

A management plan for Harford and Ugborough Commons 2024

A management plan in 4 parts.

1. Priority actions: What needs to be done and where.
2. Description of the issues, threats and potential solutions.
3. Work programme and monitoring schedule.
4. Annexes – additional information and references.

The management plan looks ahead setting out management over the next 20 or 30 years. Some work requires a longer time frame whilst other actions are urgent and require immediate implementation. The work programme identifies and proposes work to improve the condition of the commons and the public benefits they provide, including the condition required by the Site of Special Scientific Interest (SSSI) and the two Premier Archaeological Landscapes (PALs).

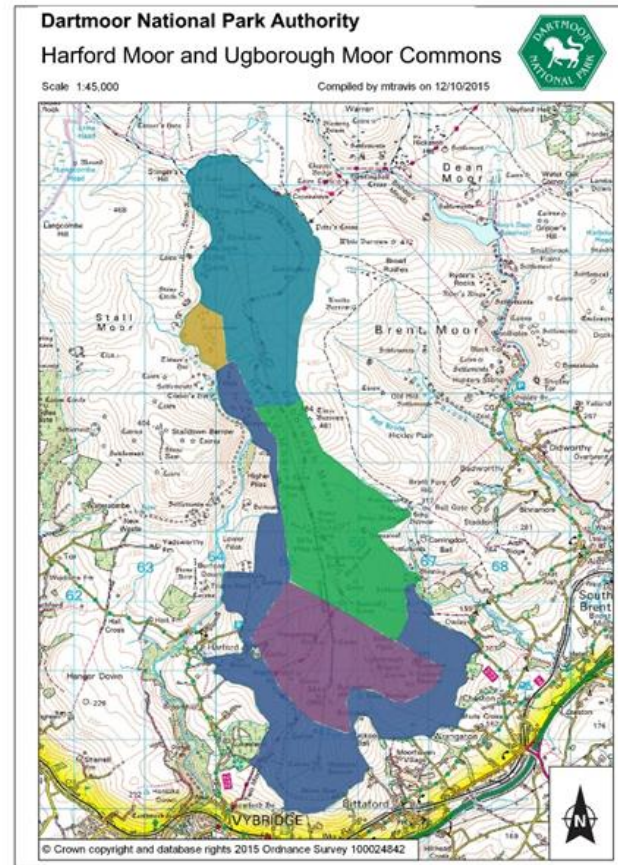
The management plan is written primarily for the owners of the commons and the farmers whose livestock graze the common.

The plan was commissioned by Our Common Cause: Our Upland Commons, 2023.

Authors Gwyn Jones and John Waldon, EFNCP, 2024.

Part 1: Priority Actions

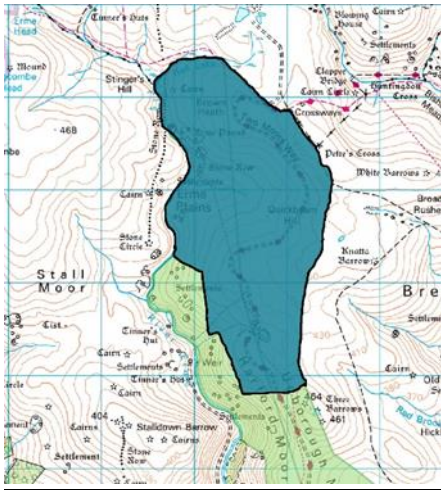
The work required to manage the commons is set out within 5 distinct areas of vegetation.



Map 1: The five vegetation zones

Area 1

Molinia dominated grassland over peat.



Within SSSI and part in Upper Erme PAL.

Priority Actions

1. Create fire breaks (see Maps 2 A&B) that link existing areas of shorter vegetation and wet areas and expand areas with cutting trials.
2. Evaluate/cost possible reprofiling of old peat cuttings.
3. Re-wet (limited) areas with potential to encourage bog and mire habitat, and/or to slow water flow, (see Map 7).
4. Expand *Molinia* cutting and rolling trials.
5. Remove invasive bracken from selected SAMs and PAL, including stone row, cairn and enclosures near Hook Lane and hut circles in Erme valley (see Map 4).
6. Introduce cattle grazing in the spring and encourage pony grazing in the spring.
7. Ensure grazing animals have access to recently created fire breaks.

Continuation of existing management

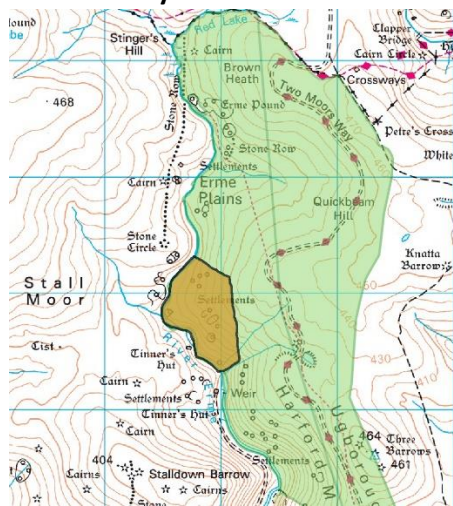
1. Build on existing sheep, pony and cattle grazing.
2. Maintain SAMs currently in good condition with adequate and relevant access.
3. Maintain the old railway track to ensure it is able to provide access for fire-fighting equipment.

Outcomes (what we hope to achieve).

1. Network of fire breaks provide efficient control of wildfire.
2. *Molinia* decreases and other grasses and dwarf shrubs are evident.
3. Reduction in oxidation of peat; bare, eroding peat eliminated; peat banks reprofiled where cost-effective.
4. Bog, mire and heath habitat increase.
5. Water flows through Upper Erme catchment slowed.
6. The Upper Erme PAL and all SAMs are in good condition and accessible.
7. Increase in dragonfly species and number.

Area 2

Largely species-poor grassland with remnant heath, previously heather or whortleberry-dominated heath



Within SSSI and Upper Erme PAL

Priority Actions

1. Reduce dominance of grasses in favour of dwarf shrubs without allowing dominance of Western heath.
2. Create and maintain fire breaks (see Maps 2 A&B).
3. Carry out vegetation management, mostly bracken clearance, on archaeological sites (see Map 4).
4. Put in place flow dampening measures where feasible.

Continuation of existing management

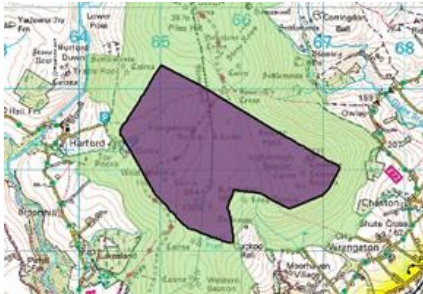
1. Adjust current sheep, pony and cattle grazing.
2. Efforts to reduce water flows.
3. Maintain those SAMs currently in good condition in that state.

Outcomes (what we hope to achieve).

1. Good quality dry heath with more heather and whortleberry.
2. Fire breaks provide barrier to wildfire.
3. All SAMs and PAL are in good condition and accessible.
4. A few more trees are in the valley, but no expansion of trees in the PAL.
5. Reduction of peak flows in Upper Erme.

Area 4

Heath developed on former acid grassland, but with significant proportion (>50%) of Western gorse and *Molinia*.



Part in Ugborough Moor PAL.

Priority Actions

1. Maintain area as heath while reducing the cover of Western gorse and improving structural diversity.
2. Create fire breaks, (see Maps 2 A&B).
3. Carry out vegetation management within PAL and on selected archaeological sites, especially Butterdon Hill stone row, (see Map 5).
4. Address erosion issues including that near Main Head spring (see Map 8).

Continuation of existing management

1. Maintain sheep, pony and cattle grazing.
2. Maintain SAMs in good condition.

Outcomes (what we hope to achieve).

1. More heather and whortleberry, less *Molinia* and Western gorse, and with varied age structure suitable for heath species.
2. Fire breaks provide barrier to wildfire.
3. The PAL and all SAMs are in good condition.

Area 5

Acid grassland (with some European gorse) and areas, some extensive, of bracken.



Priority Actions

1. Create fire breaks, (see Maps 2 A&B).
2. Ensure all vehicle access routes are suitable and available to farm and emergency vehicles (especially Fire service).
3. Reduce bracken litter and enable violet plants to establish, especially on south-facing slopes.
4. Address poor condition of some SAMs including Cantrell Gate stone row and enclosures near Addicombe Corner, (see Map 5).
5. Address erosion if a route is not incorporated into a fire break, (see Map 8).
6. Manage livestock to encourage regeneration of trees (hawthorn, birch and rowan), especially on non-south-facing slopes.
7. Plant (seed?) low density of trees in areas where no conflict with archaeology.
8. Ensure old railway track (Puffin Billy track) is suitable for fire-fighting equipment.

Continuation of existing management

1. Sheep and cattle grazing retained with an increased emphasis on spring and early summer grazing, pattern modified locally to help achieve goals, including possibly by targeted and sensitive winter feeding practices
2. Maintain SAMs in good condition.
3. Provide grazing animals to existing access routes.

Outcomes (what we hope to achieve).

1. Areas of bracken have only moderate level of litter with an understorey of violet plants.
2. Various fritillary butterflies have colonised.
3. Increased density of natural regen and trees in areas not suitable for fritillary butterflies.
4. Increase in bird species with whinchat, cuckoo and tree pipit increasing in number.
5. All the SAMs are in good condition and accessible.
6. All access routes are in good condition and there is little sign of erosion.

Part 2: Description, issues, threats and potential solutions.

The two commons are adjacent to each other and are in the southern quarter of Dartmoor. The combined total area of Harford Common (CL 195) and Ugborough Common (CL 156) is 1671 ha. For the purposes of this management plan both commons are considered as one unit of common land unless there is a reason to identify activity or constraints relevant to only one of the commons.

What is the Plan's Purpose (why the management plan was written) and its anticipated use.

The management plan is written for the owners of the soil of the commons and the farmers whose livestock graze them.

It provides a 30-year outline for the two commons, along with an adaptive management plan for the next 10 years (to be reviewed in year 5), and a detailed 5-year action and monitoring plan.

The Plan focuses on:

- The varied vegetation on the commons, which includes types of vegetation of international and national importance along with various species that are

equally important. **Much of the vegetation is in unfavourable condition (as defined by CMS) and fails to support, or provide the habitat for, a number of priority species,** (listed in Table 2).

- The archaeology on both commons which is, in parts, of international importance, while most of the rest is of national importance. **A significant number of the Scheduled Monuments (SAMs) are in poor condition and the management of the Premier Archaeological Landscapes has received low priority in recent years.**
- Public access across the entire area, which is a valuable public benefit. This access can impact negatively on the soils and vegetation and can cause erosion that requires action to prevent permanent damage. **Some access routes require work to maintain their use.**
- The carbon stored, especially in the peaty soil horizons. Many areas are probably losing carbon through oxidation; some are not sequestering as effectively as they could be. **Carbon stores are under threat from over-dominant *Molinia* and Western gorse, both of which pose a high fire risk, and**

from a legacy of drains and especially large areas of peat banks.

- The water retention capacity of the vegetation and soils protects lower parts of the catchment from flooding and ensures a baseflow in dry seasons. **Past drainage and the water-repelling impact of fires both increase flood peaks. There is additional flood mitigation potential in the upper river valleys**
- Opportunities for localised enhancement of the current assets, for example through expanding trees in certain areas and improving the habitat for rare or declining species (fritillary butterflies, birds of moorland edge) in others

The Plan addresses all the important assets found on the commons and provides guidance on how the optimum state for each can be achieved whilst benefiting other assets and avoiding adversely affecting others.

An attempt has been made to priorities actions to reflect the level of perceived threat to these assets:

Risk (threat of something happening x impact of that event) + Importance = Priority

The Commons

The intended audience for this Plan will be familiar with the commons. An extensive introduction and description seem unwarranted but further detail can be found within Part 5 of the Annexes.

The commons currently deliver a wealth of private or public benefits, including access, soils, water, vegetation for grazing, carbon storage, biodiversity including priority species, archaeological sites and the landscape itself. These are what we term the commons' "assets".

The management plan addresses the importance of these assets, their current condition and the opportunities for enhancing them.

The assets and the threats to these assets are set out in Tables 1A and 1B.

The most immediate and significant threat to the commons and their assets is that posed by wildfire. The Plan proposes actions to both reduce the fuel load and provide measures that will reduce the spread of wildfire and enable its control.

The management plan is predicated on providing a network of new fire breaks that supplement the existing areas of low vegetation (often paths and tracks) that could provide the basic functions of a fire break including access to fight fire. (Maps 2 A&B).

The positions of the new fire breaks are not precisely fixed but offered as an approximate location that would be useful as a fire break whilst delivering benefits to the local vegetation, archaeological sites, access

routes and opportunities to create habitat for selected species.

The new fire breaks have been mapped to include most of the archaeological sites (SAMs in and out of PALs) that require management to be attain good condition. The routes have also been designed to include selected areas of erosion where alternative routes or simply wider routes should reduce erosion and offer restoration. The fire breaks can also be used to fragment dense vegetation enabling beneficial vegetation and improved conditions for priority species.

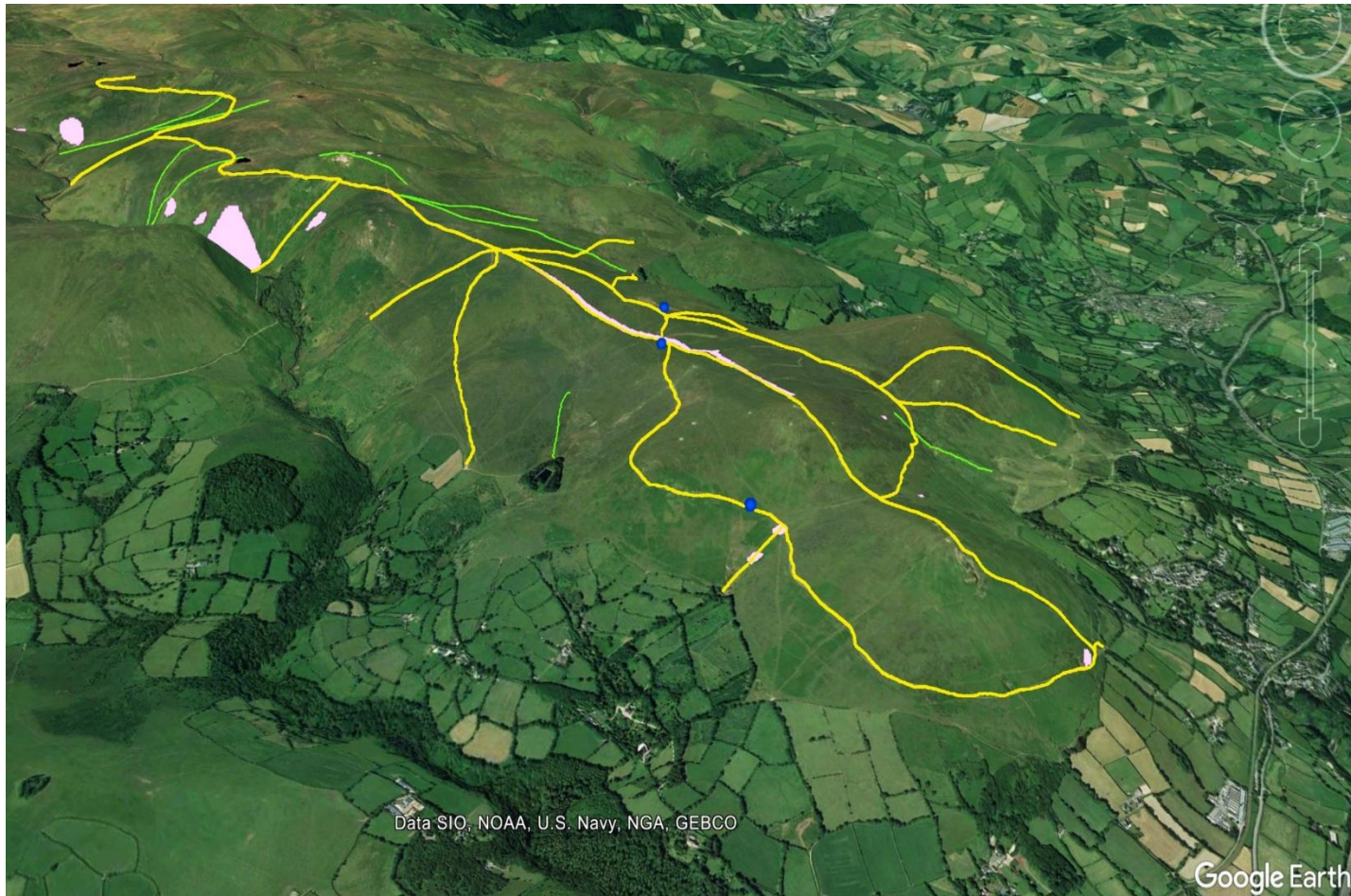
A Fire Plan (A Fire Prevention Plan) is provided separately as a stand-alone document but reflecting many of the ambitions of this management plan.

Table 1 A: Public benefits and goods; importance.

Public goods and services >	public access		landscape	nature				archaeology		carbon / peat	water		food production	soils
	on foot	on bike, horse		priority species	SAC/SSSI	wet & dry heath	acid grassland & bracken slopes	Scheduled sites	landscapes (PALs)		flood alleviation	quality		
Internationally important			yes		yes			some	in part	yes				
Nationally important	yes	yes	yes	some	yes	yes	yes	yes	yes	yes	?	yes	yes	yes
Locally important	yes	yes	yes	yes			yes	yes	yes		yes	yes	yes	yes
resource measured/valued			?	yes	yes	yes	yes	yes	yes	yes		?		yes
Risk (threats)	erosion, disturbance, dogs, vegetation esp. gorse		fire	fire, inappropriate management including grazing, nitrogen deposition, changes to climate, domination of molinia and gorse.				invasive vegetation, hot wild fire		fire, oxidation, erosion	fire, rapid runoff, peat erosion		loss of stock	erosion, poaching, run-off
principal objective	improve access including stock movement		maintain diverse views	species recovery	secure priority habitat	secure priority habitat	improve habitat	sites in good condition		protect peat	reduce run-off, provide more pools		maintain leered stock	reduce erosion
additional opportunities	new routes, engagement with public			provide new habitats	maintain stored carbon, move towards good condition	move towards good condition	recover role accommodating stock?	improved access		protection and management valued	create habitat for priority species, improve access to drinking water for stock		premium paid for meat	

Table 1 B: Public benefits and goods; threats and opportunities

Public goods and services >	public access		landscape	nature				archaeology		carbon	water		food production	soils
	on foot	on bike, horse		priority species	blanket bog	wet & dry heath	acid grassland & bracken slopes	Scheduled sites	landscapes (PALs)		flood alleviation	quality		
threats	erosion, disturbance, dogs		fire, inappropriate vegetation management	fire, inappropriate management including grazing, nitrogen deposition, changes to climate.				invasive vegetation		fire, oxidation, erosion	fire, rapid runoff, peat erosion		loss of stock	erosion, poaching, run-off
opportunities	new routes, engagement with public			species recovery	maintain stored carbon, move towards good condition	move towards good condition	create habitat for priority species	improved condition and where appropriate access		protection and management valued			premium paid for meat	



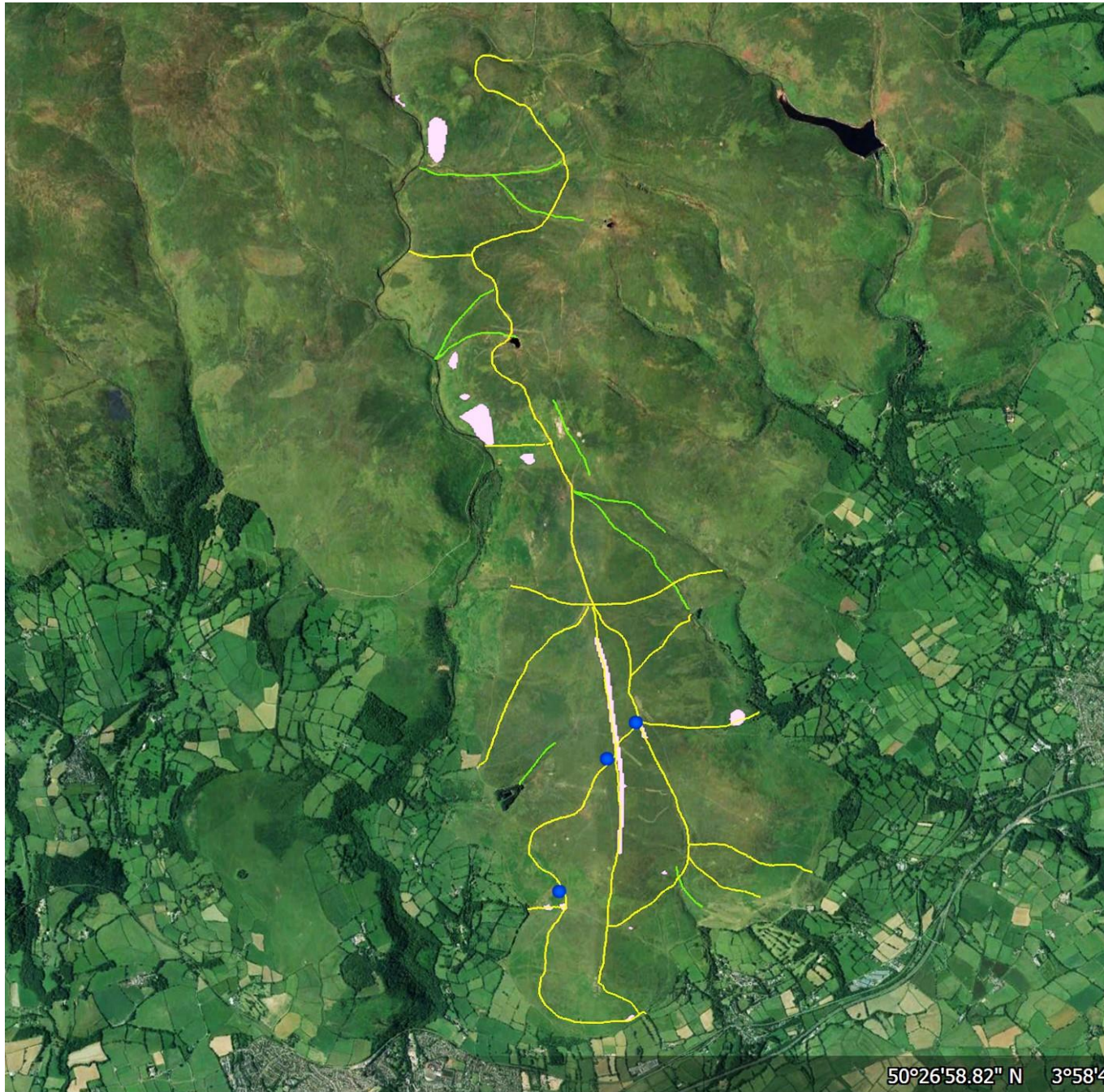
Map 2 A: Proposed fire breaks

Yellow – proposed firebreaks

Green – other vegetation breaks/
possible firebreaks

Blue – proposed locations for
improved water collection

Pink – Archaeological sites needing
vegetation control
(complementary fuel break areas)



Map 2B: Proposed fire breaks.

Yellow – proposed firebreaks

Green – other vegetation breaks/
possible firebreaks

Blue – proposed locations for improved
water collection

Pink – Archaeological sites needing
vegetation control (complementary fuel
break areas)

Vegetation

This section is a description of the vegetation on the commons and an assessment of its condition.

There has clearly been change to the vegetation over the past 50 years. The reasons for these changes are not addressed here but maps showing the vegetation in 1969 and 2021 are provided in Annex 2.

Reviews of the 2023 Corylus Ecology analysis of the 2021 SWEEP survey identify five distinct combinations of vegetation types and history of vegetation change. Map 1 sets out these areas of distinctive vegetation that are evident today.

Note: The boundaries between the areas are only approximate.

Area 1 - Pale blue on map 1.

The area of the commons to the north of Piles Copse is often referred to as an area of blanket bog, and sometimes as degraded blanket bog. In 2021 the SWEEP survey described the majority of the area as grass moor on deep peat.

The area is currently dominated by *Molinia* at the expense of other moorland grasses and ericaceous shrubs. Small areas of mire, wet flushes and wet heath persist. There has been significant disruption by historic peat cutting, some drainage and tin washing along the major watercourses.

This area is the only part of the commons to be officially designated for nature conservation; it is part of the South Dartmoor SSSI.

There is, partly due to the notification, an ambition to restore the bog communities and reduce the dominance of *Molinia* and to restore the mosaic of varied habitats. It is not clear whether this is feasible but work to reduce the oxidation of carbon from former peat cuttings is possible, while working towards a wet heath vegetation would be a positive step, possibly a stepping stone to an eventual active blanket bog community.

This area is considered to be in Unfavourable Condition, unknown trend. (as defined by CMS).

Risks and Threats

- Fire risk is extremely high, posing a threat to the above-ground vegetation and the peat resource. Needs urgent action. The abundance of dead *Molinia* grass creates a significant fuel load and the area is part of a wider landscape exhibiting the same conditions. Wildfire is a significant risk compounded by poor access and made significantly worse by its exposed position.
- The dominance of *Molinia* suppresses or outcompetes other vegetation including priority habitats such as bog vegetation, wet heath and mires and other more palatable grasses.
- *Molinia* provides poor grazing for much of the year and the mat of dead *Molinia* prevents grazing livestock from accessing more palatable grasses, creating a vicious spiral.
- Water absorption is probably adversely affected by the *Molinia*,

and the dead grass mat may also increase water runoff.

- There is likely ongoing oxidation of carbon from the drained and/or cut areas
- In the west of the area is part of the Upper Erme PAL, which has not benefitted from targeted management in recent years as well as SAMs requiring management.

Proposed Actions

1. Reduce fire risk (and optimise ability to fight any fire) by creating and maintain fire breaks. Creating fire breaks by cutting and crushing the *Molinia* will help protect the commons from fire originating on adjacent commons. Designing the fire breaks to incorporate the wetter areas may provide more efficient barriers to fire. However, some fire breaks will need to avoid the wet areas to provide access for firefighting equipment; there are also areas of shorter vegetation e.g. along old tin works or archaeological features, which can form part of the network. Seek advice from DSFRS.
2. Implement a programme to safeguard soil carbon from further

loss. This may involve small areas of rewetting (ditch blocking, leaky dams), but also the reprofiling of peat banks, both targeted at the most cost-effective areas but taking into account possible synergies with fire risk reduction strategy. The areas of rewetting areas will control *Molinia* and encourage other vegetation and impede run-off. The creation of more bog habitat and standing water will benefit various dragonfly species.

3. Reduce the dominance of *Molinia* by extending the cutting and rolling trials. Design trials to provide fire breaks and integrate and follow up with targeted grazing at all times.
4. Re-establish spring cattle grazing in this area. *Molinia* is palatable, and often favoured, early in the year.
5. In the longer term establish a programme of cutting and or targeted grazing which restores areas to good condition and then maintains them as such; action carried out in such a way as to maximise synergy with wider fire risk (and habitat management) work.
6. Other projects have identified potential in this area for works to reduce peak flows on the Erme.

Note: The presence of significant archaeological features must be considered when proposing and undertaking work in this area. Part of the Upper Erme PAL lies within this area.

Area 2 – Yellow on Map 1

This area is on a steep convex west-facing slope. It was whortleberry heath in 1969 but almost uniquely on these commons, it has now been converted to dry acid grassland (as opposed to *Molinia* dominated).

As an attractive area for grazing, this may be one of the few areas where there would seem to be a clear link between current unfavourable condition and current heavy grazing pressure.

It also contains some significant archaeology, which is said to need additional management.

Risks and Threats

- The challenge in this area is mainly how to reverse the vegetation change without creating a new,

Western gorse dominated, heathland community, as has happened in Area 4.

- Continuing poor condition or deterioration of archaeological sites.

Proposed actions

1. Recovering the whortleberry heath will require some experimentation with stock densities and the timing of grazing.
2. Solutions will likely complement those to *increase* grazing pressure seasonally elsewhere.

Area 3 – Green on Map 1.

This area is largely rank *Molinia* with remnant heath. It had previously been heather moorland or whortleberry dominated heath.

The issues and the actions needed are similar to Area 1, there may be limited opportunities for rewetting of peat, but flow regulation is still important, and there may be opportunities for peat bank reprofiling.

The vegetation is in Unfavourable Condition, Unfavourable trend, (as defined by CMS).

Note: The presence of significant archaeological features must be considered when proposing and undertaking work in this area.

Area 4 - Purple on Map 1.

This area is now largely heath that has developed on former acid grassland, but with significant proportion (>50%) of Western gorse and *Molinia*.

Much of the area has a uniform age structure and dominated by gorse and *Molinia*.

Within this area are many important archaeological sites including stone rows. There are two sites requiring imminent management – Lud Brook Long Barrow and Butterdon Hill stone alignment (stone row).

Unfavourable Condition; unfavourable trend, (as defined by CMS).

Risks and Threats

- The heath and especially the dead *Molinia* grasses within the heather and gorse provide a significant fuel load susceptible to wildfire.

- The difficulties of managing the current level of Western gorse suggests that the cover is likely to further increase, moving further away from Favourable condition and to the detriment of the archaeology
- The uniform structure of the heath fails to provide the optimum habitat for most heath dependent species

Proposed Actions

1. Create a network of fire breaks by (where possible) cutting and widening existing tracks. See Map X. This may not be feasible in the wetter areas.
2. Reduce the fuel load by targeted micro-burns and a cutting regime. This would also provide a more varied structure.
3. Address erosion by widening paths where possible. It may be necessary to carry out remedial works where it is not feasible to widen paths. Incorporate paths within network of fire breaks.
4. Retain and enhance grazing in this area while giving priority to areas in the SSSI and PAL.

Area 5 – Dark blue on Map 1.

This area is primarily the lower southern slopes on three sides of the commons, composed primarily of acid grassland with isolated trees and areas of bracken.

The ecological value of scattered isolated trees in this area is significant but 58% of all trees on the common are mature, dying or dead; and only 16% of surveyed trees are saplings, and of these two thirds are planted.

There are six large areas of bracken, and over half of the areas of bracken have a deep bracken litter, greater than 15cm deep, preventing the emergence of the food plants (violets) of the fritillary butterflies, especially on the south-facing slopes which would otherwise seem suitable.

This area is particularly rich in archaeology, with a profusion of scheduled sites and parts of the PALs. Some SAMs are in suboptimal condition.

There are a number of bird species resident or summer visitors to this area. Of particular importance are the small populations of tree pipit, whinchat and cuckoo. See full list in Table 2.

There are areas of European gorse that provide little ecological value but do pose a significant fire risk.

The area is considered to be in suboptimal condition.

Risks and Threats

- The dense stands of bracken and European gorse are a fire risk especially as they are close to the main access routes.
- The condition of the bracken prevents the emergence of the food plants of various priority species.
- The loss of individual trees may have an adverse impact on some priority species.

Proposed Actions

1. cutting, targeted grazing etc. to deliver a mosaic within which good condition is achieved, tying in with wider fire risk reduction and habitat management work including reduction in bracken litter. Adjustment of grazing in different areas to benefit tree regeneration/survival; moorland birds; fritillaries; archaeology respectively as below.

2. Create better habitat for violet-dependent fritillaries, esp. in bracken areas (need litter, but not too much). Focus work on south facing slopes.
3. restore the PAL and SAMs to and maintain them in the condition considered optimum by authorities (DNPA).
4. Increased number of scattered trees.
5. Action to ensure access routes are in better condition and erosion addressed. Area has key role as gateway for access.
6. Assess potential for experimentation for habitat improvement/restoration including for improved habitat for moorland fringe birds (tree pipit, whinchat and cuckoo).

Table 2: Target species on Harford and Ugborough Commons

taxa	name	UK status	source	local distribution	habitat	Main distribution			
Birds						P = potential			
	Snipe	Orange	Birds of Conservation Concern 5 2021	small and vulnerable breeding population	mire and blanket bog	1			4
	Cuckoo	Red		very small local breeding population	heath + isolated trees			3	4
	Skylark	Red		small local breeding population	grassland , short vegetation		2	3	4
	Tree pipit	Red		small local breeding population	bracken + isolated trees				4
	Meadow pipit	Orange		small local breeding population	grassland , short vegetation			3	4
	Whinchat	Red		may remain as breeding species	bracken, grass + heath mosaic				4
	Stonechat	Green		widespread resident	heath + grassland		2	3	4
	Wheatear	Orange		small local breeding population	grassland , short vegetation	1	2		
	Grasshopper warbler	Red		very small local breeding population	damp rank veg nr mires				4
	Dartford warbler	Orange		absent, historic records	heath			P3	
	Linnet	Red		localised breeding population	heath + gorse			3	4
	Lesser redpoll	Red		very small local breeding population	heath + trees				4
	Yellowhammer	Red		very small local breeding population	heath + bushes				4
	Reed bunting	Orange		very small local breeding population	mire, blanket bog	1	2		
Dragonflies & damselflies (Odonata)									
	Small Red Damselfly	Scarce	State of Dragonflies 2021	sparce local breeding population	mire, wet flushes and bog	1	2		4
	Scarce Blue-tailed Damselfly	Declining		small local breeding population	mire, wet flushes and bog	1	2		4
	Common Hawker	Declining		sparce local breeding population	pools and wet mires	1	2		4
	Keeled Skimmer	Scarce		small local breeding population	mire, wet flushes and bog		2		4
	Black Darter	Declining		sparce local breeding population	pools and wet mires	1	2		4
Butterflies									
	Small Pearl-bordered fritillary	Red	State of Butterflies in UK 2022	absent, historic records	bracken + violets				P4
	High Brown fritillary	Red		absent	bracken + violets				P4
	Marsh fritillary	Red		absent, historic records	mires, bogs and wet grassland		P2		P4

Archaeology

The historic environment on the commons is of great importance. The density, intervisibility and variety of sites combine to make this area one of the finest for archaeology in Europe.

Many of the archaeological sites are listed as Scheduled Ancient Monuments (SAMs) conferring national importance. New sites are occasionally revealed during vegetation management and surveys, whilst on going excavations continue to improve the information base.

In addition to the nationally important SAMs two Premier Archaeological Landscapes (PALs) cover parts of the commons. The vegetation within the PALs requires specific site-based management. See Annex 5 for maps of both PALs and relevant information.

List of 17 SMs requiring attention in Table 3 and on maps 4 & 5 (not sites 15, 16, 17). All provided by DNPA.

Threats and issues.

- Encroachment of vegetation, especially bracken and gorse, on to important sites.
- Impact of a hot wildfire is a threat to most monuments.
- Erosion.
- Lack of information on the location of significant sites.
- Vehicles (4x4 and quad bikes) and mountain bikes damaging sites.

Caveat: uncertainties remaining

There remains a number of aspects of the management of archaeological landscapes that require further clarification. A meeting with the archaeologists to clarify the outstanding issues is recommended.

In particular:

- The type and height of vegetation within the PALs. Whilst the inter-visibility of the archaeology requires 'short vegetation', it is not clear what this means in practice.
- The current condition of the two PALs.
- The DNPA archaeologists have provided a map of where they would

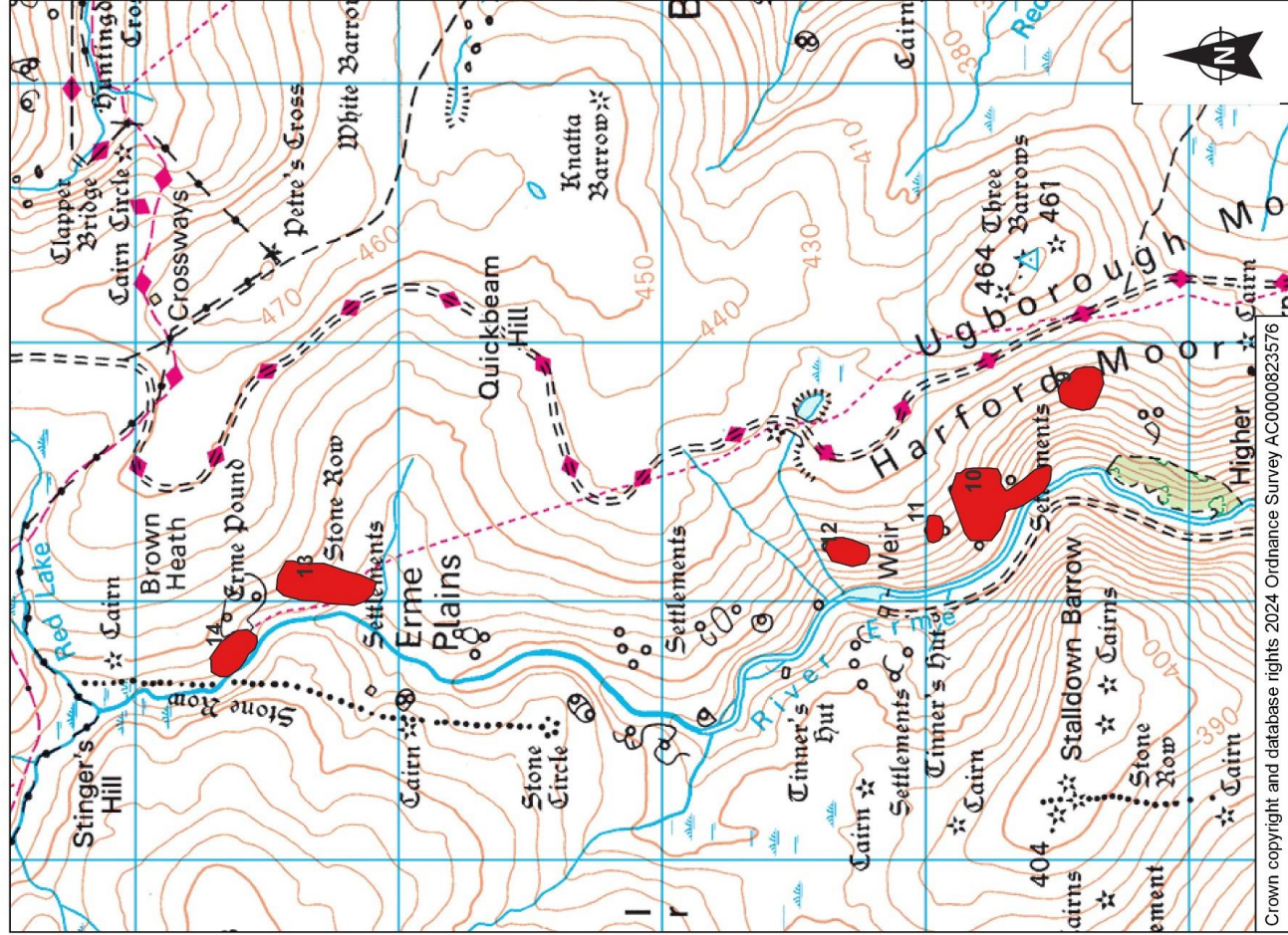
wish to see grazing reduce the height of the vegetation. The implication for the PALs is not clear. See map 5 and maps in Annex 5.

Potential actions/solutions and opportunities.

1. Removal of inappropriate vegetation from around selected sites.
2. Ensure the grazing regimes secure the landscapes required within the PALs.
3. Provide map of significant sites to all owners and graziers, see maps 4 and 5.
4. Agree the vegetation management within each PAL.
5. Re-route routes used for accessing livestock.

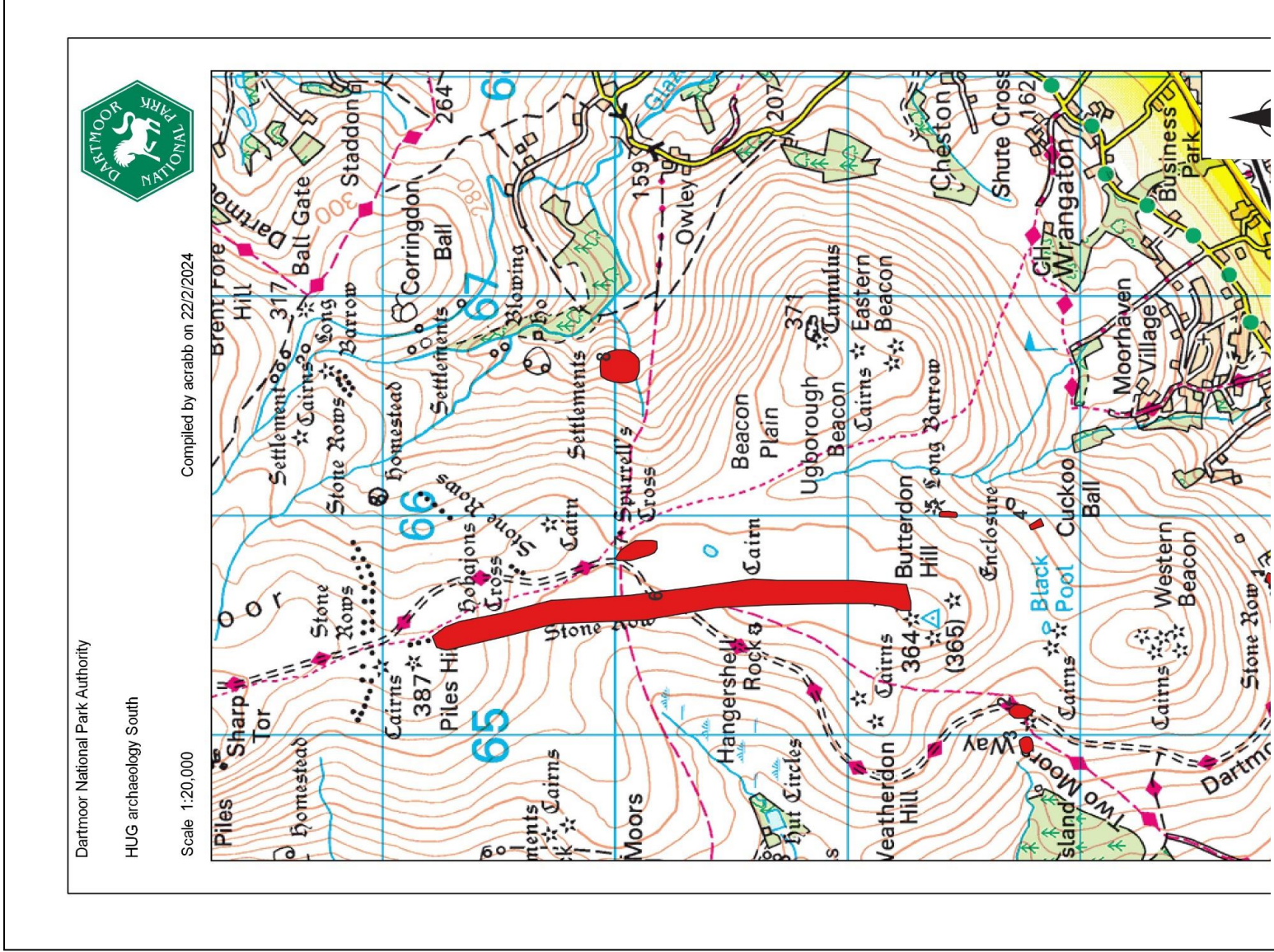
Table 3: Archaeological sites requiring management

No.	Area	Site name	Grid ref	Butler	SM	HER	Issue
1	4	Cantrell gate stone row	SX 6569 5716	MAP 53, SITE 12	1017604	MDV2889	Bracken
2	4	Addicombe Corner prehistoric enclosure (E)	SX6510 5825	MAP 53, SITE 1	1012484	MDV3117	Bracken
3	4	Addicombe Corner prehistoric enclosure (W)	SX 6496 5823	MAP 53, SITE 1	1017609	MDV2839	Bracken
4	4	Cuckoo Ball prehistoric chambered cairn.	SX 6559 5818	MAP 53, SITE 7	1012284	MDV2885	Bracken
5	3	Lud Brook Long barrow	SX 6600 5856	MAP 53, SITE 15	1012247	MDV 2886	Bracken
6	3	Butterdon Hill stone alignment and cairn	SX 65605975	MAP 53, SITE 8	1012486	MDV 2988	Erosion and vegetation
7	2	Spurrell's Cros stone row and cairn	SX 65835990	MAP 53, SITE 10	1012460	MDV 2890	vegetation
8	2	Scad Brook Enclosure	SX 6667 5997	MAP 56, SITE 2	1012485	MDV 2913	Bracken
9	4	Enclosure with hut circles to the north-east of Piles Copse	SX 6482 6240	MAP 54, SITE 8	1013106	MDV 4253	Bracken
10	4	Unenclosed stone hut settlement with enclosures north of Piles Copse	SX 6456 6250	MAP 54, SITE 9	1012765	MDV 4289	Bracken
11	4	Unenclosed stone hut settlement on the east side of the Erme Valley, north Harford Moor	SX 6429 6296	MAP 54, SITE 9	1012747	MDV 4286	Bracken
12	4	Hut circles and enclosure to S of Left Lake	SX 6418 6328	MAP 54, SITE 11	1004574	MDV 4251	Bracken
13	1	Stone row, cairn and enclosures near Hook Lane, Erme	SX6406 6526	MAP 55, SITE 4	1002493	MDV 5135	Bracken
14	1	Hut circles in Erme Pound E of River Erme	SX6375 6564	MAP 55, SITE 6	1002604	MDV 5110	Bracken
15	4	Butter Brook stone row	SX6516 5996	MAP 53, SITE 11	N/A	MDV13166	Scrub
16	1	Piles Hill stone row	SX 6542 6106	MAP 54, SITE 19	1013033	MDV5662	Low W gorse
17	2	Enclosure near Glaze Meet	SX6671 6029	MAP 56, SITE 3	N/A	MDV5671	Bracken



Map 3: Archaeological sites requiring management – north.

Map



Map 4: Archaeological sites requiring management – south.



Map 5: Areas of preferred short vegetation to benefit archaeological sites.

Light grey – PALS

Darker green – areas where veg management would benefit archaeology

Light green – both the above

Landscape

The Harford and Ugborough commons are an integral part of the Dartmoor landscape and fall within the Dartmoor National Park boundary.

This area of common is highly visible from the A38 Plymouth to Exeter main trunk road and for thousands of people each year the impressive Ugborough Beacon and Western Beacon are their only view of Dartmoor. Changes to the vegetation including cutting of fire breaks have the potential to impact on this view. Closer to the moorland, it becomes difficult to see the commons and then the only opportunity to see the extensive landscapes is from the higher vantage points within the commons' boundary.

Issues relating to landscape:

- loss of traditional farming
- Inappropriate cutting, including fire breaks that create hard edges and rectangular blocks of vegetation (avoid straight lines and grids).
- tree planting that restricts the wider vista or creates new sharp edges.
- Effects of wildfire.

- Relative perceived attractiveness within the landscape of heather and other vegetation types

Potential solutions include:

1. Assess potential visual impact of all works, especially any burns and extensive cutting of vegetation.
2. Increase number of trees in valleys where there is no potential conflict with archaeological sites.
3. Sustain extensive grazing by cattle, sheep and ponies.

Carbon storage and soils

The hill slopes are convex and flatter towards the tops resulting in soils that are less well drained and tend to be peaty. There is often a clear line to be seen where the drier, steeper, stonier soils, dominated by fescue grasses and bracken, give way to wetter, peaty soils dominated by gorse and *Molinia*.

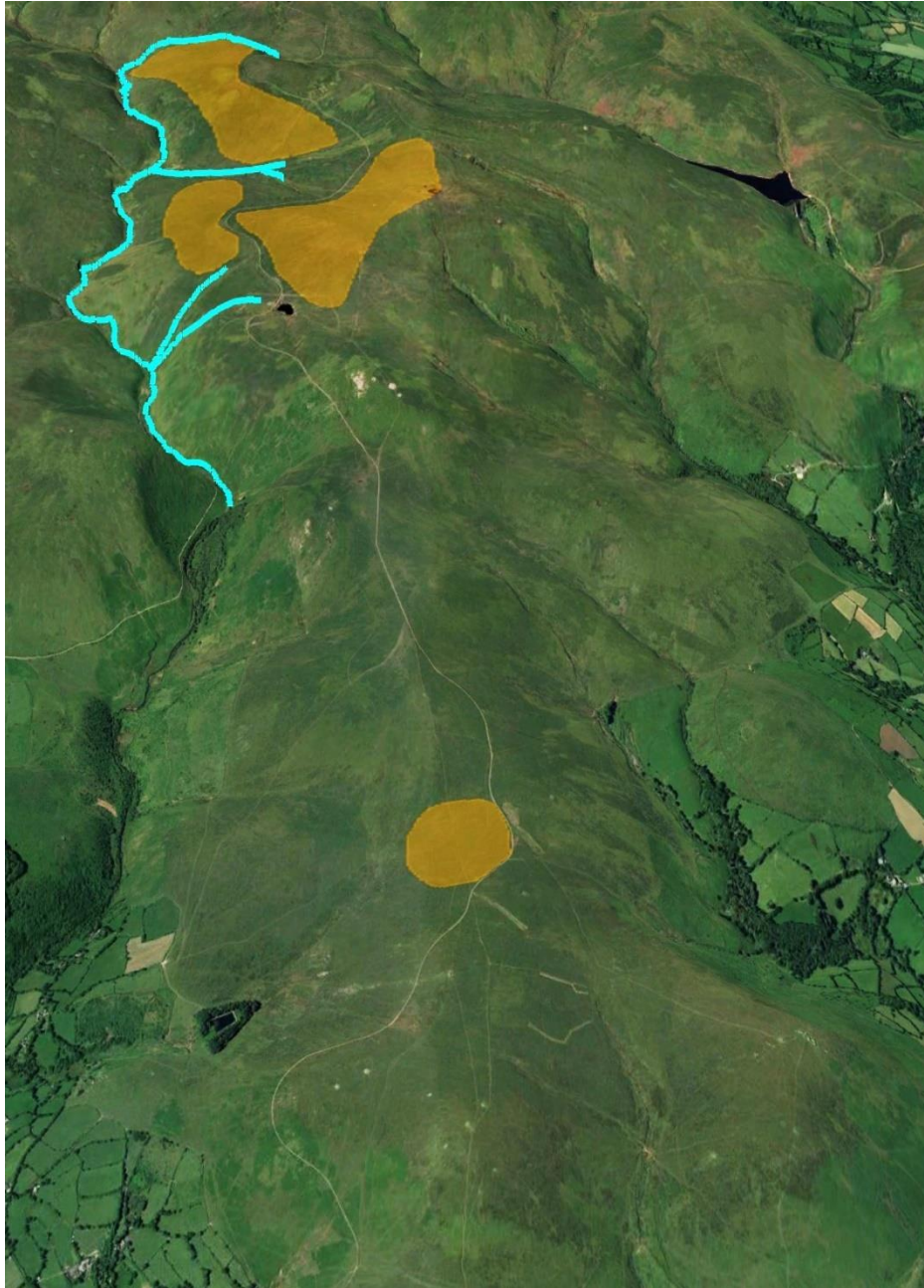
In parts of the northern half of the two commons the peaty soils merge into genuine peat that holds a significant source of carbon. North of Three Barrows, the peat is up to about 600 mm in depth extending across much of the upper commons. These extensive reserves have in the past been impacted by peat cutting, tin streaming and packhorse tracks, and in the early twentieth century by the mining of clay at Leftlake, with its attendant infrastructure of drains, railway track and slurry pipe. There remain large areas of peat soils, with some pockets still in good condition and much of the area capable of restoration with appropriate treatment, in particular reprofiling of the thousands of old peat banks.

Threats and issues.

- Wildfire
- Dominance of grasses, especially *Molinia*, preventing accretion of peat.
- Compaction of soils and site-specific erosion that exposes underlying peat.

Potential actions/solutions and opportunities.

1. Remove fuel load and reduce dense areas of *Molinia*.
2. Expand re-wetting trials.
3. Commence reprofiling of peat cutting banks to reduce exposed peat.
4. Reduce user pressure on selected paths by providing alternative routes (often fire breaks) and crossings over water bodies.



Map 6: Areas suitable for re-wetting and/or re-profiling.

Light blue – Areas with highest flow dampening work potential

Brown – (convex slope) areas with potential for re-wetting or restoration of peat banks and exposed peat.

Water flow management

The hydrology of the watercourses, soils and vegetation on the commons controls the flood regime on the lower sections of the Erme and Avon.

Ideally, the catchment has a large capacity to absorb, or at least slow down water received in rainfall events and to release this water over time, thereby maintaining adequate baseflows in those same rivers. The overall effect is to dampen down flood peaks by lengthening the time over which the water reaches the lowland.

Opportunities to reduce flood peaks include:

- Increasing the water retention capacity of soils to reduce surface flows.
- Increasing the 'roughness' of vegetation so as to slow down any surface flows.
- Increasing the sinuosity of water courses.
- Increasing the use of floodplains, again increasing the 'roughness' of water courses.

- Creating obstacles to water flow within channels or over surfaces where surface flow is common.

Map 6 above shows the reaches of the upper Erme and its tributaries where water flow management measure opportunities have been identified.

Vegetation changes, including dry acid grassland to heathland and Molinia to heathland or fully functional blanket bog, could all benefit water flow management.

Public Access

There is public access throughout both commons. The commons are accessed from the south by nine formal access points with only one of these providing off road parking at the discretion of the common's owner (not always available). Car parking is also provided at the railway station in Ivybridge. In addition to walkers many of the tracks are used by cyclists and horse riders.

The Plymouth and SW Devon Local Plan, 2014 to 2034, proposes 540 new houses east of Ivybridge. The commons' close proximity to this urban development and to further development in South Brent is likely to result in an increase in visitors from the local community.

The Redlake railway track is not a legal route for bicycles but is widely used and even promoted as a good route. In practice it is much better than the legal bridleways because of its metalled surface. Vehicle use on the old railway track is restricted to owners, farmers and the emergency services. Farmers are requested to use only quad bikes or other low ground pressure vehicles when off the Redlake railway track

(except for access over Bullaven Hill to Lower and Higher Piles).

The Two Moors Way long distance footpath uses the bridleway from Stowford Moor Gate to join the Redlake track above Addicombe, and then along the track to the Dartmoor Forest to the north.

There are nine public access points on to the two commons, all towards the southern end. A list of the access points is available in Annex 4.

Threats and issues.

- Many of the access points are narrow and subject to erosion, significant, in some locations.
- The old railway track is damaged in some parts.

Potential actions/solutions and opportunities.

1. Incorporate new routes within network of fire breaks.
2. Ensure remedial works are carried out on main access for emergency service vehicles (the old railway track).

3. Widen existing paths where this is practical.
4. Address site specific erosion especially at those sites identified on Map 7.

Farming

Harford & Ugborough Commons are extensively grazed by cattle, sheep and ponies. All grazing is by livestock owned by farmers with commoning rights and today all the graziers' home farms are contiguous to the commons. Historically Harford & Ugborough Commons were managed under separate Commons Associations. However, as the commons are contiguous and the majority of graziers had common rights over both commons, the Associations were merged.

At the start the Environmentally Sensitive Area (ESA) agreement in 1999 there were in excess of 20 commoners exercising their rights as well as those who would have turned stock out at odd times during the year. Ten years later at the start of the Higher Level Stewardship (HLS) agreement the number of graziers had reduced to seven.

Livestock numbers are currently controlled by an agri-environment agreement. The numbers of sheep, cattle and ponies has fallen consistently over the past 25 years. Cattle are returned to the common in April and all have to leave by December with a

peak in numbers between June and August. Sheep graze throughout the year with the highest numbers in January and fewest in April when ewes leave the moorland to lamb. Ponies graze throughout the year.

Most of the cattle and sheep are leared to specific parts of the common although the density of grazing animals is now often insufficient to keep stock on their lea. There is also some movement of stock to and from adjacent or contiguous commons.

Threats and issues.

- Retention of farmers willing and able to provide grazing animals on the commons.
- Retaining sufficient numbers of cattle and sheep to be viable.
- Cattle are unavailable to graze *Molinia* when it is palatable (March and April), vigour declines if 40% of annual production removed each year. (Symes & Day)
- There is a lack of cattle on the higher areas where they are most needed.
- Worrying of stock by dogs is an issue and can cause movements of stock in

addition to injuries and death to sheep.

- Some of the routes required for the movement of stock are narrow and potentially dangerous for those using quad bikes.
- Restricted access to drinking water for livestock leads to erosion where it is available.

Potential actions/solutions and opportunities.

1. Enable early year grazing particularly on the higher ground. This might require a move to autumn calving and the use of novel technology (collars).
2. Improve routes for gathering and shepherding livestock, including stream crossings.
3. Provide information on location of sensitive archaeological sites so as to avoid damage from quad bikes and other vehicles.

Part 3: The work plan - selected actions and suggested timeframe for delivering the management plan

	Work	when				where				who	info
		1 year	5 year	10 year	20 year	1	2&3	4	5		
Fire Prevention Plan (assumes fire plan agreed with owners & Fire Service in place)	1 create fire breaks					1	2&3	4	5	Ow + CA	as plan, also benefits 8,9,10, 13, 15
	2 maintain fire breaks					1	2&3	4	5	CA	
	3 review and create additional fire breaks					1	2&3	4	5	All	amend plan
	4 ensure access tracks in good condition					1	2&3	4	5	Ow	as plan
	5 ensure Fire Service updated									?	
	6 reduce fuel load (Molinia and gorse), by cutting, rolling, swaling and re-wetting.					1	2&3	4	5	CA	as plan, + benefits 8,11,13,19
	7 create additional sources of water.									?	as map
Access & erosion (assumes fire plan in place)	8 carry out reprofiling of peat banks					1	2&3			Ow/NP	as plan, potential to benefit 19
	9 widen paths & access routes if not already addressed by fire breaks						2&3	4	5	?	as plan, also benefits 1, 15, 19
	10 maintain widened paths						2&3	4	5	Ow/NP	
Archaeology	11 bring SM sites into good condition, as list						2&3	4	5	Ow, CA + NP	as list, benefit 1, 8
	12 maintain SM sites						2&3	4	5	Ow + CA	as list
	13 address vegetation in PALs					1	2&3		5	Ow + CA	see PAL management, benefit 1, 11
	14 Maintain PALs					1	2&3		5	CA	see PAL management
Nature	15 cut additional fire breaks within areas of bracken and create more south facing edge between short veg. and bracken.						2&3		5	CA	potential to benefit 1,9
	16 remove bracken litter from selected sites focusing on south facing slopes.						2&3		5	CA	reduce fuel load 6
	17 Cut and/or swale heath if fire breaks fail to provide correct structure.							4		Ow + CA	as plan
	18 extend rewetting trials & monitor					1				Ow + NP	benefit 6
	19 continue efforts to suppress Molina					1	2&3	4		All	benefit 6
	20 establish early spring grazing					1				CA	
	21 trial winter cattle grazing					1	2&3			CA	benefit 6
	22 plant more trees on edges of common and enable regeneration of trees in selected areas, including within areas of bracken.								5		
Carbon storage	23 more grip blocking and re-wetting					1	2&3			Ow + NP	
	24 reprofiling peat banks					1					benefits 6,19, 20
Water quantity	25 trial tree planting & monitor						2		5	NP	reduce flood risk downstream

KEY	
areas of distinctive vegetation	
1	grassland over peat
2 & 3	Molinia dominated remnant heath
4	heathland / possible heathland
5	grass, bracken and stands of gorse
Ow	owners
CA	commoners association including individual commoner
NP	DNPA specialist
All	owners and commoners
PAL	Premier Archaeological Landscape
SM	Scheduled Monuments = Scheduled Ancient Monuments

Part 3: Monitoring progress

A monitoring plan should be agreed prior to carrying out any works. A monitoring plan is essential to demonstrate delivery and also to measure success so that successive effort can be amended to be more successful in delivering the required outcomes.

Monitoring by a third party should also be considered. This might be more relevant to specific species (e.g. fritillary butterflies and birds). Expert support from archaeologists will be essential to measure progress in improving the condition of the SAMs and PALs.

Progress/success for most of the proposed actions has a qualitative as well as a quantitative element: fire breaks need to have a certain minimum standard of vegetation structure in order to be effective if and when fire strikes; habitat management is designed to address at least some of the metrics set out in Common Standards Monitoring (there are 16 criteria for dry heaths, for example).

In each case, the association should consider, before undertaking any work, what monitoring technique would be appropriate, and carry out pre-intervention baseline monitoring.

At the larger, whole-commons, scale, the Dartmoor Test and Trials scorecard provides a good overview which could be used to monitor broad scale progress and to give an indication of the areas where progress is most needed.

In general, the card seems to give a clear set of policy messages. However, two elements need further clarification by the relevant authorities (NE, HE), namely:

- The message for PALs, within SSSI and outwith SSSI. Does it call for the (vast?) majority of vegetation to be cropped low or just for field boundaries to be visible? The scorecard needs to reflect the recommendations.
- The message as regards trees and scrub, and natural regeneration. Currently rewarded fully only on bracken/European gorse dominated areas, should this be extended, as CSM allows up to 20%, to dry and wet mosaics, or to dry mosaics only, or what? Again, any changes should be reflected in the scorecard.

Monitoring using the card should be carried out in summer 2024 sometime after May. Some late season monitoring to allow the noting of grassland fungi (take dated and geolocated photographs) should be considered.

Repeat surveys should only be carried out after sufficient time has elapsed to allow change to occur; in the interim, partial surveys on areas where actions have been carried out are advised, in order to measure progress and/or regression. Such work can help indicate best practice or inform return periods for repeated actions, for example.

Part 4: Annexes

Annex 1A: List of acronyms and abbreviations used within the text.

Butler; archaeological sites listed by Butler, Dartmoor Atlas of Antiquities, 1998.

CMS Common Monitoring Standards; a specific monitoring method for Sites of Special Scientific Interest. It uses indicators of success to determine whether the habitat and species for which the site is designated for are in favourable, unfavourable improving, unfavourable – maintaining or unfavourable declining condition.

JNCC, <http://www.magnificentmeadows.org.uk/advice-guidance/how-can-i-survey-and-monitor-my-grassland/surveying-and-monitoring-grassland-habitats>.

DaCC Dartmoor Commoners' Council

DNPA Dartmoor National Park Authority.

DSFRS Devon and Somerset Fire and Rescue Service.

EFNCP European Forum on Nature Conservation and Pastoralism

European Gorse; (common gorse) *Ulex europaeus* widespread and can grow to 2m.

HER on Heritage Record, DNPA.

HUG Harford and Ugborough Commons, as one unit.

Molinia Purple moor-grass, *Molinia caerulea*.

PAL Premier Archaeological Landscape (DNPA designation)

SAC Special Area of Conservation from European Habitats and Species Directive (denotes international importance).

SAM & SAMs Scheduled Ancient Monument(s) (national designation) interchangeable with SM.

SM & SMs Scheduled Monument(s) (national designation).

SSSI Sites of Special Scientific Interest (national designation) from 1981 Wildlife and Countryside Act.

SWEEP The South West Partnership for Environmental and Economic Prosperity (SWEEP) a research-focused partnership, between 2017-2023.

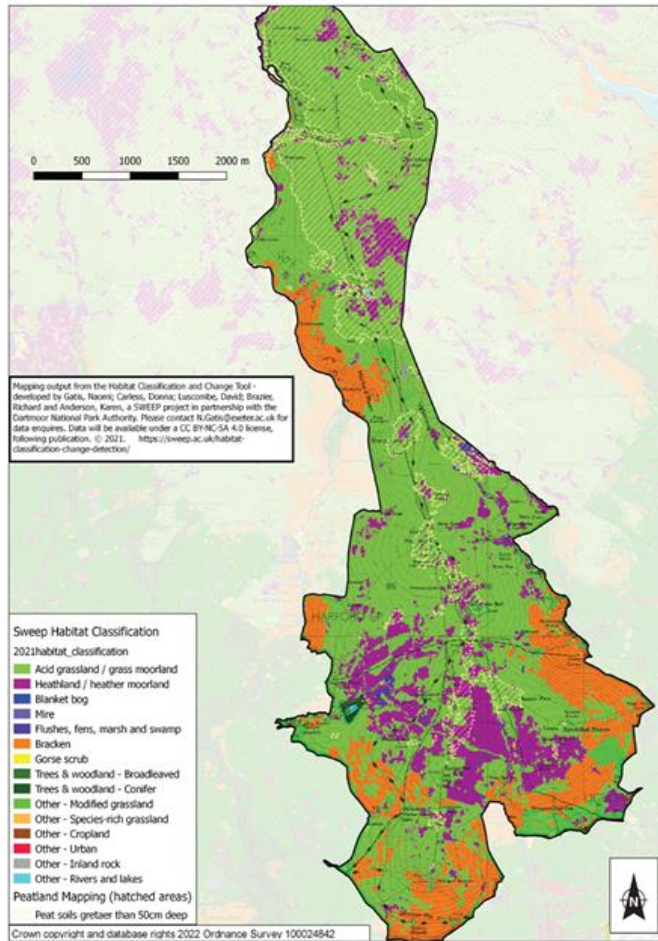
Western Gorse *Ulex gallii* widespread and a dwarf species.

Annex 1B: References

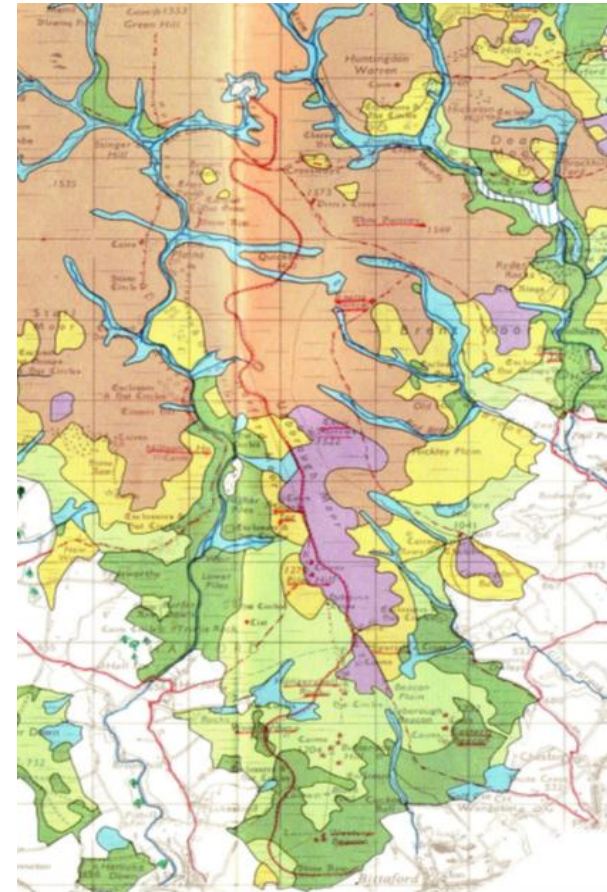
1. Symes & Day, A practical guide to the restoration and management of lowland heath, RSPB 2003. See 4.7.1 *Molinia* control.
2. Proctor, Michael; Vegetation of Britain and Ireland, New Naturalist 122, 2013.
3. LUC for DNPA, A Landscape Character Assessment for Dartmoor National Park, 2017.
4. CORYLUS ECOLOGY, Dartmoor Moorland Habitat Mapping and Assessment Report for Harford and Ugborough Moors, South Dartmoor, Date of surveys November 2022 - March 2023, 2023.
5. Harford and Ugborough Moors; management of a Common Vision, Harford and Ugborough Commoners' Association, draft June 2019.
6. Draft Management Plan: Harford and Ugborough Commons, Our Common Cause, October 2019.
7. Harford and Ugborough Moors, Management Plan – Evolving Draft, J Howell, November 2023 + amendments.
8. Vision for Harford & Ugborough, undated, Heritage Lottery Fund.
9. Harford and Ugborough Moors Common Cause: Vision for Birds, 2019, RSPB.
10. Whinchat range changes on Dartmoor A short summary of the project findings. Common Cause, Heritage Fund & RSPB, undated.
11. Dartmoor Delivery Plan for Pearl Bordered and High Brown Fritillaries, Butterfly Conservation, undated.
12. Dragonflies in Devon, Dave Smallshire, January 2021.
13. Key moorland birds on your common: Harford & Ugborough Commons, Dartmoor Moorland Bird Project, supported by RSPB, Duchy of Cornwall, DNPA, DaCC, the Heritage Lottery Funded Moor Than Meets The Eye Landscape Partnership, Natural England, Dartmoor Preservation Association and Devon Birds.
14. Managing *Molinia*? Proceedings conference September 2015, National Trust, Edited by Roger Meade.

Annex 2: Vegetation maps

Selected survey maps created following analysis of ariel photographs.



Map from Corylus Ecology 2023 from SWEEP survey in 2021.



Map Extract of the Vegetation Map of Dartmoor published in 1979, but based on 1969 air photographs and methodology described in a paper by Ward et al. in 1972.

Annex 3 - Landscape

Primarily for its outstanding landscape, the Dartmoor National Park was designated in 1951 confirming its national importance.

The special qualities associated with Dartmoor and particularly relevant to the two commons include:

- open, windswept upland moors with far reaching views and a sense of remoteness and wildness, distinctive granite tors surrounded by loose rock or 'clitter', and large expanses of grass and heather moorland, blanket bogs, and valley mires providing habitats for distinctive wildlife,
- one of the most important archaeological landscapes in western Europe revealing a chronology of human activity stretching back over 8,000 years,
- traditional farming practices, using the moorland commons for extensive grazing of hardy cattle, sheep and ponies.

Within the Dartmoor Landscape Character Type Classification three of the landscape types are relevant to this area of common.

- 1K – Unsettled High Upland Moorland
- 1L – Upland Moorland with Tors
- 2D – Moorland Edge Slopes

The *A Landscape Character Assessment for Dartmoor National Park*, LUC for DNPA, 2017 provides guidance on how these special qualities may be protected and enhanced. The proposals in this management plan seek to complement these proposals and to make the Dartmoor wide recommendations relevant to the local area, whilst addressing additional issues identified by the owners and managers of the land.

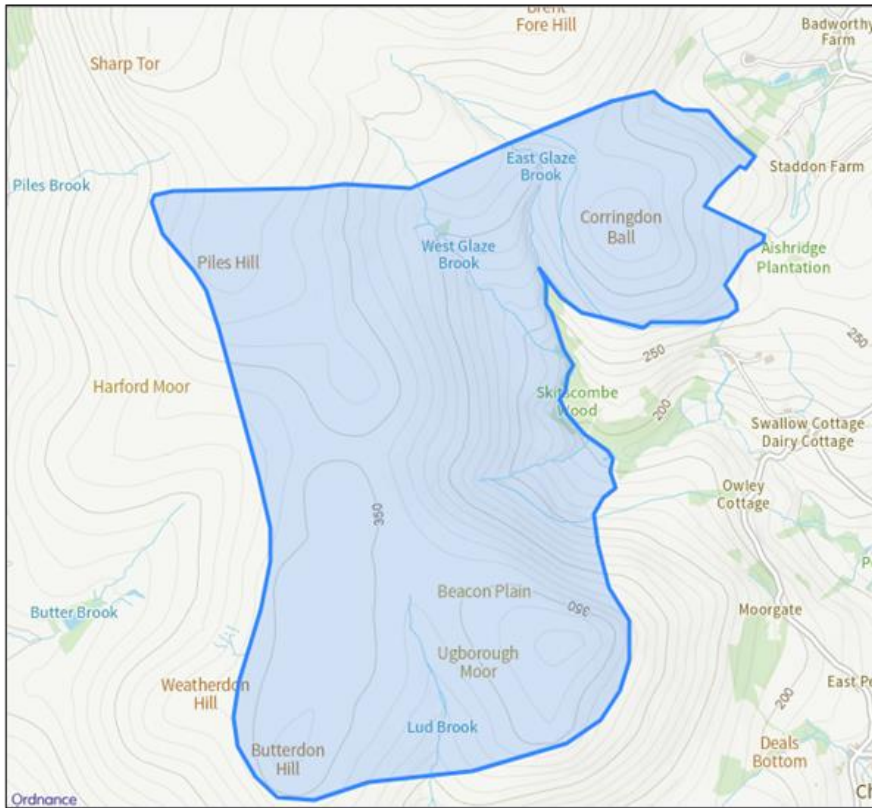
Annex 4: Public Access

Public access points

1. Harford Moor Gate has a small car park with a capacity of 15 to 20 vehicles, where parking was formerly permitted free by the landowner. It was frequently full in the summer, and additional cars tended to be parked nearby in the public lane, blocking gates. Harford Moor Gate became more heavily used after the closure of land for parking at New Waste, on the opposite side of the valley against the neighbouring common. In 2016, a locked barrier was placed at Harford Moor Gate, and the burnt wooden gate replaced with a steel gate and cattle grid. These measures curbed the worst abuses of public access but did not stop them completely. In February 2021, with excessive numbers of car-based visitors causing widespread damage to the sward on wet ground, the car park was closed.
2. The Stowford Moor Gate is at the head of the old drove track from the ancient manor and farm at Stowford, on the public road just above Ivybridge, and is less than a mile from this town of about 14,000 people. The Stowford Lane is a public bridleway and part of the Two Moors Way, a well-known long-distance walking route. It is consequently always busy with walkers, many with dogs, riders and cyclists.
3. David's Lane runs up to the moor from Davey's Cross. Parking here is very limited.
4. Cantrell Moor Gate lies at the top of a steep, narrow lane running up the hill from the Clay Factory. It has space for parking in the lane on the approaches to the gate. Deep erosion on either side of the metalled portion, and projecting boulders, have made parking here hazardous.
5. Leigh Moor Gate
6. Wrangaton Golf Club occupies a portion of the common of Ugborough Moor, and also represents a popular access point.
7. East Peeke Moor Gate has limited space for parking in the public lane on the approaches. Erosion caused by heavy runoff from the moor has made one parking area hazardous to park in.
8. Owley Moor Gate is a pedestrian access gateway, also where the bridleway to Harford via Spurrells Cross enters on to the moor. There are no parking spaces in the public lane on the approaches.
9. A further access route exists from Palace Lane, which runs up from North Fillham (now subsumed into the eastern end of Ivybridge).

Annex 5: Archaeology; The premier Archaeological Landscapes (PALs).

Ugborough Moor PAL.



This PAL contains the most complex ritual landscape on Dartmoor. The remains of two of only a handful of Neolithic burial mounds on Dartmoor, known as long cairns, are to be found here, at Corringdon Ball (outside of the management plan), and east Butterdon Hill. These are the oldest known monuments on

Dartmoor, the Neolithic period lasting from c. 4500BC to c. 2,300BC. Remains of the long mound of earth and stones, with vestiges of a stone chamber at one end can be seen.

The PAL also contains a remarkable number of stone rows, constructed around 4000 years ago, occupying the saddles between hill summits and the hill sides. There are five single rows, one

double row and a complex of seven parallel rows. This latter, on the edge of Corringdon Ball, is unique. The stone row on Butterdon Hill is the second longest on Dartmoor with a length of about 2 km (1¼ miles); all the stone rows have burial sites (cairns) associated with them.

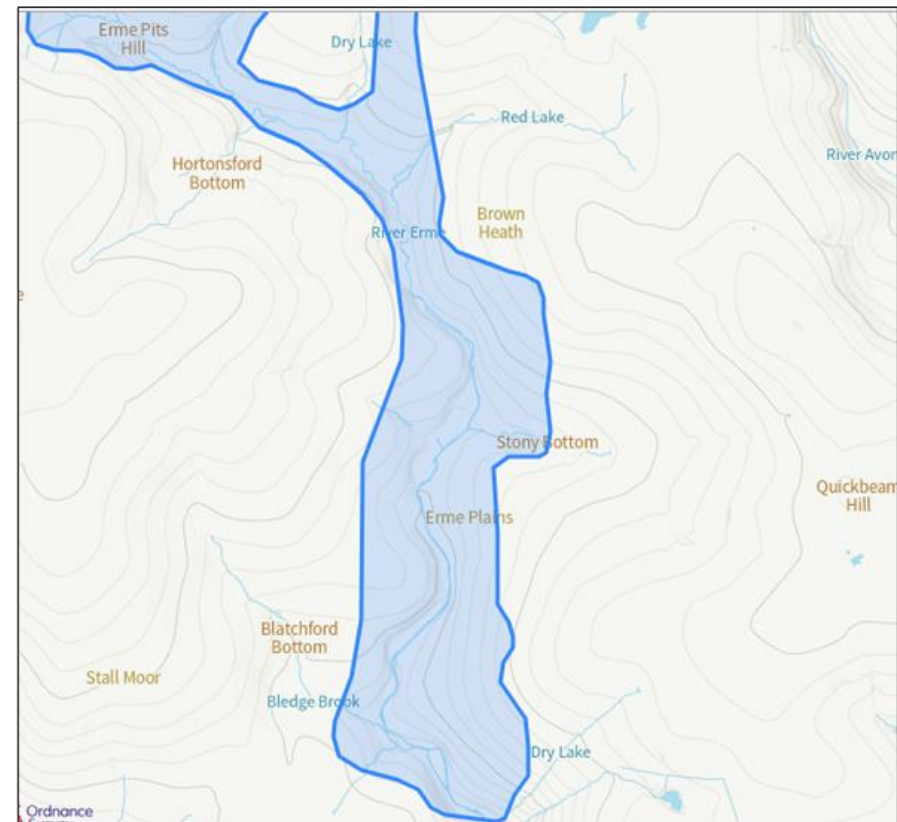
All the hill summits are occupied by large prehistoric round stone-built burial mounds (cairns) that command extensive views over much of the South Hams. From these locations other summit cairns can clearly be seen on the skyline. Further round cairns are often found clustered around the summit cairn or located in prominent locations nearby. The largest round cairn on Dartmoor is sited on the summit of Three Barrows. These highly visible and intervisible cairns are sometimes called prestige cairns and possibly served the dual function of burial place and territorial marker.

Some prehistoric settlement is located along the West Glaze Brook and on Corringdon Ball and is believed to be about 3,500 years old. The turf-covered remains of stone built round houses (hut circles) are to be found in both open groups and within enclosures formed by dry stone walls.

The valley bed of the East Glaze Brook has been worked for tin ore, probably in medieval times. There is a remarkably regular pattern of parallel tin prospecting pits north of Butterdon Hill.

All the stone rows, the majority of the cairns and most of the settlement sites have been designated as Scheduled Ancient Monuments (SAMs).

The Upper Erme PAL.



Upper Erme PAL

PAL contains the world's longest stone row as well as several prehistoric settlements and a high concentration of tinner's buildings.

The remotely sited prehistoric stone row, constructed about 4000 years ago, runs northwards parallel with the River Erme, which it crosses half way, for a distance of 3.4km (just over two miles). There are almost 1000 stones in the row, mostly very small.

Extensive prehistoric settlement, around 3,500 years old, survives along the River Erme between Dry Lake and Red Lake. The remains of stone built round houses (hut circles) lie scattered on both sides of the river, some free-standing, others in enclosures formed by dry stone walls impressively visible in the landscape. Erme pound, located on the western slopes of Black Heath is amongst the largest surviving on Dartmoor.

The entire length of the Upper Erme valley floor has been worked for tin. The surrounding tributaries have also been extensively

investigated. These tinworks are some of the largest, but also amongst the most remote on the moor and it is of no surprise that a large number of stone built rectangular tinner's buildings (built for shelter and storage) survive in the area. At least 28 structures have been identified; these were probably built in medieval or later times.

The stone row and many of the settlement sites have been designated as Scheduled Ancient Monuments (SAMs).



HUG Core grazing areas 4 archaeology. SOUTH

Scale 1:20,000

Compiled by acrabb on 22/2/2024

