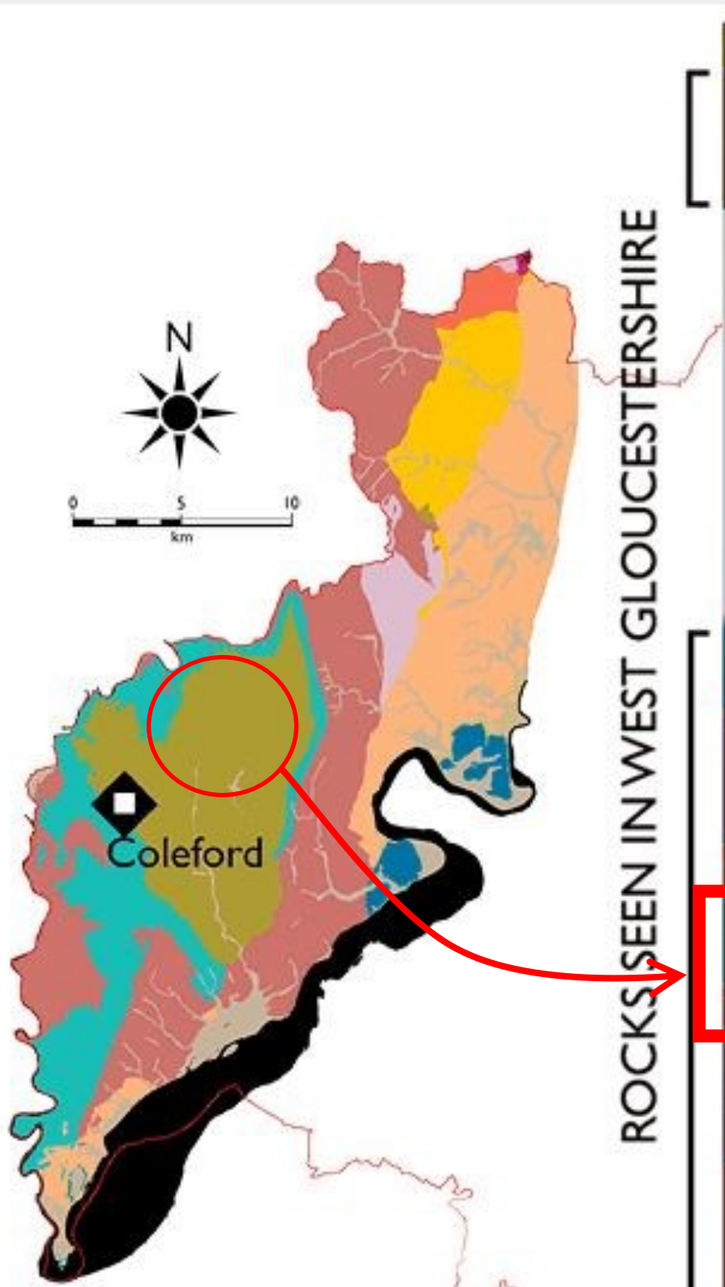
APPENDIX 1: Physical Environment

Geology

This map shows the geology of the Forest Plan area with the plan ringed in red.

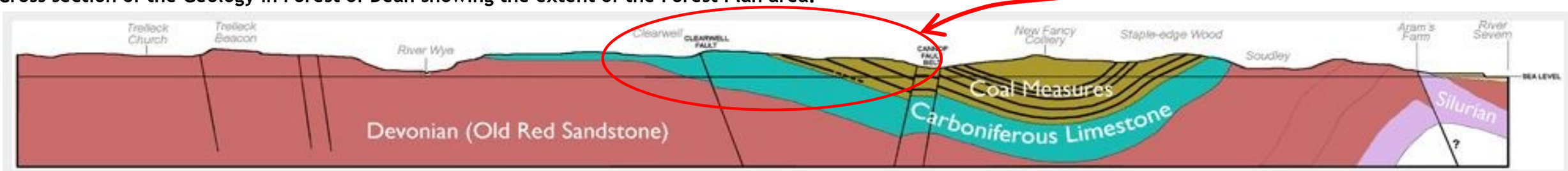
For Soils please see Concept and Analysis on soils and geology on page 17.



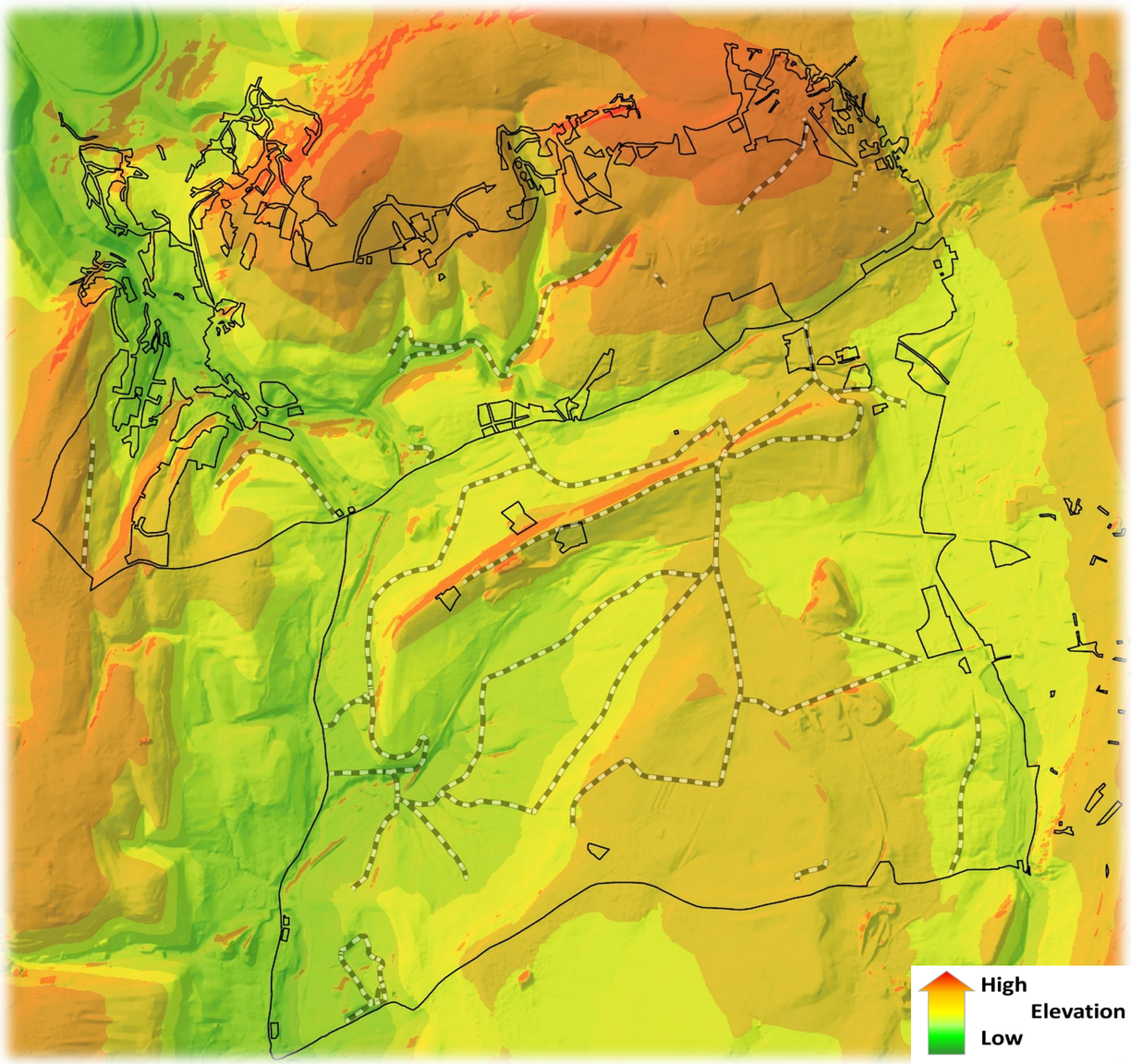
ROCKS SEEN IN WEST GLOUCESTERSHIRE

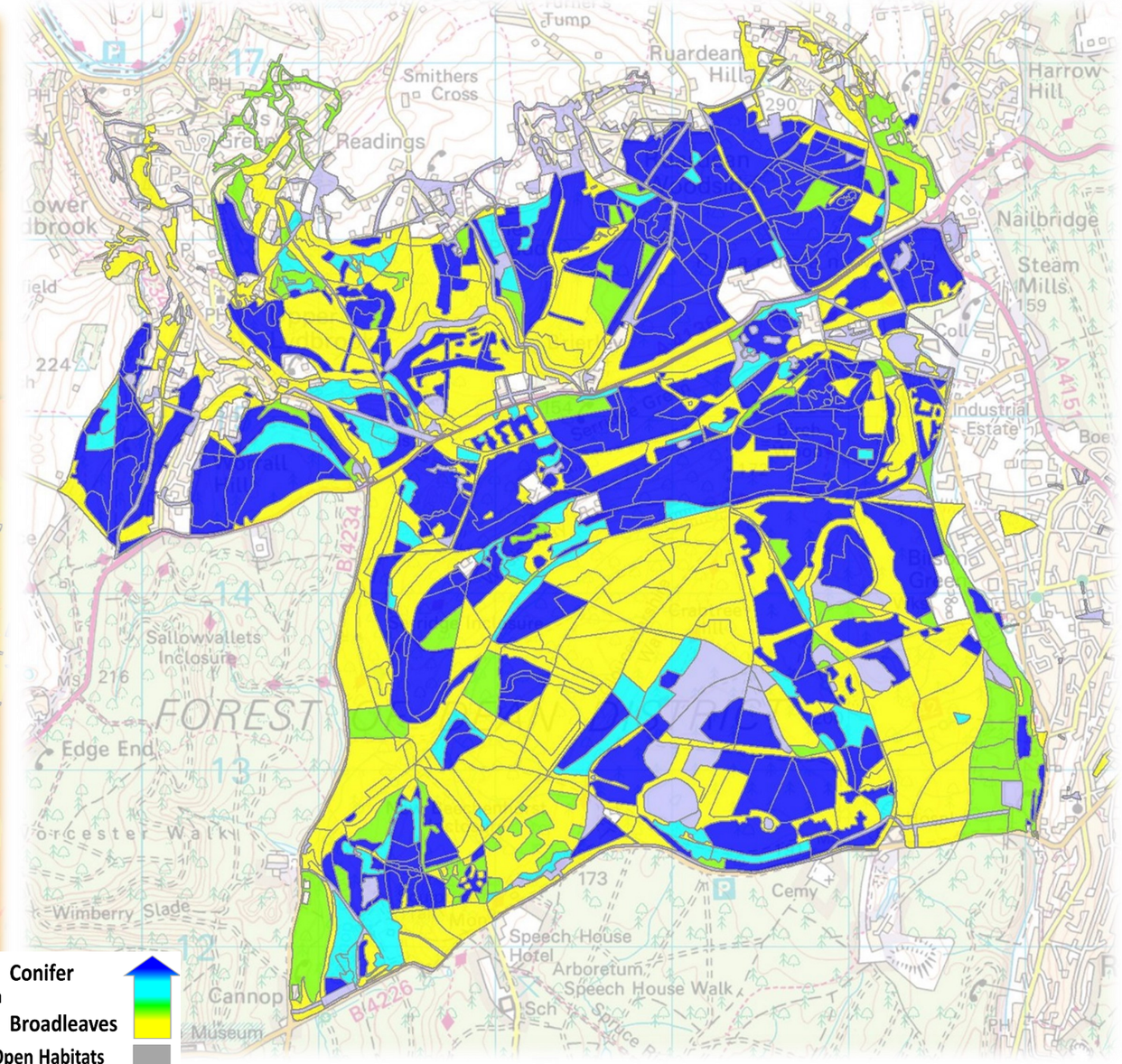
Time Period		Main Rock Groups	Age (millions of years)
Quaternary		Allluvium	0.01 - present
		River Terrace Gravels	0.30 - present
		Glacial Deposits	0.50 - 0.43
Cretaceous (not seen in Gloucestershire)		Chalk	99 - 65
		Greensand	112 - 99
		Gault	125 - 112
Jurassic	Upper	Oxford Clay & Kellaways Beds	164 - 155
	Middle	Great Oolite Group	167 - 164
		Inferior Oolite Group	175 - 167
	Lower	Whitby Mudstone	183 - 175
		Marlstone Rock	189 - 183
		Dyrham	189 - 183
		Charmouth Mudstone	196 - 189
		Blue Lias	200 - 196
Triassic		Penarth Group	203 - 200
		Mercia Mudstone Group	241 - 203
		Sherwood Sandstone	251 - 241
Permian		Bridgnorth Sandstone	299 - 270
Carboniferous		Upper Coal Measures	310 - 306
		Carboniferous Limestone	360 - 334
Devonian		Old Red Sandstone	418 - 360
Silurian		Ludlow	422 - 418
		Wenlock	428 - 422
		Llandovery	443 - 428
Ordovician		Igneous Intrusions	488 - 443
		Breadstone Shales	
		Bronsil Shale	
Cambrian		White Leaved Oak Shale	520 - 488

Cross section of the Geology in Forest of Dean showing the extent of the Forest Plan area.



Landform





Landform analysis is used to assess landform patterns, demonstrating how the landform is in keeping with the surrounding landscape character.

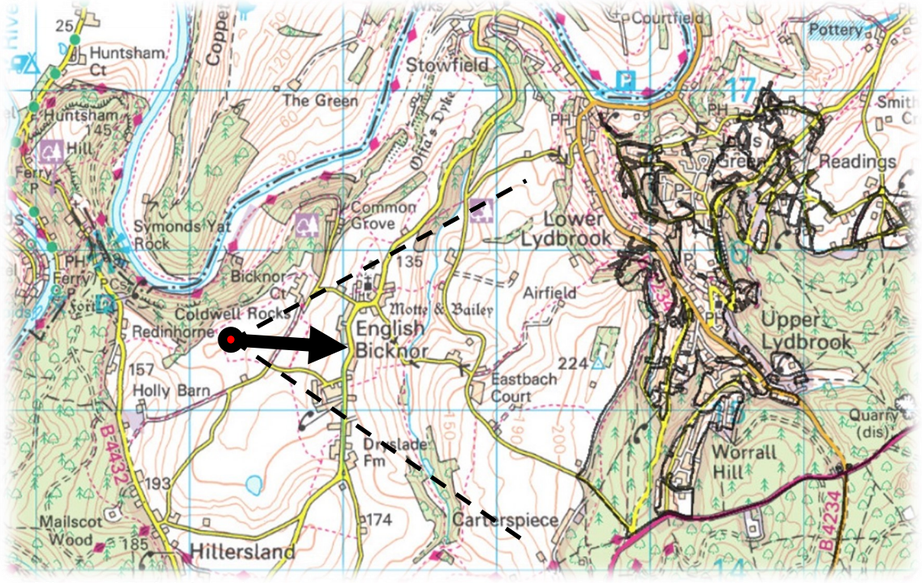
Ones eye is naturally drawn up valleys and gullies, and down the ridges. Elevations in the map (above left) are scaled from green to red, with red indicating ridgelines and then scaling through orange and yellow to green that indicates valleys, valley bottoms and gullies.

These principles can be used to design the coupe shapes of the future, ensuring the size and shape of felling and restocking coupes do not detract from the natural appearance of the forest, and its contribution to the landscape character and context.

As a rule of thumb, and in most contexts, landscaping aims to place broadleaves in valley bottoms and conifer on the higher elevations and ridges. The map on the right of the page shows the current spatial distribution of conifer and broadleaf. In comparing the two maps, one can see there is a close correlation to this principle. There are a few anomalies, some can easily be resolved through clearfelling[1] ,whilst others will take more time through the use of LIS. In some cases though, conifer in valley bottoms adds to the drama and Sense of Place, and in these cases conifer is likely to be retained. E.g. Northern United and Dances Corner where large diameter conifer adds a sense of grandeur, awe and wonderment.

[1] *either clearfelling that has been programmed can solve and achieve the ideal coupe shape for the landform in which the coupe is located OR additional longer term complications arise because clearfelling takes place to eradicate pests and disease, in which case, remedying such an issue may take a couple of decades and has to be achieved in phases.*

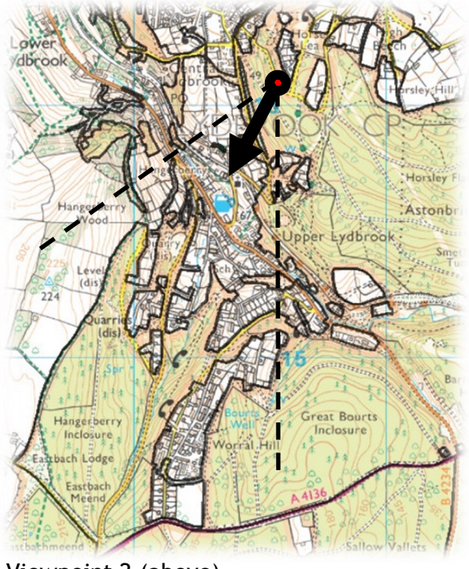
Landscape Analysis



Viewpoint 1 (above)

Grid reference:- SO5717 1551

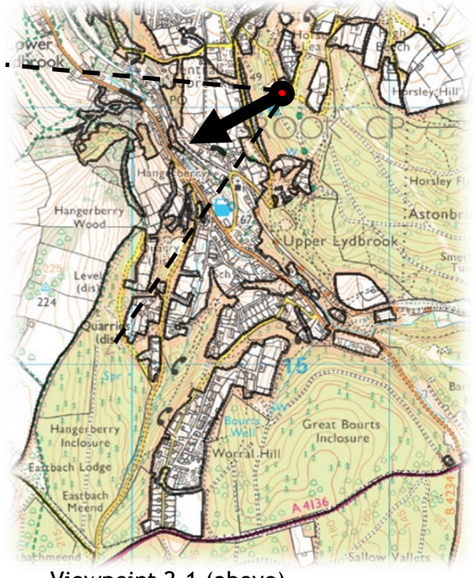
As viewed from just off the Public Footpath between Bicknor Court and Redinhorne looking towards the western edges of the Forest Plan area.



Viewpoint 2 (above)

Grid reference:- SO 6061 1604

As viewed from Horslea from northern edge of cpt 4201b looking southwest over Hangerberry Inclosure and Worral Hill.



Viewpoint 2.1 (above)

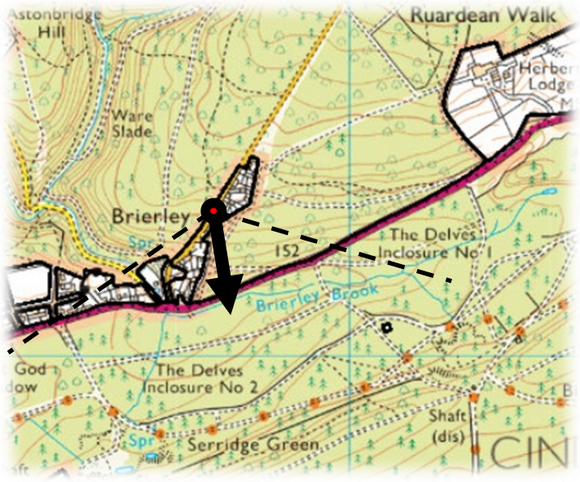
Grid reference:- SO 6061 1604

As viewed from Horslea from northern edge of cpt 4230a looking southwest over northern end of Hangerberry Inclosure

Viewpoint 3 (above)

Grid reference:- SO 6033 1500

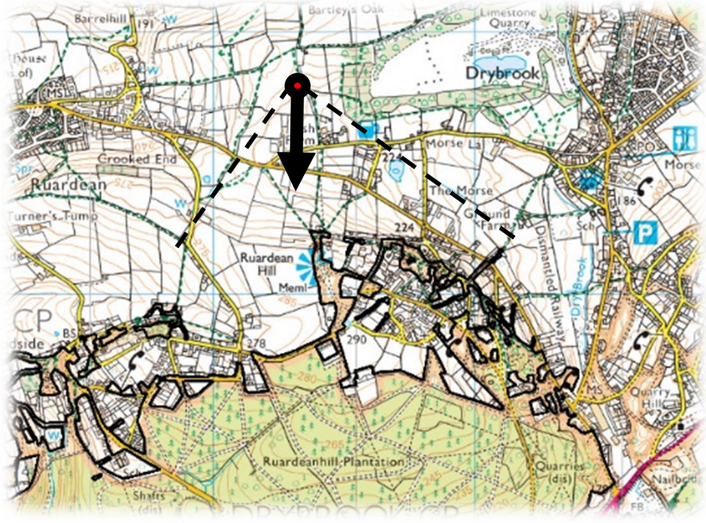
As viewed from Camomile Green looking north towards the Horslea and Dances Corner and Scotts Quarry area.



Viewpoint 4 (above)

Grid reference:- SO 6256 1529

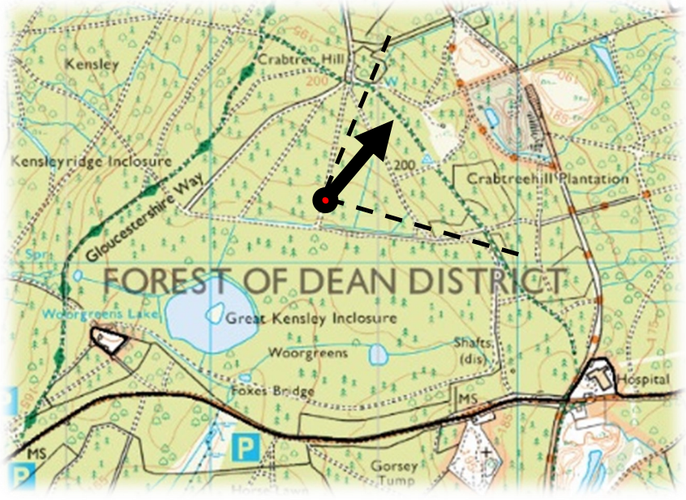
As viewed from the bottom of Brierley Banks looking south over the A4136 into The Delves and upto the ridge on Serridge.



Viewpoint 5 (above)

Grid reference:- SO 6332 1784

As viewed from just west of Drybrook quarry on Public Right of Way north of Ash Farm.

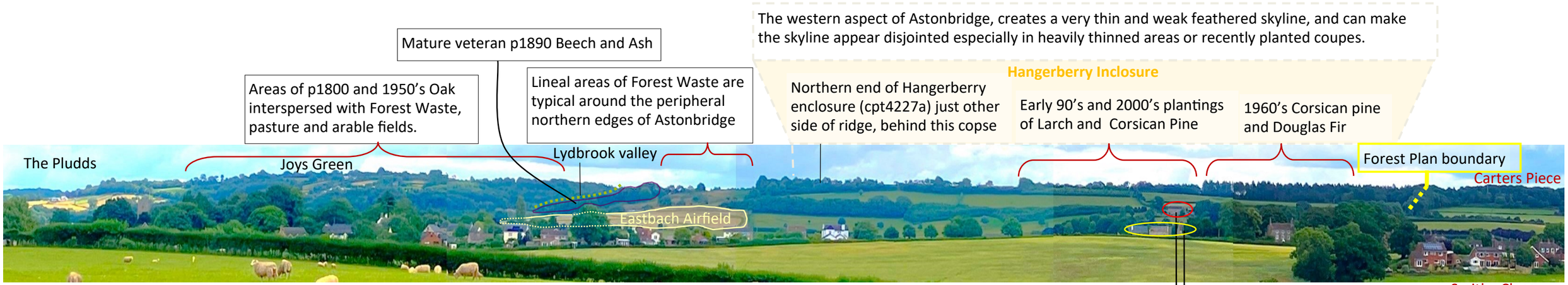


Viewpoint 6 (above)

Grid reference:- SO 6337 1319

As viewed from NSM road at Woorgreens looking northeast

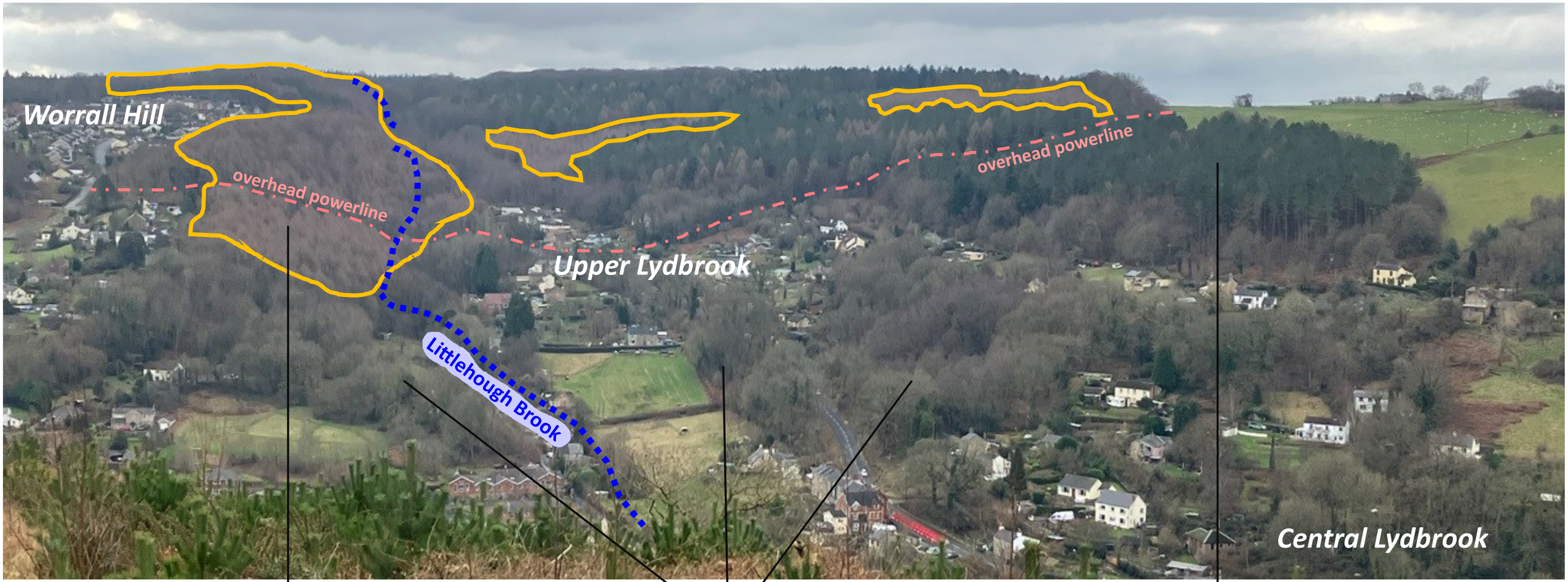
Viewpoint 1 - From Redinhorne looking east



Woodland between The Pludds, Joys Green and Lydbrook Valley will be managed under LISS so there will be little impact on landscape quality.

Within Hangerberry Inclosure, impact on the skyline should be minimal. Only coupes containing larch are prioritised for clearfelling within plan period. The Douglas Fir and Corsican Pine coupes along the skyline will be managed through LISS and underplanted.

Viewpoint 2 Horslea looking south



The dominant feature of the valley must be the vast area of even aged Larch that separates Lydbrook from Worrall Hill. Due to Phytophthora ramorum, this area will likely be felled in one go and will afford the opportunity to diversify species composition including broadleaves along Littlehough Brook.

The smaller areas of larch to the west on the right of the photo are programmed for routine clearfell in first 5 years of the plan period.

The village of Lydbrook merges quietly into the valley of LittleHough Brook softened by the interwoven composition of the small areas of peripheral native broadleaf and buildings.

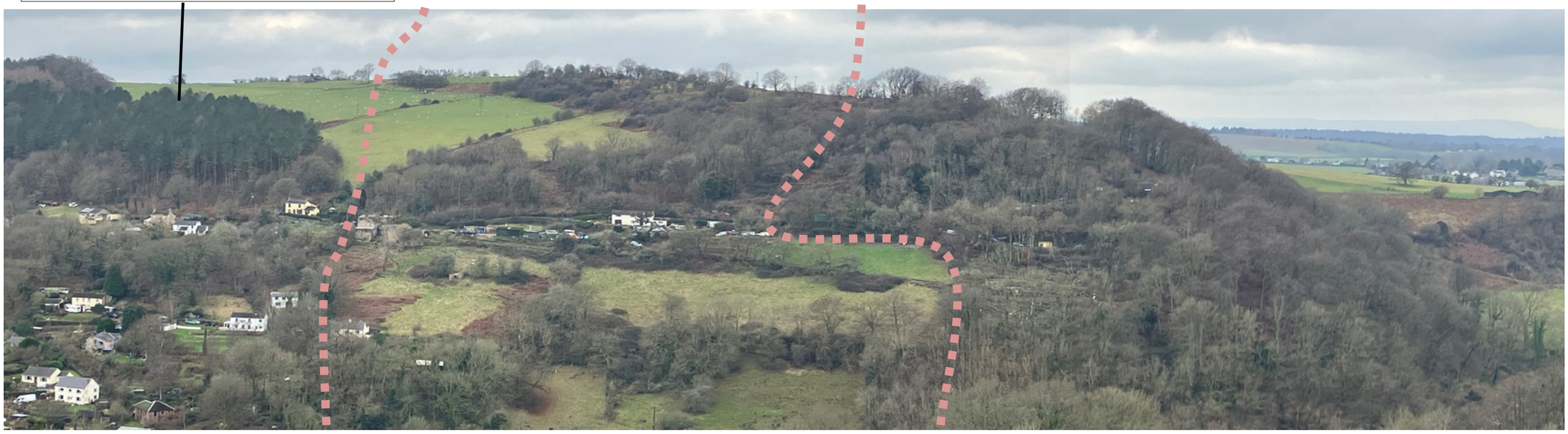
Area of mature Corsican Pine planted in the late 60s north of the powerline will be underplanted with evergreen conifer species of longevity providing a more interesting backdrop and ambience for Lydbrook. Areas of Corsican Pine at the top of the photo, south of the powerline, are programmed for felling in the 2040-50s, with most of the skyline being managed under LISS, so impact on landscape will be minimal, and in all likelihood most areas by the time of felling may well have been underplanted, or thinned to accept natural regeneration with any components of Larch being removed through thinning.

Viewpoint 2.1 - From Horslea looking southwest

Northern End of Hangerberry Inclosure will be underplanted with evergreen conifer species of longevity, for example, Coastal Redwood, Japanese Red Cedar and Douglas Fir and will provide a more interesting backdrop and ambience for Lydbrook.

Woodland gives way to graded scrubby woodland transitioning to pasture land providing a varied woodland edge habitat.

Broadleaf woodland on the end of the ridge has a northern aspect and will experience a cold micro climate, being open to north and northeasterly winds. The area is steep has extremely poor access and has been designated as an area of minimum intervention. Felling work could be done to improve crown condition, but trees would be left in situ with whole crowns to further enhance ecological value.



Viewpoint 3 - From Camomile Green looking north

From Worrall Hill looking north towards the Horslea and Dances Corner and Scotts Quarry area. Once at thicket stage, the young restock[1] on the left of the photo, planted in 2020, will soon extend the evergreen colour of the 1960s Douglas/Grand Fir, blocking the majority of the thin broadleaf crest along the horizon.

[1]Scots Pine, Douglas Fir, Western Hemlock and Mixed

The Douglas Fir, Grand Fir and Japanese Larch planted in 1959 in the center of the photo will be managed under LISS and diversified with other Firs and Cedars, so is unlikely to influence the view from here too much.

Viewpoint 4 - From Brierley Banks looking south

The stand of Beech runs along the skyline of the ridge. Any thinning will need to be careful not to leave the stand looking wispy, straggly and disjointed.

Site of the Gale "Strip and At it"

The old Trafalgar Colliery Tips can just be seen on the horizon, but with the stand being retained on a Long Term Retention, the view will remain undisturbed.

Waterloo Screens Tip planted in 1961 was with Scots Pine, and will be managed through Selection systems meaning the site will be thinned to develop selected crowns, meaning again that there should be minimal impact to this view.

This view looks over to The Delves and Serridge from Brierley Banks. In the middle distance one can see the recently felled area at The Delves. During the winter of 2023 the site was carefully replanted with a mixture of conifer, pine and broadleaves so that it will soon blend in with existing Scots Pine behind.

Douglas Fir that surrounds Puzzle House and will be managed by Shelterwood systems so will have a minimal impact on the landscape.

Viewpoint 5 - from Drybrook looking south

Skyline of Ruardean Hill consists of a substantial strip of native broadleaves [p1812 Oak and mid C19th Beech/Sweet Chestnut] that soften the skyline. Work will not greatly impact the visual nature here.

Local viewpoint known as Pan Tod with extensive views to the north and west

The wooded landscape is very interwoven with the residential areas of Ruardean Hill and across the northern peripheral edges of the plan area; blending well with surrounding arable and pasture land and since most of the peripheral woodland here is classed as Forest Waste the landscape will not be greatly impacted on through the implementation of this plan.

Garden allotments adjacent to Morse Road

Viewpoint 6 - Woorgreens looking northeast from NSM

This view of open heathland and acid grass habitats, where one can see the Napoleonic Oak in the distance a top of Crabree Hill would look too bland, expansive and homogenous, without the retained groups of Norway Spruce. The landscape here considers the visual proportion of thirds in a 2:1 ratio where two main elements - the retentions “enclose” the larger expanse of habitat. Their interaction causes “coalescence” creating a smaller scale with a more intimate secure feel to the landscape with a focus of the Oak in the distance.

The illustration to the right is taken from the UK Forest Standard and shows how the retentions at Woorgreens (above) add diversity to what would be an otherwise bland and insipid landscape.

Figure 24 Designing felling coupes in flatter areas where internal views are important.