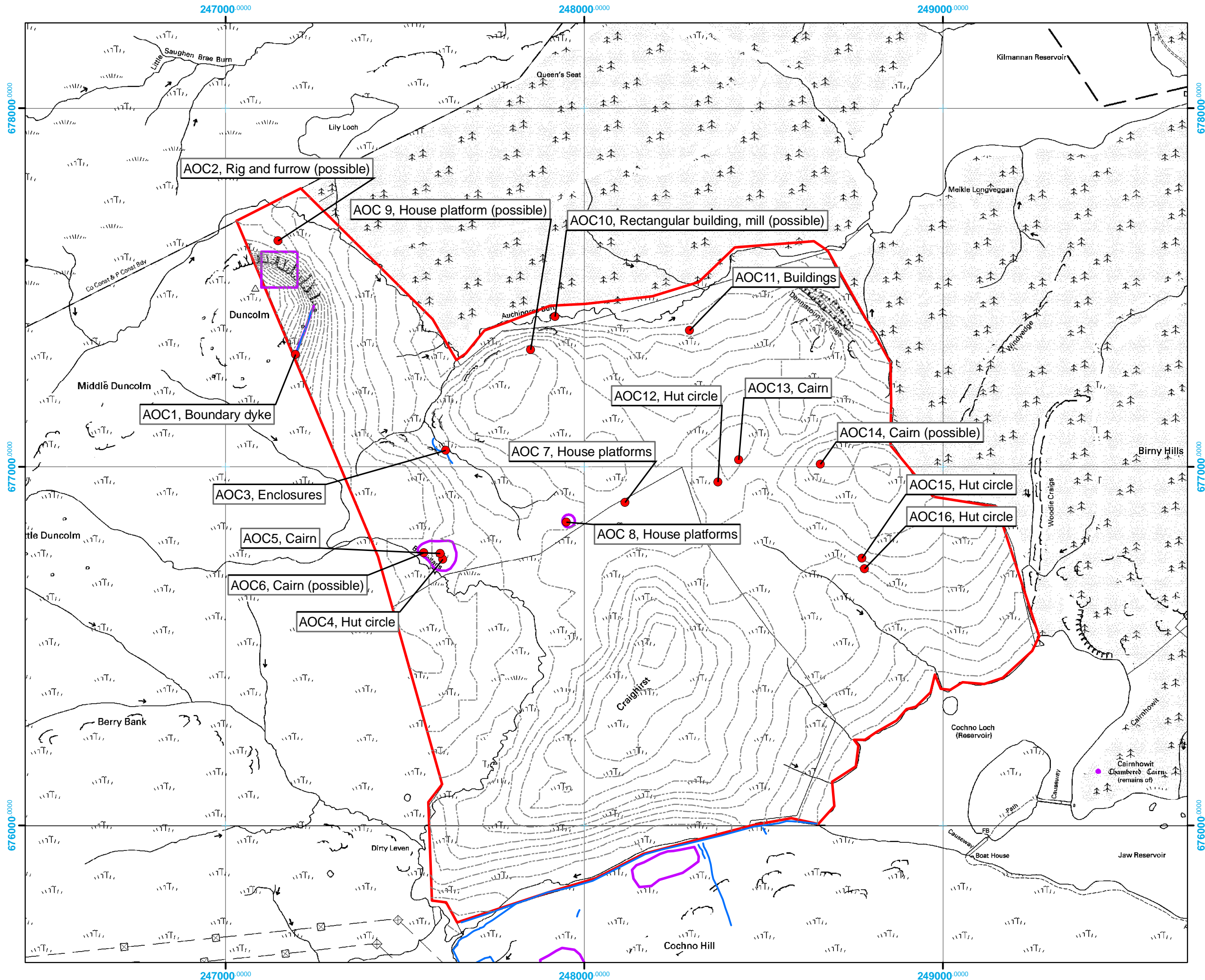
Plate 43: View of Brown Hill grouse butt, GB6, facing S.



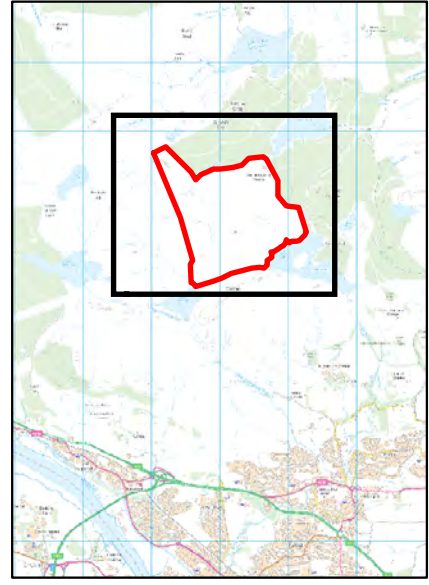
Plate 44: View of Brown Hill grouse butt GB7, facing S.



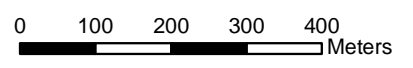
Plate 45: View of Brown Hill grouse butt GB8, facing S.



Cochno Hill North Map 1



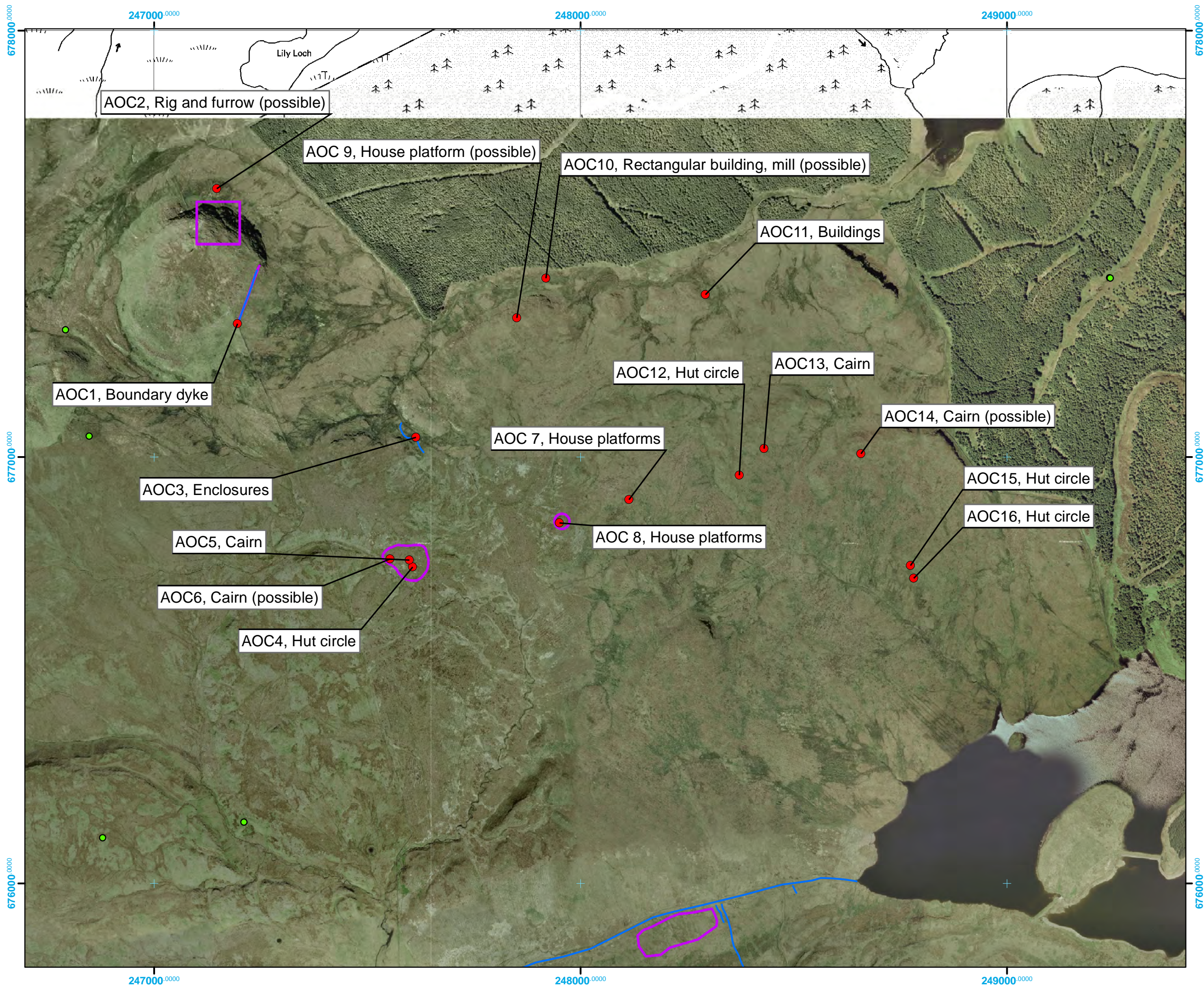
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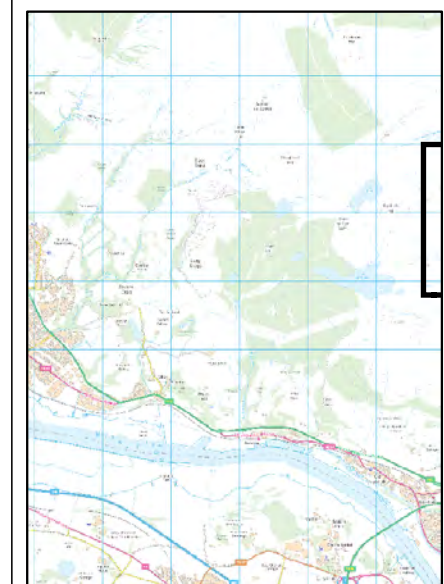
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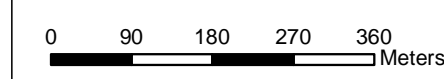
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Cochno Hill North Map 2



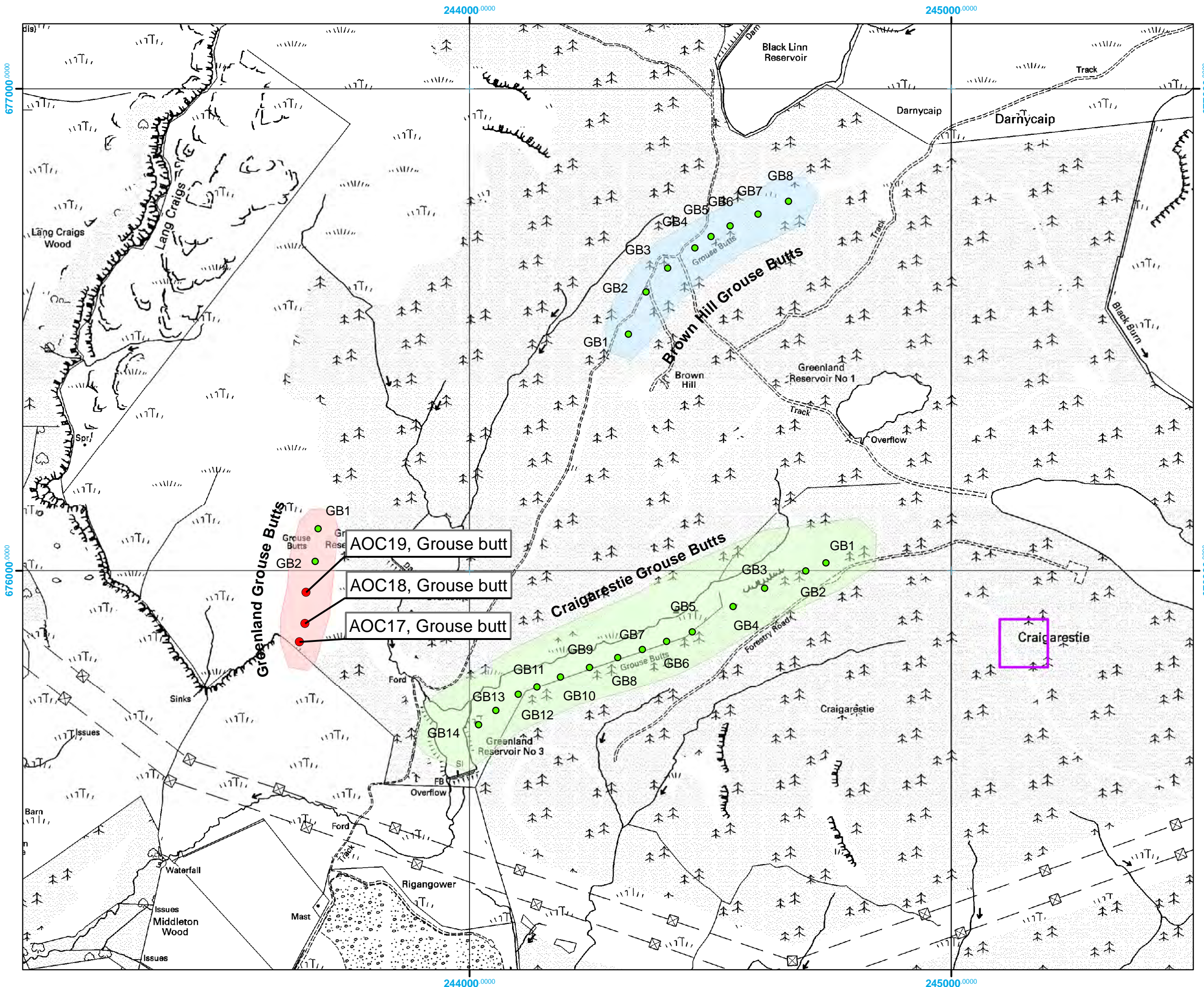
- Legend**
- Newly identified sites
 - Heritage Features, point
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 - Heritage Features, Polygon



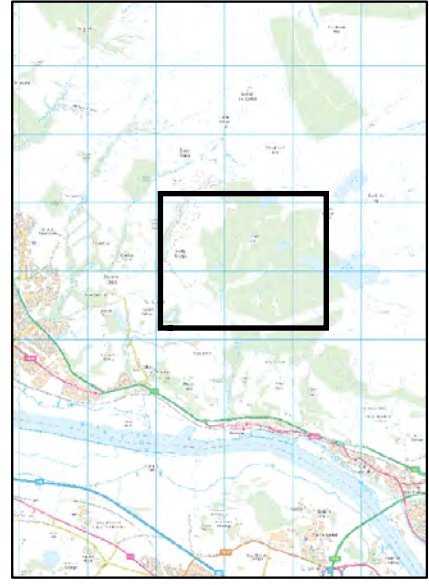
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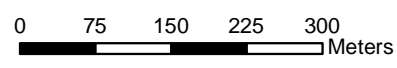
(c) AOC Archaeology 2013



Cochno Hill North Map 3



- Legend**
- Newly identified sites
 - Heritage Features, point
 - Heritage Features, Line
 - Heritage Features, Polygon



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Date:	20/3/13
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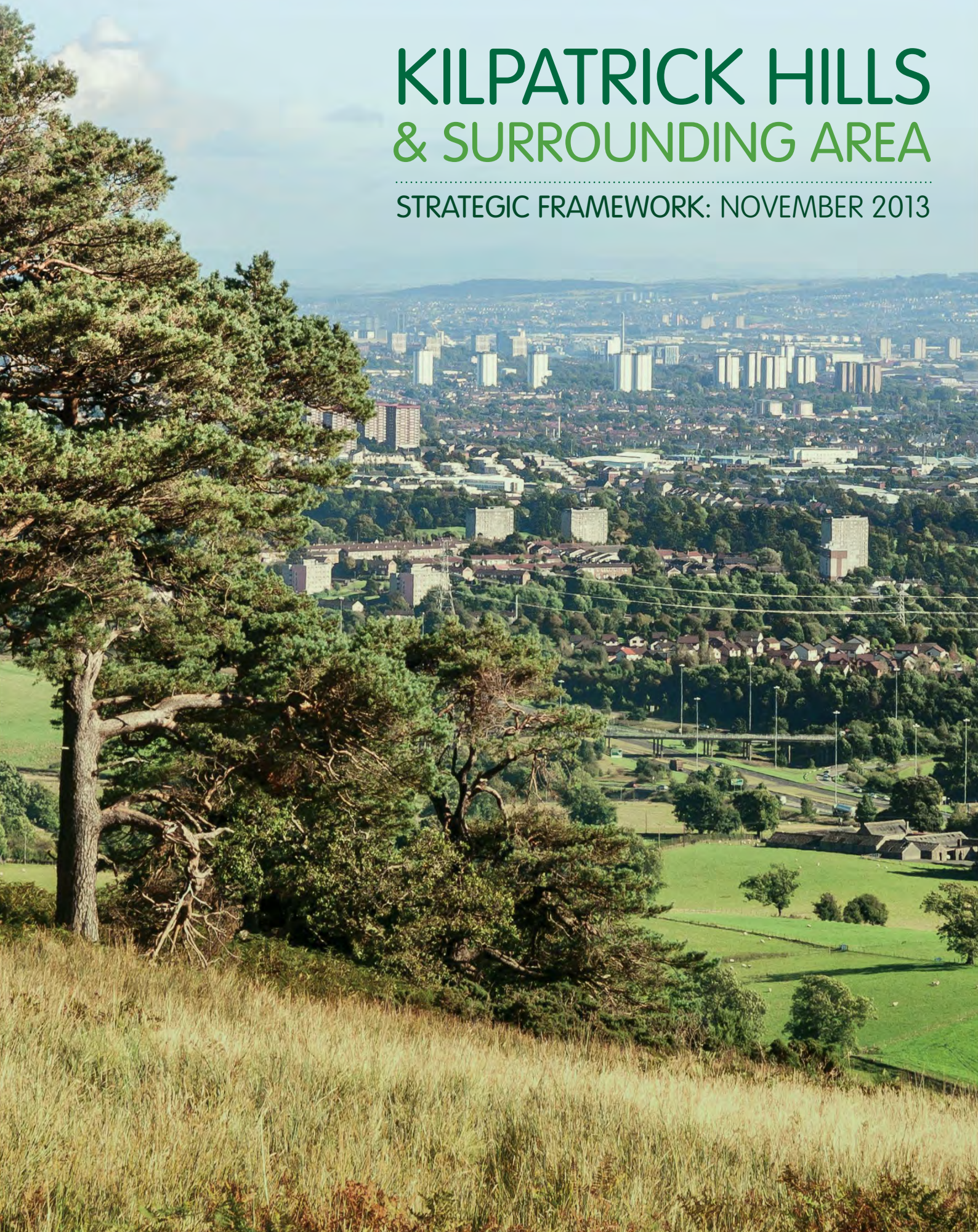
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Kilpatrick Hills Forest Design Plan Appendices

Appendix VI(iv) Kilpatrick Hills & Surrounding Area Strategic Framework

KILPATRICK HILLS & SURROUNDING AREA

STRATEGIC FRAMEWORK: NOVEMBER 2013





Project Ref:	22747
Status:	Final
Issue/Rev:	01
Date:	29.11.13
Prepared by:	IB
Checked by:	MW

**BARTON
WILLMORE**

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Introduction

Purpose

Supporting the LDP

The West Dunbartonshire Draft Local Development Plan (LDP) recognises that the production of formal Supplementary Guidance to continue to shape the potential of the Kilpatrick Hills as a regional resource for the benefit of communities within West Dunbartonshire and beyond. The LDP states:

“The Council expects that the green network will be integral to development proposals and that enhancements to the green network are considered from the outset of the design process, based on spatial analysis which goes beyond site boundaries.

Supplementary guidance will provide more detailed mapping of the green network; identify key locations and projects for its enhancement; and establish general principles for green network delivery across West Dunbartonshire.

...Supplementary Guidance is to be produced to set a framework for the protection and enhancement of the area’s special qualities.”

FCS recognise the importance that Supplementary Guidance can play in expressing a common vision for the Kilpatrick Hills and are fully supportive of this process.

FCS submit this Strategic Framework to the LDP for consideration as we feel it will be of interest to West Dunbartonshire Council (WDC). FCS would be a willing partner in developing this work further and in the preparation of Supplementary Guidance for the Kilpatrick Hills. FCS support WDC’s ambitions as set out with the draft LDP.

It is hoped that the Strategic Framework can provide a robust starting point and a potentially a brief for the production of future Guidance.

The Kilpatrick Hills

The Kilpatrick Hills have been used as an informal resource for many years, but FCS’ recent land acquisitions, consolidating approximately 3,500 hectares of land covering the majority of the area, has encouraged FCS to consider further opportunities and a vision for the Kilpatrick Hills over the next 5, 10 and 20 years.

This submission, now referred to as a Strategic Framework, considers how FCS and key stakeholders can enhance the visitor experience of the Kilpatricks and establish them as a ‘destination’ in their own right - an area used not only by adjacent communities but by people from across the city region and country as well.

This work is timely as several studies have recently been undertaken aiming to describe and identify priorities for change in terms of our strategic recreational resources, the Central Scotland Green Network (CSGN) Study being one such example.

FCS have also undertaken their own research, with focus groups, walk-throughs and surveys all gathering valuable information in terms of what is present and how we use and regard the Kilpatricks. In addition West Dunbartonshire Council (WDC), along with SNH, have produced a Statement of Importance which reviews the landscape of the Kilpatricks in support of their forthcoming designation as a Local Landscape Area (LLA).

While we understand the sensitivity of the environment and value of its biodiversity, **the Kilpatricks provide a unique resource for recreation, health and well being** within touching distance of over a million people and across a diverse range of communities.

In addition the Kilpatricks have the potential to contribute (in their own way) to **economic development** of the wider area, including West Dunbartonshire, East Dunbartonshire and Stirlingshire.

These aspects cannot be forgotten in developing **Supplementary Guidance** for the Kilpatrick Hills. Indeed, there are just as important as protection.

Balancing Priorities

As owners of near one tenth of the land area of Scotland, FCS has a duty to balance its role as a custodian of the nation's timber resource with its recreational potential and the sustainability of the landscape. Amongst the places managed by the FCS are areas of real wilderness, far from the densely populated parts of the country - the focus in these places is very much on the commercial and natural resource. The Kilpatrick Hills also have significant areas of wilderness but at the same time sits at the opposite end of the spectrum from remote places, being directly adjacent to Scotland's largest mass of population. In relative and absolute terms it is one of the most accessible areas of publicly owned forest in the country.

FCS regard their plans for the next cycle in the development of the Kilpatrick Hills as being a catalyst for opening up this fantastic resource for the population on its doorstep. While this will need to be achieved in a sensitive manner, Planning Guidance for the Kilpatricks should not be just about simply preserving or protecting these hills, but should consider the potential benefits they offer in terms of Access, Timber resource, Wildlife habitat and Recreation.

The recommendations of the Strategic Framework are an expression of FCS ambitions for the Kilpatrick Hills. As such it has a focus on the objectives that really matter to the FCS: improved access to varied landscapes in order to support the well-being of communities, the potential for local economic development through tourism investment, as well as finding ways to both safeguard and celebrate biodiversity and landscape character.

Working with other Landowners

FCS control a large area of land at the core of the Kilpatrick Hills, however, there are areas of surrounding land under various ownerships which also contribute to the wider access and use of the Kilpatricks. Future proposals for the hills will require engagement with these landowners alongside other key stakeholders.

Supporting Regeneration

The reshaping of the Kilpatrick Hills is a natural outcome of the stage of the forest planting cycle. This burgeoning plan for change within the rural context coincides with a similar process of change and renewal beginning to occur throughout the settlements of West Dunbartonshire.

Directly adjacent to the Kilpatricks; in Clydebank, Dumbarton and the Vale of Leven, are places only gradually responding to a process of rapid de-industrialisation which has significantly transformed the urban landscape. The LDP regards physical regeneration of the built environment, in particular of the area's residential neighbourhoods, as being a keystone in the council's desire to improve the well-being of local communities.

The potential synergies between the renewal of both the natural and physical realm of West Dunbartonshire are too great to ignore. If planned for carefully, the emergence of the Kilpatrick Hills as an accessible recreational resource could change perceptions of these neighbourhoods, helping to raise demand, attract investment and perpetuate a cycle of renewal.

Integrating Forest and Development Planning: The Forest Design Plan

In order to achieve FCS's long-term ambitions for the Kilpatrick Hills, The Strategic Framework will intersect with and influence both the statutory planning system and FCS' own internal planning process. While it has a role to play in guiding development within the Development Plan process, it will also be used to inform FCS' Forest Design Plan (FDP) for their specific landownership area.

**LOCH LOMOND AND
THE TROSSACHS**

THE CAMPSIE FELLS

Alexandria

**THE KILPATRICK
HILLS**

Milngavie

Dumbarton

Bearsden

Clydebank

GLASGOW

Place and Experience

Where is it?

While FCS's area of landownership extends to some 3,500 Ha at the heart of the Kilpatrick Hills the study area covers a substantially larger area extending to the Clyde Valley, Loch Lomond, Strathblane and the communities of East and West Dunbartonshire.

The core strength of the Kilpatrick Hills as a visitor destination relates to its unique strategic connectivity into the large concentrated population of the West of Scotland.

The Kilpatricks occupy a position between Loch Lomond and the Trossachs National Park and the Greater Glasgow conurbation. At present the Hill's relationship to these very different contexts is ambiguous. To some extent the Strategic Framework must help define the Kilpatricks' role more clearly in how it supports and capitalises on its location and context.

What's there?

The Kilpatrick Hills is an area of forested and wilderness-like open moorland landscape principally sitting at an average elevation around 250m to 350m, it has crags and distinctive hilltops rising up to 400m in places, the highest being Duncolm (401m) at the very centre of the Kilpatricks. As well as four large blocks of commercial forest planted by the Forestry Commission for Scotland during the 1960s and 1970s the Kilpatricks also contains a number of reservoirs managed by Scottish Water.

To the south east of the study area lies the well connected towns of Milngavie and Bearsden, with Clydebank directly to the south. To the north, the land flattens out toward the banks of Loch Lomond and the National Park lies beyond.

The southern and western boundaries of the Kilpatricks comprise its more distinctive edges. Here, the land rises steeply from the edge of the Clyde Valley forming a backdrop to views over Strathclyde from Glasgow and parts of Renfrewshire. The often craggy ridges that make up these edges are, for most living across the region, their principle experience of the Kilpatricks.

What is it used for?

The two key land-uses within the Kilpatricks are commercial forestry and hill-sheep farming with the latter now mainly confined to the southern slopes of the area.

In terms of recreational use, little takes place by way of formalised activity. The area is principally used by those with a local knowledge of the landscape including rambblers and hill walkers from adjacent settlements. These groups tend to stick to shorter looping walks towards the edge of the area, taking advantage of parking and public transport connections along the southern and western periphery in particular. For those who know, walks in the area offer the quick reward of short, steep climbs towards spectacular and varied views out over Glasgow and Strathclyde, The Campsies and the Southern Highland Massif around Ben Lomond to the north.

The main reservoirs provide focal points for local anglers, while mountain bikers have taken to using the areas around the Lang Craigs and the Slacks as downhill routes.

FIGURE 1: Contextual Aerial

Ambition

Designing a Forest

Forestry Commission Scotland (FCS) are in the process of producing a Forest Design Plan (FDP) in order to establish the long-term shape of their recently enlarged and consolidated landholding. The FDP sets out management objectives detailing plans for felling, replanting, new planting, roading, recreation, conservation and heritage. A process of consultation has already begun in order to inform the FDP, with a wide range of statutory stakeholders, community groups and general public involved.

Improving Access, Recreation and Tourism

FCS' ambitions for the Kilpatrick Hills nevertheless go beyond the scope of the FDP. The FCS' Access, Recreation and Tourism Strategy 'Forests for People' applies to the whole forest estate, but is of particular relevance to well connected, accessible woodland areas such as the Kilpatrick Hills. The strategy sets out a twintrack approach, with two principal recreation priorities:

Local Health and Well-Being

"Provide informal outdoor recreation in well-managed countryside, particularly where other opportunities are lacking, and for communities with high levels of social exclusion and low levels of physical activity".

For the Kilpatrick Hills, the FCS interpret this priority as providing a focus on improving access, and involvement in, the forest estate for the many local communities living within a short distance of the Kilpatricks. The FCS also recognise their role that quiet enjoyment, recreation and leisure within the Kilpatricks will be able to improve health and well-being.

The FCS have a further ambition for local greenspaces such as the Kilpatrick Hills: to use the unique characteristics of its woodland and open spaces as a vital ingredient in helping to support regeneration by improving the look and feel of adjacent urban environments.

Local Economic Development

"Provide facilities to enhance outdoor recreation and tourism that support local economic development in economically fragile areas and that will enhance Scotland as a tourist destination.

The FCS want to see the Kilpatrick Hills as a resource for the wider community to derive economic benefits from, particularly in terms of its potential for development as a tourist destination. It regards the Kilpatrick Hill as having unfulfilled potential in terms of its recreational facilities, wildlife viewing, sport and cultural heritage opportunities.

A Wider Context

Achieving the ambitions of FCS for the Kilpatrick Hills would not be possible if the focus remained simply on their landlocked area of ownership. FCS recognise that the Strategic Framework needs to apply at the strategic level in order to have value for the FDP and the LDP. This document therefore encompasses all the land generally taken as belonging to the area of the Kilpatricks. As such, the study area extends to the edge of existing settlements, taking the edge of the built environment, whether in the shape of roads, railways or neighbourhoods as being the natural boundary. This area is shown in Figure 2, opposite.

In this way the Strategic Framework is able to inform the FDP from a wider context, encompassing all the key gateways and paths into the area while taking into account a broader range of concepts and principles.



FIGURE 2: Study Area and Local Authority Boundaries

Vision

Vision Statement

The Kilpatrick Hills is an area of accessible ‘wilderness’ sitting between Scotland’s largest and most populated conurbation and it’s most famous National Park - Loch Lomond and Trossachs. Overlooked by many as an area of commercial forestry and rough grazing land, the potential of the Kilpatricks to form a key part of Central Scotland’s Green Network has only recently been recognised.

The vision for the Kilpatrick Hills has taken shape throughout the preparation of this document and in consultation with stakeholders. The vision is intended to reflect shared ambitions for the area and to promote its identity as a highly accessible destination for a wide range of activities within a high quality, well managed forest environment.

FCS is use to planning for the long-term. A forest cycle can take over 40 years from nursery to harvesting. Planning for such a time period involves careful preparation, foresight and ambition. Although comparatively speaking, a 25 year vision for the Kilpatrick Hills might even be considered short term within this context.

Priorities for the Kilpatricks

The vision is supported by three strategic priorities. The first of these is intended to provide greater opportunities for visitors, the second is to ensure it becomes a more established visitor destination which is widely recognised, while the third seeks to balance the first two priorities with the ongoing, sustainable management of the landscape.

OUR VISION

The Kilpatrick Hills will emerge as a regionally important and highly accessible area providing a ‘wilderness experience’. It should be a destination of choice for outdoor recreation, catering for a range of activities and accessible for a broad spectrum of abilities.

IMPROVING THE VISITOR EXPERIENCE

To increase the level of accessibility into the Kilpatricks, improve facilities for visitors and provide the basis for activities to flourish

RAISING AWARENESS

To raise awareness of the possibilities for potential visitors, promoting its strategic accessibility and the variety of activities on offer

SUSTAINABLY LAND MANAGEMENT

To support the Forest Design Plan in conserving the special wilderness-like character of the landscape and enhancing biodiversity



Methodology

The Strategic Framework has been shaped by the following stages:

1: Establishing a Baseline

Setting out the Context

Recent interest in the Kilpatrick Hills has stemmed from planning, tourism and forestry guidance from the national level downwards. This has resulted in the production of a number of more focussed studies, including by Central Scotland Green Network (CSGN) and a Local Landscape Area (LLA) Statement of Importance. The initial section of this Strategic Framework draws out those components of relevance to the Kilpatricks, placing it within the broader policy context. It also sets out how the framework will build upon or complements their findings in order to inform Supplementary Guidance within the West Dunbartonshire LDP.

Study Area Analysis

A great deal of information relating to how the area is used and accessed is already available from a variety of sources, including preparatory work for the Forest Design Plan. This study area analysis involves the consolidation of this information into a series of clear maps, used to illustrate emerging patterns of access and activity.

These baseline maps focus on what is existing, but also include strategic level proposals that have a degree of certainty in their delivery, such as long-distance walking trails.

2: Involving Stakeholders

A Series of Workshops

FCS recognise that in order to achieve a long-term, sustainable commitment to the aims and ambitions of the Strategic Framework, it must involve key stakeholders in developing a shared vision.

The baseline mapping process was introduced to Stakeholders at a series of workshops and was presented using a number of key themes:

- Landscape and Environment
- Access the Hills - transport and gateways
- Entering the Hills - routes
- Activities
- Landmarks and Points of Interest
- Edges and Change

Stakeholders were encouraged to express their own ambitions for the Kilpatrick Hills through an interactive mapping process.

3: Concepts and Strategies

Informing the Vision

The Workshop process is distilled at this stage into a series of concepts and strategies that most appropriately reflect the shared ambitions and vision for the Kilpatrick Hills:

- Tackling Barriers
- Establishing Gateways
- Activity Areas
- Completing the Loops
- Strategic Paths
- Character Areas
- Marketing and Promotion

4: Action Plan

Prioritising Projects

The Action plan sets out a number of priority projects over a number of time periods:

- 2014 - 2019
- 2019 - 2024
- 2024 +

Baseline



Establishing a Baseline

Purpose of the Baseline

The baseline stage primarily seeks to gather information relating to both the physical and non-physical elements of a study. Generally, the physical will relate to the history of an area, the form and function of the area and its surrounding settlements, landscape and accessibility. The non-physical baseline will review relevant documentation, planning policy context, socio-economic statistics and also detail engagement held with stakeholders, where possible, to gather information through interviews or workshops.

What does a Baseline do?

The baseline takes account of the current situation and provides the context for developing ideas and deliverable solutions. It provides an evidence base that can support future proposals.

Baseline Structure

To aid the preparation of the Strategic Framework the baseline stage has been structured as set out below:

Context



Study Area Analysis



Planning Policy

National Planning Policy

The National Planning Framework

The Central Scotland Green Network (CSGN) was initially established through the first National Planning Framework in 2004. The Scottish Government is currently preparing the third version of this document, with the Main Issues Report having been published on 30 April 2013. As with the previous two iterations, NPF3 will continue to set the spatial strategy for nationally important development for the long term, the emphasis now being increasingly on sustainable economic growth. The proposed NPF3 is expected to be published in June 2014 and will likely cover a 5 year period up to 2019.

The NPF3 MIR proposes the retention of the CSGN as a National Development with a more focused approach on placemaking, active travel and tackling vacant and derelict land in areas of concentrated economic disadvantage and poor health.

NPF3 also aims to reduce health inequalities through the planning system. It identifies the settlements within the West Dunbartonshire area as being within the Most Deprived category of the Index of Multiple Deprivation. Given the relative size and accessibility of the Kilpatrick Hills for these communities, it is in a unique position to help align health and environmental outcomes across the area. It can contribute significantly towards the successful delivery of the framework objectives, while also helping to change perceptions of the area's neighbourhoods for potential new residents and investors.

Tourism Development Framework for Scotland

The Tourism Development Framework (TDF), published in July 2013, is Visit Scotland's statement on supporting sustainable growth in the visitor economy for the period to 2020. The Framework is intended to influence development in order to shape spatial investment in Scotland's national tourism infrastructure in support of the goals of NPF3.

Like NPF3, the importance of long-distance paths to the tourism economy of Scotland also features in this national level Framework. Theme 5: Nature, Heritage and Activities of the TDF identifies the important potential Scotland's path and trail network has in terms of development opportunities for tourism. It recognises that the potential of these trails could be further extended to areas of the country not currently accessible via the established network.

Further to this, the importance of Forest Tourism as a £200M contributor to the national economy is also highlighted.

Scottish Planning Policy

Scottish Planning Policy (SPP) was approved by Scottish Ministers in February 2010 and is a statement of Scottish Government policy.

In relation to the preparation of development plans, SPP confirms (Paragraph 14) that ***“Development plans should be concerned primarily with land and infrastructure. The efficient use of land and good infrastructure are important for the well-being of an area, particularly where they are supported by the commitment to the creation and maintenance of high quality places.”***

It further confirms (Paragraph 15) that development plans should be aspirational but realistic, and that they should address the spatial implications of economic, social and environmental change, in particular opportunities for development.

SPP states, in relation to rural development (Paragraph 92), that by taking a positive approach to new development, planning authorities can help to create the right conditions for rural businesses and communities to flourish and that the aim should be to enable development in all rural areas that supports prosperous and sustainable communities whilst protecting and enhancing environmental quality.

It confirms (Paragraph 93) that development plans should promote economic activity and diversification in all small towns and rural areas, including development linked to tourism, whilst ensuring that the distinctiveness of rural areas, and the natural and cultural heritage, are protected and enhanced. Where there is an opportunity for employment or community benefits these should be encouraged, particularly where they involve the imaginative and sensitive re-use of previously used land and buildings.

SPP states (Paragraph 125) that ***“Scotland’s landscape and natural heritage are internationally renowned and important, underpinning significant industries such as the food, drink and tourism industries, and are a key component of the high environmental quality which makes Scotland an attractive place in which to live, do business and invest. Improving the natural environment and the sustainable use and enjoyment of it is one of the Government’s national outcomes. Planning authorities should therefore support opportunities for enjoyment and understanding of the natural heritage.”***



Regional and Local Planning Policy

Glasgow and the Clyde Valley Strategic Development Plan (May 2012)

The Glasgow and Clyde Valley Strategic Development Plan (GCVSDP) forms a component part of the development plan for part of the Kilpatrick Hills. It sits above Local Development Plans as a strategic statement for the Greater Glasgow region. Operating at a larger scale than the LDP, it is able to identify opportunities more generally.

In terms of the Kilpatrick Hills, **Support Measure 2 (SM2)** is of greatest relevance. **SM2** addresses the longer-term potential strategic development of the Strathleven Corridor, which also encompasses the Kilpatrick Hills. The GCVSDP envisages that development within this area should be considered holistically in terms of both urban renewal efforts and measures to improve green infrastructure, visitor attractions and environmental quality within the area of the Kilpatricks. The area is identified as having potential in terms of its role as a gateway to the Loch Lomond and the Trossachs National Park.

In addition the GCVSDP identifies Dumbarton East and Old Kilpatrick as being focal points for the Glasgow and Clyde Valley Green Network. It sees these settlements, sitting at the interface between the River Clyde and the Kilpatrick Hills as:

“...those locations where environmental, social, access and regeneration elements are integrated and which provide the opportunity to extend networks to maximise the return on available resources.

These priorities represent the most significant prospect to deliver habitat, access creation, green and open space enhancement opportunities associated with major development”.

The GCVSDP considers that some of its key aims; including improved health inequality, economic opportunity, access to greenspace and physical regeneration have the potential to be aligned in the immediate vicinity of the Kilpatrick Hills.

Central Scotland Green Network

Central Scotland Green Network (CSGN) - A National Development

The Central Scotland Green Network was granted national development status as a part of the original National Planning Framework. Its vision is that:

“By 2050, Central Scotland has been transformed into a place where the environment adds value to the economy and where people’s lives are enriched by its quality.”

The CSGN has become established as a mechanism for aligning the policies, programmes and actions of public agencies and other stakeholders in order to connect towns and cities with the wider countryside and coast of Central Scotland.

Central Scotland Green Network Study (Land Use Consultants March 2011)

The CSGN study has the stated aim of:

“Investigating the potential of the Kilpatrick Hills while also delivering the aims of the East & West Dunbartonshire and Stirling Councils’ Local Plans, Community Plans, Single Outcome Agreements and Local Biodiversity”.

The document has a very broad remit, with the intention of satisfying a number of different objectives. As such it provides a good overview of the characteristics of the area, identifies a number of actions that might enable the study area to contribute more directly to the CSGN’s core themes, before setting out some priorities for consideration.

One of the core themes of the CSGN is to make Central Scotland a more prosperous and competitive place. The study considers that changing perception of the area will, in time, have an influence on investor decisions in regeneration areas such as Clydebanks and Dumbarton.



West Dunbartonshire Draft Local Development Plan

Proposed Kilpatrick Hills Local Landscape Area: Draft Statement of Importance (WDLDP 2013)

A proposal to designate the Kilpatrick Hills as a Local Landscape Area (LLA) emerged as part of the draft WDLDP in 2012. The draft statement of importance identifies the extent of the LLA and sets out the general landscape characteristics of the area. It does not however apply these characteristics to particular geographic zones within the wider landscape, or make direct qualitative judgements on the value of particular landscapes.

Although principally a description of the landscape characteristics of the Kilpatrick Hills, the statement also recognises that its special qualities, especially its perceived sense of remoteness and its relative accessibility, are also the reasons for it being ***“a popular recreational area, including for hill walking, mountain biking, fishing and wild camping”*** as well as forming ***“an important habitat network”***.

Draft Planning Policy Relating to the Kilpatricks

The draft WDLDP focuses in Chapter 3 on ‘Our Changing Places’. For the Draft Plan, urban regeneration of the areas town centres, former industrial areas, residential neighbourhoods and the protection and enhancement of the green network are inseparable objectives. Regardless of urban or rural context the Kilpatrick Hills are placed on the same footing for change as Alexandria, Clydebank or Dumbarton. This form of integrated thinking is to be applauded given the emphasis on aligning sustainable health, economic and environmental objectives at the national and regional level.

Chapter 3.12 of the Draft Plan picks up on the Kilpatrick Hills as being a major component of the area’s Green Network. This chapter also acknowledges FCS’ planned repositioning of the forest as being a catalyst for change. The Draft Plan makes explicit the likelihood for this change occurring over the lifetime of the plan:

“No landscape can be expected to remain unaltered and changes to forest and woodland cover, development and even climate change mean that the appearance of the Kilpatrick Hills will change over the lifetime of this development plan. The policies of this Plan that seek to enhance the green network (see Enhancing Our Green Network) together with the Kilpatrick Hills Supplementary Guidance, set out the Council’s position for managing change within the Kilpatrick Hills. Forest restructuring and the projects identified in the Green Network Study represent opportunities to enhance the environment of the Kilpatrick Hills and to promote their use and enjoyment. This Plan supports these opportunities.”

Kilpatrick Hills Supplementary Guidance

Although the protection of the hill's special characteristics are understandable objectives, we feel that the Draft Statement of Importance does not necessarily acknowledge **the important role that the Kilpatrick Hills plays in relation to strategic recreation** as well as health and well-being for local communities.

The Supplementary Guidance should be about more than the natural characteristics of place. We feel it should have careful regard for the potential that this greenspace has in order to meet West Dunbartonshire Council's broader vision of change for the community as a whole. We consider that the Supplementary Guidance should consider what role the Kilpatrick Hills should play in achieving the following:

Regeneration

From national planning policy and guidance through to the regional development plan, key themes can be traced in relation to the interface of physical, natural and social regeneration. The Draft Local Development Plan implicitly recognises that change in the town and countryside are intertwined at the introduction to Chapter 3. However, we propose that this theme of integrated outcomes be carried further to form the basis of Supplementary Guidance for the Kilpatrick Hills with one of its roles being to state the physical regeneration potential for the area.

Education

The Kilpatrick Hills should exist as a resource for school children to benefit from directly. The Kilpatricks should be easily accessible to schools for outdoor learning - encountering flora and fauna, developing woodland skills, planting trees and for play.

Health

Health outcomes have been shown to be intrinsically related to the environment context within which individuals and families live day-to-day. To that extent, the ability to access a place with the potential for individuals to easily experience a sense of remoteness in nature has an essential form of value to West Dunbartonshire. The Kilpatrick Hills are also able to accommodate the potential for diverse recreational and sporting activities, encouraging engagement in exercise across the area.

Social Well Being

One of the intentions of the WDLDP is to stimulate change within the housing market at the local level - the continual loss of population from the area in recent years is a reflection of the quality and mix of housing available in the areas key settlements. Reversing this trend will need to draw on all of the area's assets including its Green Network. As a force for positive change the Kilpatrick Hills have the potential to change perceptions of the area for the better, changing its composition long term.

This framework sets out a number of concepts and actions that are designed in order to help the Kilpatrick Hills achieve their potential for West Dunbartonshire.

Much of the ground work for Supplementary Guidance is contained within this document which essentially forms a brief for the preparation of this guidance. It has been drafted with the intention of supporting the objectives of the Draft West Dunbartonshire Local Plan alongside that of the FCS' Forest Design Plan.

Strategic Accessibility

Strategic Transport Accessibility

Transport Infrastructure

In the first instance, there is a need to understand the strategic context of the Kilpatrick Hills within the West of Scotland by way of its location. Figure 4 shows that the Kilpatricks lie at the edge of the greater Glasgow conurbation and clearly benefits from the strategic transport connections serving this large population.

The closest motorway linkage is via the Erskine Bridge to the M898/M80 which heads eastward to connect to Glasgow and the wider motorway network.

To the east of the Kilpatricks it is possible to travel directly to Stirling via the A811 or northward toward Fort William and the West Highlands via the A82 along the side of Loch Lomond.

Accessibility

The Kilpatrick Hills' principle relationship is with Glasgow, which lies little more than 15 minutes away by car or train.

Figure 4 shows the excellent infrastructure connections that exist within a short distance of the Kilpatricks. Approximately 1.7 million people live within the Glasgow and the Clyde Valley area, the vast majority of whom are able to reach the edge of the Kilpatrick Hills within 30 minutes by car or via public transport.

Its Greatest Strength

The Kilpatrick Hills is incredibly straightforward to access, with its southern and western edges, in particular, being highly accessible from Glasgow and the wider conurbation.

This analysis highlights that visitors to the Kilpatrick Hills are presently able to make choices in terms of their transport options to the area, with the potential for multi-modal trips via rail and bus services as well as by car.

Although benefiting greatly from the strategic location alongside well-established public transport and road infrastructure, the extent to which visitors from outwith the local environs make use of the Kilpatricks is presently less than its potential would suggest. This is perhaps due to a lack of regional or national awareness of this resource.

It is also significant that the same transport infrastructure provides easy access to visitor destinations within the Loch Lomond and the Trossachs National Park, such as Balloch, by-passing the Kilpatrick Hills. The more recognisable landscapes and better developed tourist infrastructure of Loch Lomond and the Trossachs National Park allows the Kilpatricks to be relatively easily overlooked as a potential alternative day-trip. This is an issue that should be addressed.



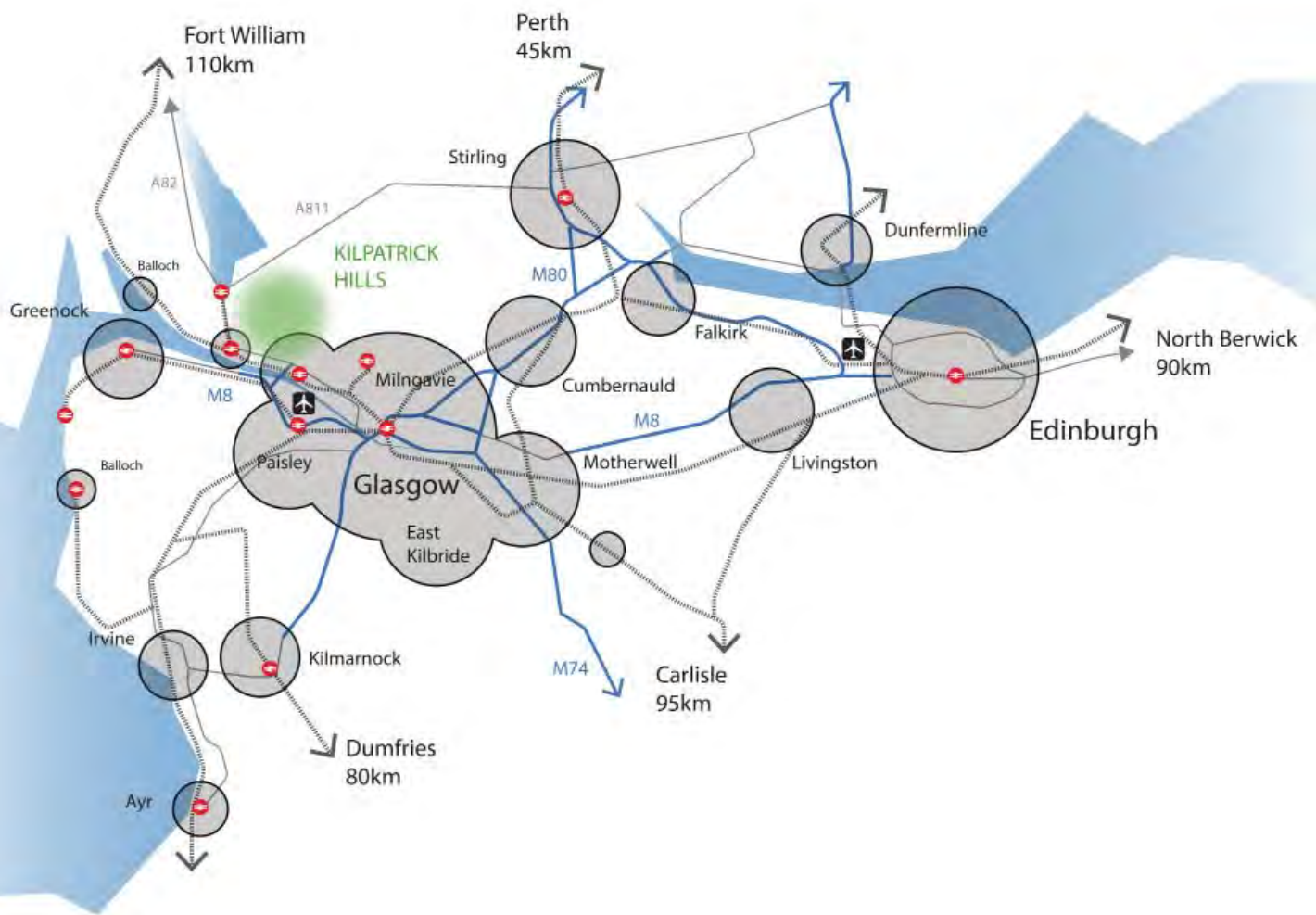


FIGURE 3: Strategic Accessibility

The Strategic Green Network

Strategic Walking and Cycling Routes

The Kilpatrick Hills occupy a highly accessible location within Central Scotland's wider network of strategic walking and cycling routes. Two of the regions most renowned long distance routes, National Cycle Route 7 and the West Highland Way, intersect on the edge of the Kilpatricks.

National Cycle Route 7

Although ultimately connecting Sunderland to Inverness along its full route, the section of most relevance to the Kilpatrick Hills is known as the Lochs & Glens South and Lochs & Glens North, which allows cyclists to travel between Ayrshire and Loch Lomond and the Trossachs National Park via Strathclyde.

Long Distance Walking Routes

The route of potential greatest significance to the Kilpatrick Hills is that of the West Highland Way. Over 85,000 walkers use this long distance route each year, making it the most popular long distance walking route in Scotland. In addition, the Rob Roy way begins in Drymen, only a short distance to the north of the Kilpatrick Hills' northern boundary.

These routes are situated within touching distance of the Kilpatricks and have great potential in terms of linking the area to the wider Green Network. At present however, the lack of penetration onto the central plateau of the Kilpatricks means that for most users, they serve as a simple footnote on the journey toward the National Park and beyond.

Potential as a Visitor Destination

No clear visitor numbers exist for The Kilpatrick Hills. However, from the little research that has been carried out, it is clear that interest from beyond the immediate area is currently negligible.

The potential, in terms of future visitor numbers will largely depend upon the successful implementation of a shared vision for the area. This has clearly been the case for the Whitelee Windfarm, which occupies a comparable location on Eaglesham Moor, lying to the South of the Greater Glasgow conurbation. Here, a network of well-graded walking and cycling routes are accessed from a clearly defined trailhead/visitor centre. In the visitor centre's first year of opening, in 2010, 120,000 visitors passed through its doors.

A different, but equally relevant comparison might be drawn in terms of the Queen Elizabeth Forest Park. This long established centre covers a larger area than the Kilpatrick Hills and sits within the National Park boundaries. With 180,000 visitors per year, its success can also potentially be attributed to the accessibility of its hierarchy of walking and cycling trails from an elevated visitor centre at the David Marshall Lodge.

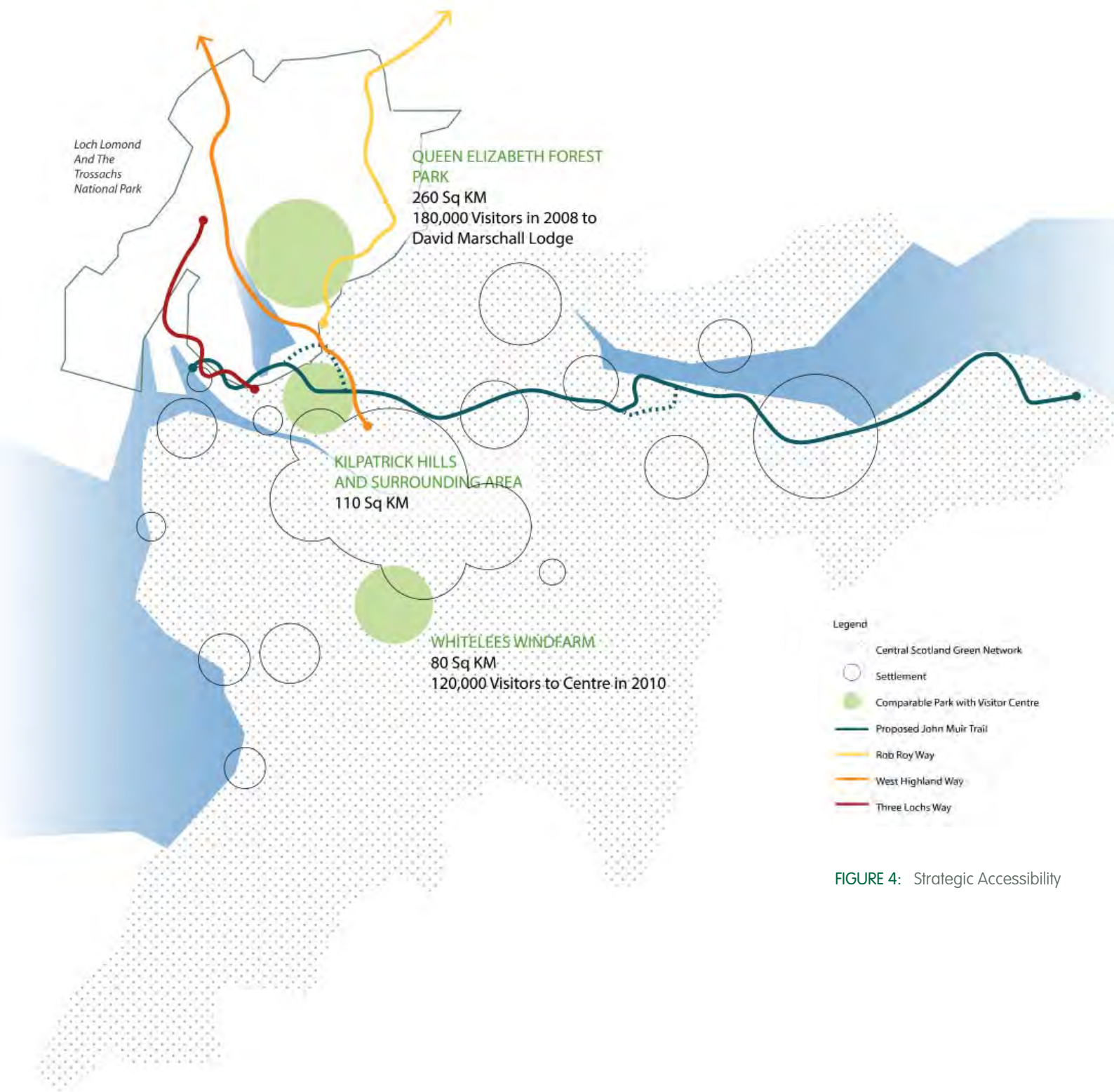


FIGURE 4: Strategic Accessibility

Background

Historic Context

The modern history of the Kilpatrick Hills can perhaps best be traced to the initial FCS intervention in the landscape during the mid 20th Century. FCS planted the majority of the five main blocks of commercial forest over a period between 1967 and 1979. Prior to this afforestation the Kilpatricks were a relatively open moorland landscape, with occasional patches of more natural, native woodland cover associated with the larger peripheral estates such as at Overtoun House and Estate.

The five main blocks of FCS planting are relatively dispersed across the Kilpatrick Hills. Taken together, these woodlands have the effect of enclosing a large central area which has remained open moorland and in use as upland sheep grazing. In total, approximately half of the FCS' landholding is presently comprised of woodland, the majority of which takes the form of Sitka Spruce (57%) and Lodgepole Pine (12%). As a point of contrast, non-coniferous species amount to around 15% of the overall tree cover.

The Forest Design Plan

The earliest areas of commercial planting are now in excess of 50 years into their forest cycle and are reaching a late stage of maturity and in many places, blowing down. For the oldest areas of planting at Tombockle Hill and Knokupple, sizeable areas of forest have reached this stage concurrently. FCS have also recently acquired the remaining moorland portion of the central hills, consolidating their landholding across the area and providing the potential for linking disparate areas of woodland cover.

The need for a Forest Design Plan (FDP) has arisen out of the opportunities presented by these changes in circumstances across the hills. It is intended that this broad ranging plan, which encompasses the natural as well as the human potential for the FCS' area of ownership within the Hills, will act as a catalyst for changing the physical nature of this landholding. An Environmental Impact Assessment is also currently underway to determine the impact of proposed felling, replanting, roading and new woodland.

The FDP will provide a 10 year management plan setting out clear objectives with regards to felling, replanting, roading, new woodland, recreation, conservation and heritage.



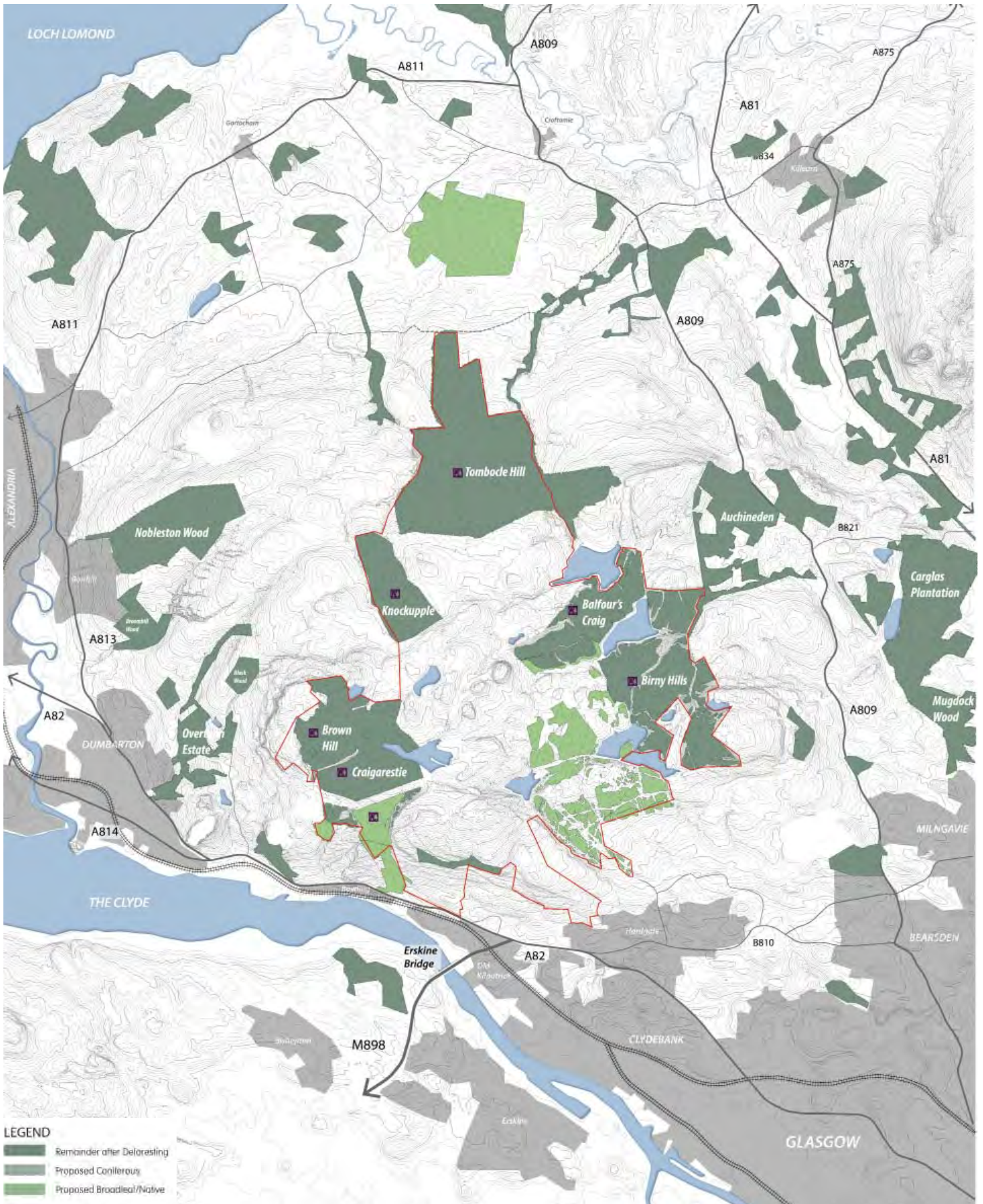


FIGURE 5: Forests

Physical Context

Landscape Overview

Ground Cover

The site has a range of land types:

Land Type	Area (ha)	%
Open ground	1731.6	50.1
Existing woodland	1591.9	46.1
Agriculture	85.8	2.5
Open Water	44.0	1.3
	3453.3	100

of which:

SSSI	39.6	
World Heritage Site	1.5	

Peatland

Extensive areas of peat are mainly confined to the northern and western parts of the Kilpatricks, the one exception being the area around Craigmore towards the southeast.

Rough Grassland

Generally, the land is rougher and unimproved towards the higher parts of the Kilpatricks in the central and southern areas with better quality rough grazing land and improved grassland towards the periphery.

Existing Woodland

Five sizeable blocks of planting are located within the central part of the Kilpatricks. These blocks, and the land that falls between them on the open moorland will be gradually repositioned in response to the Forest Design Plan. The most significant deforestation will be the removal of Knockupple and part of Merkins, which will likely be allowed to revert to raised bog.

The more recent changes evident in this plan relate to planting at Cochno Hill. This more recently acquired area has been planted with native broadleaf trees.

Surrounding Woodland

Two further forests of a reasonable size exist within the Kilpatricks area; Nobleston Wood which contains a community woodland in the area around Pappert Hill and Auchineden, a commercial woodland toward Strathblane.

Areas of Sensitivity

Sites of Special Scientific Interest (SSSIs)

Five areas, of varying size, have been designated as SSSIs. The largest of these sits on Dumbarton Muir adjacent to Knockupple. A smaller, but potentially more significant designation covers Lang Craigs because of the upland tall herb habitat.

The Antonine Wall and Surrounds

The Romans built the Antonine Wall as their northernmost perimeter along the Forth and Clyde valleys in the 2nd Century AD. The westernmost defensive walls and fortresses of this ancient stone and earth embankment are located in the northern part of the Clyde valley between the estuary and the southern slopes of the Kilpatrick Hills.

The wall was designated a World Heritage Site as recently as 2006. Its Area of Sensitivity extends north up the southern slope of the Kilpatrick Braes as far as the 250 metre level.

Quarries

Private Quarries

The Kilpatrick Hills are positioned above the Highland Boundary Fault, which accounts for its scarp landscape across the southern crags. It also makes the area rich in minerals, with several private quarries currently operating across the periphery of the Kilpatricks. The most apparent of these is adjacent to a vitrified Bronze Age Fort and designated Ancient Monument at Sheep Hill located between Bowling and Dumbarton. Tarmac also operate a sand and gravel quarry in the southeast, with the East Dunbartonshire council area.

Several spent quarries also exist within the Kilpatricks and around.

Infrastructure

Pylons

Twin sets of pylons run through the southern part of the Kilpatrick Hills from Dumbarton through to Hardgate. The pylons are highly visible features across this part of the landscape and Scottish Power has established a network of tracks in order to service them.

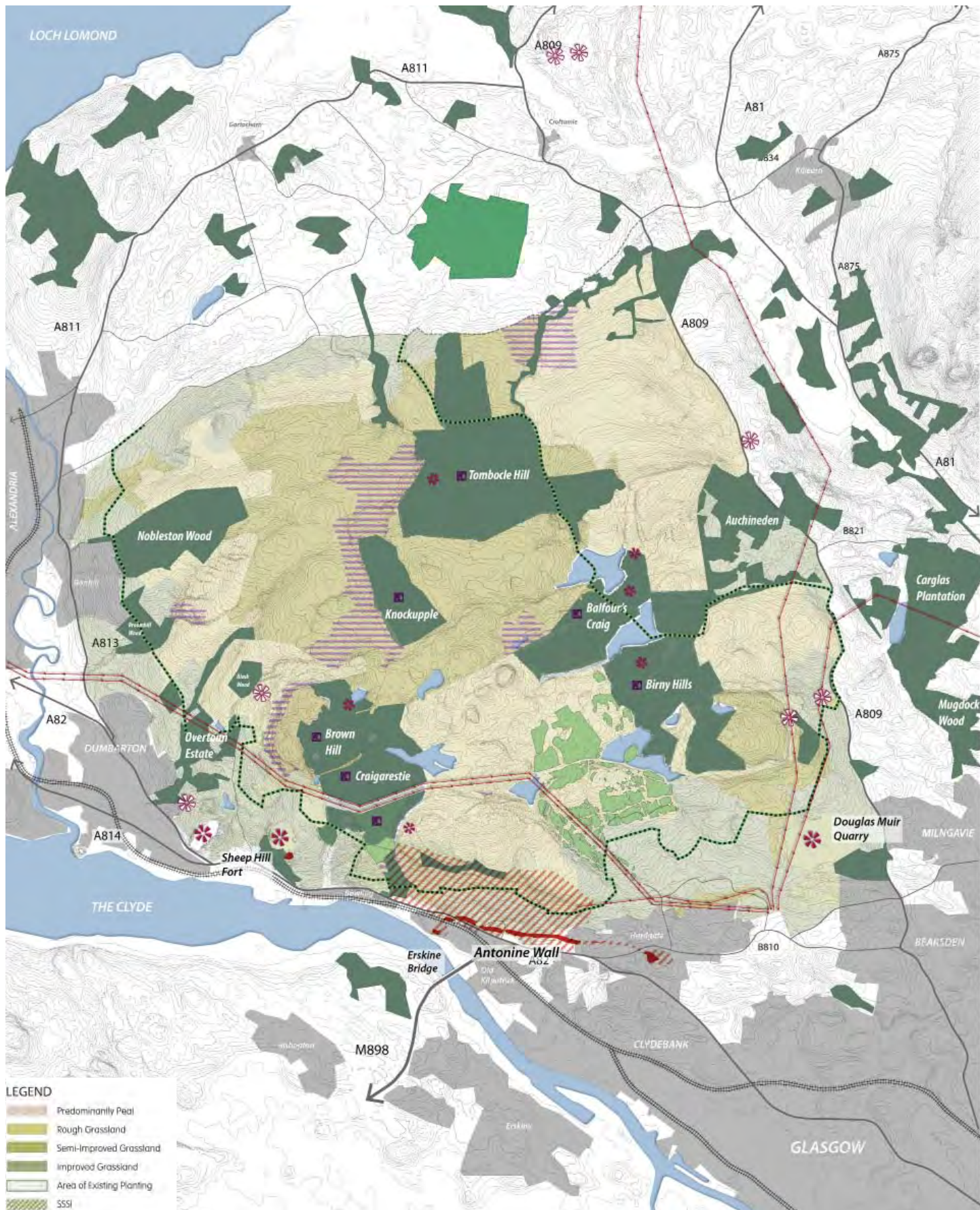


FIGURE 6: Landscape Overview

Landmarks and Points of Interest

Topography

Hilltops

The Kilpatrick Hills has an altitudinal range from sea level up to 402 metres at its highest hilltop, Duncolm which sits above and at the centre of the plateau.

Three hilltops at around 350 metres sit in a line across the southern edge of the Kilpatricks above Hardgate; The Slacks, Cochno Hill and Craigmore.

Auchineden Hill sits a little further apart from the main hilltops to the northeast - it is also at around 350 metres.

Crags

The Kilpatrick Hills are best characterised by the Clyde Valley Lava formed Crags that constitute the backdrop to settlements along the Clyde and Leven Valleys. The most distinctive of these is at Lang Craigs, although the Kilpatrick Braes and Craigmore feature relatively dramatic sections. The Whangie, a very popular destination, is a narrow chasm of basaltic rock up to 10 metres high in places which sits to the west of Auchineden Hill.

Reservoirs, Streams and Waterfalls

Reservoirs

A number relatively large bodies of water sit inter-dispersed with hilltops around the inner periphery of the central plateau.

Several of the water bodies found in the Kilpatricks are operational reservoirs, formed by damming the many streams that drain the central plateau through valleys formed between the principle hilltops outlined above. These reservoirs are maintained by Scottish Water and feature reservoir infrastructure.

Waterfalls

The relatively steep sided valleys and gorges found across the transitional slopes at the edge of the Kilpatricks help form numerous waterfalls. The most obvious of these sit on the southern slopes, however, where streams drain the more remote, boggy peatland to the north a number of deep, hidden valleys have formed, particular around Carnock Burn, Gallangad Glen and Auchenreoch Burn.

Views

One of the greatest appeals of the Kilpatrick hills is the sheer range of accessible views on offer.

Urban Views

View out over the densely populated landscape of the Strathclyde Valley are quickly available on the approach to the three southern hilltops. After only a short climb up the Kilpatrick Braes, for instance, it is possible to see for many miles across Glasgow and Renfrewshire.

Landscape Views

On reaching the height of the main ridge at around 250 metres it is possible, from many parts of the Kilpatricks, to begin picking up views of the Kilpatrick central plateau. From the main hills, and especially Duncolm full panoramic view of the study area with the Campsie Hills and Argyll easily picked out. On clear days it is possible to see as far as Arthurs Seat on the east coast and Tinto Hill in the heart of the Scottish Borders.

The most dramatic outlook from the centre of the Kilpatricks is north over Loch Lomond and the Trossachs.

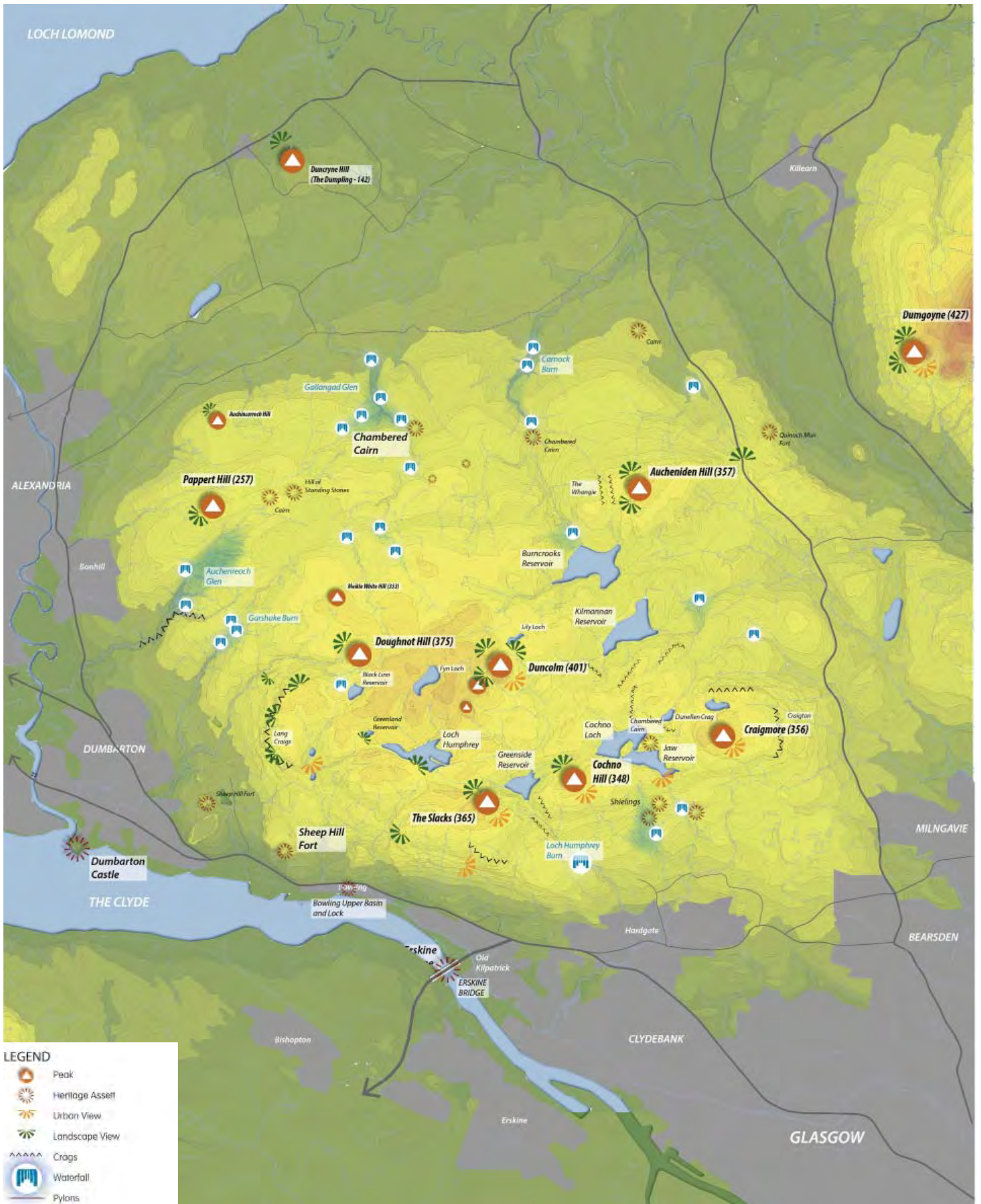


FIGURE 7: Landmarks and Points of Interest

Views



River Clyde and the Glasgow conurbation

urban



River Clyde and the Inverclyde coast

coastal

lochs and forests



Loch Humphrey

mountains



Loch Lomond and the Trossachs

Access and Activities

Accessing the Hills

Car and Public Transport

Road Network

Getting to the edge of the Kilpatrick Hills is straightforward by car. The most accessible edges are along the southern and western sides; here the dual-carriageway of the A82 connects Glasgow along a narrow coastal strip to Dumbarton and on toward Argyll and the North. The road then splits at Dumbarton to become the A813 which continues along the western boundary joining up the communities sitting within the Vale of Leven, including Balloch, Alexandria and Bonhill.

The eastern side of the Kilpatricks is also easily accessed via the A809 and A811, both which run in a north-south direction through the Strathblane Valley.

The northern edge of the Kilpatricks is less well connected -The A811 from Balloch to Drymen is located to the north of the natural edge of the study area, which is partly delineated opposite by NCN 7.

Rail Services

The Kilpatricks benefit greatly from the North Clyde Line which operates principally as a commuter rail line connecting Balloch and Helensburgh to Glasgow via the majority of the settlements of West Dunbartonshire. In total, seven railway stations sit within a 400m radius of the edge of the Kilpatrick Hills. The busiest of these, at Dumbarton, has weekday services departing approximately every 15 minutes for Glasgow Queen Street Station, a journey which takes around 30 minutes. For the less populated settlements such as Old Kilpatrick and Bowling, departures are less frequent with services departing every 30 minutes in the same direction.

Bus Services

While services connecting the more heavily populated western edge of the Kilpatricks are frequent and well networked, those along the eastern edge are more limited with around 4 buses per day running along the A809 from Milngavie Station to Drymen. Public transport connections through the Strathblane valley therefore have more potential in terms of improvement than other boundaries. Particularly for anybody wishing to use train and bus links to traverse the Kilpatricks.

Strategic Cycling and Walking Routes

Cycling Routes

National Cycle Network Route 7, also known as Lochs and Glens: North, follows the Forth and Clyde Canal from Glasgow to Bowling. It then makes use of a series of riverside pathways and disused railway lines to take users along the western and northern boundaries of the Kilpatricks. Although developed predominantly with cyclists in mind, it also functions as a walking route throughout and in particular for the less commonly used section between Alexandria and Croftamie.

Walking Routes

The West Highland Way runs along the Strathblane Valley between the Campsie Fells and the eastern edge of the Kilpatrick Hills. With up to 85,000 walkers using at least part of the route in any given year, the West Highland Way is the best known long distance route in Scotland. In terms of tangible benefits for the Kilpatrick Hills, the route enables easy foot and cycle access from Milngavie railway station to within 1.5 miles of the eastern edge of the study area.

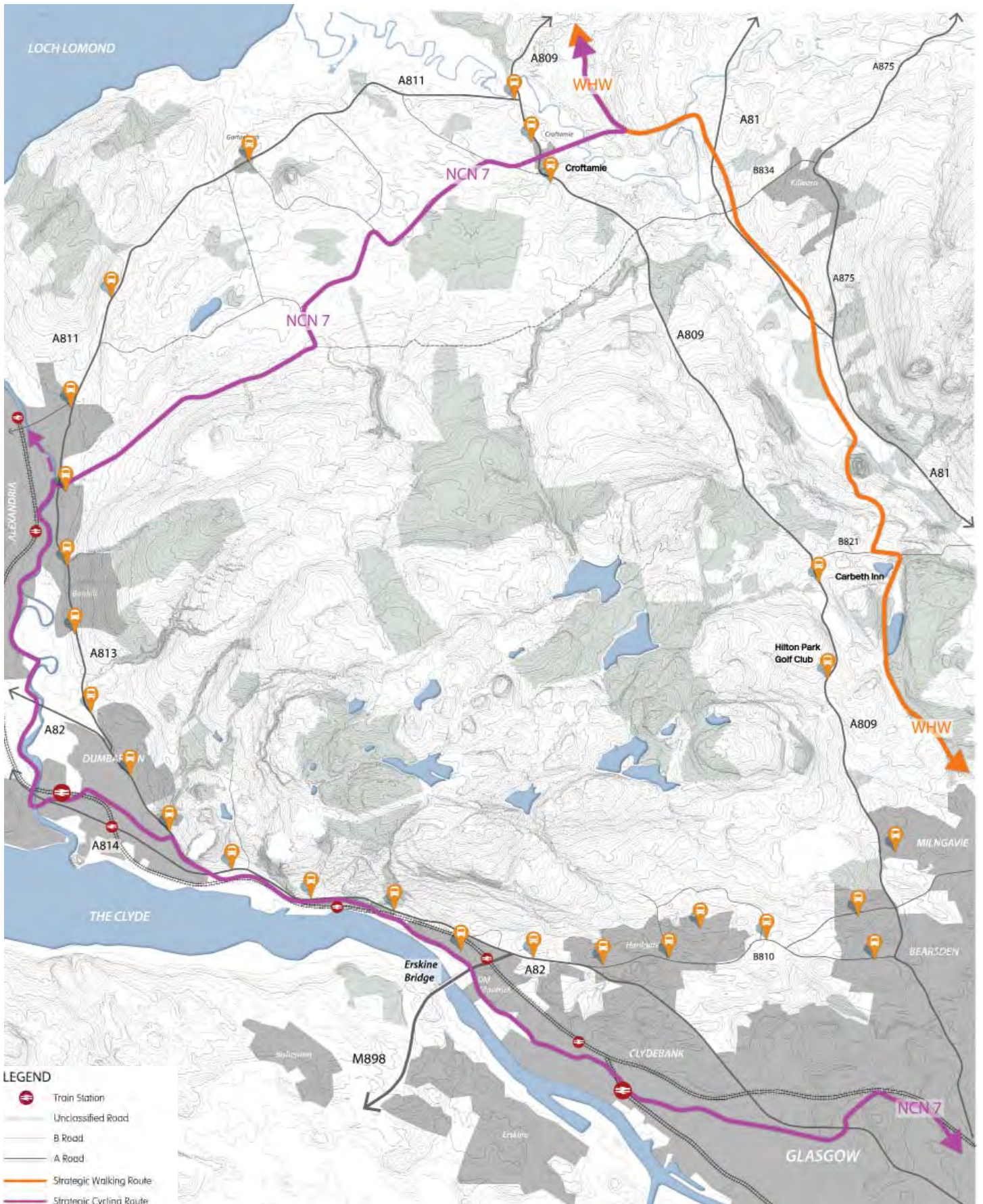


FIGURE 8: Local Transport Connections

Gateways

Road Gateways

Many of the present visitors to the Kilpatrick Hills use private cars to get to the edge of the area before embarking on a walk, run or cycle. Several points around the periphery of the Kilpatricks tend to be commonly used by motorists as they provide formal or informal car parking, although it is limited. The most accessible of these include:

- Overtoun House, which sits above Dumbarton within close proximity of the Lang Craigs area;
- Queen's View, directly adjacent to the A809; and
- Station Road, Old Kilpatrick.

Rail Gateways

One of the greatest strengths of the Kilpatricks is its proximity to a busy, frequent rail service with stations spaced at fairly regular intervals along its southern and western edges. The location of these stations offers the potential for looping walks of varying lengths beginning and ending at different points up and down the line.

Of these stations, Old Kilpatrick is currently one of the most frequented for cyclists and walkers accessing the Kilpatricks. However, popular walking routes also begin at Dumbarton Central Station.

Railway stations at Bowling, Dumbarton East, Alexandria and Balloch are not presently used to their full potential in terms of the ease of connection they have with the Kilpatricks.

Footpath and Cycle Gateways

The presence of strategic cycling and walking routes within close proximity to the Kilpatricks increases the possibility of establishing recognisable stepping off points. These points can be used by people looking to break from their longer journey and head into the Kilpatricks.

Forest Access Points

The experience of movement between open landscape and forest has a particular relevance for walkers and cyclists using the Kilpatricks. Such points of transition tend to occur at the very edge of the FCS landownership boundary. FCS have tended to regard these as gateways for the purposes of consultation to date - in respect of a Strategic Framework relating to the wider areas they perhaps have less relevance. Nevertheless, they are recognisable locations as points of arrival within the wider journey.

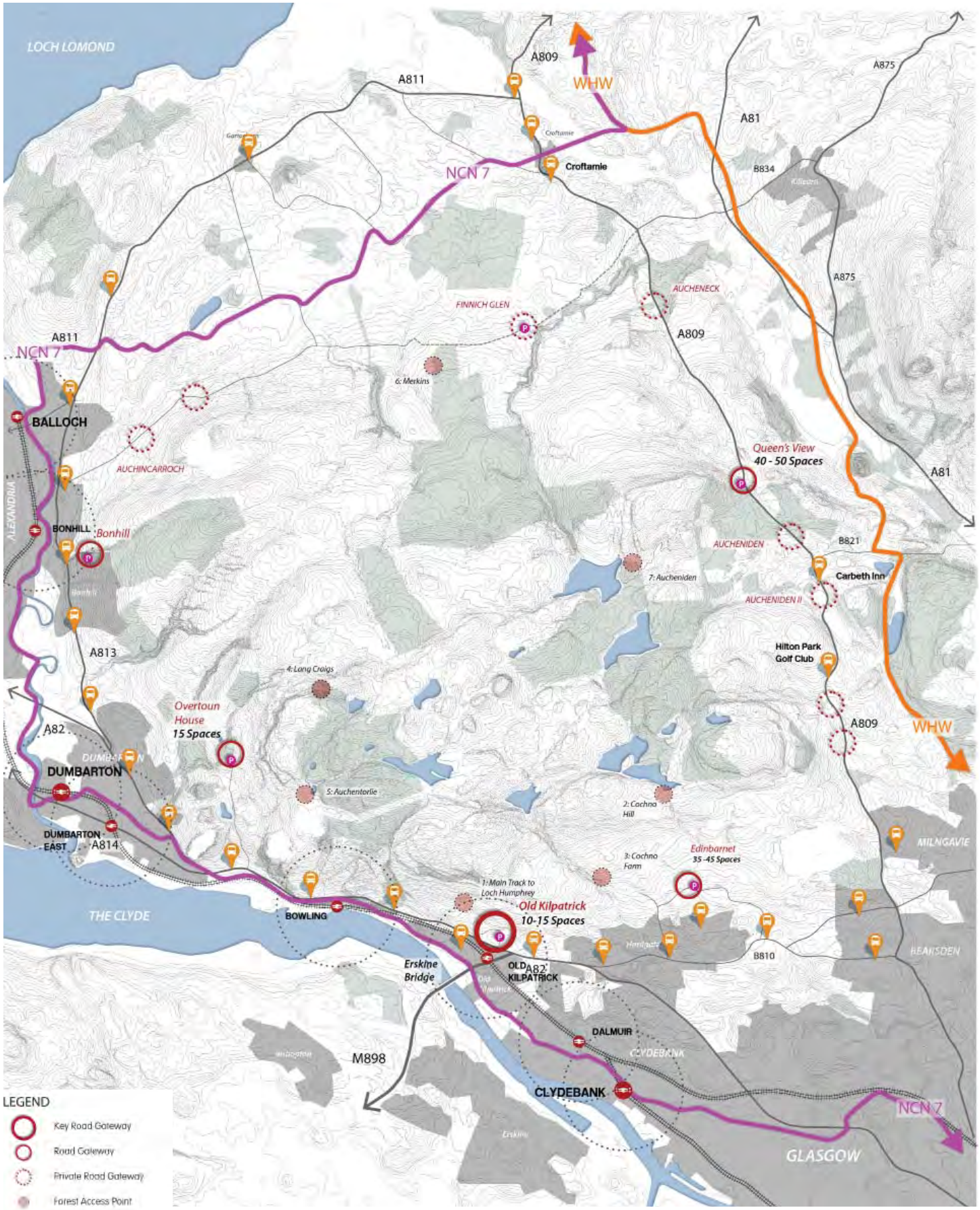


FIGURE 9: Gateways

Entering the Hills

Local Paths and Routes

Popular Walking Routes

There are a number of well used, popular walking routes. These routes tend to take the form of circular loops embarking from road or rail gateways and taking in a part of the ridge, and either one or a number of peaks within the Kilpatricks. A distinctive pattern of looping routes is evident across the southern part of the Kilpatricks, where access is most straightforward and the rewards, in terms of the views, are of greatest value.

The type of surface found on these routes vary significantly across the network, from tarmacadam roads to simple tracks over uncertain ground.

Although established through use over time, these routes have also been identified and described for potential users within wider literature, including on Local Authority and more general hill-walking websites. The core path network is used in some places but not in others.

Core Paths

In addition to the routes described above, there are also a number of additional, less frequently used core paths. The routes that these paths follow have the potential to become links forming part of a more comprehensive network that connect into local communities. They also provided the potential in some areas for gateways to form over time.

Planned Strategic Walking Routes

The John Muir Trail

Potentially the most significant planned route to impact upon the Kilpatricks will be that of the John Muir Trail, a 19km section of which crosses the north-eastern section of the study area.

The preferred route of this coast-to-coast trail follows Auchincarroch Road out of Balloch before entering the area of the Kilpatrick Hills at the northern tip of FCS's Tombockle Hill block of planting. At this point a new route is intended through Tombockle Hill which then emerges within proximity of Burncrooks Reservoir. The last section of the trail to pass through the Kilpatrick Hills is through the Auchineden estate, reaching the A809 at a point between Queen's View and Hilton Park Golf Club. This offers distinct opportunities in terms of opening up access to the less visited northern part of the Kilpatrick Hills.

There is a degree of certainty over the FCS section of the trail. However, at the time of writing there remains some doubt over the section of the walk passing through private landownership, most notably at Auchineden Estate.

'Not the West Highland Way'

The southern part of the Kilpatricks, and the area around the Whangie, are evidently well used by hill walkers and cyclists. Nevertheless, many do not make the longer distance journey across the Kilpatrick Hills, as few routes link the eastern and western sides.

A potential cross-hills route has already been identified by the Cicerone guidebook entitled 'Not the West Highland Way' which is intended to be an alternative to the traditional start to the West Highland Way along the Strathblane valley from Mugdock. This trail, the Kilpatrick Hills section of which extends to 20km, largely utilises sections of the existing popular routes to cross the Kilpatricks. Only two short sections, between the Brown Hill plantation and Duncolm (2.3km) and between Duncolm and the westernmost part of the Whangie do not currently feature advertised routes.

Indeed, the benefits of two strategic paths connecting through the Kilpatricks should not be underestimated.

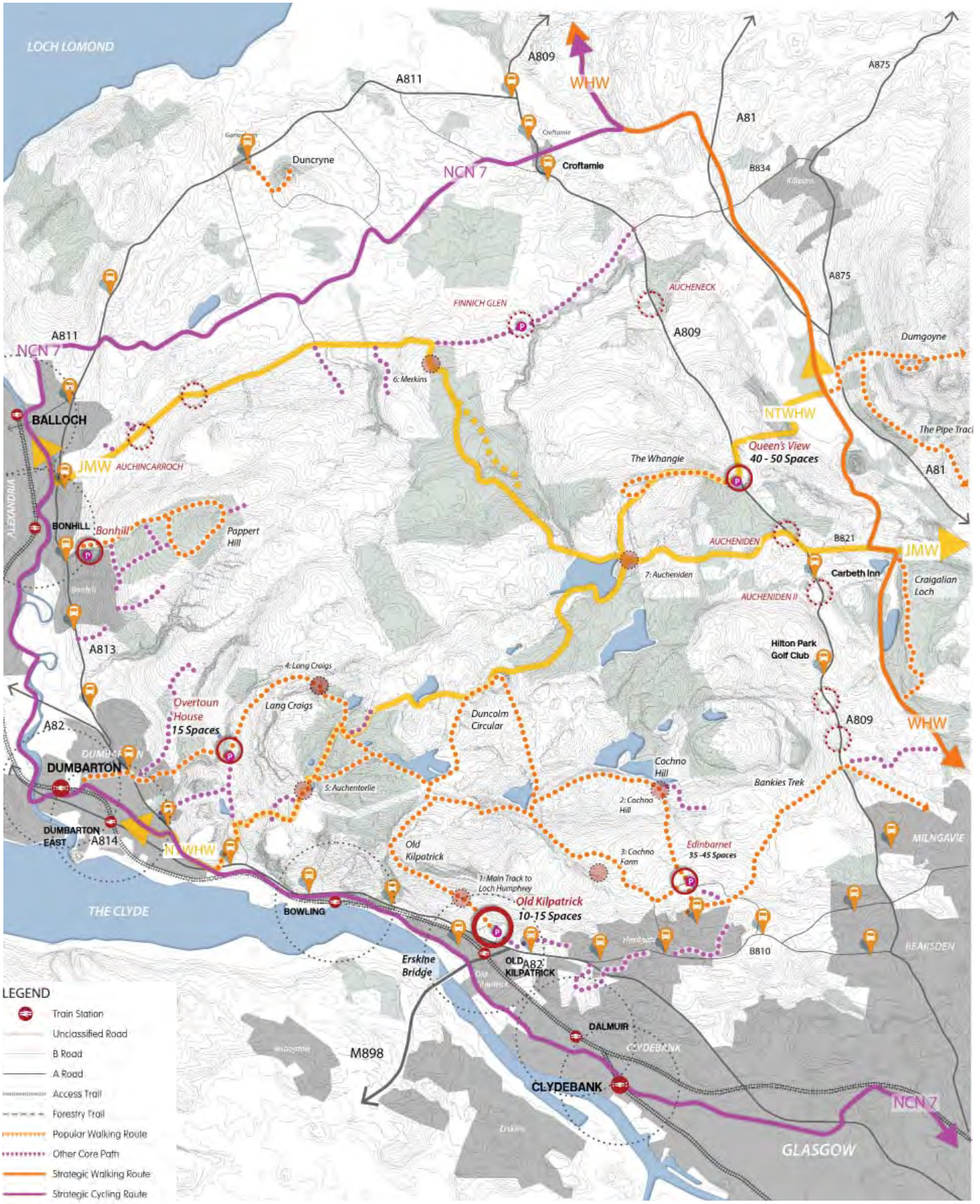


FIGURE 10: Path Network

Activities and Visitor Destinations

Activities Supported by the Kilpatricks

Walking

The majority user group within the Kilpatrick hills is comprised of ramblers and hill walkers mainly using the route network outlined in the previous section. Walkers tend to stick to the main loops within the south and west of the Kilpatricks without penetrating too deeply into the central plateau.

One of the greatest barriers for walkers are the peripheral slopes which have the effect of preventing less able bodied walkers to reach the relatively flat interior.

Cycling

A range of mountain bikers use the Kilpatricks at present. The type of cycling undertaken tends to vary with some using informal 'downhill' sections on the southern slopes of the Kilpatrick Braes and others looking to do longer, cross country routes further into the central plateau. The mountain biking focus group suggested that the latter group would be keen to go further across the peaty sections of the central plateau, if passage was provided across this more boggy ground.

Horse Riding

Horse access to the Kilpatricks is limited but a wish for access has been voiced by horse riders.

Fishing

Several of the lochs are used by a number of established angling and fishing clubs including Bearsden Angling Club, Queen Elizabeth Angling Club and Hardgate & District Angling Association. The University of Glasgow owns the fishing rights for Cochno, Jaw and Black Loch Reservoirs.

Wild Camping

Informal camping takes place within the Kilpatrick Hills. In particular, the area around Loch Humphrey tends to be well used. There are no facilities within the Kilpatricks to support groups of wild campers and this often brings challenges in terms of littering.

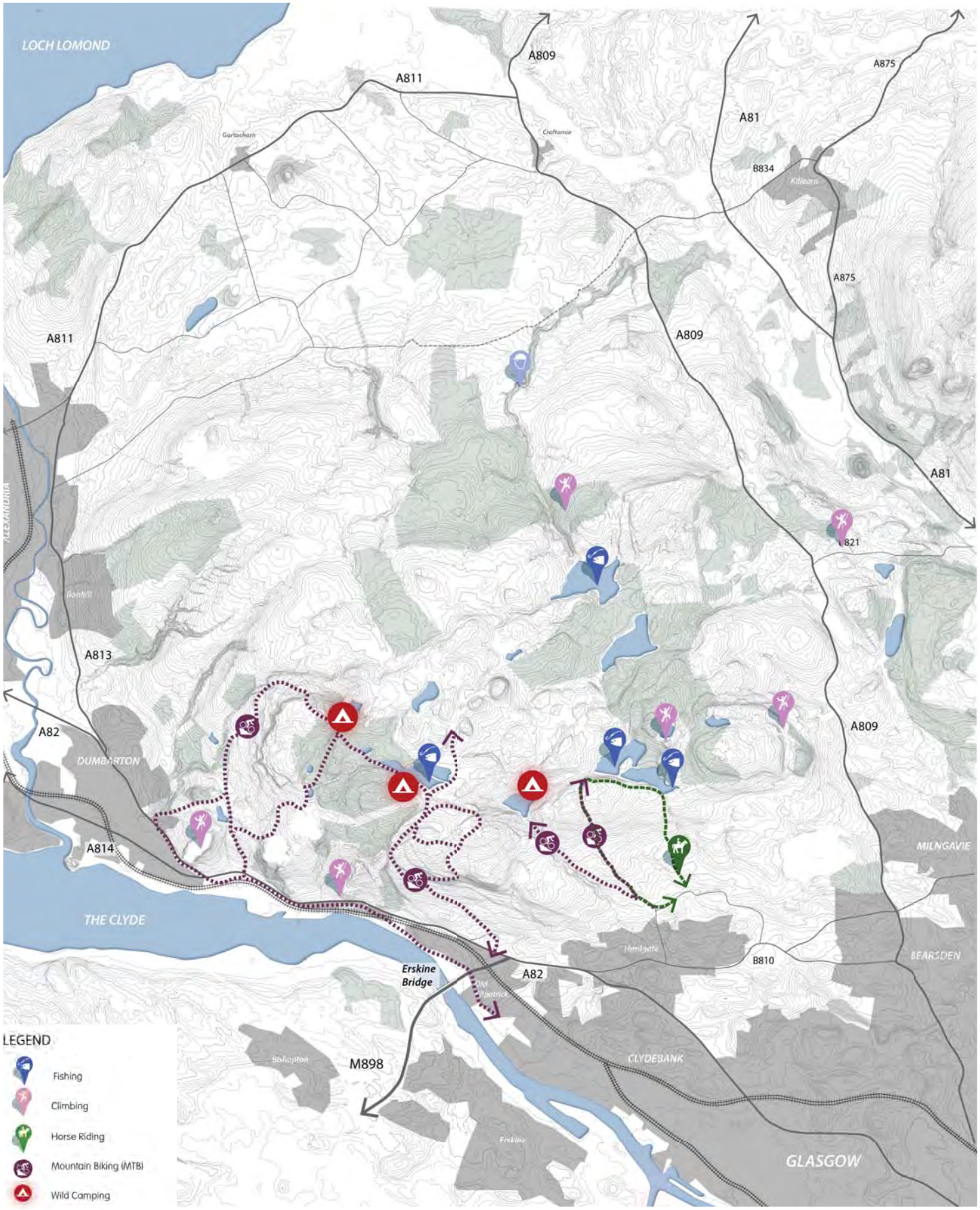


FIGURE 11: Activities

Parks

There are a number of parks located around the periphery of the Kilpatricks. These are visited by a large number of people.

Mugdock Country Park

Mugdock Country park is one of the most visited tourist attractions in Scotland with around 600,000 visitors each year. It is located just a short distance from the eastern edge of the Kilpatrick Hills.

The key linkage from Mugdock to the Kilpatricks is the Bankies Trail. At present very few people combine a trip to Mugdock with a visit to the Kilpatrick Hills.

The Saltings

This local nature reserve of around 19 Ha sits directly below Erskine Bridge in Old Kilpatrick. There are no obvious links between the reserve and the Kilpatrick Hills.

The Woodland Trust - Lang Craigs

In 2009 The Woodland Trust purchased a 140 Ha area of land at Lang Craigs. Since then, a programme of tree planting has begun the process of re-establishing an accessible native woodland. A forest and landscaping design has been followed which seeks to enhance the views and distinctive topography of the site. Over time the area has the potential to become a very popular visitor destination.

Designed Landscapes

A number of formally designated designed landscapes lie around the periphery of the site, some of which are well established visitor destinations in their own right. Of most significance to the Kilpatrick Hills is at Overtoun House. Established in the 19th century as part of the formally private estate, these now publicly owned gardens sit between Dumbarton and the Lang Craigs. Along with the Lang Craigs, the gardens allow for a pleasant walk or cycle all the way to the edge of FCS landholding at Loch Humphrey.

Visitor Destinations

Several historic properties, featuring a range of facilities and attractions, are found within the vicinity of the Kilpatrick Hills. With the exception of Overtoun House, visitors to these destinations do not tend to combine their trip with a further venture into the study area. The opportunity now exists to consider how the visitor offer at some of the closer of these destinations might further enable access into the Kilpatricks.

Overtoun House

This former private house and maternity hospital is now owned by West Dunbartonshire council and leased to a charitable faith group, who currently use it for community purposes and operate a coffee shop. The house is easily accessible by road from the A82 at Milton and receives a limited number of visitors using it as a gateway for walks in the Lang Craigs and in its own ornate landscaped gardens.

Bowling Basin

The Forth and Clyde Canal meets the Clyde at Bowling, bringing walkers and cyclists within touching distance of the Kilpatrick Hills. Road and rail links also converge at this historically significant shipbuilding location. Scottish Canals intend to improve visitor facilities by using the disused railway and arches as a focal point.

Edenmill Farm and Shop

This Strathblane farm has diversified to specialise in the sale of locally sourced smoked meat products from a farm shop and cafe. It also has basic facilities for visitors to use at the discretion of the owners, including toilets and a number of parking spaces from which it is possible to embark on walking or cycling trips into the less visited eastern section of the Kilpatrick Hills.

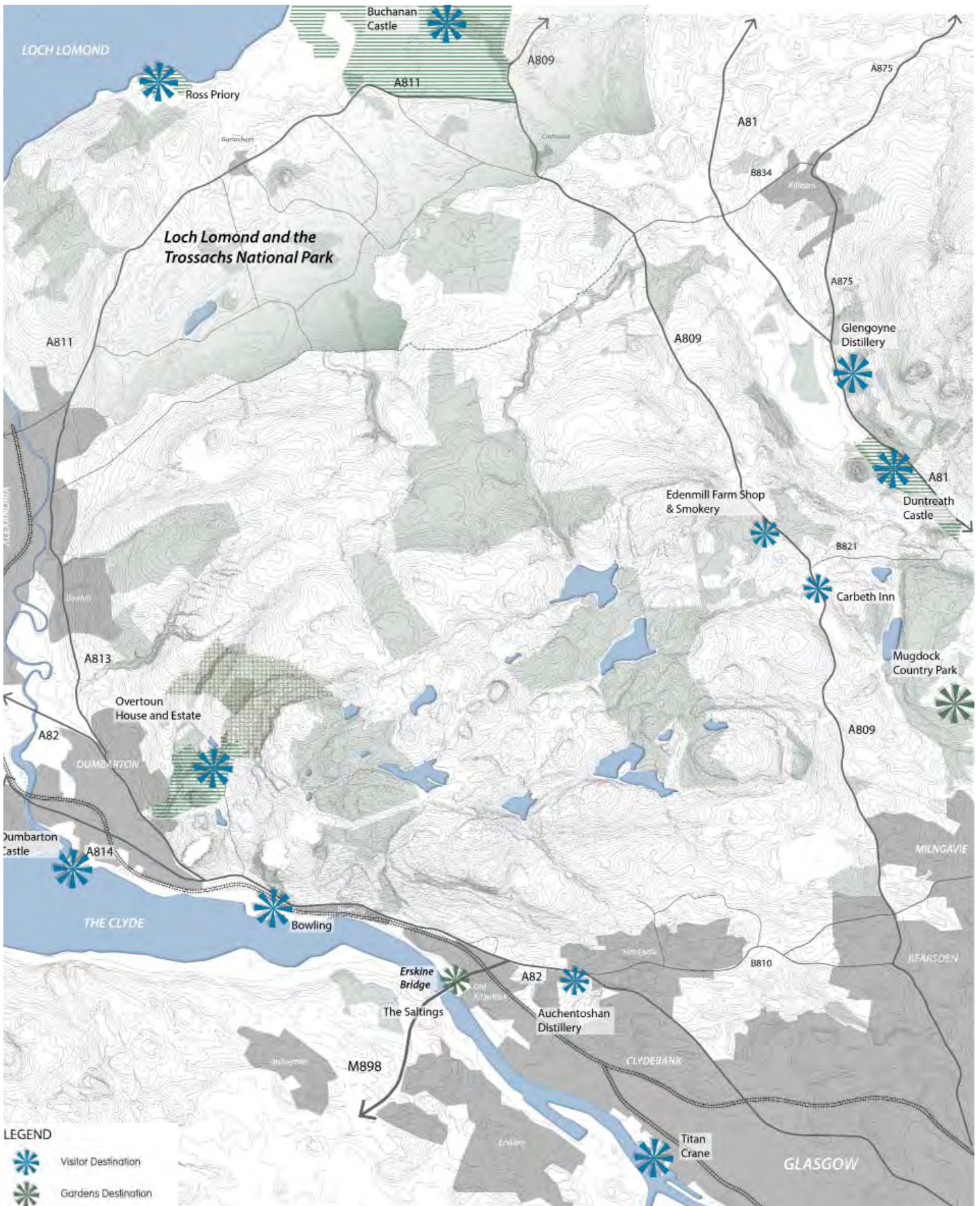


FIGURE 12: Visitor Destinations

Edges and Change

Political and Planning Authority Boundaries

The Study Area straddles four planning authority areas in total:

- West Dunbartonshire Council
- East Dunbartonshire Council
- Stirling
- Loch Lomond and the Trossachs National Park

In addition, developments associated with Forestry Activity within the FCS area of landownership are determined by the FCS internal conservancy group.

These multiple, in places overlapping, layers of accountability pose particular issues in terms of promoting a cohesive vision and identity for the Kilpatrick Hills as a whole. Although this Strategic Framework is intended to inform the West Dunbartonshire Local Development Plan, its broader objective is to shape the decision making across the entirety of the study area.

Urban Regeneration

The draft West Dunbartonshire Local Development Plan is clear in its desire to enact significant change across many of its settlements over the lifetime of the Plan. Substantial areas of formal local authority housing and vacant and derelict land exist in the post-industrial settlements of Alexandria, The Vale of Leven, Dumbarton, Bowling, Carless and Clydebank.

Although these areas share common characteristics in terms of the recently declining quality of their environments, they are also unified by significant factors that will, with careful planning, help to support their regeneration:

- **Excellent connectivity** to Glasgow, and each other, via public transport, including an express rail-linkage with multiple stations. This suggests a great potential in terms of their future growth.
- **Close proximity to high quality natural environments: the Kilpatrick Hills** - the ability to access such a diverse greenspace with the recreational potential it provides will help to raise the profile of the area, changing perceptions and attracting new residents while providing opportunities for improvements to health, well-being and education for existing ones.

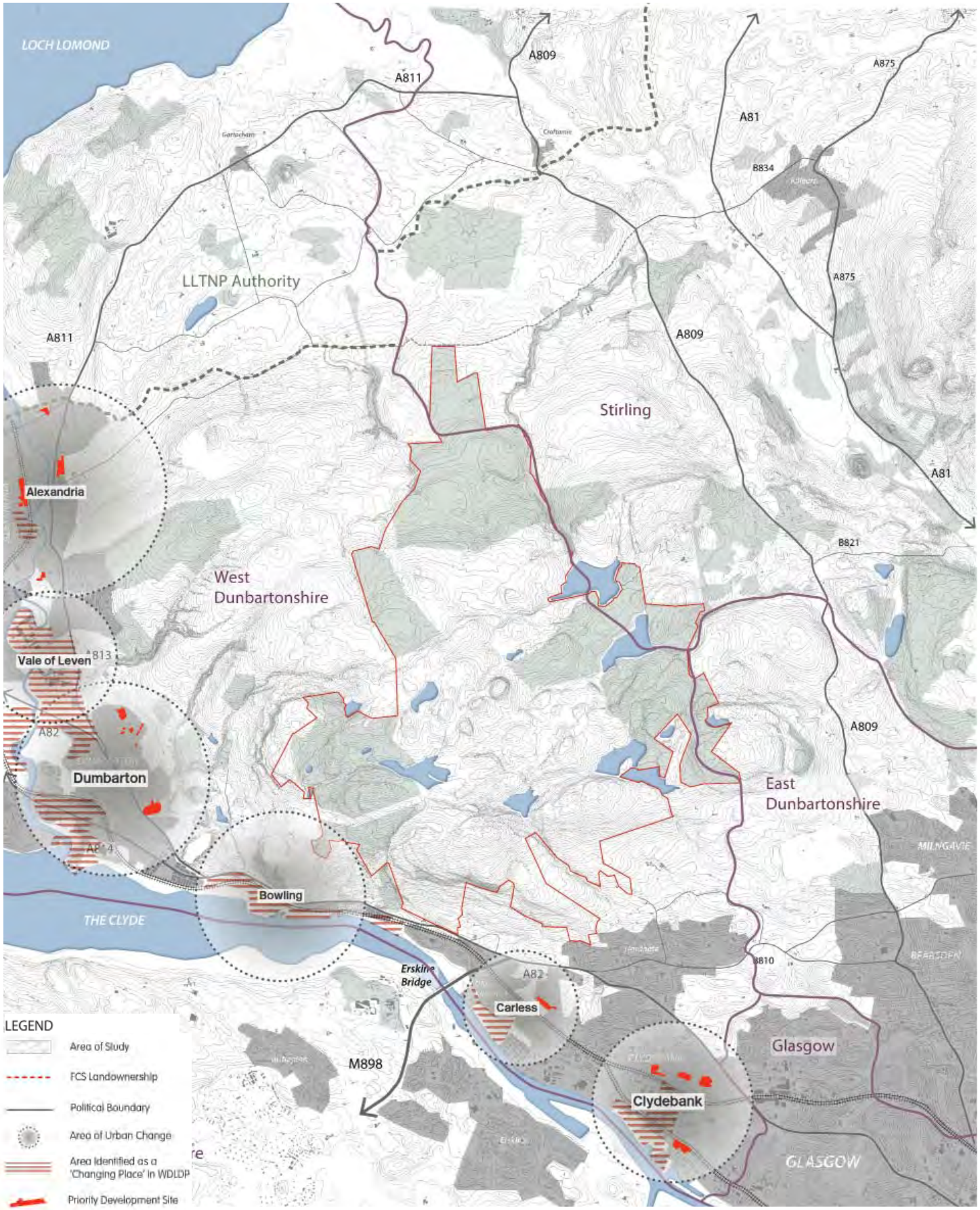


FIGURE 13: Edges and Change

Involvement

Stakeholder Workshops

Method

Three stakeholder workshops were held with key stakeholders. Each followed the same format and included an introductory presentation and a topic based interactive mapping exercise.

A large map (2.5m x 1.6m) of the Kilpatrick Hills was provided and formed a base for discussion across a number of topics which formed

Themes.

- Landscape Overview
- Accessing the Kilpatricks
- Entering the Kilpatricks
- Visitor Destinations and Activities
- Landmarks and Points of Interest
- Edges and Change

Discussion was further encouraged through a number of acetate 'overlays' for the large maps which identified components in relation to each of the themes. These can be viewed as diagrams on the subsequent pages alongside the outcomes and opportunities from the discussions.

The workshops were recorded which included discussions on the opportunities, constraints, ideas and suggestions for the Kilpatrick Hills. A clear number of Concepts and Priorities began to emerge that would shape the Strategic Framework.

Those Involved

Development Workshop - 6th November AM

- Police Scotland
- Fire Scotland
- Scottish Power
- SportScotland
- Scotrail
- West Dunbartonshire Council
- Stirling Council
- East Dunbartonshire Council
- Loch Lomond and the Trossachs National Park Authority
- Glasgow and the Clyde Valley SDPA

Environment Workshop - 6th November PM

- Scottish Water
- Scottish Natural Heritage
- SEPA
- Woodland Trust
- RSPB
- Stirling Council
- East Dunbartonshire Council
- Central Scotland Green Network Support Unit
- Clydebelt Local History Society
- Bearsden and Milngavie Ramblers

Community Council Workshop - 7th November PM

- Kilmarnock Community Council
- Old Kilpatrick Community Council
- Silverton Community Council
- Bearsden West Community Council
- Milngavie Community Council
- Strathblane Community Council
- Faifley Community Council



Landscape

Overview

The Kilpatrick Hills has seen a noticeable level of change over time which has affected the landscape. In many cases these changes are affected by man, such as commercial forestry, energy infrastructure (pylons) and for water (reservoirs).

These factors have combined to offer opportunities and constraints across the Kilpatricks. It was these that formed the main points of discussion.

Discussion Summary

- Along with the Campsies, the Kilpatrick Hills is one of the great lungs of the city.
- The Site of Special Scientific Interest (SSSI), located in the north west area of the Kilpatricks, does not preclude access and routes within it, so long as they are treated with appropriate sensitivity.
- While the general landscape character experience is quite wild and provides a sense of remoteness, it is not considered 'Wilderness'.
- There is rich biodiversity across the Kilpatricks which are occupied by Black Grouse, Hen Harrier, Short Eared Owl.
- Historically there have been areas with more planting, such as the Kilpatrick Braes.
- There is an opportunity for more appropriate forest cover within the Kilpatricks.
- There should be no serried rows of conifers as part of the forest design plan.

Priorities

- Experience the 'wild nature' of the Kilpatricks sensitively.
- New planting to provide more visual interest in certain areas.
- New planting to take account of areas of environment and nature sensitivity.

Accessing the Hills

Overview

The Kilpatrick Hills are likely to be the most accessible 'wild' environment in Scotland. With over 1m people within 30km (approximately 30 minutes drive time) of the Kilpatricks, seven railway stations and a number of bus routes along its periphery, there is a genuine opportunity for anyone to gain quick and easy access to the Kilpatrick Hills.

During the workshops it was important to test how people experienced getting to and arriving at the Kilpatrick Hills and what the initial environments were like. This included discussion around existing and potential gateways and routes linking to the edge of the Kilpatricks.

Discussion Summary

- Of the three Dumbarton railway stations, Dumbarton Central and Old Kilpatrick offer the best access to the Kilpatrick Hills. Dumbarton Central or Dumbarton East provides best access to **Overtoun House** (albeit this is some distance away), while **Kilpatrick station** allows quick access to the Kilpatricks via the popular Kilpatrick Braes.
- Dumbarton Central station suffers from the quality of its entranceway which might be addressed through the West Dunbartonshire Council Common Good Fund.
- Scotrail are currently in talks with FCS about using the car park at Kilpatrick station for people accessing the Kilpatricks.
- There is little awareness of Overtoun House as a destination in its own right, or a starting point for experiencing the Kilpatricks. Currently, it does not have any publicly accessible facilities, such as toilets.
- The A82 forms a barrier to the Kilpatricks along its southern edge i.e. access from Kilpatrick, Bowling and Dumbarton.
- There is a perception of difficulty relating to placing tourist signs (brown road signs) on the A82 to advertise the Woodland Trust and Overtoun House, or indeed the Kilpatrick Hills.
- **Queens View** is the most recognisable gateway on the Strathblane side of the Kilpatricks but lacks any facilities.
- Generally, access to the Kilpatricks from the Strathblane side is poor.
- The old school at Craigton could be used for some form of community facility associated with the Kilpatricks.
- **Edenmill Farm** and shop is very keen for people to be able to use their facilities when using the Kilpatricks.

- Buses should consider allowing and accommodating bikes, particularly along the Strathblane edge.
- There is an additional parking area available at **Carnock Burn/Finnich Glen**.
- Signage for the Kilpatrick Hills from the railway stations is generally poor.
- Many travel into the area from the centre of Glasgow. There is an opportunity to provide information relating to the Kilpatricks in Glasgow and further afield.
- The Kilpatrick Hills are overshadowed by the National Park. People outwith the Kilpatricks are generally not aware of them as a destination in their own right.
- There are safety issues relating to the NCN 7 along its northern route.
- Its really important local communities can gain direct access to the Kilpatricks from areas such as Bonhill.

Priorities

- **Gateway at Kilpatrick** could include information and signage at the train station and bus stops as well as at existing or potential car parks.
- **Gateway at Queens View** to provide some facilities. This could be as little as public toilets and information, but could potentially include cafe and recreation facilities.
- **Gateway at Overtoun House** to provide facilities. This could be as little as public toilets (greatly needed) but could also include information, signage and wayfinding.
- Facilities at Edenmill could likely be provided with the business at Edenmill Farm shop keen to discuss opportunities.
- **Tackling the A82 barrier** - creating various opportunities.

Entering the Hills

Overview

The paths and routes up to and into the Kilpatricks consist of Core Paths and popular routes. These routes are the way that most people experience the Kilpatricks but quite often these experiences are focused in particular locations and through specific 'looped walks'.

The strategic walking paths of the West Highland Way and the soon to be opened John Muir Trail (JMT), highlight the opportunity to consider what more the area could offer.

Discussion Summary

- People tend to use the Kilpatricks by taking looped walks from a particular starting points or 'gateways'. These include Queens View, Old Kilpatrick, Overtoun House, Faifley and Bonhill.
- The opportunity to provide one or more strategic routes (NW to E via the JMT and NE to SW via another) would significantly improve the potential of the area in the eyes of visitors.
- The potential strategic route could be formed between the Whangie (NE) and the Sheep Hill fort (SW). This could take in an archaeological route via the former drovers/coffin track.
- Low level walking routes are important for less able bodied users.
- Spur paths shouldn't necessarily follow from the introduction of strategic routes i.e. onto more sensitive ground in the core of the Kilpatricks.
- Different principles for path design / construction could be assigned to different areas.
- There remains some uncertainty over the exact route of the JMT. It could be that a temporary route around the edge of the Kilpatricks is used until the access issues over private land can be resolved.
- Landowners in the Strathblane area are very keen to speak to FCS about the JMT.
- There are existing Mountain bike routes from the northern edge but they do not penetrate the Kilpatricks further than the edge of the woodland at Tombocle Hill.
- Route signs (at the start of routes) should include walking times.
- Trailheads could be provided at gateways to give route information.
- Unobtrusive signs could be used to steer people away from sensitive areas on the Kilpatricks.
- Route signs should account for a range of grades.
- Signs should be careful with the way they use language to define expectations of a route.
- The most popular walking route is the track to Loch Humphrey which people walk to and back regularly.
- The lack of toilet facilities on the plateau is considered a constraint.
- It is possible to walk much further into the Kilpatricks than expected and links across would be a major draw for visitors.
- The link through from Mugdock Park via the Bankies Trail is historically a strong one but is threatened by the quarry.
- There isn't much for families with young kids to do around the periphery of the Kilpatricks i.e. at the gateways.
- Trips between existing visitor destinations should be encouraged, especially over longer distances.
- People tend to follow the signs and the majority do not stray from these routes. Therefore there needs to be signs onto the Kilpatricks from its periphery.
- Raised wooden pathways could be used to overcome difficult ground.
- Some parents have safety concerns over letting their children walk up Cochno Hill.

Priorities

- Build upon the popular **looped routes**.
- Carefully introduce **strategic routes**.
- Potential for some **facilities** at priority gateways.
- Provide **route information and signage** at gateways.

Activities

Overview

People come to the Kilpatrick Hills for a variety of activities. Although walking is the most popular, other activities include mountain biking, fishing, climbing, horse riding and camping. While most of these take place in an informal manner, they are critical to the enjoyment of the Kilpatricks.

Discussion Summary

- Both ramblers and hill-walkers use the Kilpatricks in different ways, they should both be accommodated.
- Three fishing clubs use the lochs. This will continue for the foreseeable future.
- Potential for equestrian routes in the Kilpatricks, rather than on the roads around Strathblane.
- There are some hunting activities within the Kilpatricks at present.
- The Carron Valley is a great formal mountain biking area, the Kilpatrick Hills could consider this as a model.
- Multi-Use Paths can be cost effective.
- Walkers can cause greater erosion than mountain bikers - the whangie is a particularly example.
- More activities could include triathlon and cross biking.
- Potential user conflicts should be designed out from the beginning by informally designating areas for activities i.e. horse riding near Cochno Hill.
- Sports groups should be directly involved in a plan for the area.
- Finnoch Glen is being used by adventure companies, but this is leading to issues with waste.
- The lack of access for cars prevents people from bringing craft to the lochs. However, the loch are small man made reservoirs and not really suitable for such activities.
- Bowling has the potential to provide a range of activities and facilities, but is currently suffering from anti-social behaviour.

- There should also be a role for a dedicated ranger service across the Kilpatricks.
- Camping restrictions at Loch Lomond and Trossachs National Park (LLTNP) will have an impact on wildcamping at Kilpatrick Hills with more people likely to camp here.
- Dunglass Castle should be considered a potential destination.
- The Hill Sheep Fort has an uncertain future given the quarry's plans to expand.
- There was a concern that charging for access or parking would occur in time.
- There is a lack of accommodation such as Youth Hostels in the area. This is likely due to there accessibility, however, longer strategic routes may increase demand for such.

Priorities

- A **multi-Use Path** could be incorporated into a strategic route.
- Potential for more **mountain biking routes**.
- Potential to identify **activity areas** as preferred locations for certain activities.

Landmarks and Points of Interest

Overview

The Kilpatrick Hills benefit from a wealth of areas of interest which include natural features and cultural heritage. Hill peaks offer views of a number of landscapes such as coastal, moorland, hills and mountains as well as urban.

Discussion Summary

- A former drovers route follows the line of chambered cairns across the northern part of the landscape from Pappert Hill.
- Some of the best views are from the top of Lang Craigs.
- The NW area is considered boggy and featureless but contains a Site of Special Scientific Interest (SSSI).
- The SSSI's do not and should not preclude access, albeit in a very sensitive manner.
- There have been increased sightings of Ospreys and Black Grouse in the Kilpatrick Hills. The Cochno plantation has proved good at attracting fauna as it's a young plantation.
- Downloadable maps of the area should be produced which could help promote what is there.

Priorities

- **Heritage and nature trails.**
- **Information, signage and wayfinding.**

Edges and Change

Overview

The settlements and communities that surround the Kilpatrick Hills are very diverse and many are subject to development and change, either through private development or public sector led regeneration. For either, the proximity of the Kilpatricks to these sites should not be underestimated in terms of the quality of life aspect with quick and easy access to the city (Glasgow) and the great outdoors (the Kilpatrick Hills).

In addition to this, it should not be forgotten that parts of the Kilpatricks are operational, commercial forests. Because of these the Kilpatricks will be subject to continual patterns of change.

Discussion Summary

- The Kilpatricks are a great advert for quality of life in Scotland.
- Having a robust plan in place is essential to persuading others to the cause and to cope with change.
- The landlocked nature of FCS land is seen as a problem, as many landowners do not wish to open their land further without a commercial imperative.
- There is very little council funding available for path restoration.
- Discussion is underway as to the potential for providing a canal link Bowling to Balloch, effectively canalising the River Leven.
- The National Park are happy to promote the Kilpatricks to remove some pressure from their 'honeypot areas' and to change the nature of the offer in their southern part.
- The resource of the Kilpatricks, on the Vale of Leven's doorstep, could attract more investment and housebuilders into the area.
- West Dunbartonshire Council's intention is to first reduce the decline of population across the Vale of Leven before trying to increase land values through regeneration.
- Not many people from East Dunbartonshire would consider taking a walk into parts of the Kilpatricks in West Dunbartonshire. Part of the challenge is trying to get people to explore areas they wouldn't normally visit.
- Commercial planting at Auchineden should be considered as part of the forest design plans.
- The reversion to natural peatland at Knockupple should be managed so as not to leave a scar on the landscape.

Priorities

- Engage with surrounding landowners to establish where partnership working is possible, to the advantage of both parties.
- Support connections to existing communities and potential development areas.

Big Ideas

Overview

Having discussed a large number of opportunities and constraints, there were a number of 'big ideas' which were put forward. These were deliberately wishful but allowed for an open and positive discussion.

Discussion Summary

- Use existing attractions as visitor centres, involving a formal agreement with FCS.
- Visitor Centres should be owned and operated by the private sector, as the cost to run would be too much for FCS / public purse.
- Forest Skills for local schools, getting more children into the Kilpatricks.
- Holiday cottages at Gavinburn are already fully booked, more could potentially be accommodated on the periphery of the Kilpatricks.
- Addressing the A82 barrier is crucial to link the Kilpatricks with the River Clyde, railway and canal.
- Telecabines or Go Ape type attractions would help overcome topography and raise the profile of the Kilpatricks.
- There should be a dedicated website for the Kilpatrick Hills.
- Information by way of leaflets could be produced to promote the Kilpatrick Hills and distributed across the central belt.
- It's important that this is about more than just being a publicity exercise, once the initial interest has been absorbed by people there also needs to be some actual investment otherwise people will just turn up to muddy paths.
- Use a unit at Clydebank Shopping Centre to consult on plans in the future.

Priorities

- Addressing the **A82 barrier**.
- **Promotional material** - maps, information leaflets and website.



Concepts and Strategy

Context

Following the baseline assessment and the stakeholder engagement exercises, the following strategies have been drawn up in order to provide a brief for the future preparation of guidance for the the Kilpatrick Hills.

The strategies have been set out to reflect the most significant areas of discussion during the workshops and are as follows:

- **Tackling Barriers;**
- **Establishing Gateways;**
- **Completing the Loops;**
- **Strategic Routes;**
- **Activity Areas;**
- **Character Areas; and**
- **Marketing.**

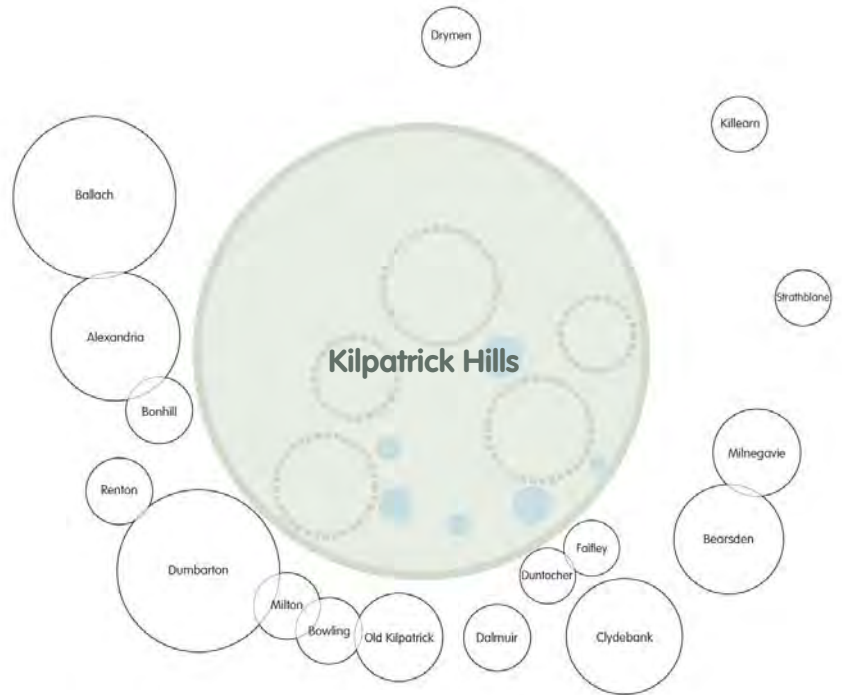


FIGURE 14: Community Context

The actions sit alongside indicative timescales of short term (2014-19), medium term (2019-2024) and long term (2024+).

Tackling Barriers

Barrier	Action	Short Term	Med Term	Long Term	Responsibility
Exiting the A82	Brown signs indicating attractions.		x		Transport Scotland
	Encouraging commercial activity at Gateways.		x	x	FCS, local authority and other key agencies
Crossing the A82	Plan for improving underpasses. National scenic route challenge?		x		Local authority and other key agencies
	Information and Signage, with distance/ times into and around the Kilpatricks, points of interest and views available.	x			FCS, Scotrail, First and local authority
Access from the NCN 7	Cycling signs from NCN 7 – e.g. from Bowling (south) and from Auchincarroch Road (north).	x			Sustrans
Landownership and Commercial Activities	Use the Strategic Framework as a means of getting landowners to ‘buy-in’ to an overall plan for the Kilpatricks – especially if it involves a commercial element.	x	x	x	FCS, landowners and local authority
Topography	Potential to provide limited vehicle access for events/user groups i.e. Triathlons, Cycle Cross. Potential for Telacabines/Cable Cars.	x			FCS
Access across Boggy Ground	Low impact pathway with marker stones from Pappert Hill and across to get over areas of bogland.	x	x		FCS, landowners and local authority

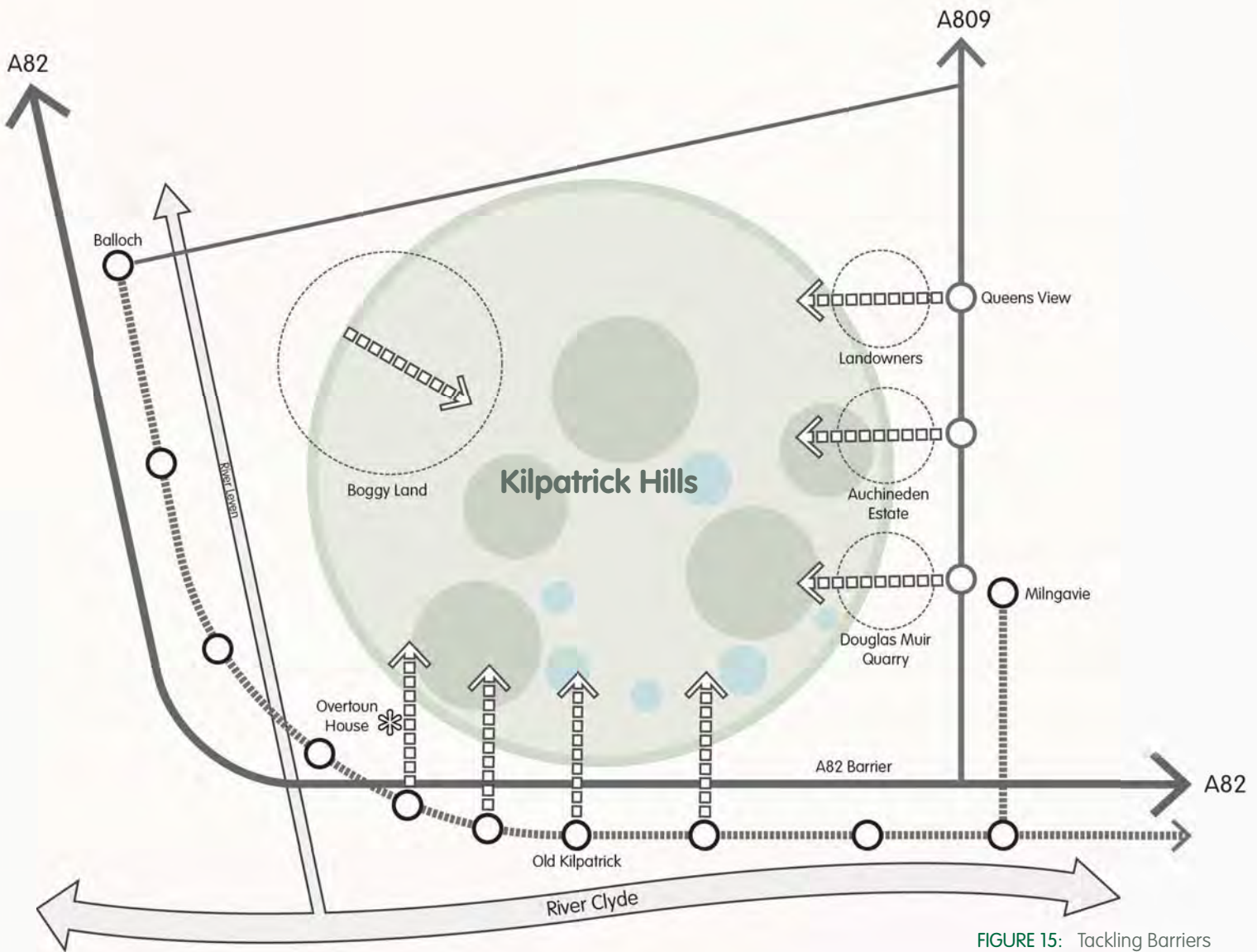


FIGURE 15: Tackling Barriers

Establishing Gateways

Priority Gateways	Action	Short Term	Med Term	Long Term	Responsibility
Old Kilpatrick	Trailheads for Cycling/Walking.		x	x	FCS
	Opportunistic use of buildings at Gavinburn Primary School and FCS Old Kilpatrick.		x		FCS, local authority (WDC), other key agencies and landowner
	Information and Signage, with distance/times into and around the Kilpatricks, points of interest and views available.	x			FCS, Scotrail, First and local authority (WDC)
Overtoun House	Additional Parking, Café and Toilets.	x	x		Local authority (WDC) and other key agencies
	Trailheads for Cycling/Walking.		x		FCS, Scotrail and local authority (WDC)
	Information and Signage, with distance/times into and around the Kilpatricks, points of interest and views available.	x			The Woodland Trust Scotland and FCS
	Brown signs indicating attractions on A82.	x	x		WDC, FCS and Transport Scotland
Queens View	Information and Signage, with distance/times into and around the Kilpatricks, points of interest and views available.	x			FCS, local authority (SC) and landowner
	Encourage buses to take bikes.	x			FCS, landowners and local authority (SC)
Other Gateways					
Other Gateways	Action	Short Term	Med Term	Long Term	Responsibility
Edenmill Farm shop	Commercial agreement with Edenmill to use parking, toilets etc.	x			Landowner
	Discuss further services with First to/from Milngavie Station and Edenmill/Queens View during summer months.	x			FCS and First
Dumbarton	Work to A-listed Dumbarton Train Station and Painting as Gateway. Common Good Fund. Silverton CC.	x	x		Scotrail and local authority (WDC)
Bowling	Cycling signs from NCN 7 .	x			SUSTRAN
Carnock Burn	Starting point for walking and mountain biking from the northern boundary of the Kilpatricks into Merkins.	x			FCS and SUSTRAN

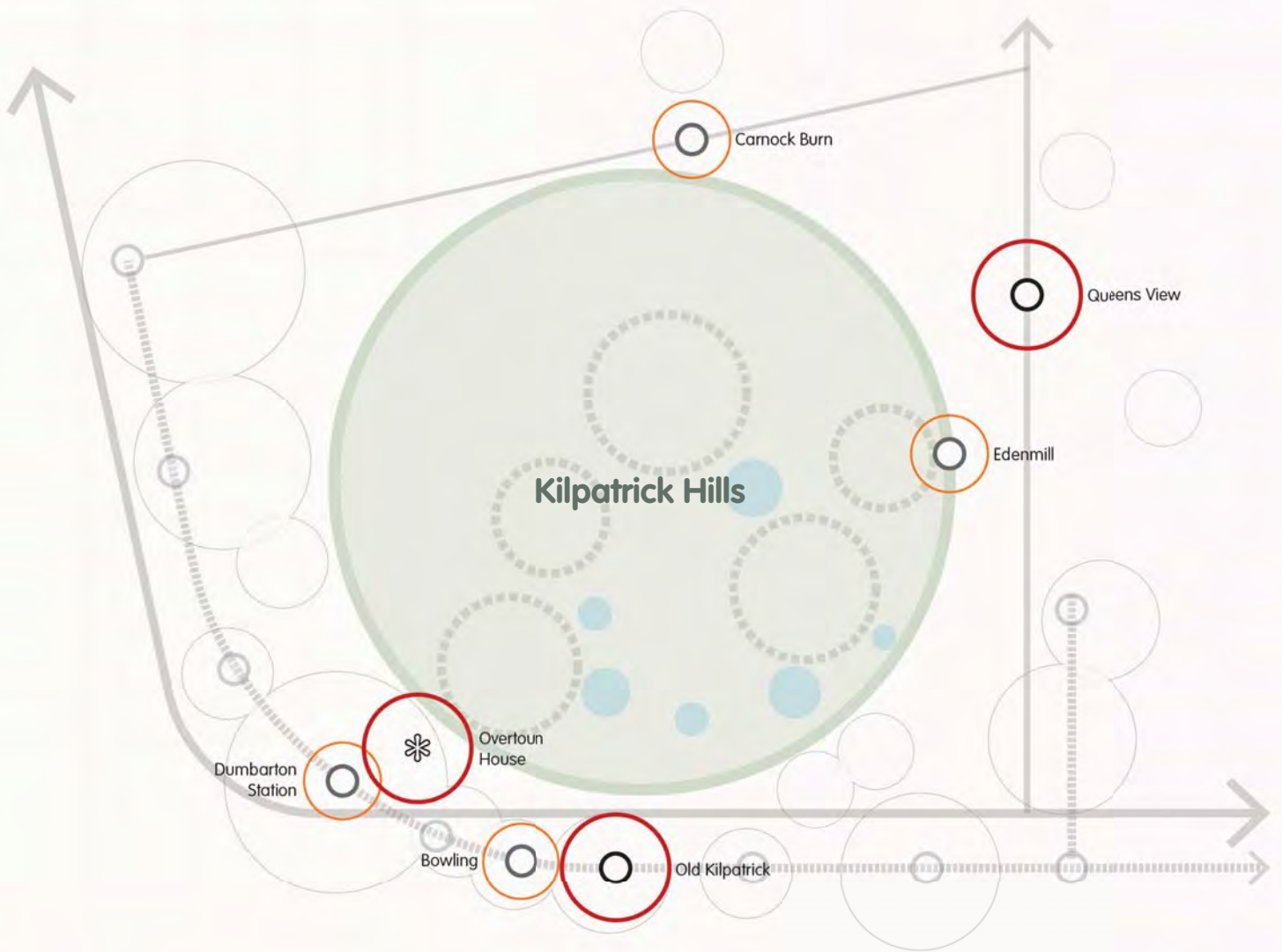


FIGURE 16: Establishing Gateways

- Priority Gateways
- Other Gateways

Completing the Loops

Completing and extending Loops	Action	Short Term	Med Term	Long Term	Responsibility
Loch Humphrey	Create a route on the north side of the loch to form a loop.	x			FCS
The Slacks and Kilpatrick Braes (zig-zags)	Introduce new links between existing paths as at Loch Humphrey or via the zig-zags.	x			FCS and landowners
Cochno Hill	A route across Cochno Hill	x			FCS and landowners
Reservoirs	A looped route around Cochno Loch . A route north to Kilmannan Reservoir and connecting to proposed strategic route. A loop completed around Burncrooks Reservoir (tying in with the two strategic routes).	x	x		FCS and landowners
The Whangie to Edenmill	Extend the existing popular route from Queens View to the Whangie to connect south to Edenmill.	x	x		FCS and landowners
Bowling - Doughnot Hill - River Leven	Potential for a much larger loop.		x		FCS and landowners
General	Formalise accessible loops out of key gateways into paths.	x			FCS and landowners
	Separate mountain bike and equestrian loops over time.	x	x	x	FCS and landowners
	Linking Bankies Trail into loops to connect Mugdock and Milngavie.		x		FCS and landowners
	Appropriate maps, information, signage and wayfinding.	x	x		FCS and landowners

Strategic Paths / Routes

Strategic Routes	Action	Short Term	Med Term	Long Term	Responsibility
The John Muir Trail (NW-E)	The trail has been confirmed, albeit the exact route around Auchineden is to be agreed (April 2013).	x			FCS, local authority (WDC and SC) and landowners
Overtoun to Queens View (SW-NE)	Following many existing walking routes, but with an additional section between Fyn Loch and Burncrooks Reservoir would connect Overtoun House across the Kilpatricks to Queens View.	x	x		FCS and landowners
Heritage / Geological Trails					
Coffin Trail/Drover Trail	Investigate the potential for a trail created by joining up the Cairns and other points of cultural heritage or geological interest.		x		FCS and landowners

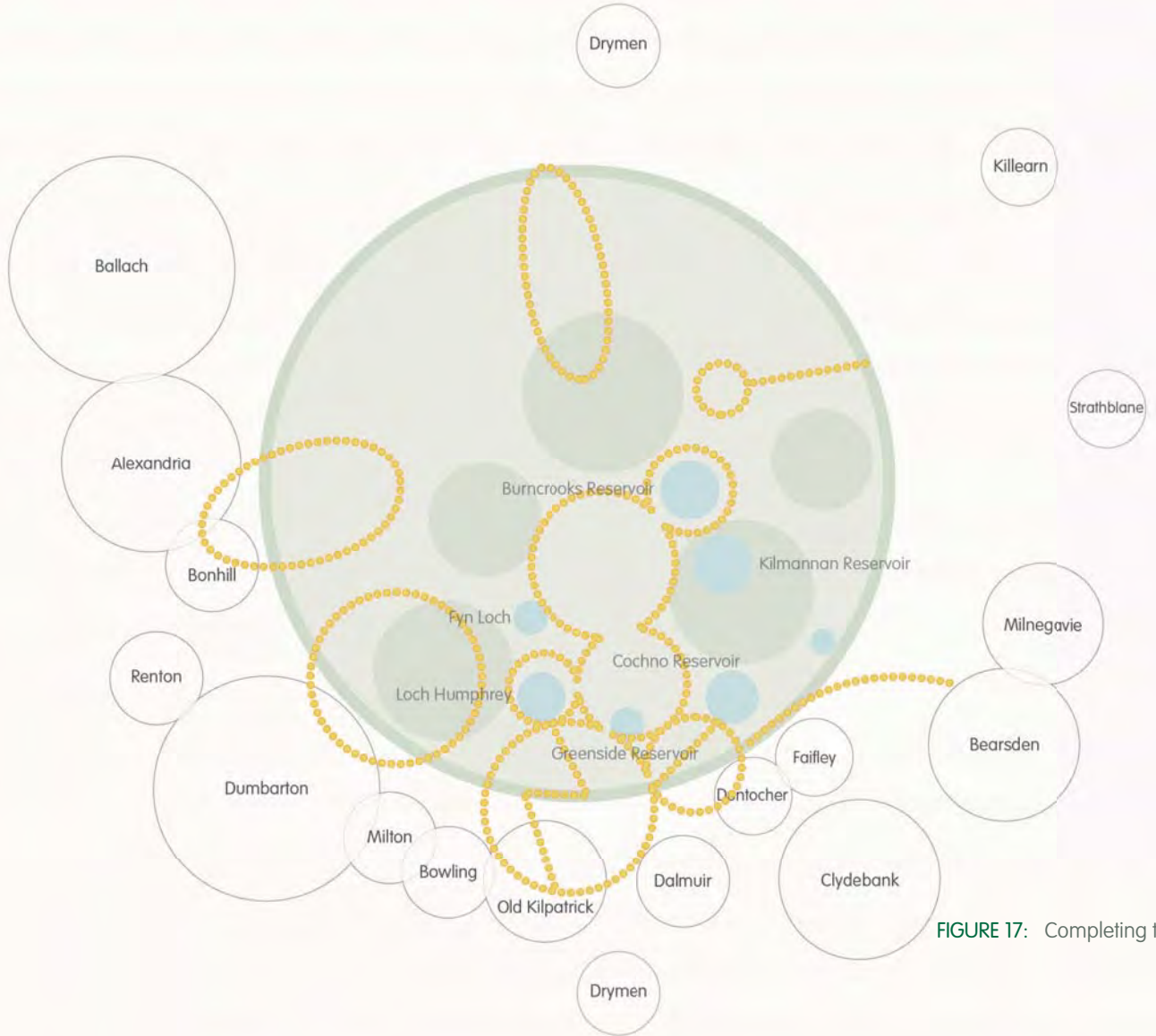


FIGURE 17: Completing the Loops



FIGURE 18: Strategic Paths / Routes

Activity Areas

Activities	Action	Short Term	Med Term	Long Term	Responsibility
Walking	Create interesting looped routes that provide varied and accessible short and medium length routes.	x	x		FCS, SNH, landowners and interest groups
	Create strategic paths/routes that provide a different experience than is available at present.	x	x		FCS, SNH, landowners and interest groups
Mountain Biking	Investigate the potential to better accommodate mountain biking on the Kilpatrick Braes.	x			FCS, SNH, landowners and interest groups
	Investigate the potential for a multi-use-path as part of the strategic path/route to accommodate mountain bikes.		x		FCS, SNH, landowners and interest groups
	Mountain bike routes from Loch Humphrey to Burncrooks Reservoir. Mountain bike routes from Greenside Reservoir to Carbeth Inn.		x		FCS, SNH, landowners and interest groups
Fishing	No additional proposals				NA
Equestrian	Potential for equestrian route at Cochno Hill - careful balance with wildlife and walking routes.	x	x		FCS, SNH, landowners and interest groups
Camping	No additional proposals.				NA
Climbing	No additional proposals.				NA
Landscape and Wildlife	Burgeoning flora and fauna (black grouse lekking and pine martens) careful balance with walking, mountain biking and potential equestrian routes.	x	x	x	FCS, SNH and landowners
Constraints					
Constraints	Action	Short Term	Med Term	Long Term	Responsibility
Ground Conditions and Erosion	Consider impact and mitigation for routes, paths and activities.	x	x	x	FCS, SNH and landowners
Accessibility (Rambling) vs Remoteness (Hikers)	Provide appropriate access and experiences.	x			FCS, SNH, landowners and interest groups
Landscape Character Impact	Consider impact and mitigation for routes, paths and activities.	x	x	x	FCS, SNH
Different types of uses – managing conflict	Consider potential separation and/or signage.	x			FCS

Character Areas

Areas	Character and Sensitivity	Action	Responsibility
Inner Core - Moorland	Area of greater sensitivity due to 'wild' characteristics	Very low impact and unobtrusive routes and paths - but should be clear enough to stop users deviating	FCS and SNH
		Any signage / wayfinding should be particularly unobtrusive	FCS
		Carefully consider flora and fauna	FCS and SNH
		Restricted area for activities	FCS
Outer Core - Ridges	Area of less 'wild' characteristics	Potential for more obvious route network	FCS
		Potential for a greater range of activities	FCS
		There are still visual sensitivities	FCS
Slopes and Edges	Area of transition between the Kilpatricks and surrounding areas such	Most frequently used area with visible activities	FCS and landowners
		Visual sensitivities remain as edges can be seen from long distances	FCS and landowners

Marketing

Promotional Method	Action	Short Term	Med Term	Long Term	Responsibility
Information Points	Gateways - FCS and other	x	x		FCS and local authorities
	Tourist information points	x	x		FCS, local authorities and Visit Scotland
	Train and bus stations / stops	x	x		FCS, local authorities, Scotrail and First
	Town and village centres		x	x	FCS and local authorities
Leaflets	Containing maps, routes, timings and activity areas	x			FCS and Visit Scotland
Websites	FCS/Dedicated Website with key terms and links	x	x		FCS and local authorities
	Twitter / Facebook	x			FCS
	Coordinate and link local authority websites with path and route information	x			FCS and local authorities
Events and Festivals	Schools		x		FCS and local authorities
	Scouting Movement/Cadets		x		FCS and relevant groups
	Fell running		x		FCS and interest groups
	Triathlon		x		FCS and interest groups

Action Plan

Draft Action Plan

Priority	Action
2014-2019	
Overtoun Gateway	<ul style="list-style-type: none"> Road signage Car parking (already committed) Signage and interpretation
Dumbarton Central Gateway	<ul style="list-style-type: none"> Signage and interpretation
Old Kilpatrick Gateway	<ul style="list-style-type: none"> Road signage Old Kilpatrick station signage Bus stop signage Car parking improvements Signage and interpretation
Queens View Gateway	<ul style="list-style-type: none"> Road signage Bus stop signage Signage and interpretation Potential facilities (toilets)
Completing the Loops	<ul style="list-style-type: none"> Complete the network of looped walks on the southern edge of the Kilpatricks
Strategic Path - John Muir Trail	<ul style="list-style-type: none"> Resolve route
Marketing and Information	<ul style="list-style-type: none"> Coordinate Council web pages (West and East Dunbartonshire, Stirling and Loch Lomond and Trossachs National Park Authority) to show combined maps of walking routes and activity areas
	<ul style="list-style-type: none"> Production of mapping and information leaflets
	<ul style="list-style-type: none"> Production of a website and social media sites
Social Intervention	<ul style="list-style-type: none"> Working with the community (schools / health centres etc.) to improve awareness, access and enjoyment of the Kilpatricks
2019-2024	
Edenmill Gateway	<ul style="list-style-type: none"> Car parking improvements Access across Auchineden Estate Signage and interpretation
Cochno Car Park Gateway	<ul style="list-style-type: none"> Car parking improvements Signage and interpretation
Bonhill Gateway	<ul style="list-style-type: none"> Signage and interpretation
Milngavie Route / Bankies Trail	<ul style="list-style-type: none"> Signage and interpretation
Extending the Loops	<ul style="list-style-type: none"> Extend the network of looped walks onto the western, eastern and northern edges of the Kilpatricks, as well as central core loops

