

THE DEER  
INITIATIVE

ANNUAL REVIEW

2016 - 2017





## FOREWORD

HENRY ROBINSON  
CHAIRMAN

Since its creation in 1995, the Deer Initiative has had a lead responsibility for ensuring the delivery of a sustainable, well-managed wild deer population in England and Wales. My predecessors have built a strong Partnership that supports a common aim of “the achievement and maintenance of a sustainable and healthy population of deer in England and Wales”. We now have a real consensus that collaborative management action at a landscape scale is necessary to achieve this aim and we have produced models to allow local stakeholders to achieve this collaboration.

Henry Ford once said; ‘Coming together is a beginning; keeping together is progress; working together is success.’

I have recently handed over as President of the CLA having spent many years working through various offices and have now been given the opportunity to lead the Deer Initiative Partnership which includes both my previous organisation and the broad range of organisations that the Deer Initiative brings to the Partnership and to the concept of deer management.

In the early days I know that there was often a lack of trust between those sat at the table and inevitably areas where organisations were unlikely ever to agree. However since 2001 the support of a small team of expert staff who provide the technical support has helped focus attention on clearly identifiable key issues including Deer Vehicle Collisions, impacts on native biodiversity and the potential for deer to act as vectors for animal disease and zoonoses. This focus has kept the Partners together and the evidence provided by academic researchers and practitioners has allowed many of the Partners to not only join the Partnership but also to become actively engaged in deer management including culling.

All the major conservation bodies now recognise the need to cull deer where the negative impacts outweigh the positive benefits and also as part of a collaborative landscape scale process. The Wildlife Trusts were amongst the first to recognise the impacts on native biodiversity. The RSPB took time to gather and interpret the evidence but again once convinced became fully involved in landscape scale culling and the Woodland Trust have agreed a strategy for managing deer across their 73 square mile land holding. Throughout the DI has had the support of the RSPCA and our development of Best Practice with them and the other Partners which has been endorsed by Government has been one of the most important developments of the past ten years.

Where there is a lack of common ground or robust evidence, we are all still at the table and more importantly working together in the field to achieve a ‘sustainable and healthy population of wild deer in England and Wales’. I hope in my time as Chair that we will all continue to work towards that vision.



## DEER INITIATIVE PARTNERSHIP

**British Association for Shooting and Conservation, BASC**  
**British Deer Society, BDS**  
**Confor**  
**Country Land and Business Association, CLA**  
**Countryside Alliance, CA**  
**Defra**  
**Forestry Commission England, FCE**  
**Forest Enterprises, FE**  
**Forest Research, FR**  
**Game & Wildlife Conservation Trust, GWCT**  
**Highways England, HE**  
**Ministry of Defence, MOD**  
**National Farmers Union, NFU**  
**National Forest Company, NFC**  
**National Gamekeepers Organisation, NGO**  
**National Police Chiefs’ Council, NPCC**  
**National Trust, NT**  
**Natural England, NE**  
**Natural Resources Wales, NRW**  
**Royal Society for the Prevention of Cruelty to Animals, RSPCA**  
**Royal Society for the Protection of Birds, RSPB**  
**Royal Society of Wildlife Trusts, RSWT**  
**Smallwoods**  
**St Hubert Club of Great Britain**  
**Veterinary Deer Society, VDS**  
**Woodland Trust, WT**

# OVERVIEW



Deer numbers are increasing in England and Wales and they are continuing to expand their distribution. In 2010 it was estimated (<http://www.parliament.uk/documents/post/postpn325.pdf>) that the current wild deer population in England was approximately 750,000. With the current management regime it is likely that all the species will increase at rates between 1-10% per annum. This is not sustainable for the long term without a more collaborative approach to intervention. If management continues only at current levels by 2020 the deer population could be as high as one million deer in England alone. The cost of damage to agriculture in the East of England was estimated in 2008 at between £1.9 and £4.6 million p.a. Further damage to woodland plantations and forestry is estimated at between £0.6 and £0.9 million per year and damage to conservation valued at £0.3 million per year. Furthermore, the number of road accidents involving wild deer is a matter of major concern in England. Where busy roads pass through areas of high wild deer population the risk both to motorists and the wild deer themselves is considerable. The economic cost of wild deer related road traffic accidents nationally are estimated at £50 million a year. The potential future costs and benefits of wild deer over the next 5 and 10 years were estimated in the East of England, based on the assumption that populations increase over the next 10 years at the same rate as ranges have expanded over the last 30 years. Recent research suggests that in the next 5 years, the net cost of wild deer to the region will be £8.8 to £11.5 million, and that this will increase to a cost of £10.1 to £12.4 million in 10 years. These changes will be equivalent to a 12- 25% increase in costs over the next 5 years and a 21-44% increase in costs over the next 10 years. It could be perceived that there is little market demand for advice and support relating to the management

of wild deer, however, Government believe that this is not due to lack of need, but due to a lack of knowledge by landowners, woodland managers and foresters. As stated in the document 'Reviewing Forestry Commission England's approach to reducing the impact of deer on forestry and woodlands' (2014), 'Collaboration is needed between landowners in addition to management activities in individual woods as wild deer move around wide areas encompassing many landownership boundaries. Legally they belong to no-one and are no one's direct responsibility.' Our aims and objectives are set out in our Corporate Strategy (2015-2020) and the overarching vision of the Deer Initiative remains: the achievement and maintenance of a sustainable and healthy population of wild deer and feral wild boar in England and Wales. Our aim is to ensure the delivery of the above and in doing so, in the next five years, we will pursue three main outcomes:

- Contribute to the conservation and sustainable management of woodlands and other habitats; in particular Biodiversity 2020, the achievement of favourable conservation status of protected areas such as SACs and Sites of Special Scientific Interest.
- Reduce the number and seriousness of deer and feral wild boar-vehicle collisions on our roads.
- Build the capability to react effectively to contain and control emerging zoonoses relating to deer and feral wild boar.

We plan to achieve these outcomes by focusing on five strategic objectives:

1. Managing deer and feral wild boar: to continue to manage populations at a landscape scale through partnership working
2. Developing the evidence base: to review, collect and, where necessary, commission research and evidence-gathering on population dynamics, management methodologies and other fields as required.
3. Building capacity: to ensure that best practice knowledge and skills are utilised across the sector, through the development and encouragement of accredited training and professional support for all those with deer management remits and interests.
4. Informing and communicating with policy-makers, decision-takers and the general public, to ensure that high quality, evidence-based information is available and effectively disseminated to all those with both a direct and indirect impact upon the issues related to deer management; and to engage the wider public in developing understanding of the issues, the challenges and possible solutions.
5. Maintaining an effective delivery partnership: to ensure the most efficient, sustainable and cost-effective delivery of the outcomes.

In response to the growing impacts on native diversity, the Forestry Commission and Natural England recently offered a four year competitive grant to improve the condition of native woodlands in England in a small number of geographic areas. The grant was won by Deer Initiative Ltd. The aim of the programme is to enable landowners to sustainably and collaboratively manage wild deer in England. Our proposal was based on building and disseminating an evidence base through knowledge transfer and the development of local landscape scale collaborative approaches. The first requirement was to identify where we should concentrate our efforts. We developed a ten step protocol based on our current knowledge.

The first step was based on the condition of the woodland SSSIs. The condition of every SSSI site is regularly assessed by Natural England and given a rating based on a range of factors affecting them; the first factor that we used for these analyses was "Forestry - Deer grazing/browsing". The woodlands that were affected by deer were then given a score based on their relative importance/priority for woodland management. Sites in Favourable condition are given a higher scoring as the focus of Natural England is to increase the amount of land in Favourable condition whilst still maintaining the area of land in Unfavourable Recovering condition. "Biodiversity 2020: A strategy for England's wildlife and ecosystem service" seeks to achieve "at least 50% of SSSIs in Favourable condition, whilst maintaining at least 95% in Favourable or recovering condition" by 2020. This is achieved primarily by the status of the land moving from Unfavourable Recovering to Favourable condition and also by ensuring land that is currently considered as Favourable condition is not allowed to decline.

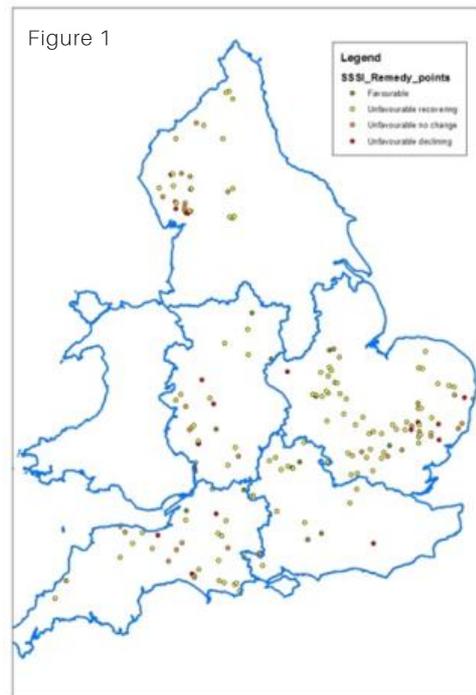
Figure 1 shows very clear areas where sites are at their highest density. Unfortunately, these areas are far too large for the Deer Initiative to work effectively; ideally we would like to limit the size of a priority area to between 400-600 km<sup>2</sup> and so it was necessary to carry out further analyses in order to concentrate these areas. A similar analysis was carried out using the "risk" scores (Low, Medium and High) given to sites currently in a favourable condition. These scores are based on a number of criteria:

- Time since last assessment;
- Habitat and species risk factor;
- Condition threat risk;
- Number of high risk condition threats.

We have over the last three years been building 'deer density maps' with colleagues from the Forestry Commission and Natural England.

Having identified the potential Priority Areas we compared the areas with two of the more abundant herding species maps (red and fallow), using the same method as before, to ensure that as far as possible the boundaries match the known deer ranges.

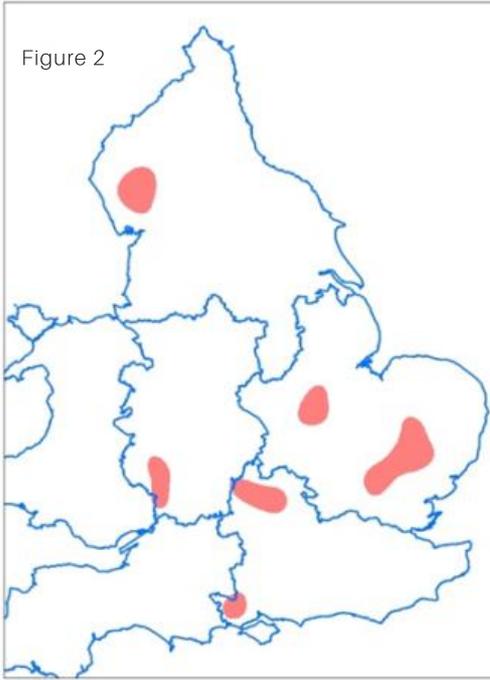
In time, to further refine the models shown in this document, geographic information showing the extent of Ancient Woodland covering the country may also be included in the analysis. We have also included a comparison of these Priority Areas to Areas of Outstanding Natural Beauty and National Parks.



In parallel with the above process we have also compared the potential Priority Areas with existing collaborative management boundaries to identify areas where management is taking place and where adjustments may be required.

As more data becomes available on the condition of forestry, agriculture and the spread of diseases the maps will be updated to allow a more in-depth analysis of the most suitable Priority Areas. The locations of six potential Priority Areas are shown in Figure 2 (page 6). Eventually it was agreed to take forward five of the six as the first tranche. Each of the five Priority Areas is sub-divided into Action Areas which further match local land owning and more importantly deer range boundaries. These are also shown on the maps on pages 8-15.

Figure 2



The landownership patterns are very different in this area, with few Forestry Commission woodlands, a number of major private landowners but a significant number of small landowning stakeholders who need to be involved and consulted especially on the urban edge around Oxford.

We are at the beginning of a four year project to show that collaborative action by local landowners can improve woodland condition, especially for protected sites. Our approaches will no doubt change as we learn from the individual projects and from other advances in deer management elsewhere. This resulted in us selecting five areas as our top priority, they are shown on the map. These were areas across the country where lack of collaboration has led to high density of wild deer or feral wild boar populations and where the impacts, especially on biodiversity, are currently considered to be unacceptable.

The aim of these local innovative projects is to draw together landowners to form cohesive Deer Management Units (DMU) that understand the wider objectives for deer management and the wider landscape management of deer. This will be undertaken through a mixture of direct meetings with landowners, carrying out baseline work, ongoing monitoring, population management and volunteer engagement.

The new programme will include:

- Meetings with land owners and land managers including one to one, contacts with agents, meeting with groups and awareness presentations. We have developed a management tool to help with this in conjunction with the Sylva Foundation: <https://sylva.org.uk/myforest/>
- Population baseline evidence and ongoing monitoring;
- Thermal imaging (TI). This is our preferred option for establishing deer density at a landscape scale.

- Trail cameras. To establish movement patterns and habitat usage across the range, (TI is supplemented by the use of Trail cameras).

- Activity and impact surveys. In addition to population monitoring we have also developed an impact monitoring methodology to provide demonstrable evidence of deer impacts. Our aim is to train practitioners and other volunteers in using this methodology and then provide a collation and interpretation service to allow adaptive deer management.

- Exclosure plots. In support of the impact monitoring we have also developed an exclosure plot design together with a monitoring protocol. This provides a visual demonstration of the impacts of deer and is particularly useful for persuading landowners of the requirement for collaborative deer management.

- Deer population management. A key element of landscape scale collaborative management is organised cull periods.

These activities require a significant level of support to ensure they are effective, humane and safe. We have developed a methodology to train and support collaborative culls and this will be used in the new project.

Volunteer engagement and supervision.

Key to any successful wildlife management activity is building a consensus with the local stakeholders, practitioners, and landowners. Wherever possible this should include:

- Involving volunteers in the monitoring and related activities. We have developed a protocol for building such a consensus and developing a volunteer support base through community meetings, supervision and provision of equipment.
- Continuing management.

Finally, we are convinced that local projects require local management and we have developed a model based around a locally chaired steering group supporting a local Deer Management Unit (DMU).

Work in the Action Areas started in the middle of this year and some differences between the areas have already become apparent. We have been working in the area of the Lower Wye Valley, on both sides of the England-Wales border for some time, the ravine landscape makes deer management more difficult but much of the land is owned or managed by large organisations such as the Forestry Commission and the Woodland Trust so collaboration should be relatively simple.

However although we were aware of the extent of the fallow herd range, the abundance and range of other species such as roe, muntjac, red deer and wild boar will require concerted effort to produce viable and effective management plans.

In contrast the need for an Oxford Priority Area was not intuitive to us and without the detailed analysis of SSSIs it might have been overlooked.

A large buck with impressive, multi-tined antlers stands prominently on a grassy hill. The buck has a mix of brown, tan, and grey fur. The background is a dense forest with green foliage and dark tree trunks.

COLLABORATIVE  
MANAGEMENT  
ACTION  
TO IMPROVE OUR  
NATIVE WOODLANDS

# CUMBRIA

The Cumbria and North Lancashire Priority Area comprises areas of ash and hazel woodland on limestone pavements to upland oak woodland, with some of the woodlands located up to 350 meters above sea level. These experience limited light and harsh growing conditions.

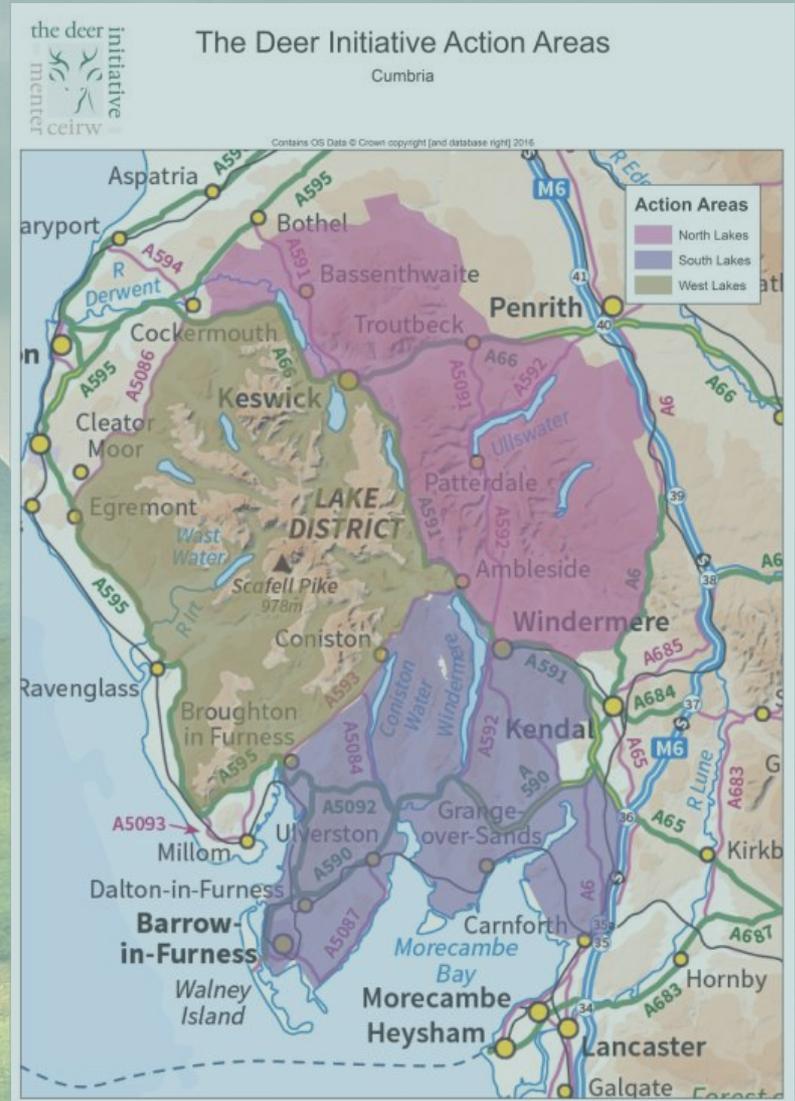
There are 138 land units within the Priority Area where deer have been highlighted as an issue. The units' sizes range from 0.7 ha to 208 ha. Within the area there are a few large blocks and many small woodland units with many different owners.

The Priority Area consists of three Action Areas covering 2221 ha. Deer impact assessments were undertaken in 11 woodlands within the action areas during 2016, with data available for a further six woodlands from previous years.

An additional 4464 ha are already involved in collaborative management, and a key Partner, the National Trust, has ensured more stalkers are actively working together on and around their land. Collaborative culls have been undertaken at Arnside, Borrowdale, Rusland and West Cumbria, and a further five were delivered in the first quarter of 2017.

A rigorous policy prioritising hinds and does has been widely adopted. This policy is likely to be the same next year in order to further improve woodland condition, with the ultimate aim of achieving Favourable status.

We have loaned high seats to the South Lakes Deer Management Group, National Trust, Natural England, United Utilities, Briars Wood Estate, Lancaster County Council, Woodland Trust and RSPB to facilitate culling operations.





During each of the collaborative culls (10 cull periods since January 2016), 3 to 7 stalkers (providing about 270 person hours of stalking), worked together to achieve the agreed aims for each group to reduce red and roe deer populations.

Collaborative culls were also undertaken in early 2017.

So far, Partner involvement has included the National Trust, Forestry Commission, BASC, BDS, RSPB and Woodland Trust and has involved the sharing of data, support of collaborative culls, Best Practice events and attending deer management group meetings.

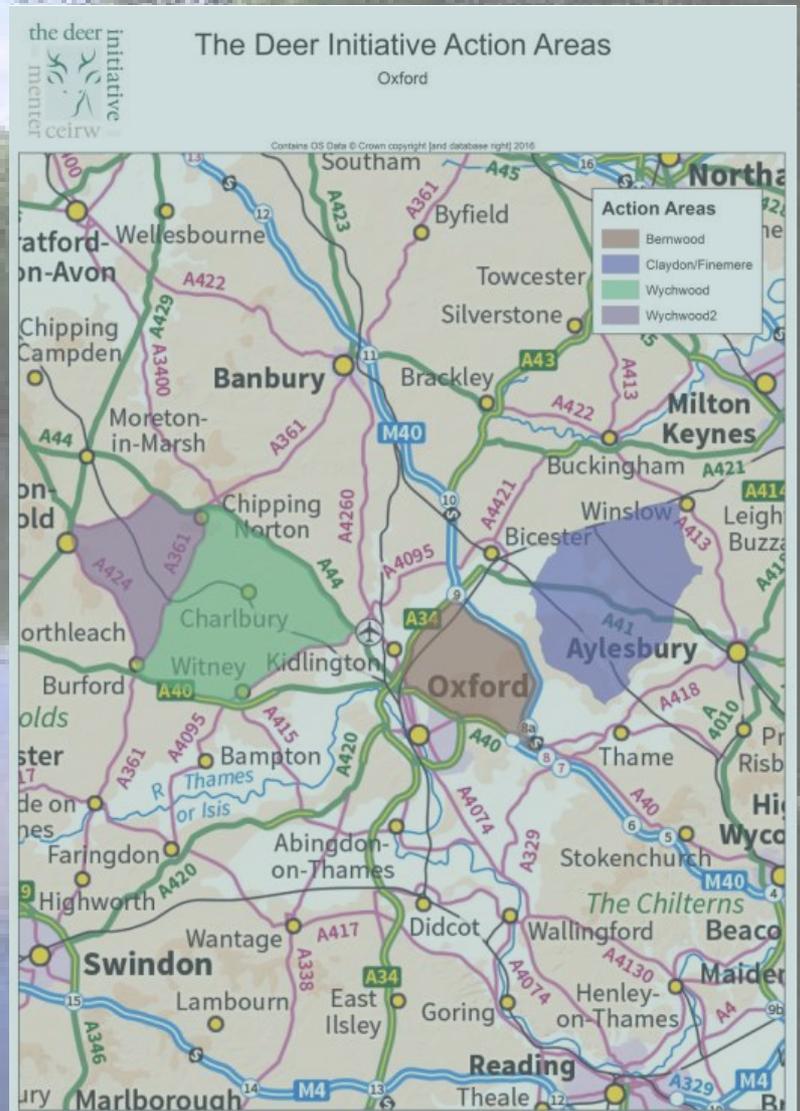
Around 300 deerstalking enthusiasts gathered at Malmo Guns in Lancashire for the Deerstalkers' Best Practice charity evening organised by BDS, DI, BASC and the hosts Malmo Guns. With talks on tracking with dogs by the UKSHA, venison butchery by Honeywell Meats and ammunition choice by Simon Roche.

The Oxford Priority Area currently comprises two Action Areas agreed by the Oxon steering group in July 2016: Bernwood and North West Oxfordshire (NW Oxon).

Bernwood is centred within the A34, A40, M40 triangle (SP565114), covering approximately 100km<sup>2</sup> in total. There are 20 significant woodland blocks, the remnants of the south western part of the former Bernwood Forest. Eight of the woodlands are SSSIs and cover a total of approximately 370 ha. The marsh/wetland of the Otmoor ranges, which cover approximately 200 ha, is not expected to be included in the focus of this project.

NW Oxon is centred within the A40, A44, A361 triangle (SP360166) and includes the Glympton/Kiddington area just north of the A44, covering approximately 250km<sup>2</sup> in total. The area is dominated by a number of large individual landholdings interspersed with smaller holdings, the total number of which is not yet known. There is one very large (Wychwood) and two much smaller, woodland designated sites, together covering approximately 525 ha. Within Wychwood 263 ha is a National Nature Reserve.

Landowner meetings have been held in both Action Areas and preliminary work on enclosure plots, impact surveys, and deer census has begun. A landowner collaborative cull has been carried out in the Bernwood area. A series of landowner events are planned for 2017.







## Survey Work for the Woodland Trust

During 2016 the Woodland Trust contracted DI to undertake and collect deer impact and activity assessments data across the Eastern Claylands Treescape area to produce heat maps of deer impact and deer activity in order to facilitate evidence-based decision making on woodland impact management. This evaluation has provided an opportunity to independently assess a significant proportion of the woodland landscape of the Eastern Claylands (Suffolk and Essex) and has led to the development of a repeatable survey generating a heat map of the area showing relative levels of deer impact and deer activity.

Promoting Best Practice and raising awareness through Partnership events, East of England Deer Forum

The East of England Deer Forum is the only dedicated regional forum of its type in England. With 20 organisations represented, independent forestry consultants and independent scientific representation; the forum continues to provide a regional overview and supports the work of the DI Deer Liaison Officer in the region.

Meeting twice yearly the forum focuses on current areas of interest and has recently included dedicated sessions on the proposed introduction of Lynx to Thetford Forest area, venison marketing and grant support through RDPE for increasing local production and sales of venison (summer 2016) and poaching of deer in the region (autumn 2016).

The increase and spread of chinese water deer in the East of England was the focus of the Spring 2017 meeting.

The forum supported the establishment of the Wild Venison Project (2009 – 2013) and the production of information leaflets. It will continue to support regional or national projects as required, including research and the furthering of knowledge in sustainable deer management.



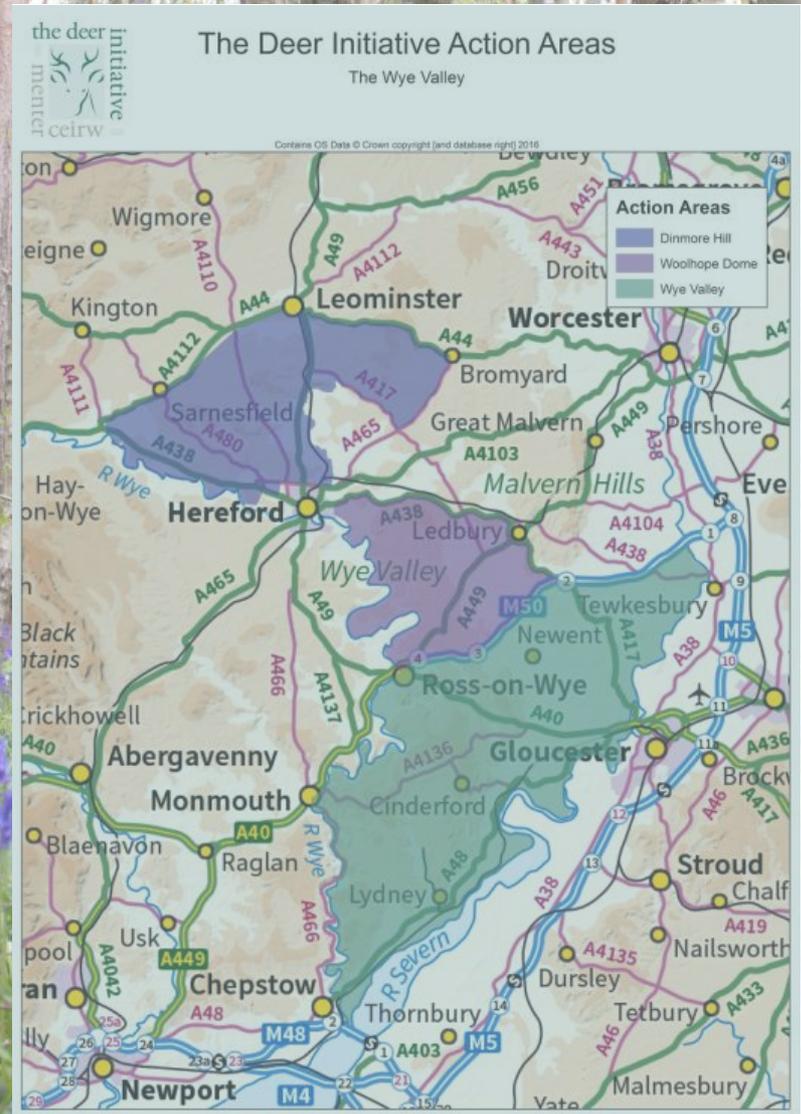
## THE WYE VALLEY

Primary activities in the West Midlands & Wye Valley include developing collaborative deer management in three Action Areas, supporting the deer management policies and activities in the National Forest, and engaging with landowners in the environs of the Forest of Dean concerning the control of feral wild boar.

The Dinmore Hill Action Area (31,588 ha) comprises seven large woodlands and numerous smaller woodlands, all under different ownership. The Woolhope Dome Action Area (20,454 ha) is dominated by Haugh Wood (managed by the Forestry Commission) which is surrounded by numerous smaller woodlands, farmland and isolated copses.

The Lower Wye Valley Action Area (64,338 ha) due to its size is sub-divided into four zones. Starting in the south Zone 1 is centred around St. Briavels Common. Zone 2 comprises linear woods along the eastern bank of the Wye and further east on the plateau Highbury Wood National Nature Reserve (managed by NE). Zone 3 is centred on Highmeadow Woods (managed by the Forestry Commission) and is surrounded by smaller woodlands such as Priory and Lady Grove, and Beaulieu Woods. Zone 4 is a geographically restricted area within a loop of the Wye and comprises two large woods, Coppet Hill and Coldwell Wood. Focussed activities in the Action Areas during 2016-17 have included one-to-one meetings with landowner/managers to secure their engagement, area meetings to discuss landscape scale deer management, the formation of deer management groups, deer counts, collaborative cull days, and activity and impact surveys.

Future planned events include Best Practice days and evenings and training sessions for deer activity and impact surveying. These activities have been greatly supported by our Partners - Natural England, the Forestry Commission, BDS and BASC.





## The National Forest

Following several years of collaboration the Deer Initiative continues to support the National Forest by developing and implementing its policy relating to wild deer. This has led to the formation of three active deer management groups across the Forest area: Grangewood, Melbourne Parklands, and most recently Charnwood Forest. The Bagots and Needwood deer management group on the boundary of the Forest run by the Forestry Commission is also supported.

## Feral Wild Boar in the environs of the Forest of Dean

With the help and support of many partner organisations - the Country Land and Business Association, the National Farmers Union and the National Pig Association - a Steering Committee has been established to help manage the growing and spreading population of feral wild boar from the Forest of Dean.

CONSERVATION &  
SUSTAINABLE  
MANAGEMENT OF  
WOODLANDS  
THROUGHOUT  
ENGLAND & WALES



“Wales benefits from its wild deer population in balance with the natural, social and economic environment.”

The Welsh Assembly Government’s strategy for wild deer management in Wales was set out in 2011-2016.

The actions in the updated Action Plan 2017-2022 continue to be framed around the outcomes identified in the strategy and use its ‘Agenda for Action’ as a basis to build on the deer management activities and partnership that already exist in Wales.

The agenda identifies eight key outcomes:



## WALES

The DI continues to act as the secretariat for the Welsh Assembly Government strategy for Wild Deer Management in Wales with a national forum meeting taking place in November 2017. The Steering Group will manage the 2017-2022 Action Plan. The Wales Deer Forum was held on the 10th November 2016 at Coed Y Brenin, Dolgellau, the feedback from which was then fed into the Wales Action Plan 2017-2022.

Training events in the last year have included three Deer Stalking Certificate (DSC1) courses run by the DI in Monmouth, Elwy Valley and Meifod, Welshpool. The DI also helped facilitate an additional DSC1 held in Cardigan by BASC. Best Practice events have also been run in North and South Wales, all of which were well attended with a great selection of speakers.

in partnership with the Deer Initiative, Owain Barton, an MSc student at Bangor University, has been awarded a Knowledge Economy Skills Scholarship (KESS 2) to undertake a research project on the distribution of Roe deer across Wales. The aim of the study is to gain a more accurate assessment of the distribution of Roe deer across Wales and to predict, using population modelling, how this will change over time. The outcomes of which will be used to minimise the ecological and economic impacts by highlighting vulnerable habitat for targeted conservation management.

KESS 2 is a pan-Wales higher level skills initiative led by Bangor University on behalf of the HE sector in Wales. It is part funded by the Welsh Government’s European Social Fund (ESF) convergence programme for West Wales and the Valleys.

## Thermal Imaging

We have been experimenting using thermal image cameras during daylight hours, attached to the side of a helicopter, each camera recording what is seen from the air with the pilot flying at approximately 400 feet above ground level at a constant speed on a predetermined transect until the required area is covered. The recording is then slowed down by approximately half and viewed back at HQ and a head count recorded.

This year we have also used a high resolution daylight camera in tandem with the TI camera. This enables us to zoom in and better identify the animals seen. Visibility from above is much clearer even when flying over dense woodland, the very cover deer often like to lay in. This type of cover proves almost visibly impenetrable when attempting to count deer at ground level. We have been able to cover areas of ground hitherto inaccessible at ground level.

Last year we covered an area of 40,000 ha from the air in less than one and a half hours. Had we been able to travel the same area on the ground using a vehicle it is estimated it would have taken in excess of 14 nights. Even allowing for the high cost of an air craft per hour on large sites of forestry aerial counting becomes far more cost effective.

## Other Projects

A joint project is underway with Gwent Wildlife Trust, Woodland Trust, Wye Valley AONB, NRW and the Deer Initiative. This includes high seats, interpretation boards, Impact assessments and creation of deer lawns.

Wye Valley AONB supported by funding from Leader and Natural England is funding a Venison Feasibility Study in Monmouth and Wye Valley AONB area. The Deer Initiative has also secured funding from the Wye Valley AONB Sustainable Development Fund to part fund this project.

## Aerial Counting of Wild Deer and Boar

### Objectives:

To prove reliably and accurately that wild populations of deer and boar can be counted from the air. Previous methods have proved unreliable and numbers often quoted to organisations can become very questionable.

One method commonly used involves using a thermal image camera at night with an operative standing in the back of a vehicle carrying out a head count and then applying a distance sampling calculation to assess the probable deer not seen and recorded. This often caused disputes as to how this number was arrived at. This method also has limitations where topography is such that visibility is restricted due to undulating landscape, lack of internal forest roads, and hidden dangers such as old quarries and cliffs. It has also been abandoned by most due to Health and Safety concerns of driving in the dark along often narrow steep forest tracks at night.



## Chronic Wasting Disease

Chronic Wasting Disease (CWD), also known as Cervid Wasting Disease, is a highly infectious disease which has devastated some populations of wild and farmed deer in North America.

CWD has very recently been diagnosed in Scandinavia in a wild reindeer and also in moose. The risk of CWD entering the UK is therefore likely to have increased now the disease is present in Europe.

A Working Group has been established to formulate a Government and industry response, building on the work of the BDS over the last few years. The Working Group has now met twice with representatives from across the UK under the Chairmanship of the Deputy Chief Vet for Scotland. DI sits on the Working Group and BASC, VDS and BDS are also represented. The Group has produced a briefing note on CWD which along with the most up to date assessment from Norway can be found here.

The most recent CWD Qualitative Risk Assessment (RA) can be found on the gov.uk website.

## Bovine Tb Sampling in Wales

Welsh Government ongoing surveillance initiative are working in partnership with NRW, the DI, APHA and other external partners to undertake TB surveillance in wild and park deer in Wales. The aim of the partnership is to improve our understanding of the prevalence of TB in deer populations.

Samples are being taken from deer that are routinely culled as part of sustainable management. Office of the Chief Veterinary Officer support is being provided by training deer stalkers to identify and collect tissue samples and supplying sampling kits. The ongoing surveillance began in December 2012 and is generally undertaken seasonally during winter months.

To date, samples from a total of 1149 deer have been tested with 17 positive for M bovis, twelve of the positive cases were located in the Monmouthshire area.

## EMERGING ZOOSES & ANIMAL DISEASE

### CHRONIC WASTING DISEASE IN DEER



Chronic Wasting Disease, (CWD), also known as Cervid Wasting Disease, is a highly infectious, fatal disease which has devastated some populations of wild and farmed deer in North America.

CWD has very recently been diagnosed in Scandinavia in a wild reindeer and also in moose. The risk of CWD entering the UK is therefore likely to have increased now the disease is present in Europe.

CWD is caused by a protein, a misfolded protein, and belongs to the same group of diseases as scrapie, which affects sheep and goats, and "mad cow disease" (bovine spongiform encephalopathy or "BSE"). This group of diseases are known collectively as transmissible spongiform encephalopathies or "TSE's". CWD is the most infectious of these, the same suggests a fairly advanced but it is actually degeneration of the brain and central nervous system which is the main symptom.

There is no evidence to suggest that it causes disease in people, or other species of animal.

#### CWD Key facts:

- CWD is fatal in any infected deer
- CWD is highly infectious and persists in the environment
- There are currently no treatments or vaccines available to control the disease
- All efforts to control the spread of CWD in the UK/Europe have so far failed and it is probably now beyond control
- Preventing CWD from entering the UK is currently the only effective control measure.

The price is transmitted in deer body fluids and body parts including urine, faeces, saliva and several tissues in infected animals. The price can remain infectious in the environment for up to twenty years as it binds to the surface of soil particles and for several years on stainless steel if only normal farm disinfection and even some standard veterinary disinfection processes. Animals may take 18-24 months to exhibit clinical signs and they become increasingly infectious to others over time.

If CWD were to become established in the UK stopping its spread is likely to be impossible, it could have major consequences:

- Loss of large numbers of the wild deer population
- Land contamination with CWD prions
- Deer welfare will be challenged in contaminated areas
- Deer farming may become impossible in contaminated areas
- Restrictions on sales of venison and live deer
- Restrictions on stalking activities.

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KNOW THE  
RISKS  
WWW.THEDEERINITIATIVE.CO.UK

CHRONIC WASTING DISEASE IS

SPREADING, DON'T BE

THE ONE WHO IMPORTS IT

Signposting of funding opportunities is being facilitated by the development of a new website by the Sylva Foundation under contract to the Deer Initiative: <http://forestryace.eu> will provide links to national, regional and local funding resources via an interactive map of England and the Priority Areas. Case studies are also provided to illustrate how funding can be used to facilitate deer management and get woodlands into favourable condition.

The intention is to host the website at the FACE (Forestry Advisory Consortium England) domain using the name 'Forestry and Deer Business Funding (England)'. The site will focus for the moment exclusively on the Priority Areas. Over time the FACE partners will build the site and add information to cover the whole of England.



Increased demand for home grown timber and the resulting price increases have seen forest managers and contractors take the opportunity to invest in new equipment, facilities and skills, with new harvesters and forwarders, firewood processors and seasoning sheds appearing in many forests and timber yards around the country.

FACE is a group of forestry organisations and advisors who have come together to provide specialist support to forest and timber supply chain businesses which are considering investment in new facilities and equipment. It consists of the Community Forest Trust, Cumbria Woodlands, Martin Glynn FICFor, Northwoods, Rural Development Initiatives, Small Woods Association, Sylva Foundation, Woodnet, Timber Strategies, and Yorwoods. Together they advise on business planning, marketing, financial forecasting, grant applications and technical issues. FACE can also draw on specialists to provide advice on issues such as legal business structures, co-operative working and VAT.

If you would like to access advice through FACE, please contact your regional partner through the contact details below:



myForest (<https://sylva.org.uk/myforest/>) is a free-to-use online woodland management system hosted by the Sylva Foundation. It has been adapted to incorporate deer management plans, data from impact surveys, deer counts and cull returns (the Deer Functions) into Woodland Manager. All information input to Woodland Manager is securely stored in the cloud and is accessible to named users anywhere through a username and password.

## FORESTRY AND DEER BUSINESS FUNDING WEBSITE



The addition of the deer management plan function allows users to create and store their plan on-line, and it can be download for sharing electronically or through print.

The addition of the annual monitoring data requirements allows the input and storage of annual deer information (cull, counts, impact), which can be downloaded as a report for sharing.

The Deer Functions have been reviewed by the Deer Initiative and the database that will allow deer management information to be shared between Sylva and the Deer Initiative has been finalised.

App-based data collection Woodland Manager and The Deer Functions can be used online. However, in order to collect and store information rapidly, such as might be required at the end of a cull, an app is in development for use on smartphones that use the Android operating system. The app will provide a link to the user's account so that data entered via the app are stored immediately on MyForest.

## REDUCING THE NUMBER OF DEER AND FERAL WILD BOAR VEHICLE COLLISIONS ON OUR ROADS

In the UK there is no unified system for central Government collation of road traffic accidents involving deer or other wildlife. Deer-vehicle collisions present a major problem in the UK. The DI together with Highways Engalnd continues to maintain a database of DVC trends and locations of hotspots.

There are up to 74,000 DVCs in the UK each year with several hundred human injuries and a small number of human fatalities each year as a result. Driver awareness is of high importance and the DI facilitate a media drive bi-annually at the times of year where DVCs peak in May and October. The associated DeerAware.com website offers basic advice on how to avoid a collision and enables us to collect data on the number of accidents.

In July 2006, the Ashdown Area Deer Forum was established as part of a project for which the main objectives were to reduce the numbers of deer vehicle collisions (DVCs) in the area and ensure the welfare of a healthy, local deer population. The setting up of the Forum followed a series of earlier meetings involving; DI, Ashdown Forest Conservators, Sussex Police, East Sussex County Council (ESCC), BDS, MOD, RSPCA and local landowners where it was agreed that only a landscape scale collaborative project was likely to succeed in reducing the number of DVCs.

This on-going project now provides a successful model of how a public/private partnership can bring about real change in deer management issues at a landscape scale.



The key outcomes of the project so far are:

- Increased awareness of the need for (and capacity in implementing) safe, humane and effective deer management.
- Collaboration between a large number of landowners to ensure sustainable deer management on the landscape scale.
- A dramatic reduction in the incidence of DVCs in what was the UK's worst hotspot.
- The prospect of an improvement in the condition of the woodlands in the central project area.

DI has been instrumental in supporting a new Deer Programme Coordinator post, funded by Natural England and employed by the Ashdown Forest Conservators. The Coordinator role is to continue to bring DVC numbers down and ensure that habitat objectives are met. The Coordinator will manage deer numbers on the forest and develop a sustainable venison market.

Evidence suggests that following a significant increase in culling on private land (coordinated by DI adjacent to the Forest) and now the further increased cull achieved (by the Deer Coordinator acting in collaboration with local landowners and deer stalkers), deer numbers, though still high, have fallen, with a concurrent fall in DVC numbers and an improvement in habitat and deer carcass condition.

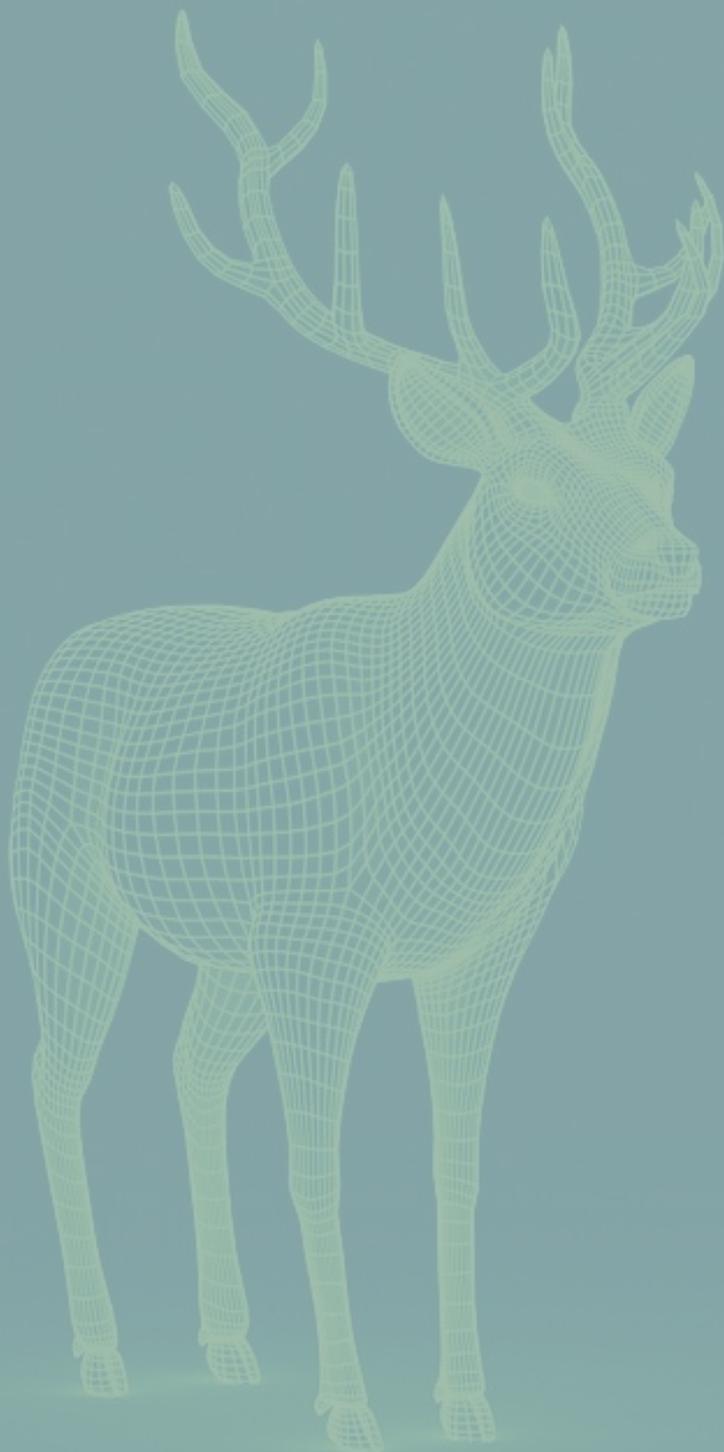
Humane Animal Dispatch

In conjunction with the Hampshire and Thames Valley Police Forces and BDS, DI has been involved in the development and delivery of formal training and assessment for volunteers involved in dispatching injured deer at roadside.

By the end of April 2017 well over 100 volunteers were qualified. It is hoped that the scheme will be rolled out to other Police forces.

BUILDING  
THE FUTURE

RESEARCH &  
DEVELOPMENT



DI Ltd is working closely with a number of Universities to increase the cooperation between academics and practitioners to improve sustainable deer management. Our aim is, wherever possible, to provide worthwhile projects for students at all levels providing field experience and training in biodiversity impact monitoring, population monitoring and use of modern technology such as thermal imaging. In return the students provide peer reviewed scientific research on subjects of our choice.

Our Director of Operations and Research Dr Alastair Ward joined the Deer Initiative in September 2016 on secondment from the Animal & Plant Health Agency (APHA). Dr Ward maintains academic links with several universities, notably the University of Hull where he is a part-time senior lecturer in zoology and Newcastle University, where he is associate lecturer in wildlife management.

This year we have concluded a formal agreement with Bangor University to sponsor Owain Barton (an MSc student) to work on roe deer in Wales. Roe are an integral component of the British countryside that have a major impact on biodiversity and ecological function.

Although the roe deer population in Wales is currently limited in distribution and exists at significantly lower densities than in Scotland and England, it is predicted that the population will increase rapidly over coming decades, particularly as populations in England expand westwards.

Owain Barton is using existing monitoring data, culling/hunting records and animal observations to analyse the current distribution of the roe deer population, the rate at which it is expanding and the locations/habitats that are likely to be occupied and vulnerable to over browsing.

We intend to expand this programme with a KESS funded PhD studentship which focuses on a large population of fallow deer (~1500 individuals) in the Elwy Valley near Abergele, North Wales. The population has expanded in size over recent decades and there is concern from landowners, conservation agencies and the public with regard to the impacts the deer are having on sensitive woodland habitats (including 12 Sites of Special Scientific Interest). However, there is only very limited data available on the precise movements and distribution of the deer. We propose to investigate the fine-scale movement behaviour, habitat utilisation and range expansion of these fallow deer using the latest GPS tracking technology, motion activated cameras, and vegetation impact surveys. This data will be used to address five specific research objectives:

1) Exploring sex-specific differences in movement behaviour of deer over different temporal (day, night, month, season) and spatial scales (foraging patch, habitat and landscape).

2) Investigating how ecological and anthropogenic factors (e.g. roads, villages, human presence, hunting) influence movement decisions and ultimately distribution and habitat utilisation of deer in the Elwy Valley.

3) Predicting the future range expansion of the deer population using detailed movement data in conjunction with land cover maps and fine-scale environmental data.

4) Assessing how movement data and impact surveys can be used as a predictive tool to determine which habitats are likely to be most vulnerable to deer impacts.

5) Modelling the potential for disease transmission using animal density and movement data.

We have also hosted three students from Italy (through Erasmus):

- Giulia Gatto from the University of Florence who studied the spatial patterns of Wild Boar-vehicle collisions in the Forest of Dean, Gloucestershire.
- Nico Fatterini from the University of Sienna who has been working on the effectiveness of management in reducing deer impacts on ancient semi-natural woodland at different spatial scales in the East of England.
- Luca Montagner who is studying at the University of Florence did a short review of methods of quantifying diverse deer impacts.

We have a continuing relationship with Professor Rory Putman and Dr Luca Nelli of Glasgow University working on individual projects of mutual interest. Dr Nelli (who was a member of DI staff for six months) is currently working on 'Mapping Risk: Quantifying and Predicting the Risk of Deer-Vehicle Collisions on major roads in England'.

We have also developed an informal relationship with the University of Chester and Gemma Dixon, an MSc student, is working on biodiversity impacts in the Elwy Valley under the supervision of Steve Griffiths and Dr Achaz von Hardenberg.



THE  
ORGANISATION

## **DI LTD TRUSTEES**

Henry Robinson (Chairman) - Independent  
Philippa Bursey - Independent  
Dominic Griffith - BDS  
Caroline Harrison - Confor  
John Thornley - BASC  
Mike Seville - CLA  
Nick Walmsley - National Trust

## **DEER INITIATIVE PARTNERSHIP**

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Secretary: Peter Watson  
Secretariat: DI Ltd

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Operations & Research Director: Dr Alastair Ward  
Office Manager: Pauline Goring  
Media & Communications: Laura Southward

## **REGIONAL**

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Jamie Cordery - South England  
Steve Griffiths - Wales  
David Hooton - East England & East Midlands  
Graham Riminton - West Midlands

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*DLO - WALES*

