South Downs
National Park Authority

Agenda Item 8

Report PR22/23-18

Report to	**Policy & Resources Committee**
Date	**24 November 2022**
By	**Enterprise Development Strategic Lead**
Title of Report	**Barlavington Estate Whole Estate Plan**
Decision	

Recommendation: The Committee is recommended to:

1. Endorse the Barlavington Estate Whole Estate Plan at Appendix 1.

1. Introduction

1.1 In 2015, the South Downs National Park Authority (SDNPA) introduced the concept of Whole Estate Plans (WEPs) to encourage open dialogue between land-owning organisations and the SDNPA. The WEPs look to promote collaboration between individual estates and the SDNPA to help achieve the ambitions of both continuously striving for synergy, opportunities and understanding whilst ensuring estates are suitably equipped to meet the challenges they face in the 21st Century land management. A WEP is a non-statutory plan, which demonstrates the overall position, and aspirations an organisation has, as an Estate. Plans do not have to cover a specific timeframe, and may be updated to reflect changes in circumstance or withdrawn if appropriate.

2. Policy Context

2.1 WEPs are a progressive and almost unique approach by a Local Planning Authority (LPA) or National Park Authority (NPA) in the UK as they look to foster good working relationships with key stakeholders and facilitate better understanding of the issues surrounding sustainable rural estate communities – of the strengths, weaknesses, opportunities and threats. They are not focused on or to be limited to planning matters but rather the whole husbandry of the Estate – farming, woodland management, conservation, access provision, cultural heritage etc. This enables the Estate to demonstrate how they contribute to the policies and outcomes identified in the South Downs National Park Authority 2020- 2025 Partnership Management Plan.

2.2 The South Downs Local Plan (2019) sets out many of the planning policies to be used in the determination of planning applications in the South Downs National Park (SDNP) and recognises the significant influence of the Estates across the SDNP and the impact the management activities of these Estates has in the short, medium and long term. Policy SD 25 p.103 of the SDNPA (2019) Local Plan states, *"positive regard will be had…… where development proposals are part of a WEP that has been endorsed by the National Park Authority and deliver multiple benefits in line with the purposes and special qualities of the National Park".* The inclusion of a development proposal within a WEP, however, does not guarantee that planning permission will be granted and any proposal will still need to comply with relevant development plan policies. A WEP can also be used to help guide and support funding bids, future neighbourhood plan production, agri-environment and forestry schemes and with other Natural Capital projects. Beyond the finished product, the WEP process also provides

value in terms of relationship building; between the Estate and the SDNPA, as well as the local community.

3. The Whole Estate Plan Process

3.1 An evaluation to enable an opportunity to improve the Whole Estate Plan (WEP) process was completed earlier this year. As a desk based exercise, it provided opportunity for stakeholder feedback. The evaluation looked into the benefits, the process, resourcing and where improvements be made to WEPs.

3.2 Updated guidance on producing WEPs was published in March 2022 and is available online.

3.3 Following the evaluation of WEPs, we now benefit from a refreshed new WEP Process. The new process catalogues the various elements of a WEPs journey into five sequential stages allowing easy tracking and clarity for estates on the exact point of the journey they are currently on whilst clearly identifying next steps. Stage 1 is the inception stage and sets the framework for the WEP journey including introducing the process that must be adopted to achieve endorsement. Stage 2 focusses on the early draft, the Member site visit and the first internal SDNPA consultation involving Members and officers. Stage 3 builds on the feedback from the first consultation, which informs the final draft. This stage also contains the second and final internal SDNPA consultation. Stage 4 focuses on the creation of the final version of the WEP informed by the feedback received in the second consultation. This stage also includes the endorsement at P&R Committee. Stage 5 is the post endorsement stage and outlines the requirements of an Estate once the WEP has been successfully endorsed. This stage includes commitment to annual reviews, which track performance against the action plan.

Figure 1. Below shows the new process.

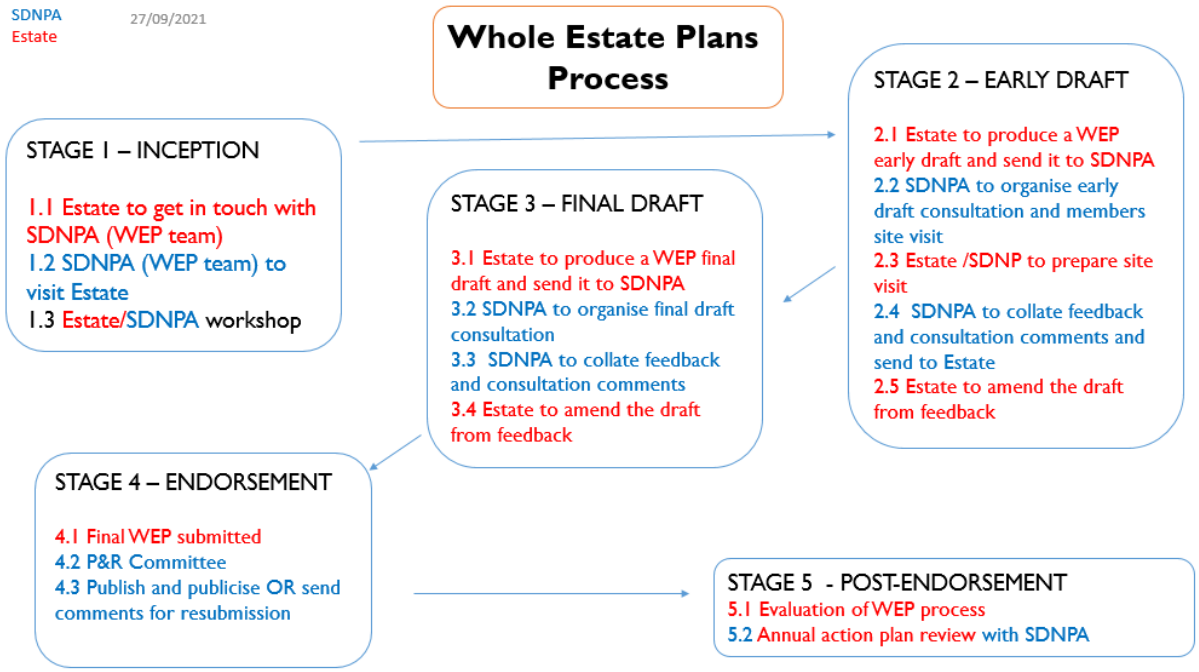

Figure 1. SDNPA WEP Process

4. Issues for consideration

4.1 A WEP is comprised of four elements.

- A Vision, which highlights the estates priorities.
- An Asset Audit, which provides a complete picture of all the assets of the estate, both physical and non-physical.
- Ecosystem Services and Analysis, helps to identify the benefits obtained from nature, put value to them and build them into decision-making and management.

- An Action Plan is the response to the analysis findings and identifies key actions and projects.

See Figure 2. below which shows the four elements of a WEP in an infographic.

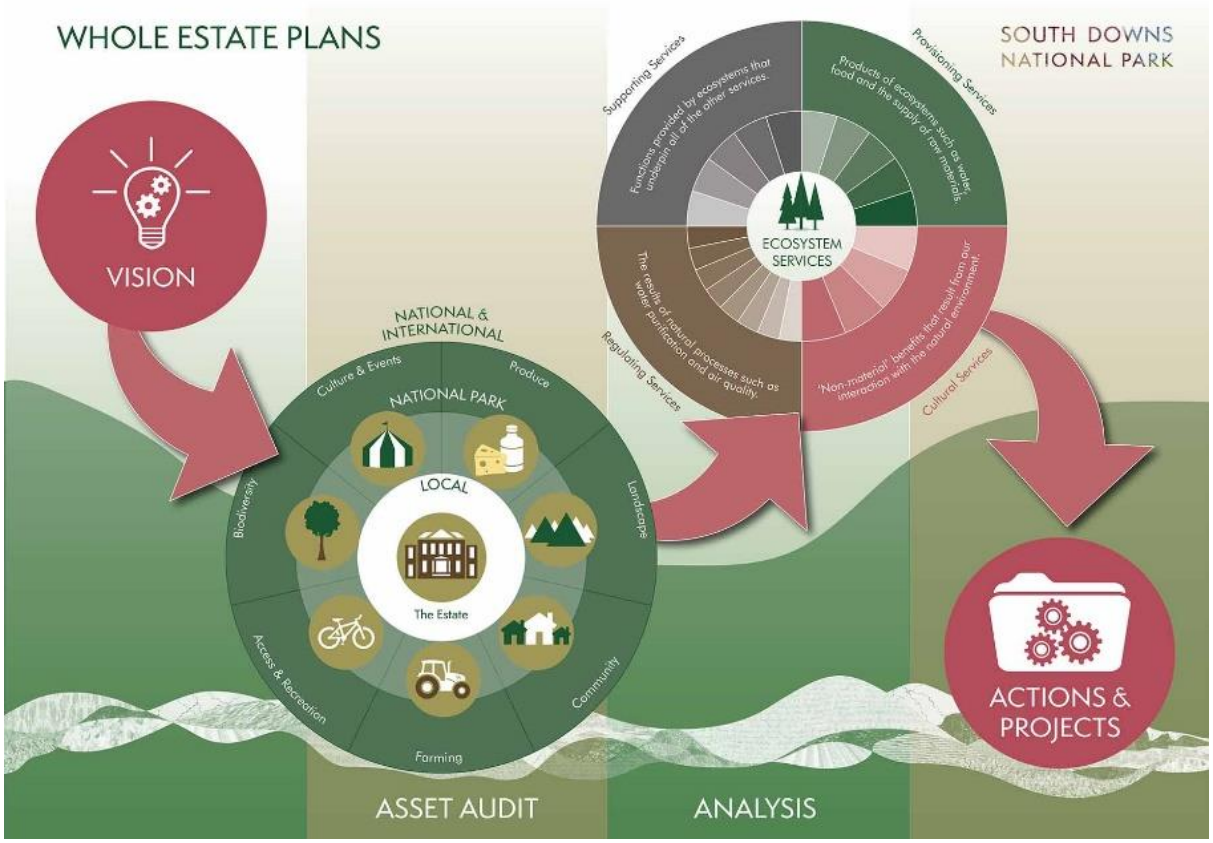

Figure 2. SDNPA WEP Elements infographic.

4.2 Officers look at how all these elements relate to each other, i.e. is the Vision a genuine representation of the actions proposed, and are the actions evidenced by the Asset Audit and Ecosystem Services Analysis? Estates should also be able to demonstrate that they have engaged with the local community during the process of producing the WEP.

4.3 Barlavington Estate, with support from consultants Rural Solutions, engaged with the WEP process in late 2020. The early draft was submitted on Friday 29th October 2021, which triggered the first of two internal consultations with the NPA. The Estate also hosted a Member Site Visit on 18th November 2021. The final draft was submitted on Friday 19th August 2022, which acted as the catalyst for the final internal NPA consultation.

4.4 The Barlavington Estate, located in the heart of the South Downs National Park, is approximately 1,255 hectares (3,101 acres), of which 810 hectares (2,001 acres) is predominately farmland and 440 hectares (1087 acres) is woodland and small parcels of heathland. The Estate also benefits from 43 houses and cottages.

4.5 Although the Estate officially commenced their WEP journey back in 2019, the Covid-19 Pandemic led to a series of false starts, which is completely understandable. Since its re-start in late 2020, the acceleration of the WEP journey has culminated in the submission of a final version for endorsement in October 2022.

4.6 The WEP for the Barlavington Estate (Appendix 1) covers a 15-year period between 2022 to 2037.

4.7 Barlavington Estate held an online consultation event with the community, key stakeholders and interested groups to define the overall Vision for the Estate. This public engagement took place in early 2021 (see page 92). This consultation built on a series of interviews conducted in 2019.

4.8 Since 2020 officers from across the SDNPA have had meetings with representatives of Barlavington Estate to discuss issues. During the early draft consultation (29th Oct 2021), Member Site Visit (18th November 2021) and final draft consultation (19th Aug 2022) both officers and Members were provided with opportunities to comment on the emerging versions of the WEP.

4.9 The WEP for the Barlavington Estate has progressed in accordance with the SDNPA WEP Process and guidance.

4.10 The WEP has been well received by officers across the SDNPA, and officers are encouraged by how comments and issues raised throughout the process have been taken on board and the WEP amended accordingly. Overall, the WEP fits well with the Authority's Partnership Management Plan.

4.11 The following provides a summary assessment of each of the four elements that make up the WEP.

Vision

4.12 The vision pledges that Barlavington Estate will play a full and active role in the National and Local response to Climate Change. This will be done through the way the Estate manages its soils, woods, copses and hedgerows. Together with the reduction of environmentally impactful activities. The Estate will care for and celebrate its Natural Capital, remain a positive force for the vitality of local people and communities, and remain a commercially viable family-owned business.

Asset Audit

4.13 The Asset Audit provides a thorough account of all the features, activities and services on the Estate. These include; natural capital, farming, heathland, woodlands, water, silica sand, biodiversity, built heritage, cultural heritage and public access. This is well evidenced and supported by maps, which are successful in explaining and demonstrating how the Estate fits in the SDNP context, its heritage and cultural assets, and how diverse the Estate is (including key facts about the Estates properties).

4.14 It is considered that the Audit provides a comprehensive review of the assets and provides a solid foundation for expanding or developing the projects within the Action Plan.

Ecosystem Services and Analysis

4.15 The Estate has chosen to adopt an integrated approach to the analysis of the assets on the Estate. The use of Case Studies is a welcome addition clearly demonstrating the work of the Estate. This integrated approach, although arguably requiring the reader to search harder for the information, nonetheless contains all the necessary components a WEP analysis requires.

4.16 The Estate declare that Climate Change is at the heart of many decisions taken across the Estate. This is demonstrated by the presence of a designated Climate Change section in the WEP.

4.17 This section also provides an ecosystem services analysis. The table on page 69 sets out the way in which the Estate generates and contributes to ecosystem services and articulates the required continuation of works to ensure the Estate can deliver its vision.

4.18 It is considered that Barlavington Estate have demonstrated a comprehensive understanding of what they have as well as articulating clearly the opportunities and challenges facing the Estate which inspire the final section of the WEP, the Action Plan.

Delivering the Estates Vision and New Projects

4.19 The Barlavington Estate WEP refers to the Action Plan section as *"Delivering Our Vision"* and *"Project Plan/ Our New Projects"*. This section provides projects / actions and identifies outcomes Barlavington Estate hopes to achieve in respect of issues identified through the analysis.

4.20 Within the *"Delivering Our Vision"* section, the Estate includes a series of commitments categorised into three areas: 1.) Our Natural Capital, Ecosystems & Heritage Commitments 2.) Our Social & Community Commitments 3.) Our Economy & Enterprise Commitments.

4.21 The Project Plan section lays out in a table the new projects that the Estate has identified and plans to bring forward during the period of the WEP.

4.22 It is considered that there is a clear link between the analysis work and project plan. The *"Delivering Our Vision"* and "*Project Plan"* section evidences the understanding the Estate has in its relationship with the SDNP and the ability to contribute to the National Park Authority's purposes and duty. For example, the Estate the project plan table includes a column showing which PMP Outcome and Priority Programme each item of work seeks to deliver against in pursuit of the SDNPA Purposes and Duty.

4.23 For the reasons set out above, the Barlavington Estate Whole Estate Plan is recommended for endorsement.

5. Options & cost implications

5.1 There are no direct cost implications associated with the consideration of the endorsement of the WEP.

5.2 If endorsed, the Authority will continue to work with Barlavington Estate to realise some of the projects identified. The Authority will also conduct annual performance reviews in line with Stage 5 of the SDNPA WEP process.

6. Next steps

6.1 If the WEP is endorsed, it will be placed on the SDNPA website and officers will be made aware that it is now a material consideration in the assessment of planning applications.

7. Other Implications

Implication	**Yes/No**
Will further decisions be required by another committee/full authority?	No, although applications for grant funds or planning permission may be submitted for consideration relating to actions highlighted within the WEP.
Does the proposal raise any Resource implications?	No. If endorsed, the WEP will be included on the SDNPA website, however update and review of the document is the responsibility of the Estate. If the WEP is amended, it will need to be considered again by Officers and Members.
How does the proposal represent Value for Money?	N/A
Which PMP Outcomes/ Corporate plan objectives does this deliver against	Outcome: Landscape & Beauty Outcome 2: Increasing Resilience Outcome 3: Habitats and Species Outcome 4: Arts & Heritage Outcome 5: Outstanding Experiences Outcome 8: Creating Custodians Outcome 9: Great Places to Live Outcome 10: Great Places to Work
Links to other projects or partner organisations	N/A

How does this decision contribute to the Authority's climate change objectives	The vision pledges that Barlavington Estate will play a full and active role in the National and Local response to Climate Change. The WEP also devotes an entire section outlining the Estate's commitment to Climate Change mitigation and adaptation. Projects include renewable energy production, carbon storage and sequestration. The Estate also pledges to conduct a comprehensive natural capital baseline and adopt a monitoring programme and enhancement plan.
Are there any Social Value implications arising from the proposal?	No
Have you taken regard of the South Downs National Park Authority's equality duty as contained within the Equality Act 2010?	This decision has no direct equalities implications. This document will be used to inform future decisions by the Authority, which will be subject to their own equalities impact assessments.
Are there any Human Rights implications arising from the proposal?	No
Are there any Crime & Disorder implications arising from the proposal?	No
Are there any Health & Safety implications arising from the proposal?	No
Are there any Data Protection implications?	None
Are there any Sustainability implications based on the 5 principles set out in the SDNPA Sustainability Strategy.	The WEP has principles 1-3 at its core, which is evidenced by the Plan being set within the context of the SDNP Partnership Management Plan and to support the delivery of the Local Plan.

8. Risks Associated with the Proposed Decision

8.1 There is the potential for a reputational risk for the SDNPA through failure to endorse the WEP, without substantive reasons, after an Estate has gone through the process of producing a WEP that meets the criteria for endorsement. This risk is mitigated through the committee process and the requirement for the committee to give appropriate reasons for its decisions in public. There is also a risk of WEPs being misunderstood and considered as planning documents only, or being interpreted as a 'green light' for development. Both of these risks are mitigated by providing continued support to Estates, case officers and other interested parties and providing guidance on the SDNPA website.

MARK ALDEN

Enterprise Development Strategic Lead

South Downs National Park Authority

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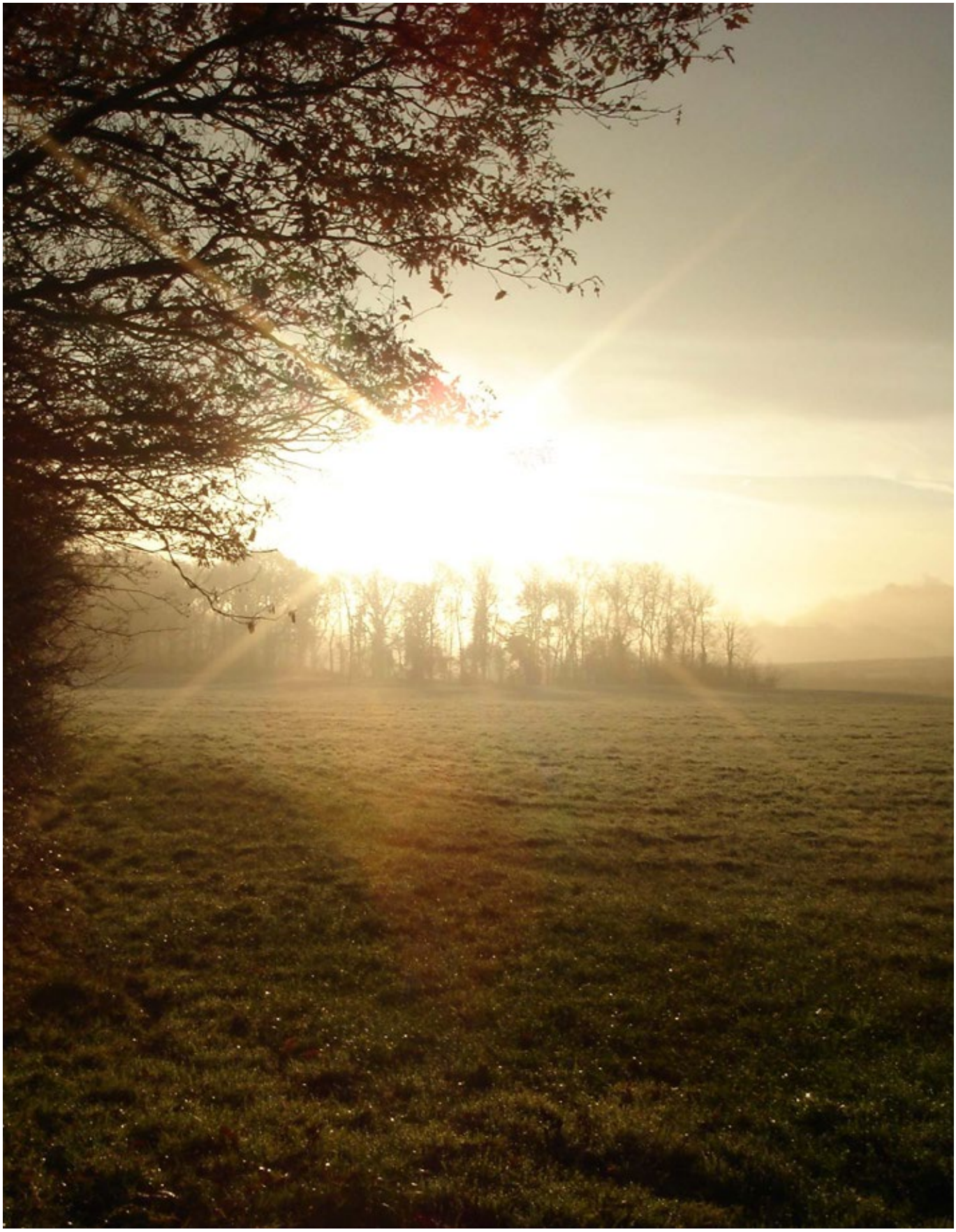
Appendices	1. Barlavington Estate Whole Estate Plan (Main Document)
SDNPA Consultees	Director of Countryside Policy and Management; Monitoring Officer; Legal Services.
External Consultees	None
Background Documents	SDNP Partnership Management Plan SDNPA (2022) Whole Estate Plans Guidance SDNPA New WEP Process



The Barlavington Estate
Whole Estate Plan

Contents

TOP: SEBASTIAN ANSTRUTHER WITH CATTLE
BOTTOM-LEFT: SPRINGS, BARLAVINGTON
BOTTOM-RIGHT: THE MOOR

Introduction

This is the Whole Estate Plan for the Barlavington Estate.

The plan sets a vision for the future and a series of objectives identified as a means of achieving those. This vision and these objectives are founded on a full and detailed understanding of the Estate's assets, the special characteristics of the areas in which they are located together with wider policy, political, economic and social influences.

This Whole Estate Plan has been produced in collaboration with the South Downs National Park Authority (SDNPA) in response to the policy initiative set out in the adopted Local Plan[1] and aligned to the Authority's ten ambitions set out in its Partnership Management Plan[2].

The Whole Estate Plan has been produced over an extended period (including the Covid Pandemic of 2020/2021). It has been written by the owners and management team at Barlavington Estate. The plan has benefitted during production from input from other key stakeholders including the wider advisor team at Barlavington, households, farms and businesses who occupy land and property owned by the Estate. People living in the local area including those from the villages and hamlets of Barlavington, Bury, Coates, Coldwaltham, Duncton, Fittleworth Sutton, and Watersfield have also been consulted.

The plan is designed to cover the 15-year period from 2022 to 2037. It is not a static document however but a framework for the management of the Estate business and to guide decision making. The plan will be reviewed on an ongoing basis. New projects may emerge over time.

The plan making process has been thought provoking and provides a framework for the ongoing management of the Estate. Once endorsed by the South Downs National Park Authority's Policy & Resources Committee the Plan will become available as a material planning consideration to be given due weight in the Authority's policy and decision-making processes (in accordance with Policy SD25 of the Adopted Local Plan 2019).

[1] Specifically Policy SD25

[2] Partnership Management Plan and its ten ambitions within three themes; enhance, connect and thrive

The Barlavington Estate: Background

The Barlavington Estate lies in the heart of the South Downs National Park on and at the foot of the scarp slopes of Duncton and Barlavington Downs to the south of Petworth. It extends to c. 1,255 hectares of farm, heath and woods together with 43 houses and cottages.

The Estate is contained in a single crescent shaped 'parcel' largely bounded by the River Rother to the north, running up the scarp slope towards the chalk downs to the south and extending from the A285 Petworth to Chichester road in the west to the A29 London Road in the east. The estate boundary is shown overleaf.

A New Post War Estate

The Barlavington Estate did not exist until the 1950s. Most of the land and property now known and managed as The Barlavington Estate was until then part of the much larger Leconfield Estate. The present landholding was purchased by the current principal's father, Ian (later Sir Ian) Anstruther, in 1957, although there have been some further acquisitions as well as sales since then.

The Leconfield Estate put up c. 3,000 hectares (7,446 acres) of land and woodlands (together with farm buildings and property thereon) for sale following a death in the owning family.

The property stretched across the parishes of Amberley, Barlavington, Bury, West Chiltington, Coldwaltham, Didling, Duncton, Eslted, Fittleworth, Hardham, Iping, Kirdford, Lurgashall, Northchapel, Pulborough, Stopham, Treyford, Trotton, Upwaltham and Wisborough Green.

What is now The Barlavington Estate is predominantly made up of lots described in the 1957 sales particulars[3] as:

- Horncroft Farm and land on Horncroft Common;
- Shopham Bridge Farm, Coates Farm, wood and common land;
- Coldwaltham Farm, Waltham Park Farm, Watersfield Poultry Farm, Torepsoes and Besley Farm and land in Watersfield;
- Littleton Farm, Duncton, Fryans Hanger, Duncton Hanger;
- Tripp Hill Farm, Street and Wicks Farm and Lee Farm, Fittleworth;
- Sutton Court Farm, Sutton Farm, Northcomb Wood, Farm Wood, Three Fields and Sutton End; and
- Upwaltham Farm, Benges Wood, Ides Common Wood, Stubbs Wood.

This legacy means that whilst The Barlavington Estate bears comparison with traditional landed "Estates" across Sussex it is in some ways fundamentally different.

[3] West Sussex Records Office https://discovery.nationalarchives.gov.uk/details/r/e55a985a-f8cc-4800-a20d-17f1b8fc1b2c

[4] Sir Ian Anstruther Bt. was a noted author of social history - (https://www.telegraph.co.uk/news/obituaries/1559979/Sir-Ian-Anstruther-Bt.html)

MAP 1: ESTATE BOUNDARY WITHIN SOUTH DOWNS NATIONAL PARK

It has been acquired, incrementally, since the Second World War. It has no mansion house, no designed parkland or pleasure grounds, no churches, village halls or cricket grounds. The largest house within the boundary, John King's early 19th Century castellated mansion Coates Castle, had previously formed part of the property when it was part of the greater Leconfield Estate but was sold separately and remains in third party ownership.

This history influences the way the Estate has evolved. Sir Ian's motivation for his original purchase was part opportunistic and part defensive. He acquired Springs Cottage in the Parish of Barlavington in 1953 and had settled there to write[4] following active service abroad during the Second World War and then in the diplomatic service. When the Leconfield Estate put the property up for sale, the opportunity to acquire the land that surrounded and formed the hinterland of his home was, he felt, too good to miss.

After his purchase Sir Ian retained ownership of the property personally until settling it into Trust for his children in the late 1980s. The present principal, Sir Sebastian Anstruther, grew up on the Estate and returned to take on responsibility for its environmental stewardship following extensive damage suffered during the Great Storm of 1987.

Sebastian and his immediate family have subsequently taken on full ownership and responsibility for the Estate, adding to it with strategic acquisitions as opportunities have arisen (such as Duncton Mill and associated property in 2001).

The decision by Sebastian and his wife to return to and take on the Estate was not a foregone conclusion, neither was it straightforward. It required a considerable re-organisation of assets and rights within the wider Anstruther family together with a significant investment in the property.

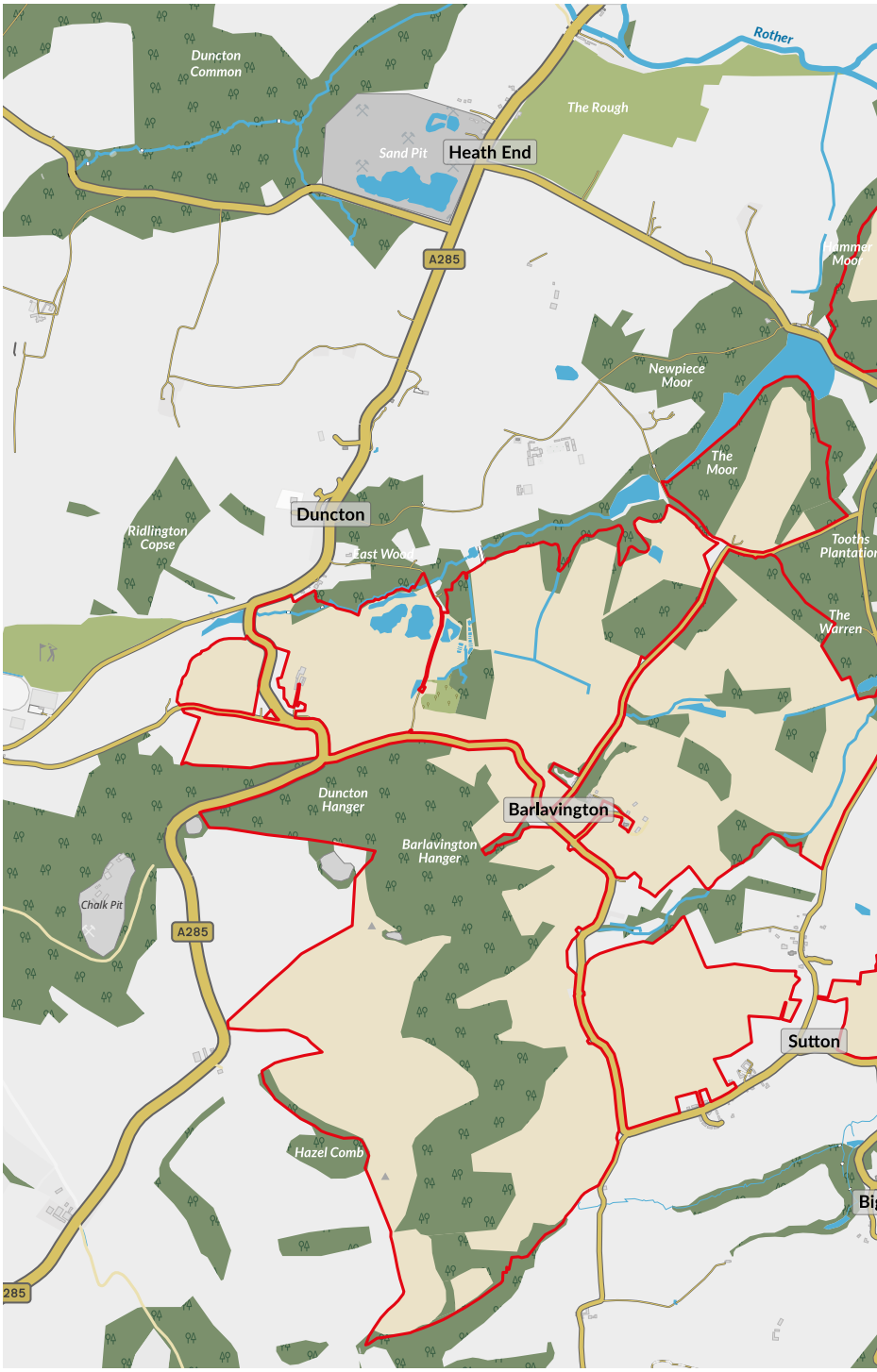
MAP 2: ESTATE BOUNDARY

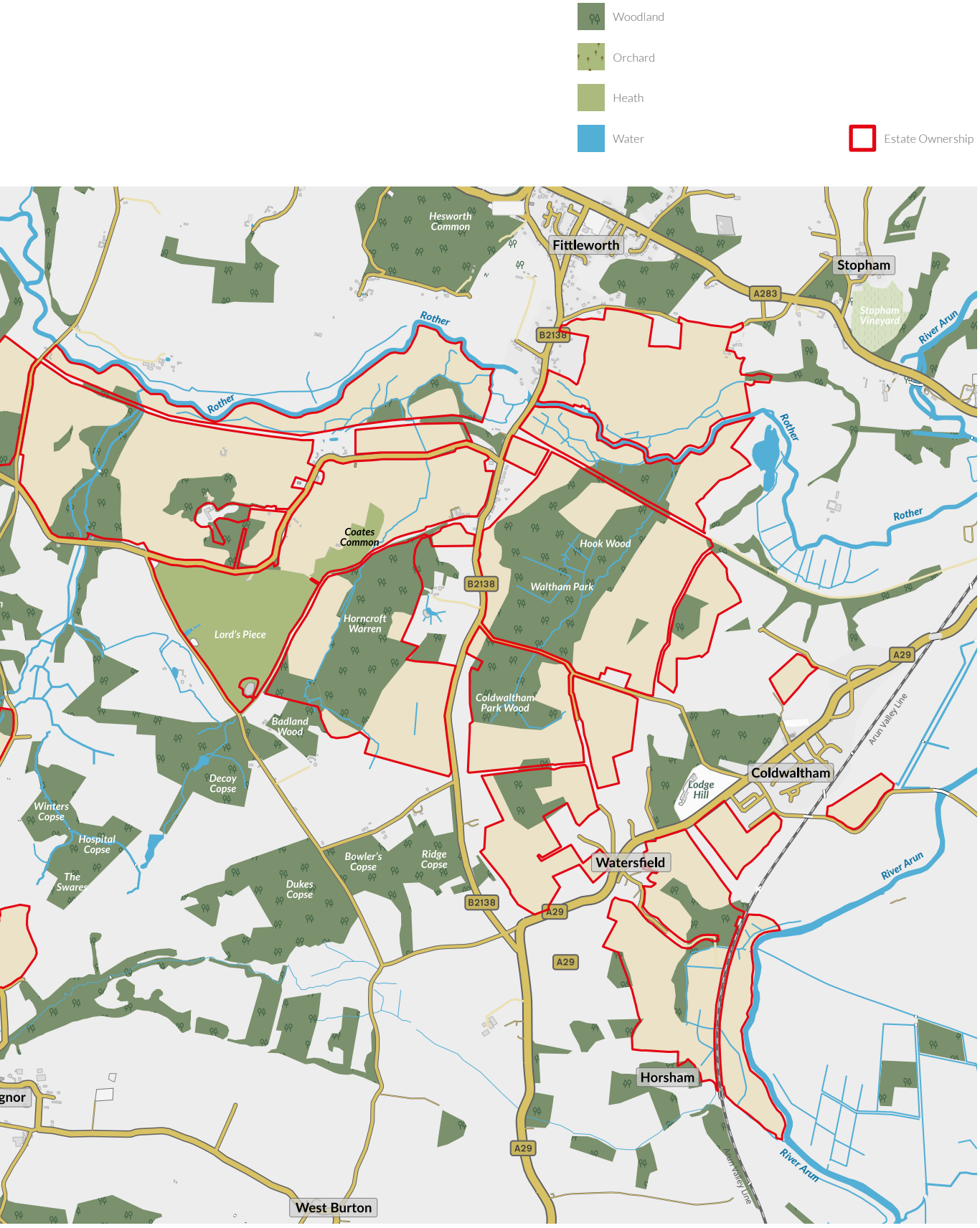
Creation of a 21st Century Estate

To date, the decision to acquire and maintain the property feels to have been a success. It has enabled the continuation and improvement of stewardship at a landscape scale, enhancing the contribution from the Estate's environmental and physical assets to the special qualities of the South Downs National Park (as shown in detail later in the document).

The decision has also created challenges. Turning what was essentially a peripheral part of a far larger Estate into a coherent, integrated and financially self-reliant entity has been, and remains, a challenging undertaking.

It has required all the resilience expressed by the Anstruther motto *"Periissem Ni Perstitissem"* (I would have perished had I not persisted).




Woodland
Orchard
Heath
Water
Estate Ownership
Hesworth Common
Fittleworth
Stopham
A283
Stopham Vineyard
River Arun
Rother
B2138
Coates Common
Hook Wood
Waltham Park
Horncroft Warren
Lord's Piece
Coldwaltham Park Wood
Badland Wood
Decoy Copse
Winters Copse
Hospital Copse
The Swares
Bowler's Copse
Ridge Copse
Dukes Copse
A29
Arun Valley Line
Coldwaltham
Lodge Hill
Watersfield
Horsham
West Burton

Our Vision

This section sets out our vision for the Barlavington Estate. It has been shaped by a combination of history, legacy, natural capital and heritage, economic factors, personal aims, and values. We see it as an expression of guiding principles for ownership and as a driver for management, business, and investment decisions.

Following on from the vision statement and an analysis of the approach the Estate will take as we work towards achieving our vision is an explanation of the outcomes that we expect to accompany success.

Vision Statement

The Barlavington Estate will be widely recognised as a positive force for the health, well-being, and vitality of our part of the South Downs National Park. The Estate will play a full and active part in the National and Local response to Climate Change. It will care for and celebrate its heritage, natural, built, cultural and social capital, conserving and enhancing the contribution each make to the special qualities of the South Downs National Park, and to the communities, businesses and people that experience, rely upon and enjoy them. The Estate's continued operation as a commercially viable family-owned business will ensure it can achieve these outcomes whilst meeting operational and tax liabilities without undue reliance on capital disposal.

BARLAVINGTON FROM THE SLIPES

Achieving Our Vision

To achieve our vision, we will actively and sustainably manage our farms and woodland for food, timber production and amenity, working wherever possible to increase resilience to climate change, pests, and diseases.

We will enable natural processes and create the best possible outcomes from the positive flows of ecosystems services they generate, working with nature for the common good. We will manage our soils, woods, and hedgerows to optimise the volume of carbon they sequester from the atmosphere each year and to maintain their future storage capacity.

We will also strive to reduce the environmental impact of our activities, making use of and generating renewable energy where we can, and actively plan to replace our vehicles and machinery with fully electric and other zero carbon alternatives.

We will provide opportunities for people and families to live and/or work locally in homes and premises that are fit for purpose and add to the occupants' physical and mental health as well as their social and economic well-being.

Recognising the health and well-being benefits of the countryside to all, we will maintain open access to our heathland commons and ensure our footpaths are in good condition. We will also welcome the involvement of like-minded people in the stewardship of the Estate, support relevant groups, organisations and activities.

Outcomes From Success

We will know that this vision has been achieved if in fifteen years from the endorsement of the Whole Estate Plan:

- The Estate continues to host a series of viable farm businesses. The Organic status of the dairy at Crouch Farm will have been safeguarded and the area of land farmed Organically maintained and where possible expanded.

- The Nationally important heathlands associated with Coates Castle Park and Lord's Piece (including Sutton Common) have benefitted from pro-active but sensitive management. The important habitats associated with these areas and the biodiversity they support have been conserved and enhanced.

- The Estate's woodlands have benefitted from environmentally sensitive management enabling their continued contribution to the production of timber products, public enjoyment, carbon capture and storage, habitat and wildlife and the landscape of the National Park.

- Water quality and quantity across the Estate has been maintained and where possible enhanced through the ongoing use of Organic farming systems, the sensitive management of wet woodlands, and the natural grazing of the water meadows and margins of the Estate's land abutting the Rother and Arun rivers. Opportunities for natural flood management have been explored and where appropriate implemented.

- Estate owned heritage assets have been protected and conserved. The future of Duncton Mill Watermill has been secured by sensitive restoration; Scheduled Monuments will be cared for through identification and management of risks.

OPPOSITE & ABOVE:
LANDSCAPES ON BARLAVINGTON ESTATE

- Land designated for public access has been actively managed and maintained to support the public's enjoyment, opportunities explored to create or provide enhanced permissive public access elsewhere, including the SDNPA's Miles without Stiles and disabled access programmes and on those sections of the disused railway in the Estate's ownership.

- Areas with recognised deposits of Silica Sand will be positively and sensitively managed to safeguard the mineral resource. If any mineral extraction has occurred, outstanding restoration schemes have been designed and implemented to benefit both the environment, local communities and the visitor economy.

- The Estate has strengthened and deepened its involvement with neighbouring farmer and landowner groups, coordinating management at a landscape scale, and is recognised as a leader and exemplar in sustainable land management.

- Annual revenues have increased beyond growth generated by inflation and market price change due to the sensitive and proportionate creation of new housing and workspaces, a material reduction in the amount of agriculturally redundant or under-utilised buildings, and the identification of new income streams and investment opportunities.

- A focus for continued ownership by the family has been generated by the creation of opportunities for the growing Anstruther family to enjoy living and working independently within the boundaries of the Estate.

RIGHT: SPRINGS, BARLAVINGTON

The Drivers for Our Vision

This section sets out the drivers through some of the key areas that have shaped and influenced our vision. It takes the reader through issues associated with conserving and enhancing the natural environment and heritage, with our approach to the 'business of ownership', the need for a holistic approach and the 'business of property'.

Conserving and Enhancing Natural and Built Capital

Whilst the entity of The Barlavington Estate[5] is a comparatively recent construct the contribution it makes to the characteristics and special qualities of the South Downs National Park is far from artificial.

The land and property that makes up the Estate includes chalk grassland, extensive areas of woodland (scarp and lowland, including wet woodland), heath and lowland pasture including water meadows.

The Estate includes all or parts of four Sites of Special Scientific Interest (Coates Castle SSSI, Waltham Brooks SSSI, Duncton to Bignor Escarpment SSSI, The Moor SSSI), Special Areas of Conservation (Duncton to Bignor Escarpment), areas of Ramsar sites (Waltham Brooks), parts of Local Nature Reserves (Burton and Chingford Ponds LNR) and local designations such as Coates Sandpit SNCI.

The Estate's portfolio of farmhouses, cottages, buildings, and barns, including the hamlet of Barlavington, form part of the distinctive pattern of the built environment and includes 17 listed buildings and 7 Scheduled Monuments..

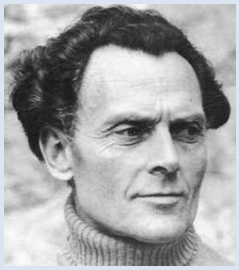
The fields, woods, heaths, springs and associated water bodies provide important priority habitats supporting diverse and nationally important biodiversity. The Coates Castle SSSI together with the associated heathland restoration at Lord's Piece and Sutton Common support the last surviving native colony of the Field Cricket Gryllus Campestris[6].

They are also a recreational resource: open access to Lord's Piece (including Sutton Common), the views from Duncton Hanger, long-distance trails like the Serpent and West Sussex Literary Trails and various Public and Permissive Rights of Way are enjoyed by locals and visitors alike.

The quality of environment and enjoyment deriving from it was a key driver for Sir Ian's purchase of the Estate. It is no surprise therefore that conserving and enhancing this environment for future generations to understand and enjoy has been the focus of the family's management approach over the last 30 years and remains our core focus.

[5] As currently defined by its single family ownership.

[6] It has been reintroduced from here to other sites.



IAN ANSTRUTHER, BARLAVINGTON FARM, JULY 1993

What changes have taken place at Barlavington since I came here in the summer of 1953. This was the same summer in which Stan Mayes came here – a place which both of us, independently, realised was to be our home for the rest of our lives.

To arrive at a place as beautiful as Barlavington was a magic experience. Every detail of that first summer is engraved on my memory. The lanes and the hedgerows were full of flowers, not yet sprayed and destroyed by the Council but still trimmed and loved by the village 'lengthman', at that time Frosty Francis who cut the overhang back to eye height (to 'hy ight' as he used to say).

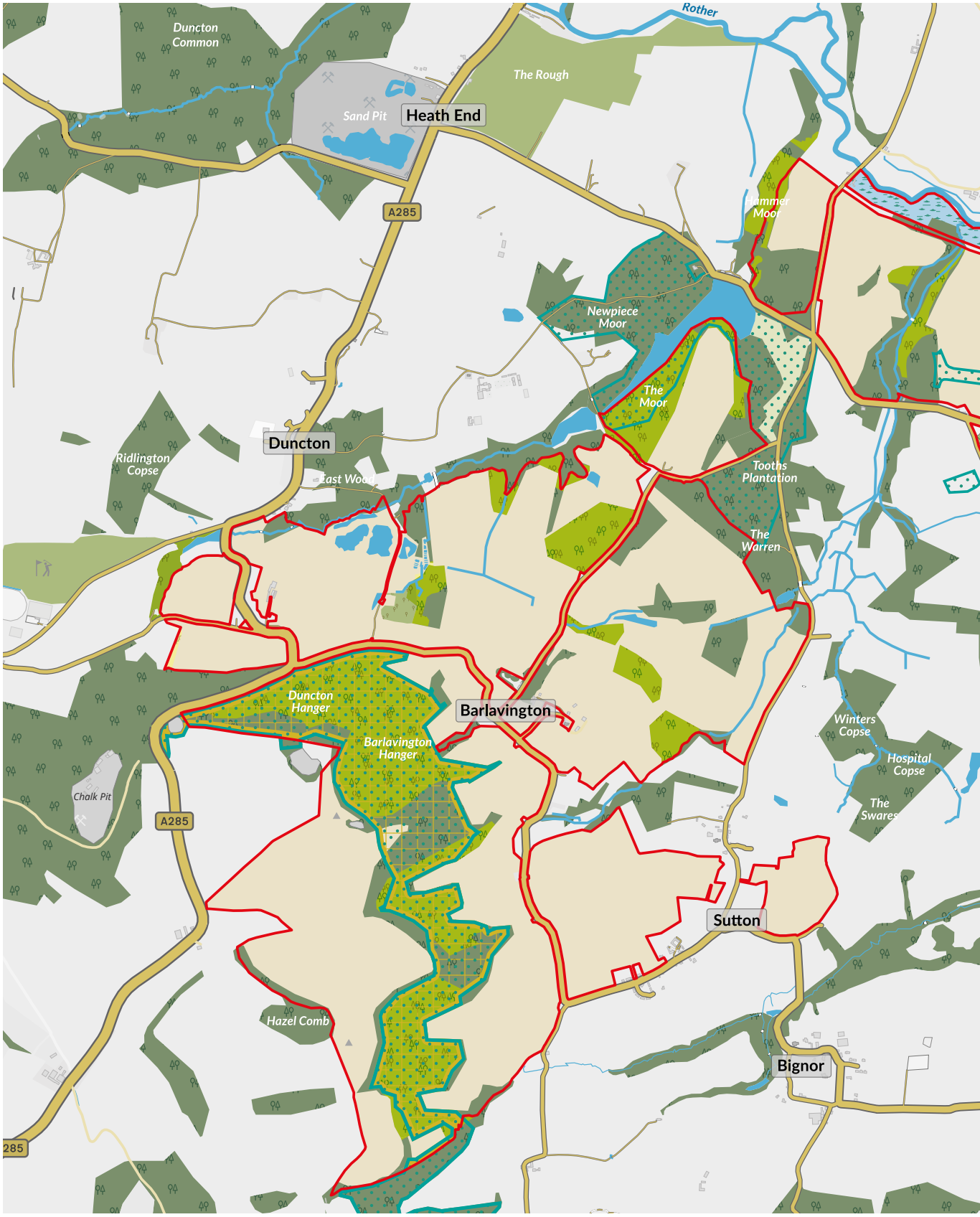
The lanes were full of nightingales, too, lit by glow-worms, and sprinkled with multi-coloured snail shells. Great white owls lived in the barns; little ones called to each other in the woods; badgers lumbered up to the stream which then still harboured trout to be chased by otters and caught by kingfishers. There were plenty of frogs and toads and newts. Hares boxed on top of the Downs; coveys of partridges jugged in the meadows.

It sounds like Paradise. It was Paradise.

Over the last 40 years all these beauties have diminished; many, indeed, have completely vanished. Of course the surrounding beauty remains. Though dead leaves have covered the pit which once supplied Barlavington with charcoal, the hanger from which bubbles the stream is as cold and dim and mysterious as ever, still guarded by giant grass-snakes. Huge walnut trees are hidden there; the soil is rich and scented with garlic; at night the roe bark frighteningly; foxes roam and rabbits flee from them.

Sad change, however, there has been a real depletion of common wildlife. Let us hope that much will return with the new, environmental spirit. My ashes and doubtless also Stan's, will, I trust, enhance the renaissance!

MAP 3: NATURAL CAPITAL CHARACTERISTICS AND DESIGNATIONS




Woodland
Water
Silica
Common Land
Orchard
Grassy Marsh
Site of Nature Conservation Interest (SNCI)
RAMSAR
Heath
Quarry
Site of Special Scientific Interest (SSSI)
Scrubland
Ancient Woodland
Special Area of Conservation (SAC)
Estate Ownership
Hesworth Common
Fittleworth
Stopham
A283
Stopham Vineyard
River Arun
Rother
B2138
Coates Common
Hook Wood
Waltham Park
Lord's Piece
Horncroft Warren
Coldwaltham Park Wood
Badland Wood
Decoy Copse
Arun Valley Line
Coldwaltham
Lodge Hill
Bowler's Copse
Ridge Copse
Dukes Copse
Watersfield
A29
Horsham
West Burton

RIGHT: LORD'S PIECE

Our Approach to Ownership

Ownership of such an extensive area of land and property as The Barlavington Estate is a privilege. It confers a series of rights and opportunities, such as the ability and exclusivity to range over and enjoy special and magical places, to harness and derive value from natural resources and the built environment, to choose whom to share space with and of course, a deep 'pride in ownership'.

Ownership of any property also brings responsibility and liability. Buildings need ongoing care and maintenance. Farmland that is not actively and effectively managed changes character and loses the capacity to produce food, woods and trees left untended become dangerous and can fail to reach their full biodiversity and carbon sequestration potential. A range of matters, such as those associated with heritage property and assets (scheduled monuments), environmental quality and protected species, are subject to extensive regulation.

The business of ownership at Barlavington is consequently multi-faceted. It is both a joy and a job of work; an opportunity to generate revenue and create wealth and a commitment that requires continual management, regulatory compliance and significant ongoing investment[7]. Such investment often requires borrowing, which must be paid back from net profits achieved from operational surpluses.

LEFT: CHURCH COTTAGES, BARLAVINGTON
RIGHT, TOP: WALTHAM PARK FARM COTTAGES
RIGHT: BOTTOM: COLDWALTHAM FARMHOUSE

[7] On average 50% of rental incomes are reinvested in management, maintenance and refurbishment each year, including servicing the commercial borrowing which makes this possible.

The Need for a Holistic Approach

A land-based business is multi-dimensional. It must deliver effective land stewardship and land management through farming and active care of woodlands but must also deal with unlettable areas in addition to farms, houses, cottages, and workspaces. It must manage the wider Estate environment to ensure it maintains its contribution to the special qualities of the National Park, and to "quality of place" enjoyed by local communities, walkers, workers and visitors.

At Barlavington this means actively managing 400 hectares of woodland and 60 hectares of heathland. It means ensuring that the open access area at Lord's Piece (incorporating Sutton Common) is looked after in a way that protects and supports the endangered Field Cricket whilst maintaining the heathland's character and enabling public enjoyment. It means maintaining equipment and infrastructure associated with Rights of Way and taking care of important historic sites and Scheduled Ancient Monuments such as the Bowl Barrows on Sutton Common.

This activity comes at a significant cost both of management time and money; a cost only partially defrayed by receipts from environmental stewardship schemes and management agreements.

The ability to deliver active stewardship relies on the operation of the Estate as a sustainable business. Whilst The Barlavington Estate represents far more than an asset-based investment to the Anstruther family, it needs to be managed as one if the overarching strategic objectives associated with ownership, of viability, maintenance and conservation, enhancement, and enjoyment, are to be achieved.

Practical economics mean that this investment must be created and supported by a broader business. We are very interested in the prospect of opportunities associated with new environmentally driven revenue streams, such as those associated with Biodiversity Net Gain, Carbon and related 'public goods' but sadly, these are 'emerging' at best currently and cannot form the basis of a viable land-based business.

At Barlavington, our pro-active approach to conservation sits alongside and, critically, is enabled by, a commercial property lettings business.

The Business of Property

The property business is the sole economic driver of the Estate. Revenue comes from rentals received for farms, woods, houses, cottages, and commercial workspaces let to others; from timber, minerals, easements and wayleaves and, where appropriate, from development.

This business is owned and run by the Anstruther family, led by Sebastian and his wife Pornpan, supported by a small Estate Office and a directly employed maintenance team.

In the wider economy commercial and investment property businesses are based on diverse portfolios, spread across a range of sectors and locations, with individual properties regularly traded to ensure the portfolio is kept in the best possible shape.

A rural 'Estate' based property business is different. It necessarily operates in a fixed location with the assets available to let (the portfolio) already substantively formed. Options for use are driven by site, location and type and it is difficult to make changes without access to capital and the consent of statutory authorities.

In situations, as at Barlavington, where much of the stock is historic and of heritage value not every property can be used for its original purpose. Many buildings require significant ongoing maintenance, and often renovation, refurbishment, or enhancement to give them new life and meet modern requirements. Their continued use is important however, not only from a financial perspective but also because of the wider benefits to society from the retention of the significant "embodied carbon" within their structures.

Often such buildings need to be converted to some form of new use[8]. In some circumstances, for example small and isolated field barns, the challenge presented by the costs of maintenance, or of achieving a viable and acceptable use relative to the return on capital arising, can be considerable. But the alternative is the gradual and barely noticed loss of these old agricultural buildings, arguably unimportant in themselves, but leading to the unplanned cumulative erosion of our irreplaceable built heritage.

LEFT: MILKING PARLOUR

RIGHT, TOP: BROOKVIEW, COLDWALTHAM

RIGHT, MIDDLE: ST. MARY'S CHURCH, BARLAVINGTON (NOT OWNED)

RIGHT, BOTTOM: COLDWALTHAM FARMHOUSE

[8] For example, existing and completed schemes Duncton Mill Barns, Barlavington Stud, Barlavington Barns and Tripp Hill Farm buildings

The Natural Capital of The Barlavington Estate

The Barlavington Estate lies at the very centre of the South Downs National Park. Here the chalk Downs grade northwards onto the underlying clay and greensand, so that an extraordinary variety of soil types and habitats is concentrated in a very small area.

The Estate contains SSSIs on areas of wet and dry woodland[9], heathland[10] and water meadows[11]. It includes 6.5 km of river bank (Rother and Arun) and hosts many of the waterbodies between the spring lines at the foot of the chalk scarp slope and the River Rother to the north.

The Estate supports a wide range of biodiversity including the only native UK colony of the Field Cricket and the Nationally rare and endangered Red-tipped Cudweed, now found at only about 15 sites in South East England[12].

In 2008 the South East Biodiversity Forum recognised the Estate as the anchor of the "Barlavington, Coates and Rother Biodiversity Opportunity Area", listed by the Sussex Local Nature Partnership[13].

The story of the quality and condition of the Estate's natural capital and the management approach that has cared for and improved it is best told by Sir Sebastian Anstruther in his own words.

"My father was a writer, not a farmer. He bought Barlavington as a beautiful and peaceful place to live where he could pursue his career as an historian. He walked the Estate constantly, and often said that he and his Estate foreman Stan Mayes knew every tree on the place. "There's no manure like the landlord's boot", he used to say.

I started out as a teacher and have no farming qualifications either (I generally say that "I know the first thing about farming, but not the second thing"). My situation is somewhat different too, as I need to run the Estate as a business, but it is still, above all, my home, as it was his, and I am hefted to it.

When I returned to the Estate, I wanted to test my environmentalism in practice. In the early '80s I came across the idea of environmental externalities; impacts that did not form part of management decision-making because they were not priced – nobody owned them. I felt that if I could learn from experience the costs of "owning" some of these environmental impacts I would understand them better and perhaps be able to demonstrate that it was possible to include concern for the environment in the business of farming and managing land.

"Sustainable development" had not yet been invented, much less "natural capital and ecosystem services", but it was clear that if farming could not be financially sustainable then it could not deliver any goods to the market, including environmental goods.

I am very aware that the Estate is in an unusual and privileged position. We control our own land, we run an increasingly diversified business and are not solely reliant on farming income, and we can and do take a very long-term view. I am in no position to preach to my neighbours, and I hope I have largely avoided doing so. At the same time, I have tried to be active in the broader conversation within the land management community about what sustainable farming looks like and how it can be achieved."

Land uses include farming, water meadows and heathland managed for conservation and access, commercial and amenity woodlands, water bodies and water courses used for aquaculture, leisure, amenity and natural processes.

810 2,000 acres
hectares of farmland
[of which the vast majority is in organic management and in Environmental Stewardship Schemes]

90 220 acres
hectares of water meadows and floodplain grazing

160 400 acres
hectares of lowland meadows

160 400 acres
hectares of good quality semi-improved grassland

60 150 acres
hectares of lowland heath

300 750 acres
hectares of deciduous woodlands

40 100 acres
hectares of wood pasture and parkland

137
hectares of designated Ancient and Semi Natural Woodland

6.5
kilometres of riverbank (Rother and Arun)

1.6 4 acres
hectares of ponds, mill ponds and lakes

In excess of **30**
natural springs

7
Scheduled Ancient Monuments

17
Listed Buildings
[All Grade II]

80 200 acres
hectares of designated Ancient Replanted Woodland
[Plantations on Ancient Woodland Sites]

1.6
hectares of traditional orchard
[Designated as a Plant Heritage National Collection]

c. 2 million
tonnes of silica sand resources

[9] Duncton to Bignor Escarpment

[10] Coates Castle

[11] Waltham Brooks

[12] https://www.plantlife.org.uk/uk/discover-wild-plants-nature/plant-fungi-species/red-tipped-cudweed

[13] Area of 1,102 hectares, datasheet available at http://sussexlnp.org.uk/boas.php accessed 16/06/19

ABOVE: FARMING ON THE ESTATE
OPPOSITE: CATTLE AT CROUCH ORGANIC DAIRY FARM

Farming at Barlavington

Farming is the dominant land use, occupying around 65% of the Estate. There are 6 farming enterprises on the Estate, by far the largest of which is the Organic 'home farm' at Crouch & Besley Farm. This holding has previously been run in hand but is now let to a young farming tenant. Two other holdings (Coldwaltham Farm and Waltham Park Farm) and the remainder of the farm land (at Tripp Hill, around Sutton and along the River Rother) are let to agricultural tenants.

These family farm businesses operate across arable and livestock sectors and include a range of diversifications including cheese making, equestrian livery and farm contracting.

The Organic dairy unit at Crouch Farm is the largest of the four holdings and is the farm enterprise most directly influenced by the Estate.

[14] See for instance Peter Melchett's lengthy and balanced contribution to the debate on the carbon footprint of Organic vs Conventional farming on Oxford University's Food Climate Research Network's website at https://www.fcrn.org.uk/forums/general-discussion-35 (accessed 03/06/19)

Crouch Organic Dairy Farm

"I took over the Barlavington home dairy farm at Crouch in 1999 and started on the process of Organic conversion to Soil Association standards, which we completed some two years later.

The home farm has gone through various management regimes – run directly, contract farmed, and now tenanted – but the objective has always been the same: to run as much of the Estate as possible under Organic principles and to use our own livestock for conservation grazing and the management of the most important wildlife areas of the Estate, consistent with a profitable farming business.

As we pass nearly 25 years under Organic management at Barlavington I feel we have been broadly successful. We have participated in the highest delivery options under every agri-environment scheme available. The home farm currently manages half the agricultural area of the Estate and helped our tenants wherever possible to do the same.

We have planted approximately 3km of hedges and maintained 10 acres of wide field margins. We have replaced the failing slurry management system with a new lagoon to modern standards and roofed over dirty yards where we can. We have improved animal welfare with new cow housing and milking facilities, and reduced antibiotic use, whilst running a productive dairy farm producing well over 1 million litres of Organic milk a year. We have shown many groups of schoolchildren and other visitors round the farm. Equally importantly, I've been immensely proud to have been able to give an opportunity over the years to two hugely energetic, imaginative, talented, and award-winning young farmers, one as a manager and one as a tenant.

Meanwhile the environmental benefits of Organic management over nearly 1,000 acres of farmland at the very heart of the South Downs National Park have been sustained. This is not the place to enter the complex debate about the environmental merits of Organic farming[14], and we have no definitive data to measure these impacts at Barlavington. It is, however, clear that eliminating inorganic nitrogen fertiliser applications improves both soil health and soil structure and reduces nutrient leaching improving water quality, whilst the increased use of clover and herbal leys benefits insects, bees and other pollinators."

Besley Farm, Watersfield: A Wildflower Time Capsule

"Two areas of the Estate have been a particular focus of our conservation efforts over the years, and in both cases, it is hard to imagine how we could have protected and improved them without the close management control and Organic principles that the home farm made possible.

Shortly after I had taken over Crouch farm the tenant at Besley Farm retired. He and his family had run the 225 acre farm for many years, with minimal investment and improvement, and when we took it back in hand we found they had been milking six cows in tethered stalls – it was as though time had stood still.

The Waltham Brooks SSSI, across the River Arun from the Amberley Wildbrooks, formed a significant part of the farm, and management here focussed on traditional hay meadows, water level and ditch management and wetland birds. On the slightly higher ground north of the railway the hay meadows were again important, this time principally for wildflowers.

Frances Abraham surveyed the farm for us, and her schedule reads like a plant-spotter's wish list. Half the Sussex population of Fox Sedge Carex vulpine (RDB vulnerable) was growing in a single field, with other notable rarities including Slender tufted sedge Carex acuta (scarce in Sussex but locally dominant here), Brown sedge Carex disticha (uncommon in Sussex), Southern marsh orchid Dactylorhiza praetermissa (50 spikes), Cut grass Leersia oryzoides (RDB endangered), Narrow-leaved water dropwort Oenanthe silaifolia (Nationally scarce), Small water-pepper Persicaria minor (uncommon Nationally and in Sussex), Lesser pondweed Potamogeton pusillus (scarce in Sussex), Great yellowcress Rorippa amphibia (uncommon in Sussex), Greater water-parsnip Sium latifolium (Nationally scarce & very scarce in Sussex), Marsh stitchwort Stellaria palustris (rare in Sussex), Subterranean clover Trifolium subterraneum and Marsh speedwell Veronica scutellate (both uncommon in Sussex).

North of the A29 on the higher sandier fields, Plantlife discovered notable populations of Red-tipped Cudweed Filago lutescens and over the years we've organised several volunteer days to monitor and protect this very rare plant, which at the time was only hanging on at 16 sites throughout the UK".

Heathland: A Story of Restoration, Conservation and Access

The Estate contains 60 hectares (150 acres) of restored lowland heath, a rare and valuable habitat.

"Lord's Piece and Sutton Common SNCI, and the adjoining Coates Castle Park SSSI, managed as one site, is unquestionably the most important and high-profile farmed wildlife site on the Barlavington Estate: 60 hectares / 150 acres of heathland restoration under almost 30 years of continuous management as the only Organically-managed heathland in the UK and last remaining native site for the critically endangered Field Cricket Gryllus campestris.

The heathlands of Sussex were made by Man not Nature, or rather by Man acting on Nature over countless generations. All along the sandy ridges below the Sussex Downs the acid, agriculturally marginal heaths were formed by those on the margins of society, grazing, and overgrazing, any land they could find, whilst they cut birch for besom brooms, firewood and faggots (bundles of twigs used to light fires, known locally as "Sussex pimps") and harvested bracken for animal bedding and the local glass industry (burnt bracken ash is high in potassium, essential for glass making).

After the Second World War Britain's priority was growing food and replacing the timber which had been lost in the war effort. The new economy and the new agriculture combined with huge social and political changes everywhere were the final nails in the coffin of traditional heathland management. Like everyone else, on any land too poor to be worth ploughing, my father planted trees on Lord's Piece.

In West Sussex over 90% of heathlands were lost, along with the unique natural assemblage of soil micro-organisms, fungi, insects, plants and animals which had developed to take advantage of the farming activities of human beings. The agricultural abandonment and reforestation of the heaths was neither good nor bad, just a natural process of change in response to changing economic and environmental conditions. But the march of the trees, both self-seeded and planted, and the smothering advance of birch and bramble and bracken with its hungry roots and deep leaf litter, was taking place too fast and over too wide an area for the more delicate plants and animals to move or adapt. Some of the wildlife was probably lost from the Sussex heaths forever; some remained in smaller areas and in reduced numbers.

The Field Cricket Gryllus campestris must once have been common on the heaths of Southern England (Gilbert White mentions it in his Natural History of Selborne) and is still widespread in Europe today, but by the time it was rediscovered, when I was a child in the 1970s, it was only just holding on, at Lord's Piece: the last place in Great Britain where it survived.

I remember our local vicar, The Rev Daggar, bringing one over to our house in a jam jar so we could hear it chirruping, and later showing us how to tease them out of their burrows with long blades of grass. In 1981 the Field Cricket was included in the list of UK endangered species under the Wildlife and Countryside Act (Schedule 5), but apart from a few people knowing it was there and checking up on it not much was done to help it survive.

Then in 1991 a new Government grant scheme was introduced to help farmers and landowners

Lord's Piece Barlavington Estate

The Field Cricket

This area supports the last surviving British colony of the Field Cricket. In 1992 it was estimated that fewer than 60 pairs survived; now the number, even in poor years, is several hundreds - a much better state of affairs, but still fairly precarious. The numbers are now often sufficient for the Lord's Piece Field Crickets to provide breeding pairs for the Zoological Society of London, which runs a captive rearing programme at London Zoo. The young which are reared are then used to establish new populations in Surrey, West Sussex and Hampshire, the entire historical range of this insect in England.

Gryllus campestris

This improvement has been achieved by careful management, undertaken by the Barlavington Estate with the support and assistance of Natural England, to maintain the habitat conditions the Field Cricket needs: short grassy areas with warm patches of bare ground. In earlier centuries these conditions were frequent along the sandy strip of heathlands south of the River Rother between Pulborough and Woolmer Forest. They were maintained by both regular grazing of the heathlands by stock and intermittent cultivation of the poor sandy soils. The Sussex-cross cattle which you will often see grazing here are doing the same job for the Field Cricket as their forebears.

Female Field Crickets lay their eggs in warm patches of bare soil during June. The tiny young (2mm on first hatching) emerge in July, feeding and hiding among the grasses and heathers. They regularly split their skin and crawl out in a slightly bigger one, until they have grown too big to hide (10mm). By now autumn is approaching and they dig a short burrow amongst the roots of the grasses, where they pass the winter and spring. In early spring they start feeding again, making two more moults and attaining a size of 20mm. In order to grow quickly, ready to mate and lay new eggs, they must get as warm as possible. They do this by sun-bathing at the entrance to the burrow. When they feel the vibrations from something passing by they dash into their burrows and this rapid movement in the grass may catch your eye on sunny days during April. By May they are adult and the calls of the males attracting females ring out over the site once more.

Gilbert White, in *The Natural History of Selborne*, wrote about the crickets living there. He also noted that they were found most on sand banks at the sides of heaths in Sussex, this same stretch of heathlands you are now standing on. He passed this way as he rode from Selborne to Ringmer in the 1770s.

The organic cattle, managed in accordance with the organic guidelines issued by the Soil Association, or rather their dung, support another interesting pair of insects.

The first is the large, black **Minotaur Beetle.** It's called the Minotaur Beetle after the mythical creature, the Minotaur, half man half bull, the beetle has horns on its thorax look just above its head! It makes a finger-sized burrow, surrounded by a cone of soil, in patches of bare ground. The burrow contains a column of dung, rolled into it by the beetle and on which the beetle larvae feed. Look for this beetle on paths in the early spring, particularly at night.

The second is a fearsome hunter of other insects, the **Hornet Robber Fly**, one of the largest insects in England. This fly lives by pouncing on other insects and injecting them with a poison which kills them almost instantly. The fly then sucks out their juices. The larvae of the robber fly prey on the Minotaur Beetle larvae in their tunnels in the ground. Look for this fly in August and September, particularly near cow pats, which attract their prey - other flies.

Thank you to Natural England for helping to fund this project

Lord's Piece information notice June 2009
Photos Mike Edwards, text Mike Edwards and Sebastian Anstruther

manage their land in a more environmentally sensitive way. Working closely with English Nature (now Natural England) and the Invertebrate Conservation Centre at London Zoo, and led by Mike Edwards, a local entomologist and teacher and the driving force behind the whole project, the Barlavington Estate entered into a Countryside Stewardship Scheme to recreate the Lord's Piece heathland and save the Field Cricket.

It was one of the first and one of the biggest heathland restoration projects in England: 86 acres of bracken, several feet deep in place, was bulldozed to reveal the sandy soil beneath. The idea was to allow the heather and other heathland plants, whose seeds (we hoped) were still in the ground, to regrow. It worked… eventually… but for the first couple of years it looked like a First World War battlefield and there was a lot of local concern, and a few angry letters to the press, especially when we put a fence round the whole site.

Fencing was always going to be controversial, but there were plenty of gates: we weren't trying to exclude the public. One of the first things my father did when he bought the Estate was to take down all the "Private – Keep Out" notices on Lord's Piece. He opened it up and was happy to see local people walking there, enjoying the countryside and the magnificent views of the South Downs. We wanted to continue this tradition, but at the same time we needed to get animals back on Lord's Piece, for the first time in 50 years or more, to graze down the plants and tree seedlings and make the short tussocky grassland with bare sandy patches which the Field Cricket required.

At first, because there was a "horsey culture" in the family, we tried grazing the site with Exmoor Ponies. They were here for several years, looked wonderful, only sat on by small children occasionally and everyone loved them. Unfortunately, it became clear over time that their grazing habits were just not producing the ground conditions we were looking for, so they retired to a Nature Reserve in Norfolk. More recently Organic cattle from our home farm have been providing conservation grazing to manage the site, under a series of management plans approved by Natural England.

Meanwhile we have not been neglecting the area designated in 1993 as a Site of Special Scientific Interest for the Field Cricket and the original stronghold of the species: Coates Castle Park.

Coates Castle, which is Listed Grade II, was built by John King in the 1820s in the Strawberry Hill Gothic Style. He sold the property to George Wyndham (and I believe that it was for a time a Dower house for the Leconfield (Petworth) Estate); it is now split up into flats. When my father bought the Barlavington Estate he acquired the surrounding Coates Castle Park but not the house itself.

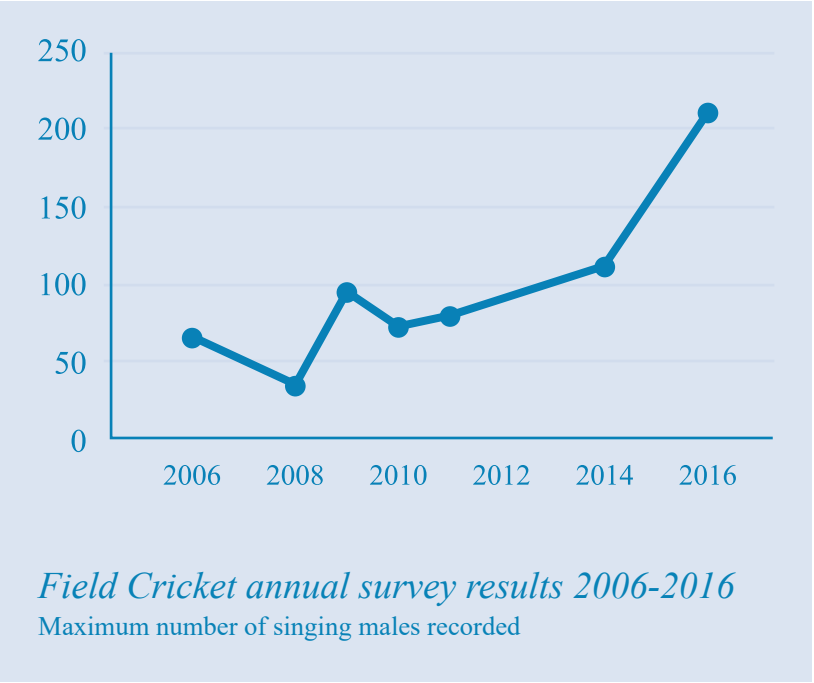
Here too my father planted trees, but on a grand scale and to a landscape scheme laid out by Dame Sylvia Crowe[15]. Because of this planting and the later SSSI citation, conservation management has taken a slower, less intrusive and sometimes less successful route.

Field Crickets require tussocky grass for their burrows and areas of bare ground to sun themselves, forage and call. At Coates Castle Park the SSSI citation protects not the whole site but only long narrow lawns: the only places the insects were still singing in 1993.

These lawns had been kept open only by rabbit grazing and occasional ploughing to establish cover crops for the local shoot and were slowly being lost to a mat of cold and smothering moss, completely unsuitable for Field Cricket.

In the last ten years, with the increase in timber prices, we have been able to clear much of the afforested area in Coates Castle Park and Lord's Piece and are now in the process of returning these areas to heathland.

[15] See Page 34-35



Field Cricket annual survey results 2006-2016

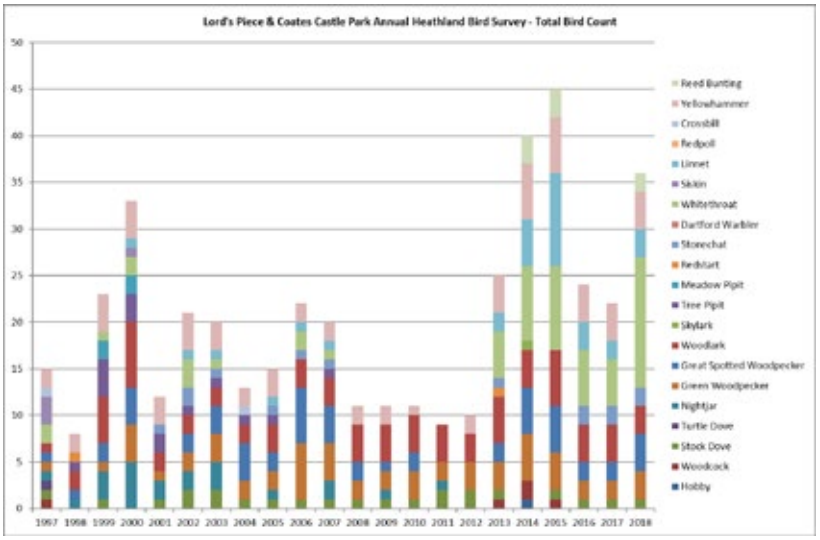
Maximum number of singing males recorded

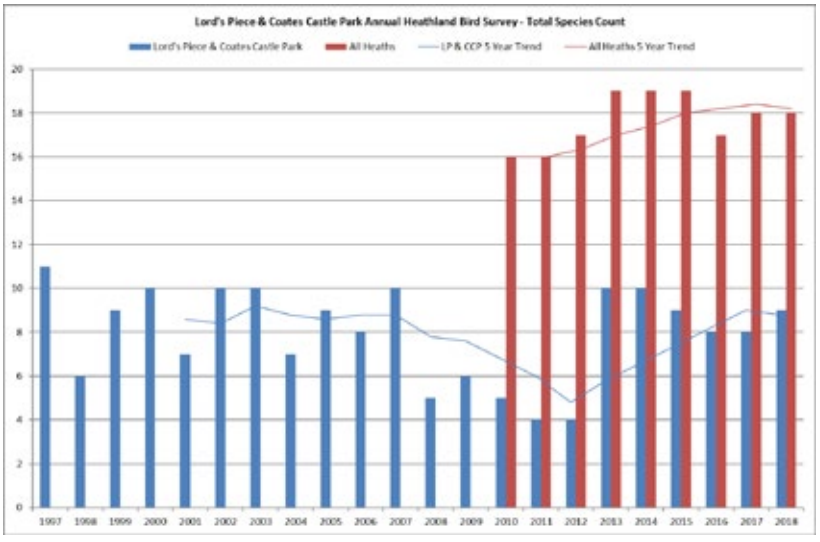
We have made mistakes, undoubtedly, but the Field Cricket, on the very edge of its natural range here in the South East of England, is also very susceptible to poor weather during the breeding season. In any case, we are seeing a slow recovery of the Field Cricket at Lord's Piece and Coates Castle Park.

Our management at Lord's Piece differs from most other heathland sites in that we are focused on a single endangered insect, the Field Cricket. However, this management does provide the benefits of heathland restoration generally. Regular monitoring of plants and reptiles has not taken place, but we do have good data on birds, for which we are very grateful to Alan Perry at the Sussex Ornithological Society.

This is not the place for a detailed analysis of the bird survey data at Lord's Piece, but it is noticeable that there are generally fewer species than on other heathland sites, and ground nesting species in particular, struggle here: whilst Woodlark does relatively well, Nightjar seems to have been lost and Dartford Warbler has never been recorded here.

Why might this be so? Managing heathland as part of a working livestock farm imposes resource constraints which environmental NGOs might not face. We try to do what





is required under our agri-environment grant scheme using the tools which are available to us. An added complication is Organic management – we cannot use sprays to control bracken, bramble and birch, and mechanical control cannot really start early enough in the year to suppress them because of the nesting bird interest. A result of these constraints is that there is more bracken on the site than we or Natural England would like. We have lost grazing animals to bracken poisoning on several occasions and this has made farm managers reluctant to risk grazing stock, or to commit them in the numbers which might be necessary.

However, the most difficult problem, and the biggest impact on ground nesting birds, is the sheer number people who visit the site, particularly with dogs.

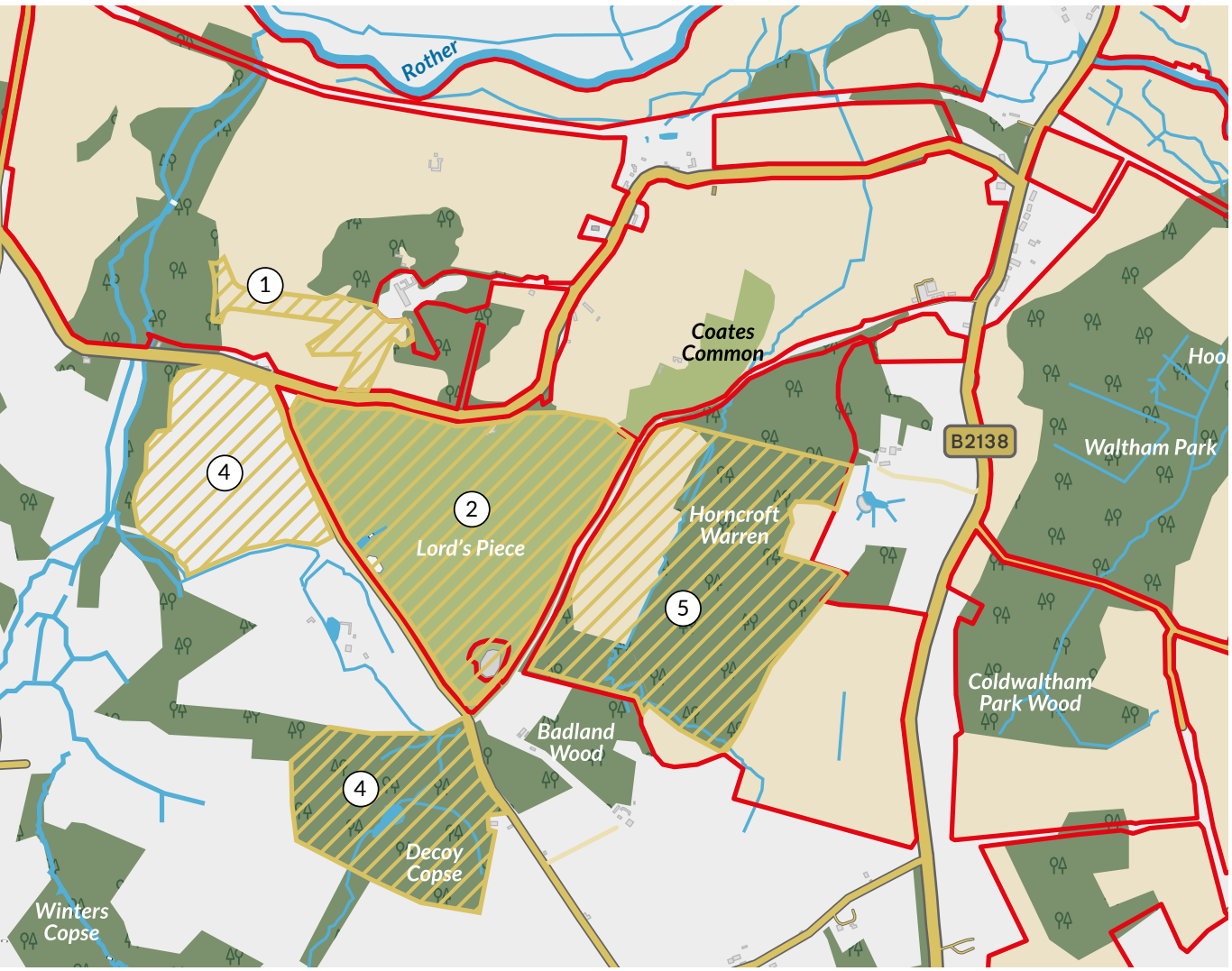
Lord's Piece is a dog-walkers' paradise! It is a lovely, open, dry site, easy to get to and easy to enjoy, with a secure stockproof fence all round it so dogs cannot get lost, and it has two public car parks, freely available twenty-four hours a day every day of the year. Since June 2018 we have been monitoring them, in an unscientific and irregular way, by simply noting how many cars are parked as we drive by. It is very unusual to see no cars – on average there are three cars on the site whenever you pass.

This may not sound much, but in an 8-hour day that's 24 cars, and weekends are underreported in our survey so over a year that might be 10,000 visits. Most visitors have dogs – some are professional dog walkers. We cannot keep dogs off the site. We could try to restrict access to dogs on leads during the bird nesting season, but people might not pay much attention and we could not police it. We just have to think of the positive benefits of people getting out and enjoying the countryside.

Lord's Piece is registered as Open Access Land under the Countryside ad Rights of Way Act 2000. Whatever the actual numbers it's clearly

used and enjoyed by thousands of people every year, and not just for walking: we have regular orienteering and other organised events such as geocaching there throughout the year; schools and voluntary groups visit, including the South Downs Rangers and the VRS, for which we are always very grateful. In 2018 Lord's Piece was the centre of a large Sussex Search and Rescue training exercise. We are currently working with the SDNPA to provide better access to Lord's Piece for disabled visitors, and to improve car parking arrangements for the benefit of both visitors and the environment.

So instead, we have been working with our neighbouring landowners to extend the local heathland restoration area and address visitor pressure in other ways. I believe we have provided leadership, or at least offered an example for others to follow, including hosting the local Heathland Forum in 2009, and many Heathland Forum site visits since then.

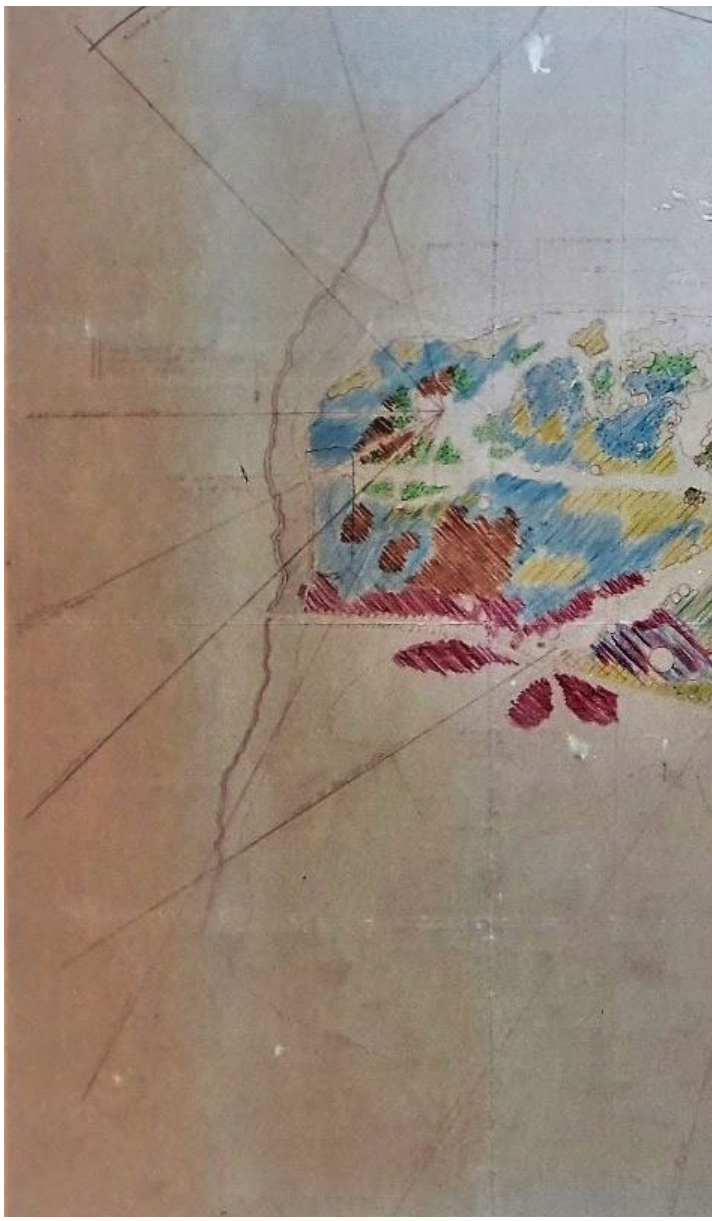


Our coordinated management now stretches across perhaps 100 hectares / 250 acres of heathland restoration, with potential to expand this further as part of any mineral site restoration at Horncroft. In particular, we are able to compare areas of heavy public access, such as Lord's Piece, with heathlands enjoying linear access only, and those sites such as Coates Castle Park where no public access is allowed. We have previously worked with the RSPB and the SDNPA as part of the "Back From the Brink" Field Cricket programme and will be keen to engage with other initiatives as they emerge."

- Heathland Restoration Areas
- (1) Coates Castle Park SSSI
- (2) Lord's Piece
- (3) Coordinated heathland management: Welches Common (SWT and private landowner)
- (4) Coordinated heathland management: Bignor Park Estate
- (5) Potential heathland expansion area: Horncroft
- Estate Ownership

MAP 4: HEATHLAND

HEATHLAND RESTORATION AREAS ACROSS NEIGHBOURING LAND OWNERSHIPS, CENTERED ON LORD'S PIECE, POTENTIALLY DOUBLING THE ORIGINAL HEATHLAND AREA



Woodlands

Barlavington Estate is heavily wooded; trees cover around 400 hectares (1,000 acres) equating to c. 32% of the total area. In addition to this are 40 hectares (100 acres) of Wood Pasture. These woodlands include 137 hectares (338 acres) of designated ancient and semi natural woodland and 80 hectares (200 acres) of designated replanted woodland on the site of ancient woodland and 1.6 hectares (c. 4 acres) of restored orchards.

In many ways the woods are Sebastian Anstruther's passion, as he explains below.

"I went to school in London, but it was only at Barlavington, at weekends and during the holidays, that I felt truly at home. My fondest memories are of walking in the woods with my father, clearing tracks and making bonfires, listening in silence to sizzling sausages and the sounds of the Hangers as night crept over them.

My father loved these woods, and all the woodlands on the Estate. In 1966 Dame Sylvia Crowe, first landscape consultant to the Forestry Commission, was asked to draw up a major replanting scheme for part of the Estate and visiting the growing trees as they matured, and the vision took shape, was one of our regular weekend walks. His Estate Manager Stan Mayes, his forestry consultant Roger Fitter and his Agent Patrick Hills, all passionate woodsmen, were the constant figures of my childhood. My father used to say, and it was no exaggeration, that he and Stan knew every tree on the place.

In 1987 the Great Storm devastated those woods on which he had lavished so much money and time and love, and so my father asked me to "come back" and take over the management of the woodlands.

The Great Storm of October 1987 was shortly followed by three other events which changed the whole dynamic of woodland management in South East England.

Following increasing concern over the planting of the Flow Country of Caithness and Sutherland with commercial rows of Sitka Spruce, much of it driven by the tax breaks then enjoyed by forestry, the Finance Act 1988 withdrew the tax deduction on woodland management. Whilst this may have been a proper response to environmental and political concerns it had the effect of stopping most woodland management in the South East of England dead in its tracks. Overnight the withdrawal of "Schedule D" made lowland small scale commercial and amenity woodland management hopelessly uneconomic.

DAME SYLVIA'S PLAN

Then in 1989 the fall of the Berlin Wall, the collapse of the Soviet Union and shortly thereafter the opening of the vast virgin forests of Eastern Europe to Western European trade depressed commercial timber prices further.

Finally, the Burns' Day Storm of January 1990 drove the last nail into the coffin of woodland management at Barlavington. Like most other woodland owners in this part of the country we simply "shut the gate" and forestry activities effectively ceased for 20 years.

So, when my late father wrote those words in 1993, and I had just returned to take my turn in managing the Barlavington Estate, it was still, we thought, the loveliest place on Earth, but there was clearly much work to do.

My father expected me to continue his style of management I suppose, but instead after the 1987 storm and subsequent events I focussed on the natural restoration of the woodlands (what we might now call a rewilding approach) particularly in the SSSI Hanger woods and the ancient semi-natural farm woods. With the market flooded and timber prices through the floor, and every cutting gang working at full stretch and charging rates to match, it seemed sensible to take a slower approach and watch Nature take her course.

One area where I did intervene however was Moon Copse."

SIR IAN ANSTRUTHER MEMORIAL

Moon Copse

"Moon Copse is a corner of an arable farm in a very prominent position on the Duncton to Bignor escarpment with magnificent views east along the South Downs to Chanctonbury Ring and beyond. In 1969 my father planted it with Beech trees Fagus sylvatica to commemorate the Apollo 11 moon landings, and perhaps also as a memorial to his elder brother Fagus who had died as a child?

Beech is a climax species, not a pioneer – it needs the shelter of other trees and shrubs to thrive, although it ultimately outgrows and overshadows them. The Fagus plantation made hardly any growth in over 20 years, and when I returned to Barlavington the trees were windblown, stunted and miserable and were clearly never going to make mature woodland. With my father's agreement we decided to remove them. Beneath and all around were the remnants of a pre-war chalk grassland untouched by modern farming.

We were already running the home farm Organically and we used dairy youngstock and dry cows to graze the site. Grazing is not easy here: Moon Copse is remote from the centre of the farm, has no proper vehicular access track and no water, but we did our best and slowly the site started to come back to life. The site is now in active restoration management, following a plan agreed between the Forestry Commission and Natural England.

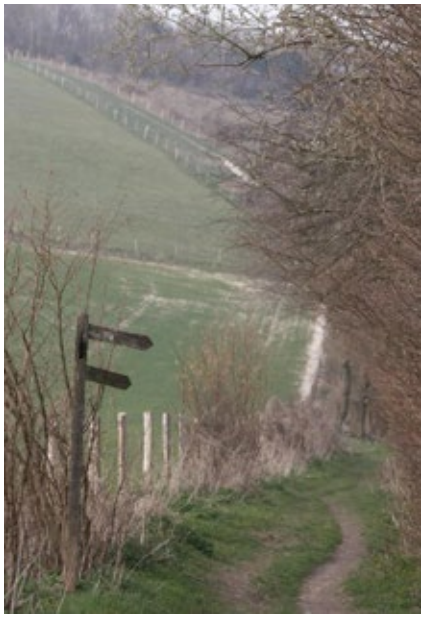
Over the years we have been helped immensely by the SDCB (later the SDJC and then the SDNPA), by volunteer groups from Butterfly Conservation and by students from Brisbury College. Sadly, the Duke of Burgundy has not been recorded recently, but we hope it will return under our current Countryside Stewardship Scheme, and in the meantime the chalk grassland display remains magnificent.

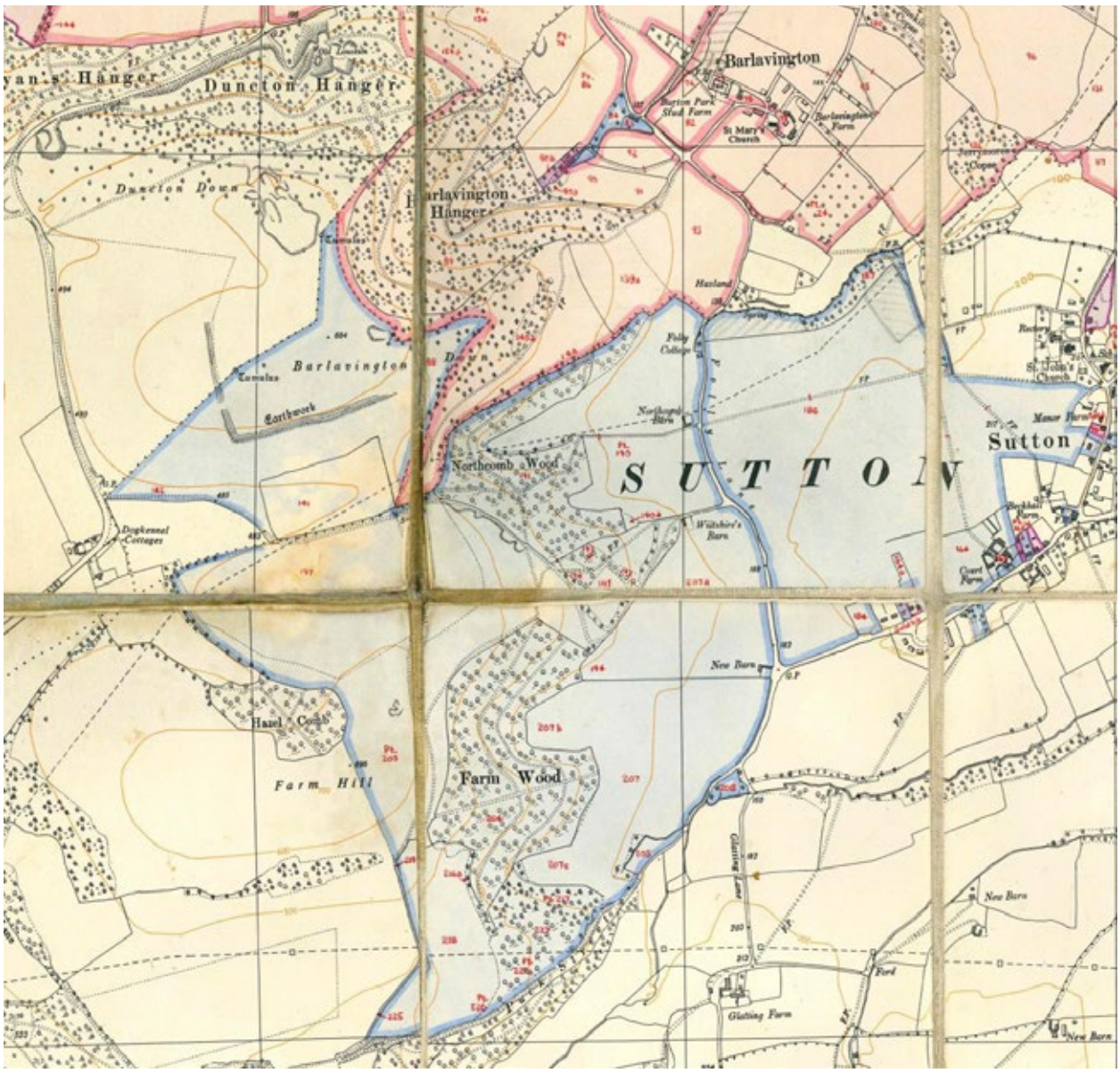
In 2009 we placed a stone memorial here to my late father."

Grasses present include sheep's fescue and false wood-brome, together with a wide range of herbs including: wild basil; cowslip; common bird's foot trefoil; agrimony; yarrow; wild strawberry; lady's bedstraw; autumn hawkbit; selfheal; common spotted orchid; pyramidal orchid; burnet saxifrage; harebell; marjoram; oxeye daisy; and field scabious. The site is also particularly important for butterflies and supports populations of a number of species associated with undergrazed chalk grassland. The most notable of these is Duke of Burgundy, but other species found here include grizzled and dingy skipper and marbled white.

Moon Copse Chalk Grassland Restoration Plan 2005

Angela Shepherd (Sussex Downs Conservation Board) and Roger Matthews (English Nature)





The Hangers: Duncton to Bignor Escarpment SSSI European Special Area of Conservation

Even before the acquisition of Duncton Mill the Barlavington Estate owned about half of the internationally important Duncton to Bignor Escarpment Site of Special Scientific Interest, designated as a European Special Area of Conservation in 2005.

In the steep-sided and densely wooded coombes of the north- and east-facing scarp you find a high proportion of dead standing and fallen timber and a constantly cool and moist micro-climate, where crystal clear and cold chalk springs bubble through the dense humus-rich forest soil. Some parts are so steep that they may never have been cleared for agriculture.

Here one finds rare plants such as white helleborine Cephalanthera damasonium, yellow bird's nest Monotropa hypopitys, green hellebore Helleborus viridis and limestone fern Gymnopcarpium robertium. The woods also have a rich mollusc fauna including the largest British colony of the rare snail Helicodonta obvoluta, and a notable assemblage of rare moths. These are magical places, best left alone.

Other areas are more open, where huge old beech, ash and yew dominate the woods on more accessible slopes.

Here there is ample evidence of past coppice

OPPOSITE: 6" FOLDING MAP

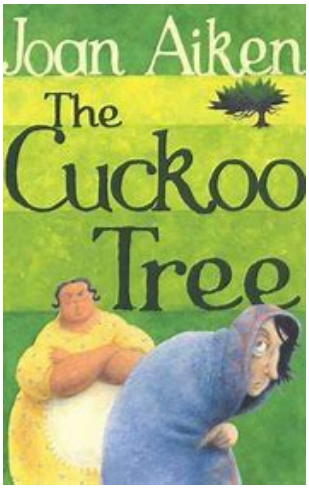
management, and indeed even in the 1950s my father's old Estate map shows open ground, or fields just scrubbing over, where today high forest stands. Here too we find glades, kept open by rabbit and deer browsing, where relict chalk grassland still clings on. This has clearly not been woodland continuously since 1600, whatever the Ancient Woodland designation may say; indeed Frances Abraham (one of the co-authors of the Sussex Botanical Recording Society's Flora of Sussex 2018) has suggested to me that large areas of the Hanger woods here were probably semi-open wood pasture rather than the closed-canopy woodland we see today.

To achieve a balance between these different possible pasts and futures, our present management objective, agreed with the Forestry Commission and Natural England, is to keep relict chalk grassland areas open and join them up with widened rides along which plants, animals and insects can more easily move around and which will improve the overall biodiversity and resilience of the Hanger woods.

The Cuckoo Tree

Local people really notice how open fields have been lost to woodland within living memory. As demonstrated by commentary about the locally beloved Cuckoo Tree (the subject of a famous children's book which we discuss later).

> This little tree was well known to many generations of children.... It is a small stunted yew tree standing beside the bridle path on the south east slope of Barlavington Down, overlooking the valley and North Comb. Forty years ago the side of the hill was downland turf, covered in grassy anthills and rabbit warrens with a few saplings so there was a clear view of the valley below and over the fields to Sutton and Bignor and beyond to Amberley and Chanctonbury Ring.
>
> The magic about the tree was that it was small and flat so it was easy to climb and you could sit on the top in the crooks of the branches which were like seats and if you shouted 'Cuckoo' there was a resounding echo from the North Comb. It was a wonderful place for a picnic despite the steep climb from Barlavington. As children we often walked up there to meet our friends and play – we always felt it was special.
>
> *Toni Green, Sutton Village News*



OPPOSITE: LODGE COPSE DEMONSTRATION WOODLAND

TOP: PLUMED PROMINENT
BOTTOM: FRANKIE WOODGATE & HEAVY HORSE

Duncton Hanger – Restoring a Planted Ancient Woodland Site

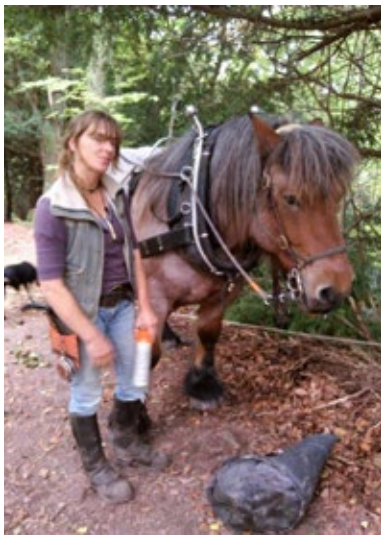
In 2001 the Estate acquired Duncton Mill. Included in the sale was 20 acres of Hanger woodland which had been planted in the 1960s with Western Red Cedar, a highly productive and highly invasive non-native commercial timber species.

As part of commercial forestry plantations Western Red Cedar is an excellent choice on many sites, and we have stands growing well on several areas of the Estate, but it is definitely not "the right tree in the right place" in a European Special Area of Conservation such as the Duncton to Bignor Escarpment SSSI woodlands. In 2013, with help from the SDNPA and the Forestry Commission, we brought in Frankie Woodgate and her heavy horses.

The site and the weather were challenging, but over a couple of years we managed to clear all the Western Red Cedar from Duncton Down, most of it finding a useful outlet in local fencing and firewood markets.

We were immensely grateful to the SDNPA for their help, and subsequently to Butterfly Conservation whose local volunteers cleared the "lop and top" (the unsaleable branch wood and foliage from tree felling) to benefit rare plants and the moths that rely on them, such as the wonderfully named Drab Looper Minoa murinata and the magnificent Plumed Prominent Ptilophora plumigera, both found in these woods.

The site is now in active restoration management, following a plan agreed between the Forestry Commission and Natural England.



"You might think that using horses is old fashioned but in fact it's a very progressive way to manage woods. Taking machines into a sensitive area can damage young trees and compact the woodland floor slowing down the return of native trees. Tobias and Ardennes work very hard and on a good day just one of them can clear up to 20 tonnes of wood.

Clearing a plantation in the middle of an area recognised internationally for the importance of its wildlife is a big challenge. Not only is the land very sensitive but it's also on a 45 degree slope, so machines just weren't an option. Using heavy horses means that we can get right up into the plantation with very little impact on the rest of the site. In fact, having Tobias and Ardennes' big hooves churning up the ground under the plantation, will actually help our native trees return sooner.

Press Statement -
Sebastian Anstruther & Frankie Woodgate

Lodge Copse Demonstration Woodland

"In 1989, I set up Lodge Copse, a 16-acre ancient semi-natural farm copse, as Britain's first Demonstration Woodlands. Working with the British Trust for Conservation Volunteers in collaboration first with the South Downs Joint Committee, and since 2013 with the South Downs National Park Authority and its Volunteer Ranger Service.

Our objectives have remained unchanged:

- To return the copse to its traditional coppice with standard woodland structure and enhance its silvicultural value.
- To enhance the copse's value for its flora and fauna whenever possible.
- To provide amenity value.
- To be commercially minded where possible.
- To use the copse for educational purposes.
- To use the copse in its capacity as a demonstration wood.

In other words, to meet environmental, social, and economic goals and try, through practical action and experience, to find a sustainable balance between them.

After 30 years the Lodge Copse project has expanded to take in the neighbouring Brickfield Copse and is still going strong. The group signed a new lease in 2021. They meet regularly on a Tuesday. They undertake such activities such as coppicing, charcoal burning and cutting timber for fencing materials for use on other sites across the South Downs.

Many rare plants and insects thrive here, and Nightingales can be heard on still summer evenings. Hundreds of people, from community groups, schoolchildren, stressed executives, ex-offenders, young people needing a new direction in life and those recovering from mental illness, as well as open day visitors and the dedicated group of regular local volunteers, have benefited from a chance to experience, as I did, even if only for a while, the restorative pleasure of just messing about in the woods. It has been, and continues to be, a great success with opportunities to extend its influence and impact with a new generation of volunteers and leaders."

Wood From Our Woods: Forestry Management Resumes as Markets Recover

"In the early 2000's timber prices started to recover, and we could get back into the commercial woods and start to manage them again.

Since then, we have planted approximately 8,000 trees over 26 acres and 3 km of hedgerows. It has been a real pleasure to me to be able to get back into the woods, thinning and replanting, maintaining ditches and culverts, looking after veteran trees and improving both biodiversity and resilience, and investing in the woodlands again for my children and grandchildren, as previous generations did for me.

It's good, too, to be providing energy and building materials from our own resources. We have not invested in a woodchip boiler on the Estate as we do not have a "great house" or an "estate village" that we can economically provide heat to – although we have installed other low carbon energy systems.

However, the opening in 2018 of the Kent Renewable Energy biomass-fired combined-heat-and-power plant has provided a new profitable market for chip wood from forest operations which would otherwise have been burned on site. The Kent facility can produce enough power to supply the equivalent of 50,000 homes while offsetting 100,000 tons of carbon dioxide emissions annually, helping the environment and significantly improving the overall economics of woodland management throughout the South East.

On the Estate, we put a woodburning stove into every property we renovate, and encourage our tenants to use them, and to buy well-seasoned dry logs from a local supplier who in turn gets much of his wood from us. The sustainability of logburners has been questioned recently, but it still makes sense ecologically and financially to burn good wood from local sources if you can.

> ...if we burn the right wood in the right way we can actually improve both our carbon footprint and our air quality... wood fuel should be a carbon neutral resource; the C02 released on burning is matched by the amount absorbed when it is growing. Well-managed woodlands will ensure that healthy trees remain long into the future, with carbon locked up in the mature trees, soils and vegetation, and further C02 taken up as young trees grow. This means that the woodland cycle is not just renewable and carbon neutral, but can result in a net carbon benefit... A simple shift from fossil fuels to wood fuel, and open fires to wood burners means that we can also make a huge improvement in air quality.
>
> *The Case for Wood Fuel*
> John Everitt, The Ecologist Magazine, 15/03/2019 / https://theecologist.org/2019/mar/15/case-wood-fuel

We have been able to make a difference locally in other ways too, for instance by providing the timber used to construct, and now to extend, the award-winning Fittleworth Community Shop (another recipient of an SDNPA Sustainable Communities Fund grant). This project has transformed a small community in the heart of the National Park; we've been really proud to support it from our own resources."

TOP: FITTLEWORTH COMMUNITY SHOP
BOTTOM: WOOD BURNED IN STOVE

Deer Management

The Barlavington Estate has 400 hectares of woodland: from ancient woodland of the highest environmental value such as the Duncton to Bignor SSSI SAC, and The Moor, a SSSI wet woodland forming part of the Burton and Chingford Ponds Local Nature Reserve, and small farm copses, themselves often ancient semi-natural woodland, such as Lord's Piece, through to commercially managed softwood and hardwood forest stands, to orchards and natural flood management plantations, and even the odd area of deliberate non-intervention, unmanaged succession rewilding.

All these woodland areas are severely impacted by deer. A walk through any of them shows very little succession of new, young trees and a severely modified or totally absent ground flora and shrub layer. Trees are being damaged by fraying (antler rubbing) and bark stripping, and the characteristic browse lines of both Roe deer and Fallow are evident. Both new planting and the restoration of coppice management require physical protection; usually we now use 2m high deer fences.

Deer are a valuable natural resource if managed sustainably, but when occurring at excessive densities, they can have negative effects on biodiversity, the rural economy, human health and safety and animal welfare.

The Woodland Trust has found that[16]:

...over-grazing and browsing in ancient woodland is linked to declines in characteristic plant species, woodland bird species, and invertebrate abundance and diversity, and also prevents adequate regeneration of trees and coppice.

Government agencies, NGOs, and academics believe that deer are more abundant and widespread now than at any time in the past 1,000 years[17].

All woodlands under a Forestry Commission grant scheme and associated Woodland Management Plan – and that is all woodlands on this Estate – require a written deer management policy and evidence of active and sustained deer control. We split the Estate between two highly-qualified deer stalkers who report their returns annually. One of our stalkers has developed a thriving game dealership business, based in commercial premises rented from the Estate and now employing two full-time members of staff: Jack Smallman's South Downs Venison and Game supplies farmers' markets, restaurants and pubs throughout the South East and in London, and is the only game business to have held the South Downs National Park venison accreditation certificate.

Finally, after many years liaising with our Forestry Commission Deer Officer Jamie Cordery, with the active encouragement of the SDNPA, and thanks to the energy and vision of a neighbouring estate, it looks as though a local Deer Management Group may be forming. We look forward to playing an active part.

[16] Woodland Trust Deer Management Position Statement 2014

[17] Wild Deer Postnote No 325 Parliamentary Office of Science and Technology 2009

Duncton Mill Orchard: A Future National Collection of Sussex Apple Varieties

"When we took over Duncton Mill we found an old apple orchard. I knew traditional orchards were important for biodiversity because of their long history of grazing and because they often also contained interesting and sometimes rare traditional fruit varieties; Common Ground's pioneering work on orchards was also in my mind.

My efforts to start a community orchard at Duncton Mill failed, foundering on issues of public liability, lack of local volunteers and my own inexperience, but it was a fruitful failure as it brought me into contact with the local village primary school at Duncton, where I'm now a Governor.

As the school is less than a mile from the orchard the children often walk up here, and over the last few years they have witnessed the gradual replanting of the orchard with every known variety of Sussex apple. Under the guidance of Peter May, who runs the orchard at Stanmer Park for the Brighton Permaculture Trust, we are replicating that collection under different soil and climate conditions to safeguard our precious genetic heritage of Sussex apples on a second site; we have recently been registered with Plant Heritage as a National Collection in 2020."

Woodland Restoration with Climate Resilient Species

Mature ash trees in Fountain Copse were severely infected with both ash dieback and honey fungus. With a popular footpath running along the perimeter of the wood, the risk from mature trees disintegrating was significant and with support from the Forestry Commission and the National Park our plan to fell and restore the woodland with a mixture of native and climate resilient tree species was put in place.

Following timber harvesting we deer fenced the area to allow natural regeneration of trees from the existing seedbed and from regrowth of coppice to establish, this should enable regeneration of disease resistant ash trees to complement the planted trees.

Tree planting has included a mixture of broadleaved trees that are:

- well adapted to the site;
- found growing locally;
- can produce useful materials in the future; and
- which hopefully will be resilient in a changing climate.

The first phase of planting included black walnut, cherry, oak, hornbeam and an experimental number of tulip trees (Liriodendron tulipifera).

The trees are protected with spirals made from corn starch and by reusing tree guards recovered from established plantations on the Estate.

Survival of the planted trees in their first growing season has been good, with failure rates of less than 10%. The cell grown tulip trees established particularly well. This is a good result given the record breaking dry and hot summer conditions.

It will take about five years for the young trees to get established, and a decade before we start to thin out the stand and select the best trees to grown on.

Ash dieback is having a devastating impact on woodland in Sussex, by taking a proactive and thoughtful approach we are trying to regenerate areas of collapsing ash with resistant species that will be the woodlands of the future.

THE MOOR

TOP: OAK THINNING AT BRICKFIELD COPSE
MIDDLE: TREE SAFETY SURVEY AT HANGERS
BOTTOM: DUNCTON HANGERS CLEARED

A Secure Future for Our Woodlands?

"As we look forwards, there seem to be so many developing threats to the health of our woodlands that it's easy to lose heart. I grew up seeing the devastating effects of Dutch Elm Disease and now Ash dieback Hymenoscyphus fraxineus, Ramorum disease Phytophthora ramorum (devastating our riverside Alders and now understood to be causing Sudden Oak Death) and Sweet Chestnut blight Cryphonectria parasitica are all ravaging our broadleaf trees.

Over all this looms Climate Change, which stresses the trees we already have, helps new pests and diseases to attack them, dries them out in summer and blows them over in winter. This combination of factors has a very real impact in some of our woodlands. The Hanger woods are suffering badly from Ash dieback and it will be important to work with the Forestry Commission and National Park Authority to agree an appropriate response.

The challenging topography and sensitive environment associated with these woods means that the best option may be to leave well alone and trust nature to fill the void (subject to effective deer management). Others might see things differently however and we will need to work with the Forestry Commission and the National Park Authority to agree an appropriate and viable response.

We must continue to look forward and plan, even in this uncertain state of knowledge, for the future. We must seek to manage our woodlands in ways that can enhance their resilience to climate change, pests, and diseases. Following expert advice from the Forestry Commission's Forest Research[18] unit we have already carried out one experimental planting of species which might best survive, or even thrive, in the climate future we presently foresee, and we shall no doubt do more in the years to come."

[18] Advised by Dr Richard Jinks, Forest Research Centre for Sustainable Forestry and Climate Change

Water

The Barlavington Estate includes a spring line which runs along the scarp slope of the downlands to the south. This line gives rise to an abundance of springs that produce crystal clear and pure water, abundant with minerals. These springs have attracted and sustained human occupation on the Estate far back in history.

Our generation has been able to utilise this natural resource to help our tenants at Duncton Trout Farm produce the best quality farmed trout. We also use it to provide water to some of our properties and to grow vegetables.

The natural flow of water from the spring line northwards to the Rivers Arun and Rother is susceptible to nutrient pollution from intensive farming and horticultural activity, and from erosion associated with field activities, cultivations and timber harvesting.

At Barlavington we do what we can to avoid these impacts, choosing our approach to the application of organic manures, to stream and riverside grazing and to the timing of field and forestry work carefully.

CASE STUDY:
Arun & Rother Rivers Trust (ARRT)

In 2011 I helped set up the Arun & Rother Rivers Trust as a charity to work closely with farmers and others to improve our rivers and water environment. I stepped down as Chairman in 2017 but am still a Trustee.

ARRT works throughout the "Arun & Western Streams" catchment and hosts the Catchment Partnership (which I used to chair). It has carried out hundreds of thousands of pounds-worth of river improvements and associated environmental works. These include some projects at Barlavington, for example the fry refuge and gravel riffle at Shopham Bridge, to improve fish spawning and the mixed native tree planting at Duncton Mill to protect the chalk springs from nutrient runoff and increased infiltration in heavy rain.

LEFT: SHOPHAM LOOP 2001 / MAP DATA ©2021 GOOGLE, INFOTERRA LTD & BLUESKY
RIGHT: SHOPHAM LOOP 2020 / MAP DATA ©2021 GOOGLE

CASE STUDY:
Shopham Loop

Shopham Loop would have been another textbook ARRT river improvement project… but it took place in 2004, seven years before ARRT was started.

The project was a collaboration between the Environment Agency, the Leconfield Estate and the Barlavington Estate (on land belonging to another branch of the family, since sold) upstream of Shopham Bridge, south of Petworth.

It involved the restoration of a river meander (the "Loop") which had been cut off hundreds of years before as part of the third Earl of Egremont's canalisation of the Rother in 1795 which opened up a navigation for grain, timber etc from the Downs and the Rother Valley to the sea at Littlehampton. The project was one of the very first of its kind in the UK and was extensively written about at the time – see for example the article in River Restoration News Issue 20 March 2005.

Silica Sand

Silica Sand is recognised as a mineral of strategic national importance which supports an extensive range of industrial end-uses. A silica content of more than 95% (as well as minimal inclusions of elements such as iron) is critical to many of the high tech and industrial end-uses; such as silicon chips and clear glass products. Minerals can only be worked where they are found, and Silica Sand deposits are recognised, by The British Geological Survey (BGS), as being a "scarce resource".

The UK is, currently, self-sufficient in its supply of Silica Sand. However, The BGS recognise that for end uses such as colourless glass, there is far less certainty in the medium to long term. Silica Sand's benefits are considered by UK Government policy on a national, as opposed to entirely regional, scale[19].

Silica Sand of the quality required for high-grade specification products such as sodium silicate and clear glass (windows, lenses, etc.) only occurs at a very limited number of viable deposits.

Large areas of the Barlavington Estate sit on the Folkestone Formation, recognised as bearing Silica Sand suitable for some of the highest-grade end-uses. At Marehill, Pulborough, for example, foundry sand (a type of Silica Sand) was commercially mined until the early 20th Century. This Nationally important mineral has been worked on the Estate from well before the Anstruther family's ownership, extraction from Coates Sandpit having been licenced by the previous owners in 1932[20] and continued into the 1960s.

Whilst commercial extraction ceased in the 1960s, the Coates Sandpit still exists, and the Estate regularly extracts sand for its own use; it makes an excellent bedding material for the Organic dairy herd at Crouch Farm.

The scale of the Silica Sand reserve in the Coates and Horncroft area is significant. Identified within the Minerals Local Plan as the Horncroft / Coates reserve, the scale of the deposit at Coates is estimated at 500,000 to 800,000 tonnes, whilst the adjoining and geologically contiguous Horncroft resource is estimated as at least 1.5 million tonnes.

The plan making process for the current Minerals Local Plan for West Sussex examined the National demand for Silica Sand in detail. The Local Plan Inspector determined that the position relating to National resources and reserves was such that an allocation within a National Park could not, at that time, be justified but supported the inclusion of a criteria based policy to enable extraction of Silica Sand if "exceptional circumstances are demonstrated and the proposal is deemed to be in the public interest".

The Inspector also required that the presence of Silica Sand at the Horncroft site be formally recorded, and the site included in the mineral safeguarding area[21].

Barlavington Estate recognises the National importance of Silica Sand and is committed to safeguarding and subsequently enabling the extraction of this mineral in response to any evidenced increasing and unmet National demand should extraction be sought, enabled and supported by the planning system.

The Estate continues to factor the potential for future mineral extraction from this area into its approach to farming and land management and will ensure that ongoing work to support biodiversity and establish wildlife meets the needs of mineral safeguarding policy.

[19] British Geological Survey, 2020. Mineral Planning Factsheet

[20] Coates sandpit letter Leconfield to Dallyn 22/08/1932

[21] West Sussex Local Minerals Plan Inspectors Report May 2018 paragraph 51

RIGHT: COATES OLD SCHOOLHOUSE

The Social, Economic and Cultural Capital of The Barlavington Estate and the Outcomes they Support

In addition to its wealth of natural capital The Barlavington Estate provides and maintains social, economic and cultural capital. It makes this available to local people, communities and businesses as well as maintaining a network of access via public and permissive rights.

Social Capital

The Estate provides 43 homes for rent and is actively developing more. These are distributed across several communities including Barlavington, Bury, Coates, Coldwaltham, Duncton, Fittleworth Sutton and Watersfield. The provision of these homes into the local market provides the opportunity for people to live and work in the local area, many of whom would not be able to afford to buy and maintain the type, size or setting of property they occupy.

Eleven of the Estate's houses are listed buildings. The Estate takes its responsibilities under the Planning (Listed Buildings and Conservation Areas) Act 1990 extremely seriously and ensures that the heritage value of these properties is conserved whilst making them as suitable as is possible for modern living. The opportunity to live in historic buildings is hugely valued by the Estate's tenants, many of whom continue to enjoy a long uninterrupted tenure. The average length of tenants' occupation of Estate cottages is in the region of 8 years (mean 6, mode 10.3), compared to the average tenancy for the private rented sector as a whole of only 4.4 years (Government's English Housing Survey 2018-19).

The Estate's residential properties are enduringly popular and there is a very low level of 'churn' (sub 5% vacancies annually). Demand is consistently strongest for smaller properties and so there may be a case for sub-division of some larger properties on the Estate, for example Tripp Hill Farmhouse. Historically many of today's larger farmhouses and cottages were two or more separate dwellings as can be seen by the arrangement of staircases, chimneys and inglenooks etc.

Most of the Estate's residential properties are let to families, 14 of whom have school aged children.

Several of the properties form part of farm enterprises (such as the operators at Duncton Mill Lakes, the long-established farming family at Waltham Park Farm and the owners of South Downs Game) and almost all our tenants work locally. Three properties are lived in by members of the Anstruther family. Currently only one property is used as a second or "holiday" home and even in this case the tenant is at Barlavington more often than not.

The people and families who live in the Estate's residential property make an important economic and social contribution to and significantly enhance the vitality of local communities.

The letting of residential property generates important income to the Estate. It is far from cost free, however. A substantial proportion of rents received is reinvested each year in repairs, maintenance and the renovation of properties that have been subject to long occupancy and return 'in hand'. Where properties are listed, or substantial works are required to bring them up to modern energy performance standards, the costs are inevitably higher.

This expenditure generates a significant and additional local economic benefit, the management team at the Estate estimates that almost £3 million has been spent with local suppliers and skilled craftsmen in the last 15 years on maintenance alone. In addition, a regular programme of capital improvements and new work probably accounts for at least as much again - getting on for £500,000 going back into the local economy every year.

TOP=LEFT: TRIPP HILL FARM

TOP-RIGHT: WEDDING TENT AT DUNCTON MILL

BOTTOM: BARLAVINGTON STUD

Economic Capital

The Estate provides a wide range of commercial premises, as well as farms. Hosting 33 businesses in all with tenants as diverse as a fish farm, a wedding venue, digital marketing company, venison butcher, furniture warehouse and a geological exploration company. In all the Estate currently lets some 49,400 sq ft of commercial space with potential for an additional 26,000 sq ft from new conversions of existing buildings.

There are currently two main commercial sites on the Estate, at Tripp Hill Farm and Barlavington Stud. The Estate expects to invest in and grow these sites over time, creating more workspace at Tripp Hill Farm, and at Barlavington a mix of commercial and residential space. The Dean Barn at Duncton Manor Farm[22] has recently gained a consent for an event space focussed on local food.

Historically, the Estate has hosted limited leisure activity. This is changing as the use of Duncton Mill Lakes for functions and celebrations gathers pace. The new tenant sees potential to use the recently converted Black Barn at Duncton Mill as an indoor celebration venue to complement the lakeside venue.

These commercial tenants bring jobs, spending and investment and vibrancy to the local area. They also provide vital revenue to the Estate that is used to help meet ownership liabilities and support environmental stewardship, as well as bring new economic use and new life to many beautiful and historic buildings.

As we have already seen with residential buildings, the Estate's Commercial development projects to create this workspace also deliver benefits to the local economy, employing local people and generating spending in the local areas as valuable contracts are awarded to local building firms, trades people and professionals. For example, the recent project to convert the Black Barn at Duncton Mill was worth c. £372,000, all of which was spent with local suppliers using local contractors and craftsmen.

[22] Deans Barn, Manor Farm, Duncton - application reference SDNP/20/05282/FUL

TOP-LEFT: DUNCTON MILLPOND COTTAGE
TOP-RIGHT: TRIPP HILL FARMHOUSE
BOTTOM: COLDWALTHAM FARMHOUSE

Built Heritage

The Estate owns 17 listed buildings and hosts 7 Scheduled Monuments[23]. The listed buildings are a mix of dwellings and barns dating from the 17th, 18th and 19th Centuries (some on sites of much older buildings). The Estate also provides the immediate context for, but does not own, the Grade I listed St Mary's Parish Church in Barlavington, parts of which date back to the 12th and 13th Century[24].

These listed buildings provide a fascinating insight into the history of life in the area. A detailed record is provided in the report of entries from the Historic Environment Record, available on request.

The 17th Century properties include farmhouses, farm and estate cottages showing the establishment of significant farming enterprise[25].

These are added to in the 18th and 19th Centuries with functional buildings such as large barns at Barlavington Farm, Duncton Mill, Duncton Manor Farm and at Lee Farm to the east of Fittleworth. A mill is recorded at Duncton Mill in the Domesday Book (1086) and there have been watermills here continuously since then.

The 18th Century saw significant development to make use of the prolific springs at Duncton Mill. The Watermill, Granary and Stables were followed by the construction of the Mill House. The Black Barn at Duncton Mill is reported as having a history dating back to the 13th Century although the official list entry (1274315) refers to the building as being from the 18th Century.

Equally part of the story of farming and land-based enterprise are the series of smaller barns with associated fold yards situated on roadsides, at the beginning of the scarp slope, by ponds and wooded areas. These include Northcomb Barn, Lodge Copse Barn, Ravesland

[23] A full record of listed buildings on the Estate together with comments on their use and condition is provided in Appendix One. Note the Estate does not own all the listed buildings within its spatial area.

[24] The Estate does not own the church and church yard but does own the area that makes up its setting.

[25] Coldwaltham Home Farmhouse, Shopham Bridge Farmhouse, Crouch Farmhouse, Church / Manor Farmhouse Duncton, A30B and30C Coates, Tripp Hill Cottages, Crouch Farm Cottages, and Springs Cottage.

Copse Barn, Ides Copse Barn, the Old Slaughter House at Greatham Bridge and Wiltshire's Barn.

Now completely unsuitable for the use for which they were designed, a new approach needs to be found to meet the significant ongoing costs associated with the maintenance of these traditional buildings if they are to survive. Small steps have already been taken with the consent to use Wiltshire's Barn (situated just west of Barlavington) as a training centre for Forest School teachers and an artist's retreat. This use benefits from a link with the past and reflects the significance of wider landscape setting of the Estate to the 20th Century art movement.

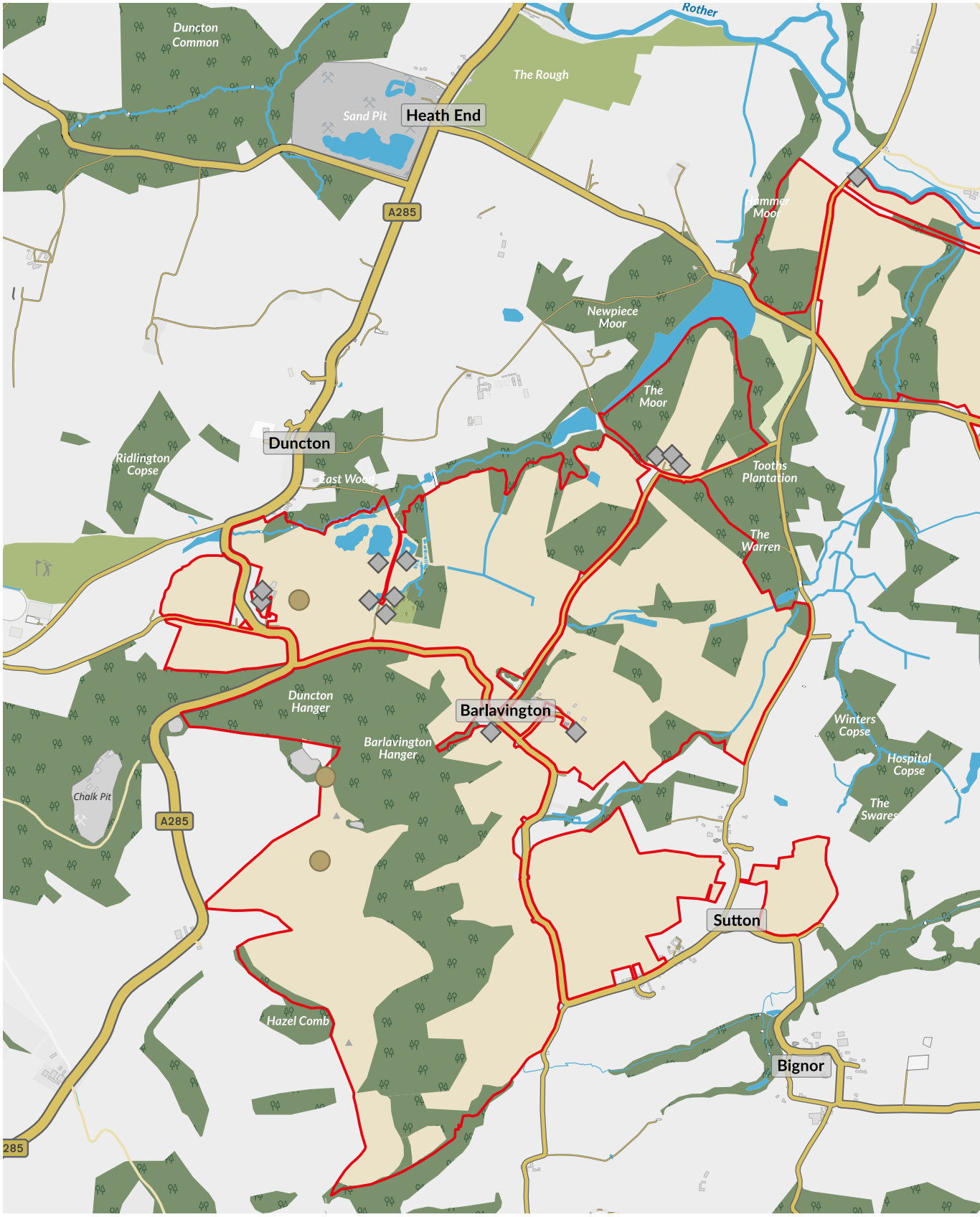
Whilst Coldwaltham and Waltham Park farmhouses play the same role today as when they were built, the other listed dwellings are no longer connected to farm units. They are let to residential tenants, providing the opportunity for people to enjoy living on or near working farms with a connection to the past.

The large barns all need new uses. Work has recently been completed to convert the Black Barn at Duncton Mill[26] whilst planning permission has been granted to convert the large Sussex Barn at Barlavington[27], with its associated smaller buildings, to provide new housing, and at the Dean Barn at Duncton Manor Farm for an event

[26] Planning reference SDNP/16/05612/FUL

[27] Planning reference SDNP/17/02862/FUL

MAP 5: HERITAGE

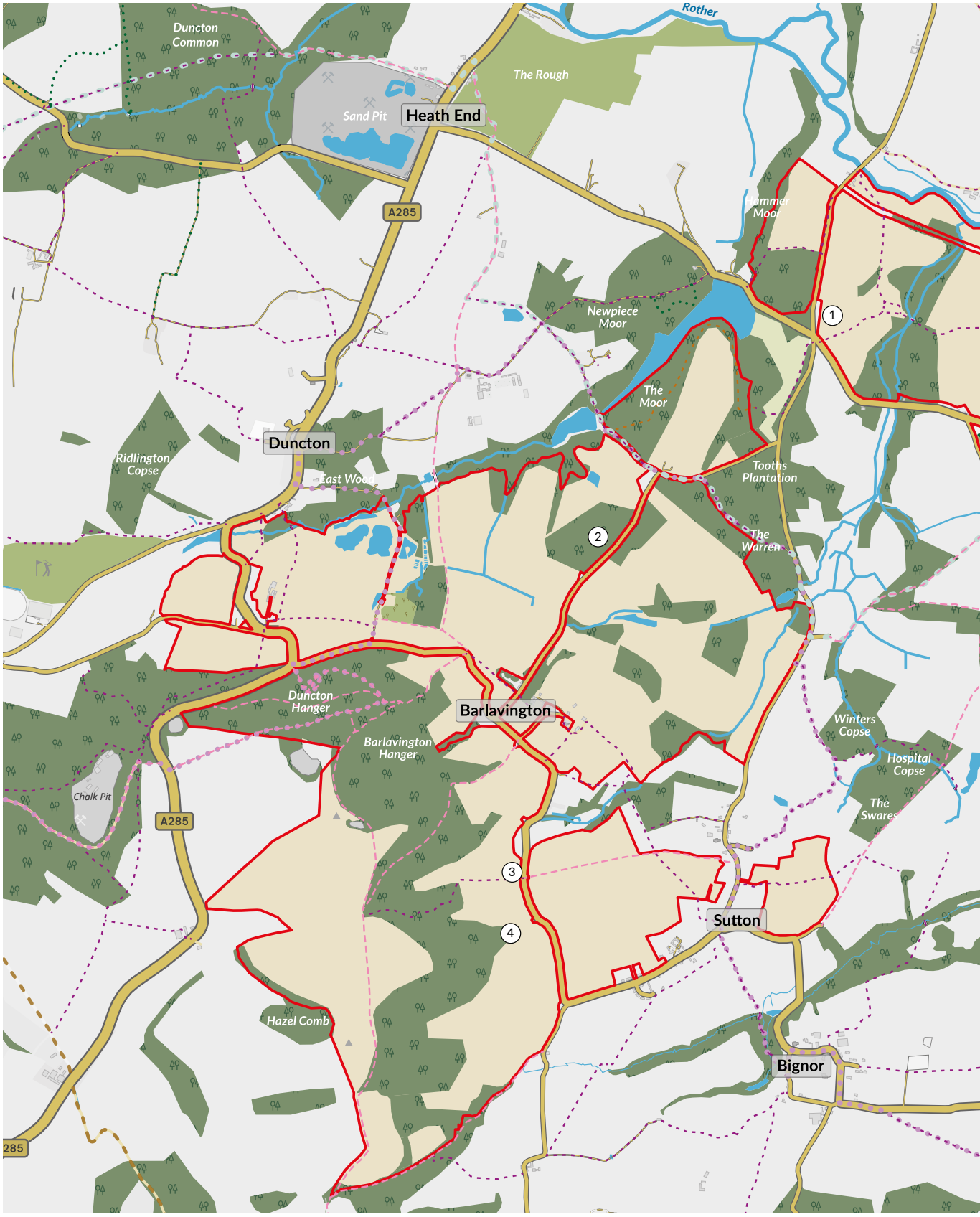


Scheduled Monuments

Listed Buildings

Estate Ownership

MAP 6: SMALL BARNS WITH FOLD YARDS



1 Ravesland Copse
2 Lodge Copse Barn
3 North Comb Barn
4 Wiltshire's Barn
5 Ides Copse Barn
6 Old Slaughterhouse
Estate Ownership

TOP: DUNCTON MILL LAKES
BOTTOM: DUNCTON MILL WEIGHING ROOM

space focussed on local food to be operated in partnership with a well-established and award-winning local food business.

A viable plan is also needed to ensure the conservation of Duncton Watermill (CD1978). Whilst only listed as Grade II it is a heritage asset of real significance being one of very few surviving examples of a watermill with all its original wooden machinery still in situ, albeit in an advanced stage of decay. The Watermill has been fully surveyed and the report, by Ron Martin for the Sussex Industrial Archaeological Society, won an award in 2007.

The interior of the Watermill remains substantively intact with grain bins and working gear all in place. The Watermill represents a major historical and educational resource. Four stories high with its 'feet' in the water it is in an increasingly perilous condition and is included on the Heritage At Risk Register.

The view of the Estate is that the structure and interior of the Watermill is too fragile and important to support a conversion to any form of use that will be commercially viable. The building is in urgent need of restoration however and the Estate's aspiration is to secure a form of funding that does not require repayment.

One option would be to secure grants or charitable donations but if these are not available the Estate is willing to consider some form of enabling development[28] on another site to generate the funds needed to secure the Watermill's future.

The Estate recognises that the appropriate use of these barns and traditional 'functional' buildings needs to be carefully considered taking into account the sensitivity of their setting and location. These structures make an important contribution to the special qualities of the National Park and there is material public benefit to their retention and continued use. The Estate will seek to work with the National Park Authority to find the most sympathetic alternate use.

[28] An enabling development is one which would not usually be allowed where the gains achieved are dedicated to public good, in this case the restoration of the heritage asset
[29] Iron Age hill fort on Saint Roche's Hill about 3 miles north of Chichester
[30] Historic Enviornment Record references CD1972, CD1963, CD1999, CD2000, CD2009
[31] List Entry 1015962
[32] List Entry 1005813

Cultural Capital

The Barlavington Estate is rich in cultural capital as well as built heritage that has shaped the special qualities of the South Downs National Park. Cultural heritage assets include the 7 Scheduled Monuments as well as links to the past offered by the story of the interaction with, and use of, natural capital by people and communities.

The Estate forms part of a living landscape. Timelines of the South Downs landscape researched by the National Park Authority show successive periods of human activity within the area that has become the National Park.

Early human communities returned during the post Ice Age Mesolithic period exploiting natural resources such as woodland and clean water deriving from the series of springs at the foot of the downland scarp slopes. During the Neolithic era agriculture started to develop; there is evidence of large-scale communal activity with sites such as North Marden, to the west of Barlavington. Major settlement sites such as The Trundle[29] dominated the landscape in the Iron Age.

The Historic Environment Record includes several reports of finds of Palaeolithic, Mesolithic and early Bronze Age implements including flints, scrapers, flakes and arrowheads[30].

The Scheduled Monuments on the Estate include Bowl Barrows and a pre-historic linear boundary on Barlavington Down. These are thought to date from the late Neolithic to late Bronze Age (long barrows are usually attributed to the late Neolithic and round Barrows to the Bronze Age with the changing structure of the monuments reflecting changing ritual and belief practices).

Although used for burial these barrows were a living element of pre-historic communities, cementing ties between the living and the dead within a landscape setting. The Estate's conservation policy is to monitor their condition regularly, remove scrub and naturally regenerated trees and protect from rabbit damage.

The Romano-British Settlement at Church Farm Duncton is arguably a pre-cursor of the landed estate in Britain. The settlement is situated within a landscape with significant evidence of Roman settlement. The villa is situated close to what is now known as Manor Farm, at the same point along the 'Spring Line' that marks the transition from scarp to lowland Spring Line as both Manor Farm and Duncton Mill.

Medieval settlements consisted of nucleated clusters on the Greensand shelf and the dip slope of the chalk downlands. Major increases in population occurred in the post medieval period with changes in agricultural practices leading to farms being run by individuals.

Larger settlements were created in strategic locations to take advantage of natural resources and trading routes. One such settlement was Petworth which continued to expand as trade developed generating wealth and culminating in the creation of large landed "Estates" with associated mansion houses and designed parklands, many originating from medieval deer parks.

Evidence of people, their homes and activity is present in the rich archaeological resources related to Barlavington including the prehistoric linear boundary on Barlavington Down[31], barrows on Sutton Common, the Romano British settlement at Manor Farm Duncton[32], and the post medieval Grade II listed watermill and associated complex of buildings at Duncton Mill.

CASE STUDY:
Bowl Barrows

Bowl barrows, the most numerous form of round barrow, are funerary monuments. They were constructed as earthen or rubble mounds, sometimes ditched, which covered single or multiple burials. They occur either in isolation or grouped as cemeteries and often acted as a focus for burials in later periods. Often superficially similar, although differing widely in size, they exhibit regional variations in form and a diversity of burial practices.

Artists

The Estate has a strong connection to art and artists, especially the 20th Century art movement associated with the notable artist Ivon Hitchens (1893-1979) who, inspired by the works of Cezanne and Matisse, found inspiration in the Sussex landscapes, including at Duncton.

Artists (Hitchens, Newdick and Whistler) and connections with the landscape via the Wiltshire's Barn project.

The Anstruther family have been great supporters and benefactors of the arts and of individual artists. Sir Ian, himself a noted historian, gave a very substantial gift to the London Library to fund the new wing which bears his name, and he and Lady Susan (an architect and tireless conservationist) funded a bursary for students at the Royal College of Art for many years. Locally they were neighbours, friends and benefactors to many artists who in turn painted family portraits and views of the Estate, including Olwyn Bowey Hon RBA RA, Ivon Hitchens and Carel Weight CH CBE RA. The family are also long-time supporters of the Petworth Festival.

This tradition has been continued via the commissioning of a series of wonderfully executed pencil drawings of selected buildings on the Estate from the well-known Petworth artist, illustrator and book designer, Jonathan Newdick.

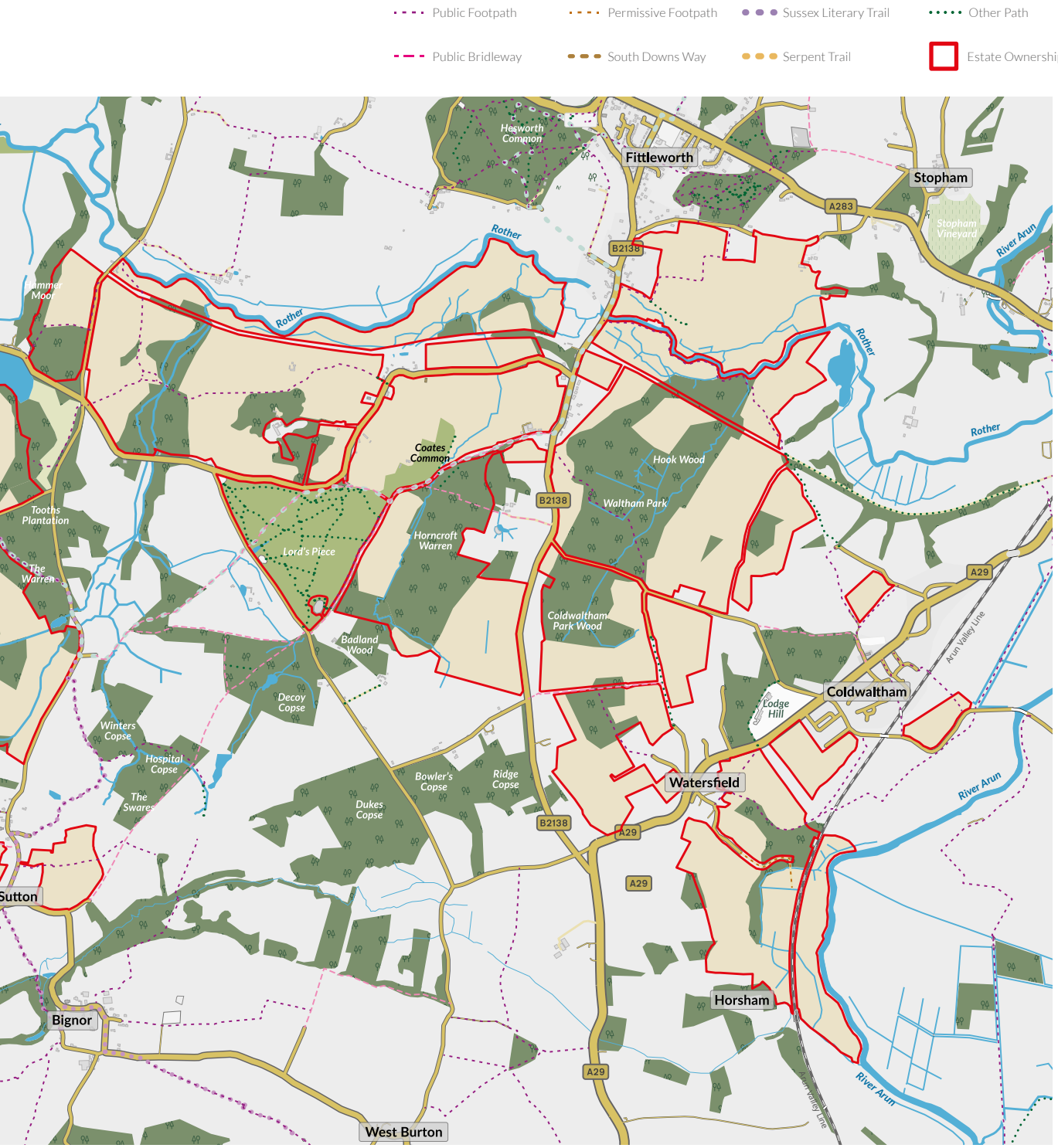
Sebastian and Pornpan's children are both artists, and their daughter has been the inspiration for the use of Wiltshire's Barn as an Artist-in-Residence space alongside its use for Forest Schools.

MAP 7: ACCESS

Access

The Estate is very accessible via Public Rights of Way. These are shown overlain on Map 7 (above) and include long distance routes such as the South Downs Way, Serpent Trail and Sussex Literary Trail.

The heathland at Lord's Piece and Sutton Common is designated as Open Access land and



the Estate facilitates access to walkers and dogs via a fully maintained free car park. In addition to the Open Access land the Estate provides some 5km of Permissive Rights of Way.

The Estate owns part of the route of the dismantled former railway that runs just south of the floodplain of the River Rother. It is willing to engage with other landowners and the National Park Authority in any proposal to re-purpose this route for public access.

Climate Change

Regardless of what the future holds the Estate is aware of how Climate Change will continue to affect the environment surrounding Barlavington Estate and accepts the responsibility to do what it can to mitigate and where necessary adapt to the effects of Climate Change.

Climate Change is already at the heart of many decisions and the Estate strives consistently to find ways to improve its contribution to carbon sequestration and storage, and the delivery of ecosystem services.

Organic Management

The Organic management of land is a key environmental approach taken by the Estate to reduce emissions of greenhouse gases and help mitigate and adapt to the impacts of Climate Change. The absence of inorganic fertilisers and chemicals and the use of Organic agricultural techniques such as spreading of manures onto long-term, deep rooting, species-rich grass leys contributes to the carbon sequestration of soils and minimises the leaching of nutrients into ground water.

Barlavington Estate monitors water quality with the borehole located at Barlavington Stud where the surrounding land has been under Organic management since 1997.

Environment Agency data from this borehole shows that there has been a downward trend in Nitrate levels since sampling started in 2004. Nitrate concentrations range between 1.31-5.4 mg/l. All results, with the exception of the 5.4mg/l result which may be anomalous, portray how concentrations have remained consistently below 2.22mg/l. Although these figures are slight it is encouraging to see how low the nitrate levels are, well below drinking water standards of 11.3 mg/l.

The data also shows that the only detected fungicide in the samples since 2004 has been Flutriafol, with a concentration well below the DWS of 0.1 µg/l. Again, this is due to the Organic management of the land.

ABOVE: BARLAVINGTON VIEW
OPPOSITE: SNOW AT LORD'S PIECE

Rainfall

Since 1941 monthly rainfall reports have been submitted to the Met office. There is a clear increase in rainfall of about 10% over the 30 year trend. The Estate understands the rise in rainfall and impacts on flooding and subsequent value of natural flood management measures. The planting of 8,000 trees over 26 acres and 3km of hedgerows had multiple benefits acting as a natural flood management defence and increasing carbon sequestration.

Renewable Energy

The Estate seeks to use renewable energy sources where possible. Currently there are two 50kwp solar arrays mounted on the rooftops of the barns at Crouch Farm and Tripp Hill. The Estate monitors the energy generated monthly and within the period November 2015 to September 2021 the Estate has generated over 436,000 kWh of zero carbon electricity. This is equal to the average annual domestic consumption of about 18 homes per year (an average home uses about 4,000 kWh/yr) and has saved over 200 tonnes of carbon dioxide released into the atmosphere. Just these two solar arrays have offset the electricity usage of nearly 45% of the Estate's domestic properties over this period.

The use of PV panels will become increasingly important to support the provision of EV charging. We recognise that there are certain challenges associated with the extensive use of PV panels within a designated landscape and will look to work closely with the National Park Authority to scope and design schemes.

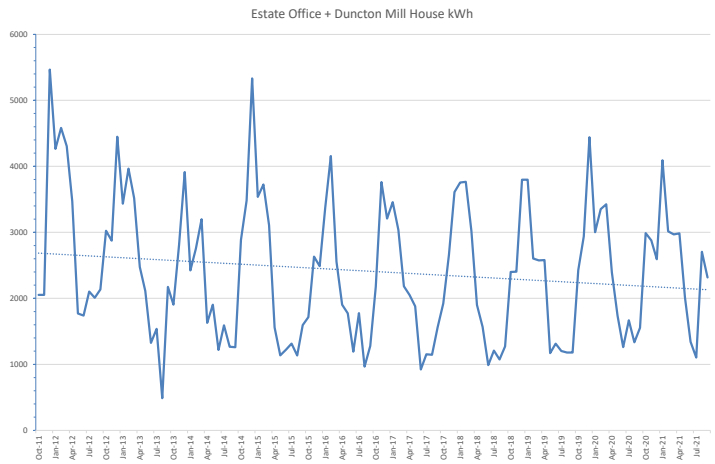
Barlavington Estate also has made improvements to the energy efficiency of Estate properties.

CASE STUDY:
Duncton Mill

In 2011 the decision was made to move the Estate Office and the family home to Duncton Mill. In the process the Estate took both Duncton Mill House and the adjoining Estate Office off oil boilers and installed an air source heat pump at the office and a water source heat pump at Duncton Mill House.

The Estate has increased the amount of insulation in Estate properties and has replaced lighting with LEDs. A report on Energy Efficiency from 2011 to December 2019 demonstrates a reduction in the overall energy consumption and tracks electricity usage against heat degree days[33].

Over the last nine years data shows that the Estate has made considerable improvements to the energy efficiency of its properties. In 2010 the office and Duncton Mill Home were consuming £4,000 of oil each year. Currently, the figure for combined heating and lighting for both properties is significantly lower at £3,250 per year. At the same time energy use has decreased by nearly 20% (2700kWh/yr to 2200kWh/yr on an average trendline basis).



[33] A measurement of the demand for energy needed to heat a building relative to outside air temperature

Carbon Storage and Sequestration

The examples above demonstrate the Estate's desire to minimise its carbon footprint. Areas of the Estate act as a carbon sink. The table below applies data from the recent Natural England publication NERR094 Carbon Sequestration and Storage by Habitat (2021) and the Woodland Carbon Code 2018 Carbon Calculation Guidance v2 published in March 2018 by the Forestry Commission to provide an indication of the capacity for carbon storage and sequestration across the Estate.

This assessment has produced the estimates for storage and sequestration set out below. It is indicative and should be treated with caution pending a far more detailed assessment (that would ideally include soil sampling to measure levels of organics soil carbon). It does however demonstrate the important role that the natural capital of the Estate plays in carbon storage and sequestration and the wider benefits of maintaining an approach to management of land, woods and water that seeks to continually enhance soil health and positive carbon outcomes.

Habitat	Area Ha's	Storage by tC/ha	Sequester by tsCO2e/ ha/yr	Total Stored tsC	Annual net flows tsCO2e/yr
Mixed broadleaved woodland	202	169	-14.5	34,138	-2,929
Mixed coniferous woodland	202	142.5	- 13.6	28,785	-2,747
Hedgerows (managed / unmanaged)	tbc	95 / 235	-2	tbc	
Heathland	60	10	-0.054	600	+3
Organic grassland	400	60	0	24,000	0
Cultivated farmland	400	50	-0.29	20,000	-116
Total	**1,264**			**107,523**	**5,789**

REPRESENTATIVE ASSESSMENT OF POTENTIAL TO STORE AND SEQUESTER CARBON BY MAIN HABITAT TYPES

Woodland

There is a range of mature native broadleaved woodland across 202 hectares of the Estate. We have chosen to assess the storage and sequestration potential of the woodland using the values for relatively young woodland to be conservative. We recognise that this may give a slightly high figure for annual sequestration of mature woodland:

- Representative value for carbon storage in woodland biomass & soil @ 169 tC/ha equates to 34,138 t's.
- Representative value for carbon sequestration average over time period @ -14.5 t CO2e ha/yr equates to 2,929 t's pax.

There is also a range of Coniferous woodland across 200 hectares for which we have taken the same approach:

- Representative value for carbon storage in woodland biomass and soil @ 142.5 tC/ha equates to 28,785 t's.
- Representative value for carbon sequestration average over time period @ -13.6 t CO2e ha/yr equates to 2,747 t's pax.

Hedgerows

The hedgerow network across the Estate will add to the volume of carbon stored and sequestered annually. In line with the Defra estimates, soil carbon is assumed to be the same as semi-natural neutral grassland:

- Managed hedgerows include newly planted, cut, layed and coppiced hedges and can be assigned a carbon storage value of 94.9 tC/ha.
- Unmanaged hedges include hedgerows with no recent management, lines of trees and lines of scrub can be assigned a carbon storage value of 235.3 tC/ha.

Both types of hedgerows can be assigned the same carbon sequestration value of -1.99 tCO2e/ha/yr based on NERR094.

Heathland

NERR094 places a combined value of carbon stored in heathland soils and biomass associated with heathlands of c. 10 ts C/ha. Over 60 hectares this equates to 600 t's C.

Carbon sequestration for heathland is taken from NERR094 as a small net emission with a carbon flux value of +0.054 t's CO2e/ha/yr – equating to a small annual net loss of c. 3 ts carbon.

Organic Grassland

400 hectares of organic grassland including wood pasture and parkland, lowland meadow and floodplain grazing. NERR046 provides a range of values for carbon storage in grassland depending on type. These are 54.6tC/ha for improved grassland, 60tC/ha for neutral grassland and 87tC/ha for acid grassland.

Use of the midpoint (60 tC/ha) would give a value to carbon stored of c. 24,000 ts. Given the organic management of this land and the grazing animals this is likely to be a material under representation of the soil carbon in the Barlavington pastures.

Semi-natural grasslands are considered to be in equilibrium with respect to carbon emissions and sequestration. This position can be improved with positive management to build organic soil carbon (via holistic and 'mob' grazing and use of herbal leys).

It is acknowledged within NERR046 that existing studies have typically sampled only the top 15cm depth of soil and that studies have shown that significant carbon stocks exist below this depth. Add 25 years of organic management, and the total volume of carbon stored in and sequestered by the grassland at Barlavington is likely to be far higher than suggested by a simple application of the representative values offered in NERR046.

Cultivated Farmland

Carbon storage on cultivated land is assessed as c. 50 tC/ha. This equates to c. 20,000 tC over the full area of c. 400 hectares.

This value is limited to soil carbon as it assumed that all aboveground biomass is removed annually. If residues are left and grazed and / or incorporated into the soil this would improve the storage value.

Carbon flux for cultivated land is set at +0.29 tCO2e/ha/yr as the soil disturbance of tilling and sowing allows soil carbon to be oxidised and lost to the atmosphere. This equates to a loss of c. 116 tC each year over the full cultivated area.

This flux value does not account for the negative impact on biological soil health and organic carbon from the use of agro-chemicals and resulting compaction arising from farm traffic on the conventionally farmed land and is consequently likely to understate the total annual loss of carbon from cultivated farmland.

Ecosystem Services

This section considers the range of Ecosystem Services that arise from the interaction of activities and businesses undertaken by and hosted on The Barlavington Estate and the Natural Capital from which the Estate is formed.

Ecosystem Services are described as the benefits people and society get from the natural environment[34]. They are split into four categories, Supporting, Provisioning, Regulating and Cultural.

Supporting Services are functions provided by ecosystems that underpin all of the other services. These comprise soil formation, primary production, nutrient cycling, water cycling and biodiversity.

Provisioning Services are products of ecosystems such as water, food, and the supply of raw materials. These comprise water supply, food production, timber, energy and genetic diversity.

Regulating Services are the results of natural processes such as water purification and air quality. These comprise air quality, climate and carbon storage, water flow and flood attenuation, erosion prevention, soil and water quality, disease and pest mitigation and management and pollination.

Cultural Services are 'non-material' benefits that result from our interaction with the natural environment. These comprise recreation and tourism opportunities, cultural heritage values, tranquillity and inspirational and spiritual values deriving from experience of and engagement with nature.

Ecosystem services are a function of the combination of natural capital and inputs, in terms of activity, intervention and operations making use of natural assets by people.

The Estate's stewardship of and investment in Natural Capital generates a broad range of Supporting, Provisioning, Regulating and Cultural Ecosystem Services. These include positive management and enhancement of habitat, biodiversity, soil and water quality.

It also generates benefits and positive outcomes for people who live in hamlets, villages and towns nearby, those that visit, and those that derive enjoyment from access to and the intrinsic beauty of the countryside and its cultural links.

Those involved in the management of the Estate, its farms and its property work hard to consider the impact on ecosystem services of both daily operational decisions and longer-term investments.

The following table, right, sets out the way in which The Barlavington Estate generates and contributes to Ecosystem Services. We want to continue to add to our understanding of the valuable Ecosystem Services the Estate provides, and to use an enhanced understanding to influence future management. We expect to conduct regular analysis and assessment of ecosystem surveys as part of our monitoring and improvement plans.

[34] SDNPA Ecosystem Services Background Paper April 2018

Ecosystem Service	Inputs	Outputs and Outcomes
Supporting Services		
Soil formation	Organic dairy farming and natural grazing; retention of woodland cover; minimum cultivation techniques; soil loss management, including natural flood management; support for tenants wishing to enter agri-environment schemes.	Improvements to the Soil Food Web, creation of new organic matter, retention of existing soils, carbon sequestration.
Primary production	Organic dairy farming and natural grazing; retention of woodland cover; minimum cultivation techniques, no use of pesticides, natural management of weeds.	Food web for higher consumers; insects, invertebrates etc.
Nutrient cycling	Use of organic natural fertilisers from dairy cattle and youngstock.	Nutrient rich grassland but limited run off to water courses.
Water cycling	Harness extensive spring water resource for use in farming systems.	Natural recycling of spring water into aquifer and downstream catchments.
Biodiversity	Heathland restoration and maintenance. Sustainable woodland management, minimal mechanical intervention, coppicing, removal of unsuitable species, removal of 'lop & top', retention of dead wood. Organic and mixed farming practices. Supporting conservation grazing on chalk grassland and lowland grazing including species rich flood meadows; re-established orchard of endangered Sussex apple varieties and grazing of orchard to preserve biodiversity of old orchard trees.	Wide range of priority habitats. Extensive invertebrate, butterfly, and moth populations, including the rare Drab Looper and Plumed Prominent moths, diverse flora including rare species such as Red tipped Cudweed.
Provisioning Services		
Water supply	Harness available spring supplies. Maintenance of water courses and bodies via fencing out stock, maintenance of water meadows and Organic farming methods, and strategic tree planting to protect chalk springs, to prevent nutrient and pesticide run off.	Clean water run off to rivers and into the chalk aquifer.

Ecosystem Service	Inputs	Outputs and Outcomes
Food production	Organic and mixed farming systems; active deer management and controlled shooting. Fish farming; re-established orchard of endangered Sussex apple varieties.	Dairy, meat, cereals, venison and game, fish, and apples.
Timber	Active management of woodlands, coppicing and sustainable felling cycle.	Timber products, many used on Estate or locally e.g. larch cladding for Fittleworth Community Shop.
Energy	Active management of woodlands, coppicing and sustainable felling cycle for wood fuels. Water source heat pump in Duncton Mill House, air source heat pump in Estate Office, two roof mounted solar PV arrays total capacity 100kwp.	Woodchip supplied to Kent CHP plant and use of log burning stoves in Estate houses; hot water and space heating from heat pumps; electricity from PV.
Genetic diversity	Professional management of Organic dairy and mixed farming systems. Positive management of diverse habitats including grassland, river meadows, heath and woodlands of various kinds (lowland, coppiced, hangar).	Wide range of priority habitats across the Estate.
Regulating Services		
Air quality	Maintenance and sensitive management of 400 hectares of woodland, grassland farming systems, use of natural fuels to supplement heating in Estate houses.	High air purification capacity across Estate (see SDNPA air purification map).
Climate and carbon storage	Maintenance and sensitive management of 400 hectares of woodland, grassland and Organic farming systems.	Incidence of high carbon capacity across Estate (see SDNPA Carbon Storage map). Early planning for a full Natural Capital Audit of the Estate including a Carbon Audit.
Water flow and flood	Grassland farming system, active management of water courses by fencing out stock, maintenance of water meadows, wet woodlands, capture of spring water into mill ponds and lakes.	Natural flood management on south bank of River Rother and the west bank of River Arun at Watersfield.

Ecosystem Service	Inputs	Outputs and Outcomes
Erosion	Maintenance of woodland on scarp slopes and minimal till farming systems.	High organic matter in soils and retention in areas of grassland, protection of water quality (turbidity & eutrophication) and fish spawning habitats in rivers and streams.
Soil quality	Organic dairy farming and natural grazing, use of organic matter for fertiliser; retention of woodland cover; minimum cultivation techniques.	High organic matter in soils and retention in areas of greensand.
Water quality	Grassland farming system, active management of water courses by fencing out stock, maintenance of water meadows, use of natural spring supplies.	High incidence of water purification capacity across Estate (see SDNPA Water Purification map).
Disease and pests	Maintenance and stewardship of diverse habitats.	Regulates pests and disease by supporting a range of predators and parasites (birds, bats, flies, wasps, frogs and fungi).
Pollination	Maintenance and stewardship of diverse habitats.	Enables pollination by providing a stock of insects, bees and birds.
Cultural Services		
Recreation and tourism	Provision of open access to Lord's Piece and Sutton Common, maintenance of Rights of Way including two county ways, permissive paths. Support for Forest Schools programme. Tourism/ recreation activities on Estate include fishing, weddings (site and catering), orienteering, camping (longstanding church summer camp and camping diversification in prep), local food focussed educational events (in prep) and horse livery. Legal drag hunting, shooting, stalking and fishing, annual South Downs Orienteers on Lord's Piece, Lodge Copse Demonstration Woodland.	Access to accessible countryside for local residents and visitors; enhance physical and mental well-being, bring children close to nature.

Ecosystem Service	Inputs	Outputs and Outcomes
Cultural heritage values	Maintain and provide access to the "Cuckoo Tree", maintain heritage assets and listed buildings, sensitive management of important landscape features and access to key viewpoints, maintenance of PROW network. Creation of Artist in Residence studio at Wiltshire's Barn.	Retain links between physical and cultural heritage values and enable access for people to enjoy. Create economic opportunity for artists.
Tranquillity	Maintenance of extensive woodland cover, sensitive management of woodlands, heathland and farmland and properties to retain mixed landscape, hidden places and feeling of seclusion.	Sense of 'escape' and tranquillity across Estate area, very limited evidence of post war development.
Inspiration and spiritual values	Sensitive management of woodlands, heathland and farmland and setting of Barlavington Church to connectivity between people and landscape.	Creation of spaces for contemplation, hidden places and feeling of seclusion.

Guiding Principles for Future Management

The core of the management approach followed at the Barlavington Estate can be best described as maintaining viability whilst conserving and enhancing natural capital and our heritage assets.

The management team approaches this challenge through a policy of ensuring that each part of the Estate is enabled to give of its best but that this is achieved by the minimal intervention possible. This approach is typified in the decision to run Crouch Farm as a modern dairy unit, to farm at a viable scale, but to do so Organically. This ensures that the many sensitive areas across the farm, especially associated with river margins and floodplains, make a positive contribution to the farm business whilst also providing exceptional habitat that supports important biodiversity.

The benefits arising from this approach can be seen in the quality of the heathland habitat that has been restored and extended at Coates Castle Park and Lord's Piece, in the quality of the woodlands and across the water meadows of Waltham Brooks at Watersfield.

It is evident across the Estate's built environment at Barlavington Stud and Tripp Hill Farm. These sites host valuable economic activity but do so in a way that is contained and has minimal impact on neighbour amenity or the surrounding landscape.

The Estate will continue to operate in this way and build our understanding of ecosystem services by regular monitoring and surveys. The Coates Castle Park heathland restoration project is ongoing. The woodlands will continue to be managed in line with the approved woodland management plan. Crouch Farm will continue to be farmed Organically with the hectarage under positive Organic and environmental management at least maintained for the plan period and where possible extended. Our woodlands will continue to be managed positively and sustainably. Public enjoyment, awareness and understanding will be promoted through a combination of informal and managed access, orientation and information and partnerships with initiatives such as Forest Schools.

Residential and commercial property will be maintained, improved, and re-let. Heritage properties will be conserved and managed to ensure that their significance is protected and where possible enhanced. Scheduled Monuments will be actively conserved, benefitting from regular monitoring and recording and an annual management plan to ensure timely action to prevent scrub encroachment.

This commitment to balance will ensure that the Estate's natural capital will be maintained and enhanced. Additionality will be achieved by the increase in the carbon storage capacity of the land arising from Organic management, by the restoration of an additional 38 hectares of heathland and by the year on year increases in biodiversity arising from the enhanced quality and sustained management of habitat provided by the Estate's natural and semi-natural grassland, from its woodland and water bodies.

It will also ensure that the local social and economic benefits arising from the maintenance and beneficial occupancy of the residential and commercial stock of buildings are maintained.

Delivering Our Vision

No business or organisation can stand still, and a land-based farming, environmental management and property enterprise is no exception. This Whole Estate Plan has been conceived and designed to enable the Estate to continue its growth and help secure a viable future whilst conserving and enhancing its natural capital, heritage assets and the contributions that it makes to the special qualities of the South Downs National Park.

This section sets out our commitments and the actions we propose to deliver our vision during the plan period. It is presented thematically with a focus on environment (climate change, natural capital, ecosystems services) and heritage, on social and community and on economic outcomes.

The Project Plan that follows shows the link between these and the key elements of our vision statement.

Climate Change, Natural Capital & Ecosystems Services

Barlavington Estate is an important natural capital resource. It contains a range of important environmental assets including grassland, woodland (much of it ancient and semi-natural), heathland, water meadows and water bodies. The majority of farmland is under Organic management, and the entirety of the 'in hand' area of the Estate is in positive environmental management.

This environmentally driven approach to management across the Estate ensures that the flows of ecosystem services derived from this natural capital are many and varied.

A continued focus on active woodland management, on Organic farming, on heathland restoration and the sensitive management of chalk grassland, wetlands and other habitats, continued improvements in the capacity of wetlands and in water quality will ensure that the 'environmental dividend' delivered from the Estate will continue to grow alongside the natural capital 'account'.

Increases in the accumulation and long-term storage of carbon within the Estate's trees, hedges and soils will help to mitigate and partially reverse the effects of climate change. A continued focus on reducing greenhouse gas emissions across Estate activities, an increase in the use of renewable energy and the adoption of regenerative farming and land management techniques will help the Estate and its natural capital to adapt to the increasing effects of climate change.

ABOVE: LORD'S PIECE
OPPOSITE: OAKS BY BIG CATHERINE

Heritage

The conversion of the small barn and fold yard situated on the bottom of the scarp slope between Duncton and Sutton (known locally as Wiltshire's Barn) has created a teaching space for Forest Schools[35].

The Estate will be working with the Lavington Park Federation of Graffham CE Infant & Duncton CE Junior Schools (where Sebastian Anstruther is a Governor and where the Head Teacher leads on Forest Schools nationally for the Geographical Association), with other local schools and with established Forest Schools trainers to take this project forwards.

Once complete the building will also be available for use as an Artist's Retreat, encouraging artists of all kinds to engage with the special qualities of the National Park and to expand the rich legacy of cultural heritage associated with this part of the South Downs.

RESTORATION AND CONVERSION OF WILTSHIRE'S BARN

[35] Planning reference SDNP/17/05372/FUL

[36] The food plant of the rare Drab Looper (Minoa murinata) moth

[37] Whether lettable or not

RESTORATION AND CONVERSION OF WILTSHIRE'S BARN

At the time of writing work is well under way to rescue and restore the building and conversion to provide teaching classroom with small cloakroom with shower and small galley kitchen with heating via a wood burning stove.

The sensitive restoration of Duncton Watermill will not only secure the historic significance of this important building so that it may be enjoyed by people into the future but will also create a rich educational resource providing a direct link to the area's agrarian and industrial past.

OUR NATURAL CAPITAL, ECOSYSTEMS & HERITAGE COMMITMENTS

Through this Whole Estate Plan, and the actions and projects that flow out of this process, the Barlavington Estate will work with our tenants, partners and key stakeholders to:

1. Produce a baseline assessment of the carbon stocks and natural capital assets of the Estate, put in place a monitoring programme and enhancement plan.
2. Maintain and improve soil and water quality.
3. Pro-actively manage woodlands and hedgerows to maintain and increase the volume of bio-mass, increase resilience to climate change, pests and diseases. whilst retaining and supporting key plants such as the Wood Spurge (Euphorbia amygdaloides)[36].
4. Restore heathland and maintaining key lowland heath habitat via selective natural grazing and continued clearance of bracken and regenerated saplings.
5. Constantly repair and improve buildings, houses and cottages, finding appropriate new uses for field byres and barns[37].
6. Monitor and proactively care for listed buildings and scheduled monuments.
7. Pro-actively manage and maintain chalk grassland, wetlands and other habitats.

Social & Community

The Estate is keen to play its part in meeting evidenced local housing need. Some 2.4 hectares of Estate land at Brooklands Way, Coldwaltham have been allocated in the adopted South Downs National Park Local Plan[38] for the delivery of 25 to 30 new homes (50% of which will be affordable) together with a village shop and public open space. The Estate hopes to play an active role in the development of the site and to retain and make as much of the housing available for rent as the finances of the scheme allow.

The Estate is also keen to add to the housing stock it provides for rental via the conversion and sensitive re-use of existing buildings and property.

In the last 15 years the Estate has converted five redundant farm buildings to residential use, with a further five residential conversions consented and under development, and an immediate potential for a further three units subject to planning.

Longer term, further residential potential has been identified at several other redundant agricultural sites including Shopham Bridge Barns and perhaps some of the smaller farm byres.

Opportunities may also present themselves to create additional residential units from the sub-division of larger houses such as the 5 bedroom farmhouse at Duncton Manor Farm and the 5 bedroom farmhouse at Tripp Hill, whilst the existing barn conversion consent for a 6 bed holiday cottage at Alder Barn, Crouch Farm, might be better reconsidered as three separate residential dwellings, possibly with an additional studio flat for a young person or farm worker.

Whilst the Brooklands Way, Coldwaltham scheme will enable the Estate to help significantly to meet the affordable housing needs required by the newly adopted Local Plan[39]. The Estate also has ambitions to provide further affordable housing for rent on small exception sites in other parts of

[38] Policy SD64, Land south of London Road, Coldwaltham

[39] 293 dpa; Policy SD28 and paragraph 7.51 of the adopted Local Plan

[40] National Planning Policy Framework paragraph 78 & 79

LEFT: NEW COTTAGES, BARLAVINGTON

the Estate, helping to meet the need identified (but yet to be addressed) in the Fittleworth Neighbourhood Plan.

The Estate wants to add to the stock available to let to economically and socially active people in the rural area and smaller communities. The Estate's current letting policy successfully helps to achieve this, just 17% of our housing stock is occupied by people of retirement age compared to 31% in the local area as a whole whilst over a third (37%) of Estate houses support households with children.

The Estate is particularly focused on providing "starter housing" for young people and families, so enabling people with connections to their communities to create independent households and boosting the proportion of young adults and households with school age children in the local population.

It has identified and is currently developing a scheme application for new zero carbon affordable housing on an exception site at Tripp Hill Farm, working with the renowned architect Bill Dunster OBE.

The economics of "exception site" developments are marginal however and in an ideal world an element of open market or intermediate affordable housing would be included to cross subsidise low cost affordable housing (as provided for in national planning policy[40]). Pragmatic discussions will be needed with the National Park Authority to arrive at a viable scheme.

The Estate recognises that any proposals for the change or re-use of existing buildings and for any new development must be very carefully considered. Uses proposed should be appropriate to the rural location and any new buildings or infrastructure be proportionate and respect the sensitivity of setting. It will be job of the Estate to engage with the National Park Authority and to bring forward proposals that fully respect and respond to the special qualities of the National Park.

OUR SOCIAL & COMMUNITY COMMITMENTS:

Through the Whole Estate Plan, and the actions and projects that flow out of this process, the Barlavington Estate will work with our tenants, partners, the National Park Authority and key stakeholders to:

1. Sympathetically re-use and re-purpose redundant and under-utilised buildings, maintaining their contribution to the area's special qualities, recognising the need to raise capital to fund these and other projects.
2. Provide and host a diverse range of enterprise and employment opportunities for local people.
3. Work with the SDNPA to help meet local housing needs, particularly those experienced by young people and families, recognising the overriding linked problems of affordability, fuel poverty and the environmental impact of poorly designed and poorly insulated housing.
4. Create new opportunities for people and children to learn about, enjoy and experience the area's special qualities through a combination of informal access and recreation and managed learning experiences.
5. Look after Rights of Way, open access land, permissive access and the places and spaces in its ownership.

LEFT-TOP: DUNCTON MANOR FARM DEAN BARN
LEFT-BOTTOM: TRIPP HILL FARM OFFICES
RIGHT-TOP: COLDWALTHAM FARM & BARN
RIGHT-MIDDLE: DUNCTON MILL BLACK BARN
RIGHT-BOTTOM: DUNCTON MANOR FARM DEAN BARN

Economy and Enterprise

The workspace created by the Estate at Barlavington Stud, Tripp Hill Farm and Duncton Mill supports a range of economic activity creating economic opportunity in the local area during the working week. Demand has been consistently strong and the Estate plans to develop more workspace where opportunity and demand coincide.

Opportunity is likely to come in a variety of forms. Work has just finished to convert the Black Barn at Duncton Mill for commercial use[41] and planning consent has been achieved for an exciting commercial use of the Dean Barn at Manor Farm Duncton. Other buildings and sites that might be suitable for commercial use include the complex of barns and stables at Coldwaltham Farm.

Opportunity may also come from the re-purposing of more modern farm buildings, as has been so effectively achieved at Tripp Hill, or the sensitive construction of new bespoke workspace as an extension to existing "farm steadings" or clusters of buildings. A good example is the extensive area of the former silage pit at Duncton Manor Farm which might be a suitable site for an innovative new building.

The Estate's ambition is that by the completion of this plan period viable letting uses will have been established or expanded at:

- Duncton Manor Farm Barn and Yard;
- Barlavington Black Grain Barn & Old Estate Yard;
- Shopham Bridge Barns;
- Coldwaltham Farm Barns;
- Tripp Hill Farm Barns;
- Small Field Barns and Byres[42]; and
- Duncton Mill Fishing Lakes.

The countryside is also an increasingly important leisure resource. The Estate already hosts a leisure business at the Duncton Mill Lakes where fly fishing is combined with a function and venue enterprise. The new young tenants at the Duncton Mill Lakes are keen to grow this enterprise and we expect to see a variety of proposals emerging over time.

Opportunities are also likely to emerge to host new tourism ventures. The Estate is currently considering a proposal from an

[41] Planning reference SDNP/16/05612/FUL

[42] NorthcombBarn, Lodge Copse Barn, Ravesland Copse Barn, Ides Copse Barn, the Old Slaughter House at Greatham Bridge, Wiltshire's Barn, New Barn and Coldwaltham Byre

TOP: FARMING ON THE ESTATE

MIDDLE: ESTATE CHALKPIT; REOPENED MARCH 2013

BOTTOM: LORD'S PIECE LARCH LAP CLADDING

OPPOSITE: COATES SANDPIT

"eco camp" company and plans to review the potential to engage more actively in the visitor economy if opportunity arises in the future.

Other economic uses of Estate property include farming, forestry and mineral extraction.

With the current welcome rise in timber prices the Estate has been able to invest in forest tracks, culverts and ditches and to recommence new softwood and hardwood planting on a commercial scale.

The Estate has invested heavily in the Organic farming enterprise and infrastructure at Crouch Farm and may need to make further environmentally focused improvements during this plan period. Investment in new and updated infrastructure may also be needed at the Estate's other farm steadings at Coldwaltham Farm, Waltham Park Farm and Besley Farm.

The mineral deposits at Horncroft / Coates represent a reserve of at least 2 million tonnes of high-quality industrial grade Silica Sand suitable for silicon chips, cosmetic, pharmaceutical, sodium silicate for use in the food industry and premium clear glass manufacture.

The current iteration of the Joint SDNPA & West Sussex Minerals Local Plan includes this deposit, described as Horncroft, within the minerals safeguarding area and contains a criteria-based policy that would enable extraction of this nationally important mineral where exceptional circumstances and public benefits can be demonstrated.

The Estate recognises that any proposals for the change or re-use of existing buildings, for associated infrastructure and for any new development must be very carefully considered. Business use should be appropriate to the rural location and any new buildings or infrastructure be proportionate and respect the sensitivity of setting. It will be job of the Estate to engage with the National Park Authority and to bring forward proposals that fully respect and respond to the special qualities of the National Park.

OUR ECONOMY & ENTERPRISE COMMITMENTS:

Through the Whole Estate Plan, and the actions and projects that flow out of this process, the Barlavington Estate will work with the National Park Authority, tenants, partners and key stakeholders to:

1. Create new workspace from the conversion and where relevant sensitive expansion of existing buildings and groups of buildings.
2. Support the local and emerging visitor and leisure economies through the creation of new experiences and associated (proportionate) infrastructure to support the local visitors and leisure economies.
3. Revitalise the Estate's commercial woodlands through selective replanting and investment in any necessary infrastructure.
4. Safeguard deposits of Silica Sand, monitor national demand and invest in sensitive landscape enhancements as or if required.

SUNRISE OVER BIG CATHERINE

[43] Currently in last amendment stage before being passed for Royal Assent as at October 2021

[44] https://www.southdowns.gov.uk/wp-content/uploads/2019/07/SD_LocalPlan_2019_17Wb.pdf

Project Plan

The table overleaf shows the new projects that the Estate has identified and plans to bring forward during the period of the Whole Estate Plan. It shows these within the context of the Estate's vision and commitments.

Timescales and next steps will depend on outside influences including the implementation of the EU Withdrawal Agreement, the Agriculture Act 2020, Environment Act[43], overall economy of the UK and in particular farming, and the timescales associated with obtaining planning permission where needed.

Projects that the Estate expects to do within the first five years of the plan (by 2027) are annotated with S for 'short term'. Those that the Estate expects to carry out within the second five years of the plan (2028 – 2032) are annotated with an M for 'medium term'. Projects that the Estate hopes to engage in before the plan period expires (2032 to 2037) are annotated with an L for 'long term'. Projects annotated S,M,L are ongoing.

The table also identifies (in the column 'PMP Outcomes') where the outcomes of the action plan align with the outcomes of the National Park's Partnership Management Plan[44] providing a link between the Estate's actions and National Park Authority Objectives.

Our New Projects

Our Vision	Our Commitments
Barlavington Estate will play a full and active part in the national and local response to Climate Change. The Estate will care for and celebrate its heritage, natural, built and cultural capital, conserving and enhancing the contribution that it makes to the special qualities of the South Downs National Park.	Produce a baseline assessment of the carbon stocks and natural capital assets of the Estate, put in place a monitoring programme and enhancement plan.
	Maintain and improve soil and water quality.
	Pro-actively manage woodlands and hedgerow networks, increasing the volume of biomass over the period of the plan (net of harvesting), enhance resilience to climate change, pests and disease whilst retaining and supporting key plants such as the Wood Spurge (Euphorbia amygdaloides)[45], maintain the Estate's community woodland projects.
	Restore heathland and maintain key habitat via managed conservation grazing and continued clearance of bracken and regenerated saplings.
	Constantly monitor buildings, houses, and cottages[46], paying particular attention to the Estate's built heritage and its small field barns and byres. Undertake regular monitoring and photographic recording of Scheduled Monuments within the Estate to track changing condition and risk, manage land accordingly.
	Pro-actively manage and maintain chalk grassland, wetlands and other habitats.
	Look after Rights of Way, open access land, permissive access, and the places and spaces in its ownership.

[45] The food plant of the rare Drab Looper (Minoa murinata) moth

[46] Whether commercially let or otherwise

Our New Projects	PMP Outcomes
Natural capital baseline. (S) Monitoring programme and enhancement plan. (M)	Increasing Resilience 2.1, 2.2, 2.3
Maintain and where possible extend the area under Organic management. (S,M,L) Work with neighbouring farmers and landowners to promote and lead landscape scale sustainable farming and environmental management via ELMS. (M)	Landscape and Natural Beauty 1.3 Increasing Resilience 2.1
Woodland management plan and community woodland projects. (S,M,L)	Increasing Resilience 2.2
Coates Castle Park and Lord's Piece heathland restoration and car park improvements. (S,M)	Landscape and Natural Beauty 1.3 Habitats and Spaces 3.1, 3.2
Introduce annual monitoring, recording, maintenance and management plan for heritage property and scheduled assets. (S) Work with the National Park Authority to design a future use that can conserve and safeguard for smaller field barns and byres. (M,L)	Landscape and Natural Beauty 1.1 Arts & Heritage 4.1
Environmental agreements with Natural England for wetland grazing. (S,M,L) Explore opportunities to contract with third parties to deliver natural flood management. (M,L)	Landscape and Natural Beauty 1.2 Habitats & Species 3.1
Collaborative projects to create new opportunities for informal access to the Estate via the disused railway. (M)	Outstanding Experiences 5.2

Our Vision	Our Commitments
The Estate will care for and celebrate its **built, cultural and social capital**. It will enhance the contribution each make to the special qualities of the South Downs National Park, and to the **communities, businesses and people that experience, rely upon and enjoy them**.	Sympathetically re-use and re-purpose redundant and under-utilised buildings, maintaining their contribution to the area's special qualities, recognising the need to raise capital to fund these and other projects.
	Provide and host a diverse range of employment opportunities for local people.
	Work with the SDNPA to help meet local housing needs, particularly those experienced by young people and families, and those needing support in retirement.
	Create new opportunities for people and children to learn about, enjoy and experience the area's special qualities through a combination of informal access and recreation and managed learning experiences.
The Barlavington Estate will have maintained its status as a **commercially viable family owned business** able to meet its operational and tax liabilities without undue reliance on capital disposal.	Create new homes and workspace from the conversion and where relevant sensitive expansion of existing buildings and groups of buildings.
	Support the local and emerging visitor and leisure economies through the creation of new experiences and facilities to support the local tourist economy.
	Revitalise the Estate's commercial woodlands through selective replanting and investment in related infrastructure.
	Safeguard deposits of Silica Sand, monitor national demand and invest in sensitive landscape enhancements as or if required.

Our New Projects	PMP Outcomes
Restoration of Duncton Watermill (S,M) New uses for small field barns and byres. (M,L)	Arts & Heritage 4.1 Great Places to Live 9.1
Maintain and improve employment space at Barlavington Stud and Tripp Hill Barns. (S,M,L)	Great Places to Work 10.1
Deliver new housing and a new village store at Coldwaltham (SD64) (S,M) Create new affordable housing associated with the Estate's small communities. (M.L)	Great Places to Live 9.1
Wiltshire's Barn Forest School training resource. (S)	Arts & Heritage 4.1, 4.2 Lifelong Learning 6.1 Great Place to Work 10.1
Expansion of existing workspace sites. Conversion schemes at Coldwaltham Farm, Shopam Bridge Barns, Barlavington Yard, Dean Barn Duncton Manor Farm. (S,M)	Great Place to Live 9.0 Great Place to Work 10.1
Expand and further diversify the leisure enterprise at Duncton Mill Fishing Lakes. (S,M) Create new off grid eco campsite in Waltham Park Woods. (S,M)	Great Place to Work 10.1, 10.3
New planting schemes. (M,L)	Great Place to Work 10.1
Monitor demand and manage land appropriately. (S,M,L)	Great Place to Work 10.1

LEFT: CATTLE GRAZING AT LORD'S PIECE

Implementation, Monitoring and Review

Once endorsed by the National Park Authority the Barlavington Whole Estate Plan will become a key driver for management and decision making across the Estate. The Plan will become a core point of reference for the Ownership Group, the Board, and the Management Team. It will be used to shape annual business and investment planning. It will also provide clear direction that can be used to consider and respond to requests and opportunities arising from third parties.

The Barlavington team will regularly monitor progress against the vision, objectives and commitments set out in the Plan (via their governance structures). They will consider the opportunity for review at the fifth and tenth anniversary of its endorsement, or at any point that circumstances make this appropriate and useful (for example in response to the production of a new Partnership Management Plan for the National Park).

The Estate will be pleased to respond to queries that the National Park Authority or its partners may have that help in any monitoring (of the Plan) they may wish to undertake.

The endorsed Whole Estate Plan will remain in the public domain. It will be made available to local stakeholders as a source of information. It will be referenced in any future planning and funding applications and can act as a source of reference for stakeholders, tenants and potential partners.

RIGHT: BARLAVINGTON FROM SLIPES

Community Consultation

This plan has been a long time in the making and has suffered from the impact which the Covid Pandemic has had on the Estate's ability to engage with its tenants, neighbours, and local communities during much of 2020 and into 2021.

The Estate has engaged with its tenants, carrying out a series of interviews in 2019 and listening to views of how it might enable a better quality of living and sustainable economic growth. It has reviewed plans and statements produced by communities including the 'made' Bury and Fittleworth Neighbourhood Development Plans.

After a couple of Covid induced false starts the Estate was able to carry out a detailed online consultation during the early part of 2021. Sections of the draft plan, information on the Estate's vision and ambitions, and on the plan making process were shared with parish councils, tenants, stakeholders and local elected members via a password protected website which was available for 12 weeks.

Readers were invited to offer comments and responses were received from all parish councils where the Estate owns land together with comments from individuals and interest groups. These comments have been considered in full in the production of the final version of the Whole Estate Plan.

The Estate has then engaged with the South Downs National Park Authority, its officers, and members putting on a visit to the Estate, receiving, considering and responding to views and feedback.

For more information please contact:

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