

Developing effective methods for identifying woodland owners: an Oxfordshire pilot study

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Alistair Yeomans¹, Gabriel Hemery¹ and Nick Brown²



Authors:

¹ Forestry Horizons, Manor House, Little Wittenham, Oxon OX14 4RA
www.ForestryHorizons.eu .

² Department of Plant Sciences, University of Oxford, South Parks Road, Oxford OX1 3RB.

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Aim of Study

Background

Active management of English woodlands has declined significantly over the last 50 years. In 2003, only 7% of English woodland had approved management plans.

It is probable that many landowners, having comparatively small forest holdings and being currently disengaged from national forestry organisations and institutions, are unaware of either policy initiatives or the grants system.

A major constraint on improving the effectiveness of forest policy, planning and guidance is the difficulty in identifying woodland owners (Church et al., 2005).

The targeting of new forest policy initiatives is therefore problematic.

Approach

This study aimed to identify and demonstrate the most cost and time efficient methods of identifying the owners of National Inventory of Woodlands and Trees (NIWT) listed woodlands that had an area of 0.1ha or greater in two 10km² sample areas in Oxfordshire.

Oxfordshire and national woodland-focussed NGOs were surveyed regarding the relevance of their membership data to identifying woodland owner contact details.

In recent years a number of Geographical Information System (GIS) web-based search services have been developed and now operate online. A search and assessment of these services was carried out and the most applicable to the task of identifying woodland owners are detailed and reviewed as part of this study.

A woodland owner identification framework was developed and trialled on two 10km² Ordnance Survey (OS) grid squares in Oxfordshire. The framework presents a methodology with the most effective methods ranked as to enabling the most time and cost efficient process for identify woodland owners.

An assessment was carried out regarding the accuracy of NIWT data by comparing NIWT polygons with recent aerial photographs. If NIWT is to be relied upon as the sole indicator of woodland occurrence, any inaccuracies in the data will lead to owners of woods not being identified.

Finally a model was developed that presents a system of facilitating public sector data exchange. This was with a view to making the contact details of woodland owners more accessible to the FC and therefore providing a basis for effectively targeting policy initiatives at woodland owners.

Summary of Key Messages

1. Data protection policies present barriers to the FC accessing NGOs' membership databases with regard to accessing woodland owner contact details. A number of NGOs surveyed were willing to facilitate, through their administration, the FC communicating with their membership database providing it was in line their own aims. An estimated 20 % of woodland owners in Oxfordshire are registered with the Oxfordshire Woodland Project (OWP). The OWP expressed a willingness to collaborate with the FC communicating with members of the OWP.
2. Since a similar report was carried out by Betts & Ellis 2000, The launch of two GIS database websites, Nature on the Map (2003) and Land Registry Online Title Search (2005), provide effective search services for identifying contact details of woodland owners. Information regarding the contact details of 90% of the woodland owners in the Oxfordshire OS Grid Square SP42 was identified using the Land Registry Online and Nature on the Map web-based search facilities.
3. The Land Registry (LR) holds ownership and address details on land owners. Defra's Rural Land Registry (RLR), managed by the Rural Payments Agency (RPA), provides contact details of Defra customers. Areas of land are covered by the RLR which are not listed on the LR and vice versa. Therefore, collaboration between LR and Defra would benefit both departments, by increasing promotion of land registration and enabling the FC to access LR details on woodland owners. A Centralised Land Ownership Database data management model is proposed in this report to promote public sector efficiencies through data sharing between the LR and the RLR.
4. The RPA is coordinating the Cross Compliance system which aims to ensure that all Single Payment Scheme (SPS) customers are managing their land in Good Agricultural and Environmental Condition (GAEC). FC England staff will receive training for Cross Compliance during 2008. The Cross Compliance regime will require the FC staff to work closely with other Defra departments to deliver GAEC administration and inspections. The mutual aim of achieving GAEC by Cross Compliance, sets out a clear basis for information exchange on land owners and therefore woodland owner identification throughout the Defra family.
5. In the 10km² grid square SP42, the total wooded area recorded from a recent aerial photograph was 874.5 ha of woodland (8.745% woodland cover), the area that was recorded by NIWT was 641.1 ha (6.411% cover), a difference of 233.4 ha (2.334%). The accuracy of NIWT data is therefore called into question.

Research Methods

Method (1) Create a GIS map of Oxfordshire with NIWT polygons represented and select two 10 km² sample Ordnance Survey grid squares.

- A) The woodland cover in all Ordnance Survey 10 km² grid squares in Oxfordshire was calculated by overlaying NIWT data polygons. Two 10km² squares were selected in predominant Landscape Character Areas on the basis of the squares having a close to mean woodland cover for Oxfordshire.

Method (2) Carry out a survey of Woodland-focussed NGO membership databases and data sharing policies and identify public sector departments that hold relevant data on woodland owners.

- A) Review current data protection legislation and how it relates to this study.
- B) A survey ([Appendix 1](#)) of woodland-focused NGOs was carried out to identify relevant membership data relating to woodland owner contact details in Oxfordshire. The feasibility of access by the FC to any relevant data with regard to the Data Protection Act was investigated.
- C) Research and identify the relevant public sector departments to investigate opportunities for accessing and data sharing regarding woodland owner contact details.
- D) Explore the Land Registry and the Rural Land Registry policies on data protection and willingness to cooperate with other public sector departments, such as the FC, with regard to exchange of woodland owner contact details.

Method (3) Use OS grid square SU59 to identify methods for discovering woodland owner contact details with particular emphasis on recently launched GIS web-based technologies.

- A) Identify and assess GIS web-based search facilities for the purpose of woodland owner identification.

Method (4) Use techniques identified in methods 2 and 3 to develop a framework to identify woodland ownership in OS grid square SP 42

- A) With the findings from methods 2 and 3, develop a woodland owner identification framework and carry out a timed trial to identify owners of NIWT woodlands in grid square SP42.
- B) Assessment of results from the woodland owner identification framework trial.
- C) Provide a guide detailing estimates of the costs involved in each of the survey methods.

Method (5) Carry out an assessment of the accuracy of the coverage of NIWT polygons in the study area.

- A) Assess the accuracy of the NIWT coverage by matching up NIWT polygons with a sample of the woodlands present on Google Earth aerial photographs within the study area.

Findings

Method (1) Selection of sample plots and development of GIS map.

The sample areas were identified as Ordnance Survey Grid Squares SU59 (Figure 1) and SP42. A GIS map was created in which every wood >0.1 ha in the sample area was identified from NIWT data and detailed as a vector layer.

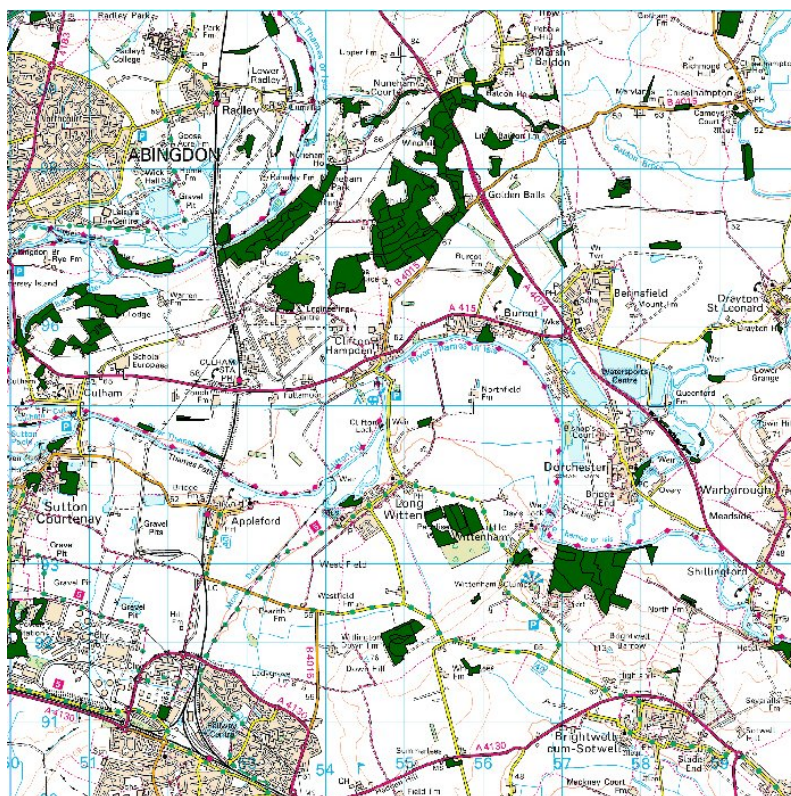


Figure 1 NIWT woodlands above 0.1ha in area detailed as green polygons on map for sample square SU59.

Method (2a) The Data Protection Act and the access of woodland owner contact details.

The Data Protection Act regulates how an individual's personal information is used and protects the individual from misuse of personal details. It provides a common-sense set of rules which prohibit the misuse of personal information without stopping it being used for legitimate or beneficial purposes ([Directgov website, data protection act](#)). These following methods examine the interpretation of this legislation by NGOs and public sector departments regarding the accessibility of woodland owner contact details.

Method (2b) – Survey woodland-focussed NGOs regarding the relevance and accessibility of Oxfordshire woodland owner's contact details on their membership databases.

Eleven organisations were contacted, producing a range of responses with regard to the relevance of the records they hold and to making data accessible. The survey techniques included a data protection questionnaire ([Appendix 1](#)), meetings and telephone interviews with NGO representatives.

The responses to the survey were varied ([Appendix 2](#)); some NGO's representatives were keen to consider the possibility of information exchange, such as BBOWT, while other agency representatives were not able to provide information due to their data protection policies, such as the Royal Forestry Society.

Through telephone interviews it became apparent that data protection policies were not clear and that representatives of organisations were likely to err on the side of caution by expressing reservations to exchanging information on their members.

A number of NGOs expressed an interest to forming working partnerships using their databases to carry out combined initiatives with the Forestry Commission.

The most relevant NGO identified and contacted was the Oxfordshire Woodland Project (OWP).

The OWP is a partnership between the Oxfordshire Woodland Group (registered charity no.1055228) and the local authorities of Oxfordshire. Its primary activity is the provision of professional woodland management advice free of charge to woodland owners in Oxfordshire. The OWP holds a database of approximately 440 woodland owners that the project manager has visited over the last 15 years. The Woodland Project has over 3,300 ha of woodland on its books, held in 852 compartments (compartments = small woodlands). NIWT data identifies approximately 4000 woodlands in Oxfordshire, from these figures it is estimated that OWP covers 20% of woodlands in Oxfordshire as of May 2008.

The OWP database presents a substantial resource for any initiative needing to contact woodland owners in Oxfordshire. Obtaining access to this database would be subject to the data protection policies of the OWP and at the discretion of their trustees. Consideration would be necessary on how closely the objectives of the FC are aligned to the work of the OWP.

Method (2c) Identification of relevant public sector departments regarding accessibility and opportunities for exchanging woodland owner contact information.

Land Registry (LR)

The LR aims to maintain and develop a stable land registration system by registering titles to land in England and Wales and record dealings, such as sales and mortgages regarding registered land.

The proportion of land registered with the Land Registry (LR) in Oxfordshire is 70.00 – 79.99 % (Coverage of Freehold Registration in England and Wales, Land Registry Register Development Group, November 2007) ([Appendix 3](#)).

If the land that a wooded area covers is registered with the land registry then it is possible to contact the land registry and request the title documents for the land which will provide the name and address of the owner.

Rural Land Registry (RLR)

The RLR is coordinated by the Rural Payments Agency (RPA) which is the fund allocation agency of Defra. The RLR contains the name and addresses of all the agri-environmental schemes coordinated by Defra. Information on the agri-environmental schemes is available through Natural England.

Method (2d) Communications with representatives of the Land Registry and Natural England

A significant amount of information on woodland owner contact details is held between the LR and RLR. As part of the survey process, enquiries were made to the New Product Development Manager at LR and the Specialist Geographic Information Data Manager at Natural England.

Method (3a) - Assessment of Land Registry online, MAGIC Site and Nature on the Map web based GIS resources.

Land Registry online

The Land Registry launched an online search facility in 2005. The service provides a sophisticated and easy to use facility, through an Ordnance Survey map, aerial photography or a combination of both. Provided that an area of woodland is registered with the Land Registry, an address for an area of land (free of charge) can be accessed. For a charge of £3 a Title Number which includes the registered owner's name and stated value of the property is available. For an additional £3, although only available in some cases, the Title Plan detailing the boundary of the property can be downloaded.

Unfortunately the service does not detail ownership boundaries on the map or aerial photographs, so there is no way to quickly identify a boundary line separating two properties that may exist within a woodland block. Ideally boundary lines would be superimposed on the map and aerial photographs.

It is possible, although somewhat labour intensive, to identify if property boundaries exist within a contiguous woodland block. This was carried out on a contiguous woodland block totalling 106 ha south of the village of Nuneham Courtenay. It was determined that the contiguous woodland had six separate owners. This process involves holding the computer cursor over the woodland area and clicking, this action will process results of whether or not land is registered and if so, addresses for the registered land. If clicked on a boundary both sets of addresses will be presented (see Appendix 4 for a full description of how to use the [Land Registry online search facility](#)).

Another woodland block was assessed where the ownership boundaries were known. Little Wittenham Wood was examined using the above process to test the ease of identification of ownership boundaries. Again it was labour intensive and areas of differing ownership could easily be missed. By following the above method it became apparent that the NIWT compartments within contiguous woodland do not necessarily follow the pattern of ownership boundaries.

MAGIC Site

The MAGIC site is the first web-based interactive map to bring together information on key environmental schemes and designations in one place. MAGIC is a partnership project involving six government organisations who have responsibilities for rural policy-making and management, and although it has been designed to meet the needs of the partner organisations, the facility is available to anyone over the Internet.

Although the MAGIC site is unable to reveal details of land ownership, it does show the land covered by the range of Defra agri-environmental schemes (represented by coloured and shaded polygons, coded to specific schemes) and therefore indicates areas where land owner details are known by the relevant public sector organisation.

The Forestry Commission has a woodland specific basic search GIS system however the MAGIC site has all the fields represented on the FC search facility in addition to the other Defra schemes.

Nature of the Map

The Natural England website, Nature on the Map, details the relevant MAGIC site data and provides online access to the agreement number, type of scheme and name of the registered individual or company that is the RPA customer for each agri-environmental scheme.

The Natural England website therefore provides a contact name for each agri-environmental scheme held by the Rural Payments Agency. A representative of the Natural England Oxfordshire office suggested that the address details of agri-environmental scheme clients could not be provided, however there was a degree of uncertainty in this response and further investigations, as explored below, would clarify the terms and conditions of the data protection agreements between the RPA and Defra customers.

Method (3b) Contact information available from the Land Registry Online website and the Nature on the Map website on all woodlands in the OS grid square SU59.



Figure 2 Typology of information accessible from web based GIS sources

The results presented in Figure 2 detail a breakdown of the nature of the information types available from the Land Registry and the Nature on the Map websites. The pie chart presented in Findings 4b (Figure 3) refines the information into relevant groups with regard to woodland contact details, i.e. a title plan is not necessary to identify contact details.

Method (4a) Development of Framework for identifying woodland owners in Oxfordshire OS grid square: SP 42

A framework was developed for identifying woodland owners in Oxfordshire. The most efficient web-based methods were listed first, finishing with the less efficient area reconnaissance methods. The framework is detailed in [Appendix 4](#).

Method (4b) – Assessment of results from the woodland owner framework trial - grid square SP42

A total of 78 woodlands were identified in grid square SP42. Figure 3 details the sources of information used to identify the woodland owner's contact details (expressed as percentages).

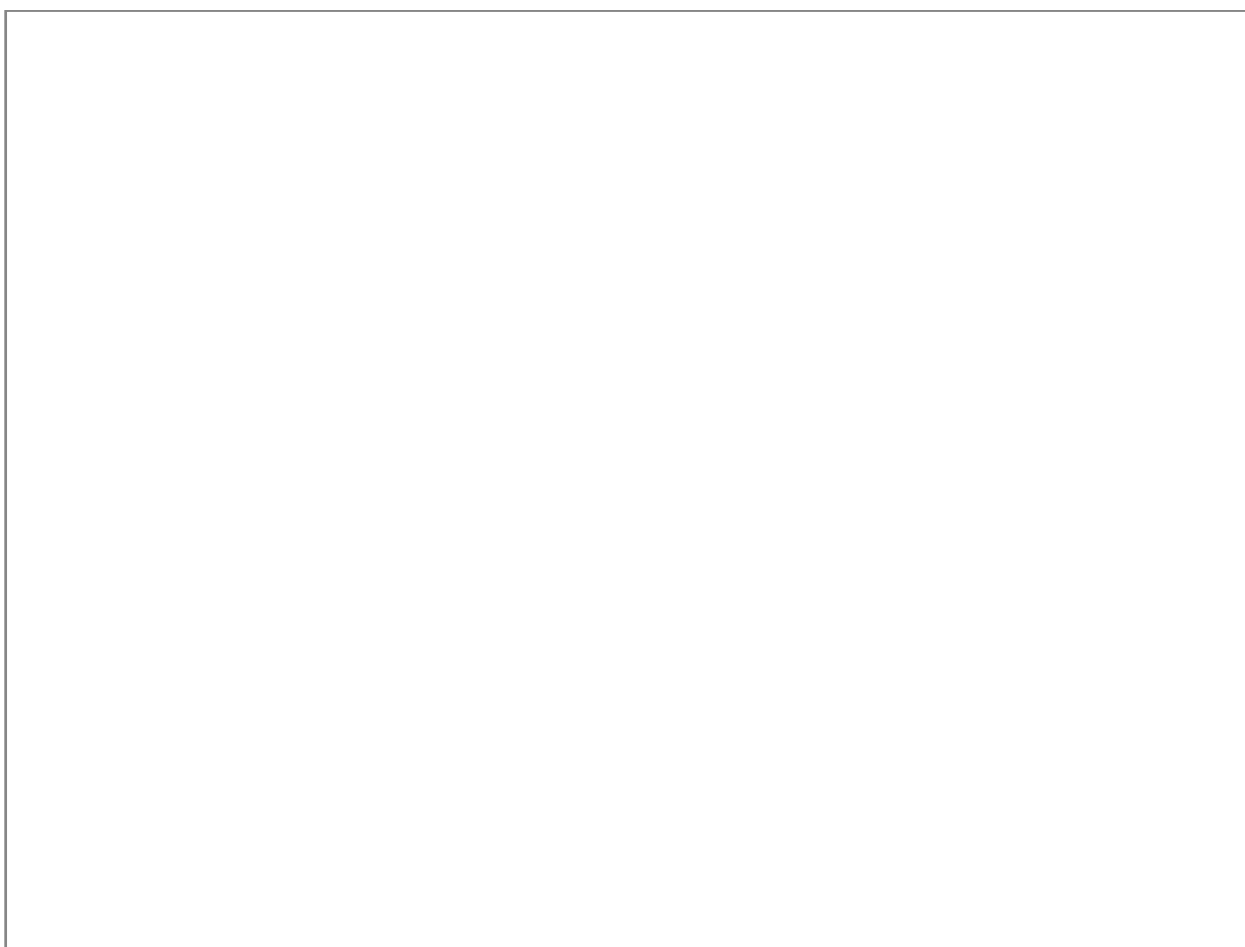


Figure 3 Pie chart detailing sources of woodland owner information in grid square SP42

Method (4c) – Cost details of woodland owner framework trial

To investigate the woodlands on both the Land Registry online and the Nature on the Map search facilities and record on a spreadsheet, took approximately 8 - 10 minutes per woodland, or 6.0 – 7.5 woodlands per hour.

The equipment resources required are listed in [appendix 4](#). The rate of web-based woodland investigations will vary on the speed of the internet connection.

To estimate the cost of searching the internet the hourly rate of pay of an individual should be divided by 6 (the lower rate) e.g. £16 hour / 6 = £2.66 plus £3 for the purchase of the title register = £5.66.

The cost of carrying out an area reconnaissance is considerably higher, while many variables may influence efficiency, including:

- distance to the woodland investigation area
- the dispersal pattern of the woodlands
- the road network
- the willingness and accuracy of an interviewee to divulge information

To provide a guide, in this study, seven woodlands were investigated in the SP42 grid, Addresses were established for five woodlands and the process took 6.5 hours. e.g. £16/h X 6.5h = £104 + Millage £40 = £144 / 5 £28.80, approximately 5 times more costly than web searches calculated on the experiences of this study.

Method (5) - Investigations into the coverage of rural based schemes, NIWT coverage accuracy and LR registered Land

An initial assessment of the NIWT data in grid square SU59 showed that 25.3% of woodlands were not covered by NIWT polygons.

NIWT Woodland description for OSGS SU59	Area	Comments
NIWT woodland area	4.912 km ²	4.9% of total area
Woodland not digitised in NIWT	1.245 km ²	25.3% of woodland not included in NIWT data

Table 1 Table detailing NIWT coverage and wooded areas not covered by NIWT in OS grid square SU59



Figure 4 A Google Earth aerial photograph of the Berinsfield area (SU571959) in 10 km² grid square SU59 detailing a visual assessment of NIWT data. The red polygons show areas not captured by NIWT and the green polygons show non-woodland areas that were included in NIWT.

A full assessment of grid square SP42 was carried out in which areas of woodland were identified that were not covered by NIWT polygons. Figure 5 details the distribution of NIWT polygons and non NIWT woodland polygons in SP42.



Figure 5 A GIS image of grid square SP42 detailing woodland blocks present in an aerial photograph compared with NIWT data. The red polygons detail wooded areas not present in NIWT and the green polygons detail areas of woodland covered by NIWT.

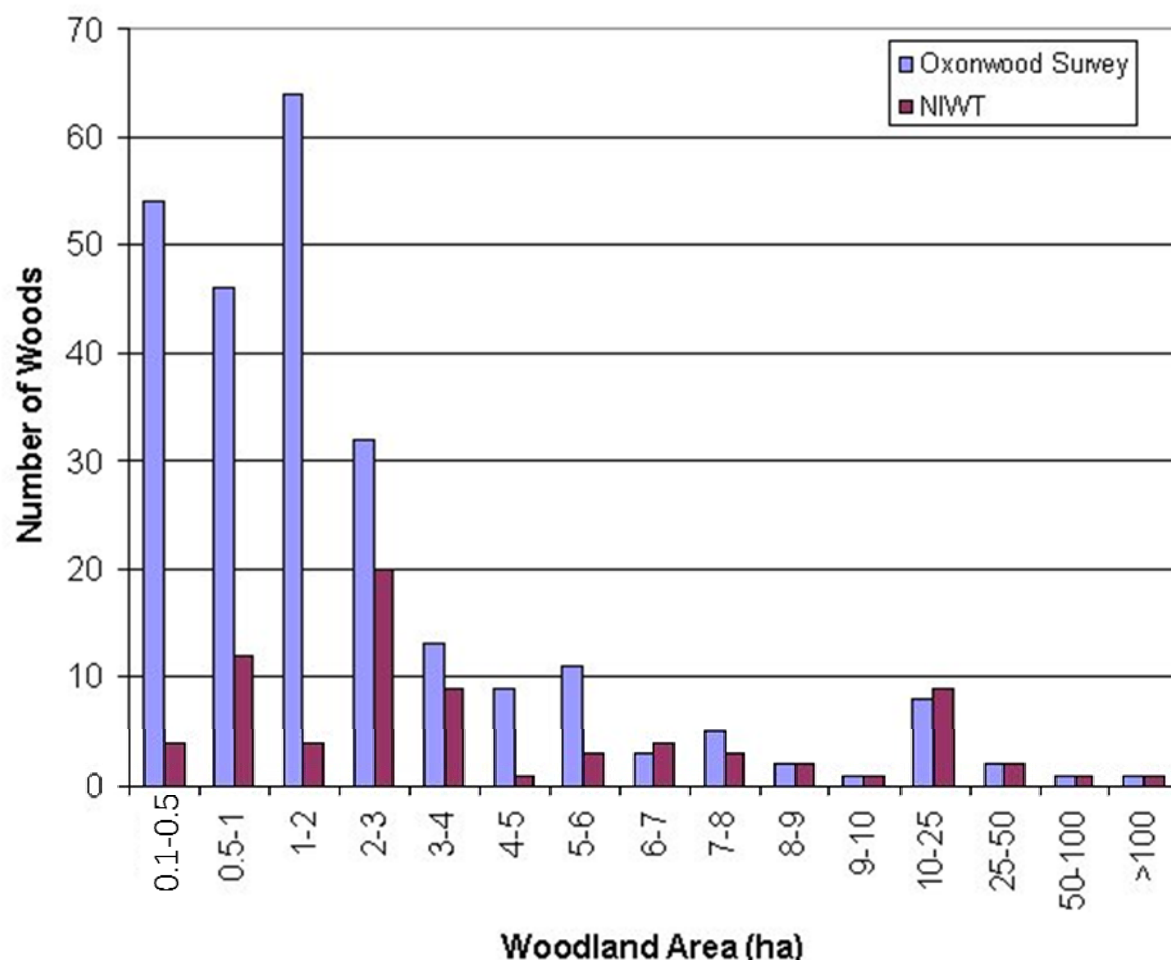


Figure 6 Graph detailing the accuracy of NIWT data when compared to aerial photographs on a range of woodland sizes in grid square SP42.

NIWT detailed 76 separate woodland blocks of which the smallest was measured at 0.19 ha in area. The aerial photograph assessment showed 252 woodlands. Figure 6 details the distribution of woodland areas included and not included in NIWT data across a range of woodland areas from 0.1ha to greater than 100ha.

The total wooded area in SP42 recorded from the aerial photograph was 874.5 ha of woodland (8.745% woodland cover), the area that was recorded by NIWT was 641.1 ha (6.411% cover), a difference of 233.4 ha (2.334%). Therefore from this assessment 26.7% of the woodlands in SP42 are not covered by NIWT data.

Discussion

The main themes of this survey were; (1) a survey of woodland-focussed NGOs membership databases identifying data protection restrictions and collaborative opportunities for the FC; (2) Identification and assessment of recently developed web-based GIS resources to identify woodland owners in Oxfordshire; (3) Development of a woodland owner identification framework; (4) Joined-up governance policy initiatives encouraging interdepartmental public sector cooperation setting a basis for the FC to access woodland ownership details through a proposed centralised land ownership database, and; (5) Assessment of the accuracy of the NIWT woodland coverage.

Woodland-focussed organisations

This study surveyed woodland-focussed NGOs to investigate the relevance of their membership data and restrictions of data protection policies regarding the provision of data on woodland owners. Information was collected from sixteen agencies that were sent a questionnaire, followed up with in relevant cases by email / letter correspondence, or by interview / telephone conversation. With these approaches it became clear that NGOs do hold relevant information on woodland owners, however in many cases data protection policies presented a barrier to accessing information.

The OWP database was identified as the most significant NGO for holding relevant information on woodland owners in Oxfordshire. An estimated 20% of woodlands in Oxfordshire are held on the OWP membership database. The OWP records are held on a digital GIS format, as is the NIWT data, and therefore the presents the potential for both data sets to be incorporated onto a combined GIS system. The use of the OWP data for contacting woodland managers will require the permission of the OWP manager. Permission will depend on the intended purpose of contacting their membership database and the relevance to the aims of the OWP.

From the NGO survey the possibility of the FC indirectly contacting NGO membership databases through a collaborative process emerged. Direct FC contact in the majority of cases was not an option due to data protection. For example, in the case of the OWP, the aim of pinpointing initiatives promoting good woodland management is central to the OWP's aims. Therefore negotiations would be required on a case by case basis with individual NGOs.

The Woodland Trust has many thousands of members across Britain, however the Woodland Trust does not hold information on whether their members own woodlands, therefore if their records were accessible, the information would not be relevant.

The capability of an organisation to share membership details can come down to simple considerations, such as details on the membership application form. For example, there is a tick box in the application form to join the British Association of Shooting and Conservation (BASC). This asks if the prospective member would consider receiving information "*from time to time of offers and events that we think might interest you. We may also share your details from time to time with other reputable third parties. If you do not wish to receive this information please tick the box*". This presents the opportunity for sharing the contact details of their database with a third party, however the percentage that authorise such correspondence was not investigated in this study.

An advertisement in a membership body's publication presents an opportunity to reach their membership base that potentially circumvents data protection issues e.g. Forestry and Timber News. This method was suggested in response to the questionnaire by the CONFOR representative.

During the initial period of the study the manager of the Oxfordshire Woodland Project (OWP) was absent due to illness. This absence highlighted the significance to the survey process of ensuring communications are with key personnel, as limited information on the OWP was available otherwise. In general the majority of representatives responded quickly however in the case of Defra a high number of phone calls speaking with various departments were necessary before the appropriate individual was contacted.

Recent website developments relating to accessing woodland owners contact details

An awareness of how technological advancements are being adopted by both the public and private sector can increase the efficiency and effectiveness of the FC contacting woodland owners.

A study entitled What Woodland Owners Want – An Attitude Survey (Betts & Ellis 2000), was carried out in the Parish of Bramley in Surrey in 2000. This study formed a working group that comprised of local representatives of 10 woodland related agencies and yielded a 66 % response rate amongst woodland owners in a single parish.

Through combining the Land Registry online and the Nature on the Map search facility, 90% of woodlands covered by NIWT in 10 km² grid square SP42 in were attributed with either a name and or an address. Seventeen parish councils were represented in the 10 km² grid square SP42.

Woodland owner identification framework

After the remote web based investigations were completed, travelling to the sample plots and speaking with members of the community in a locality to identify owners of woodlands was attempted. This method resulted in a different set of observations and further progressed the understanding of woodland ownership patterns and management of woodlands. For example one of the woodlands within the SU59 sample area is owned by an investment trust based in Jersey. Woodland management activities were observed on this site and were presumably being carried out by a tenant or contractor.

Visiting businesses such as shops and post offices, or in the case of SP42, a horticultural nursery yielded results. A nursery worker when questioned provided information on three woodland owners in the vicinity of the nursery as the nursery had supplied these properties with products and services in the past.

A Royal Forestry Society event was attended as part of the survey and identified as a possible means of contacting woodland owners. However, no owners of woodlands in either of the 10km² sample plot were identified at the meeting.

Information regarding land ownership from interviews with members of the public should be backed up with verification from a formal source. This presents a difficulty as the LR Online and Nature on the Map (RLR) internet searches are the official land registration bodies and by working through the framework these search methods would be have been exhausted.

Defra agencies and the Forestry Commission

A comprehensive understanding of policy change implications on public sector management may well present opportunities for the development of new methods to identify woodland owners. For example European Union regulations that came into force in 2007 have introduced new requirements for applications and payments made under the Rural Development Plan for England (RDPE). All land entering into any of the RDPE land management schemes must now be registered on the Rural Land Register (RLR) prior to entering that scheme. Previously land registration has only been a requirement for agricultural land under the Integrated Administration and Control System (IACS). Registration of land is required to enable 'cross checks' to be made to ensure that no parcel of land is receiving incompatible EU funding under either the Single Payment Scheme or the RDPE schemes.

In England it is the Rural Payments Agency (RPA) that maintains the RLR. All land on the RLR must be linked to an occupier (owner or tenant) via a unique beneficiary number. All management options must be on RLR registered land or along associated field boundaries. Since 2007 the FC has been working with the RPA to register all land onto the RLR that has been entered into the EWGS since its introduction in 2005. It is anticipated that this exercise will be completed shortly after March 2008 (FC Operations Note 019).

These new requirements regarding countryside stewardship scheme management through Defra initiatives such as Cross Compliance, present a basis for accessing woodland owner information, in that if a farm or estate has signed up to a Defra coordinated scheme, then contacting land owners regarding sustainable woodland management is within the remit of ensuring that the countryside is managed in Good Agricultural and Environmental Condition.

It is recommended that the accessibility of information on the RLR database to the FC is established. Additionally, keeping abreast of policy developments, such as Cross Compliance, is important as changes may present a rationale for accessing other relevant public sector directories on woodland owners.

Potential model for an automatically updated Centralised land Ownership Database

The [Invest to Save Budget](#) (ISB) is a Treasury/Cabinet Office initiative with an aim to create sustainable improvements in the capacity to deliver public services in a more joined up manner. A key principle of the ISB programme is that investment is provided in return for reform.

The ISB provides the policy impetus and background to investigate opportunities for data exchange between government departments. A substantial amount of land owners' contact information is held on the LR and the RLR. A system that combined these data sets would make the process of woodland owner identification far more efficient.

Potential pathways for public sector interagency data flow through a Centralised Land Ownership Database (CLOD) are presented in Figure 5. A CLOD provides a basis for a system for identifying woodland owners.

The NIWT GIS data overlay provides a filter to identifying properties in a region that have woodlands within their boundaries. This would be subject to having all boundaries of all properties greater than 0.1ha detailed on a GIS map. Both the LR and the RLR have this information on a GIS database that provides the basis for the LR Online and Nature on the Map search facilities.

For CLOD to be developed, a basis for payments to the LR would have to be agreed. LR has trading funding status, which requires LR to be self financing and therefore such systems would be subject to costing agreements within the public sector.

LR work at the regional or county level to encourage land registration through workshops and meetings. Communications with the Register Development Manager at LR led to suggestions of combining woodland management and woodland registration workshops as a possible method for increasing land registration.

Collaborations between FC and LR would provide a forum for woodland owners to understand the legal protection that land registration confers such as registration with the LR conferring land owners with protection from squatters claiming ownership of the land.

The New Products Development Manager at LR was also contacted and was keen to discuss a potential CLOD pilot in Oxfordshire. These communications demonstrated the LR's willingness to collaborate with the FC.

A CLOD system would progress public sector efficiencies, by A) providing LR access to the RLR, thereby significantly furthering LR attempts to promote land registration, and; B) Enabling FC digital access to LR records, which are a significant source of woodland owner contact details. Both of these benefits are within the remit of the ISB.

The CLOD system, by presenting a clear pathway to promote further land registrations and increase the promotion and uptake of Defra schemes by woodland owners would encourage an increasingly complete, officially verified directory of woodland ownership.

Proposed Centralised Land Ownership Database

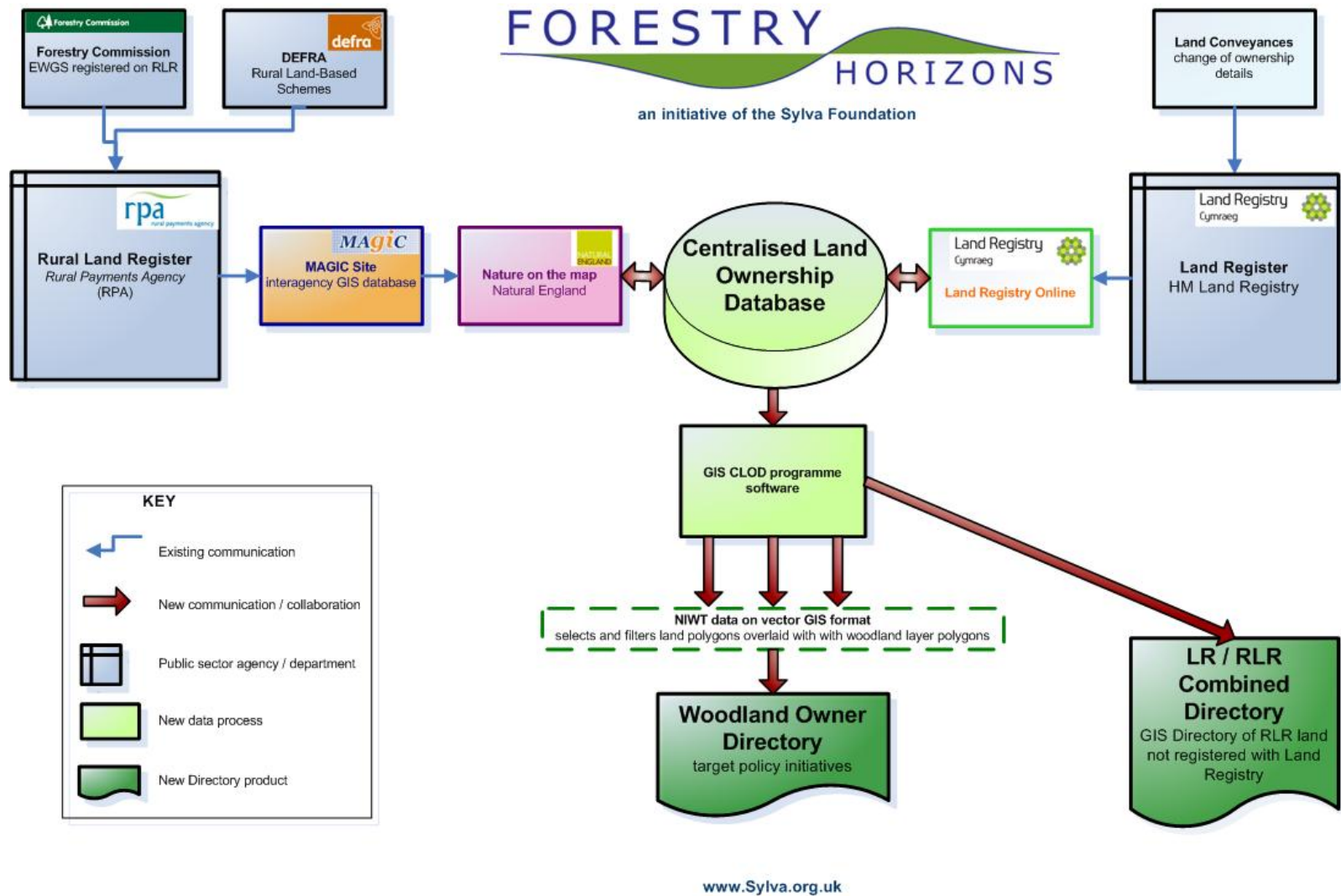


Figure 5 Proposed Centralised Land Ownership Database

NIWT data limitations

It is necessary to understand the limitations of the techniques used in the National Inventory of Woodlands and Trees (NIWT). This study assessed the accuracy of the NIWT data which is collated from digital capture of interpreted forest types from aerial photographs. When the NIWT data was compared with woodland cover from aerial photographs from Google Earth it was calculated that 25.3% of the woodlands were not covered by the NIWT in grid square SU59 and 26.8% in grid square in SP42.

Further evidence that NIWT data does not cover all wooded areas was A) observed on the OS map (see appendix 4) for OS wooded areas not covered by NIWT polygons, and: B) observed whilst exploring the GIS mapping system of the OWP database. A number of woods were identified that were not included in NIWT data. To further investigate this observation the FC should approach the OWP and reach an agreement on using the OWP data sets.

Conclusions

This study set out to test and demonstrate the most effective means of identifying the owners of all woods >0.1ha in a series of Oxfordshire sample areas. The launch of the GIS websites [Nature on the Map](#) (2003) and [Land Registry Online Title Search](#) (2005) have greatly facilitated the process of identifying contact details for woodland owners in England. This was demonstrated in this report with relevant contact details of 90% of the woodland owners in an Oxfordshire 10Km² being accessed through these two web services alone.

Nature on the Map which provides details of Defra agri-environmental schemes provides details on 75% of woodland owners in grid square SP42. The FC will be required to work in an increasingly coordinated manner with other departments within the Defra family in order to deliver the benefits of the Cross Compliance initiative. Cross Compliance will require the FC to access information on the range of Defra coordinated agri-environmental schemes and therefore, along with GAEC principles, provides the rationale and a basis for identifying landowners who have wooded areas within their property boundary.

The GIS technologies and associated databases that currently operate at the Land Registry and the Rural Payments Agency present an opportunity to create an interagency *Centralised Land Ownership Database* (CLOD). A NIWT filter applied as an algorithmic component of the CLOD would enable efficient identification and therefore management of woodland owner data.

The effectiveness of the proposed *Central Land Ownership Directory* will depend on the accuracy of the NIWT data coverage as the model would require the NIWT data to filter land owners who have woodland blocks greater than 0.1 ha on their property.

Further studies

We recommend three areas of follow-up work.

1. The OWP should be approached with a view to compare the NIWT polygons with the woodland area / owner polygons held on the OWP GIS database. This would provide another effective way of quickly assessing NIWT data accuracy.
2. A pilot project to generate a GIS digital map should be commissioned with the New Product Development Manager at the LR and Data Manager at Natural England to identify the differences in the land areas covered by the LR and the RLR within the sample 10km² plot.
3. Support further communication with the data manager at Natural England to further understand the terms and conditions of the data held on the rural based schemes represented on the Nature on the Map site and establish a basis for future partnership initiatives.
4. If ownership information held by the RPA (which includes FC schemes) can be made available to the FC, this could be combined with data from the above two areas of work to generate a single GIS database. This would include contact detail metadata. If a NIWT data filter search is applied selecting out wooded areas, it should be possible to develop an efficient *Centralised Land Ownership Database* system for identifying the ownership details of woodland owners in England.

References

- BETTS, A. & ELLIS, J. What Woodland Owners Want – An Attitude Survey. A Survey by the Surrey Woodland Working Group (September 2000)
- CHURCH, A., RAVENSCROFT, N. & ROGERS, G. Woodland Owners' Attitudes to Public Access Provision in South-East England. Forestry Commission Information Note (September 2005).
- FORESTRY COMMISSION ENGLAND. England Woodland Grant Scheme, Customer and Land Registration, Operations Note 019 (March 2008)
- LAND REGISTRY – REGISTER DEVELOPMENT GROUP. Coverage of freehold registration in England and Wales (November 2007).
- LAWSON, G. & HEMERY G. World Timber Trade and Implementing Sustainable Forest Management in the United Kingdom – A Report to the Woodland Policy Group (March 2007)
- MATHEWS, R. Multi-Agency Information for the Countryside; the MAGIC project (2002).
- SMITH S. The National Inventory of Woodlands and Trees England. Forestry Commission (post 2000).
- Woodland Habitat Action Plan for Berkshire, Buckinghamshire & Oxfordshire 2005 - 2010

Useful sources of information

Websites referred and used in this study

http://www.isb.gov.uk/	MH Treasury Cabinet Office – Invest to Save Budget
http://www.landregisteronline.gov.uk	Land Registry Online Map Search Enquiry
http://www.rpa.gov.uk	Rural Payments Agency Homepage
http://www.magic.gov.uk/	MAGIC Site
http://www.Defra.gov.uk/erdp/schemes/fwps	Defra Farm Woodland Premium Scheme
http://www.forestry.gov.uk/forestry/inf-d-6dcccen	England Woodland Grant Scheme
http://www.direct.gov.uk/	Directgov, information on Data protection

Appendices

Appendix 1 - Woodland Ownership Data Sharing Survey – Oxfordshire March 2008

Forest Research / Oxford University / Forestry Horizons

- 1) Name of individual, position & organisation:
- 2) rganisation - Public sector / Private Sector / Charity / Other (please give details):
- 3) Does your organisation have a data protection policy?
- 4) Does your organisation hold data on land ownership (woodlands/farms/properties)? If yes, what is the nature of the information that your organisation holds?
- 5) Why does your organisation hold the above information? E.g. membership / registration / survey results:
- 6) Does your organisation have data sharing agreements with other agencies? please provide details if you are able to.
- 7) Does your organisation hold data for land ownership boundaries and ownership on a Geographical Information Systems (GIS) database?
- 8) Would your organisation consider a data sharing agreement with the Forestry Commission, to provide relevant information on woodland owners, with the purpose of supporting more effective development and implementation of forest policy initiatives (subject to the Data Protection Act)?
- 9) Does organisation charge a fee for the provision of data sets?
- 10) Are you able to disclose the number of members that your organisation has in Oxfordshire (approx would help)?

Please contact me if you have any queries about this survey. Thank you for completing this survey.

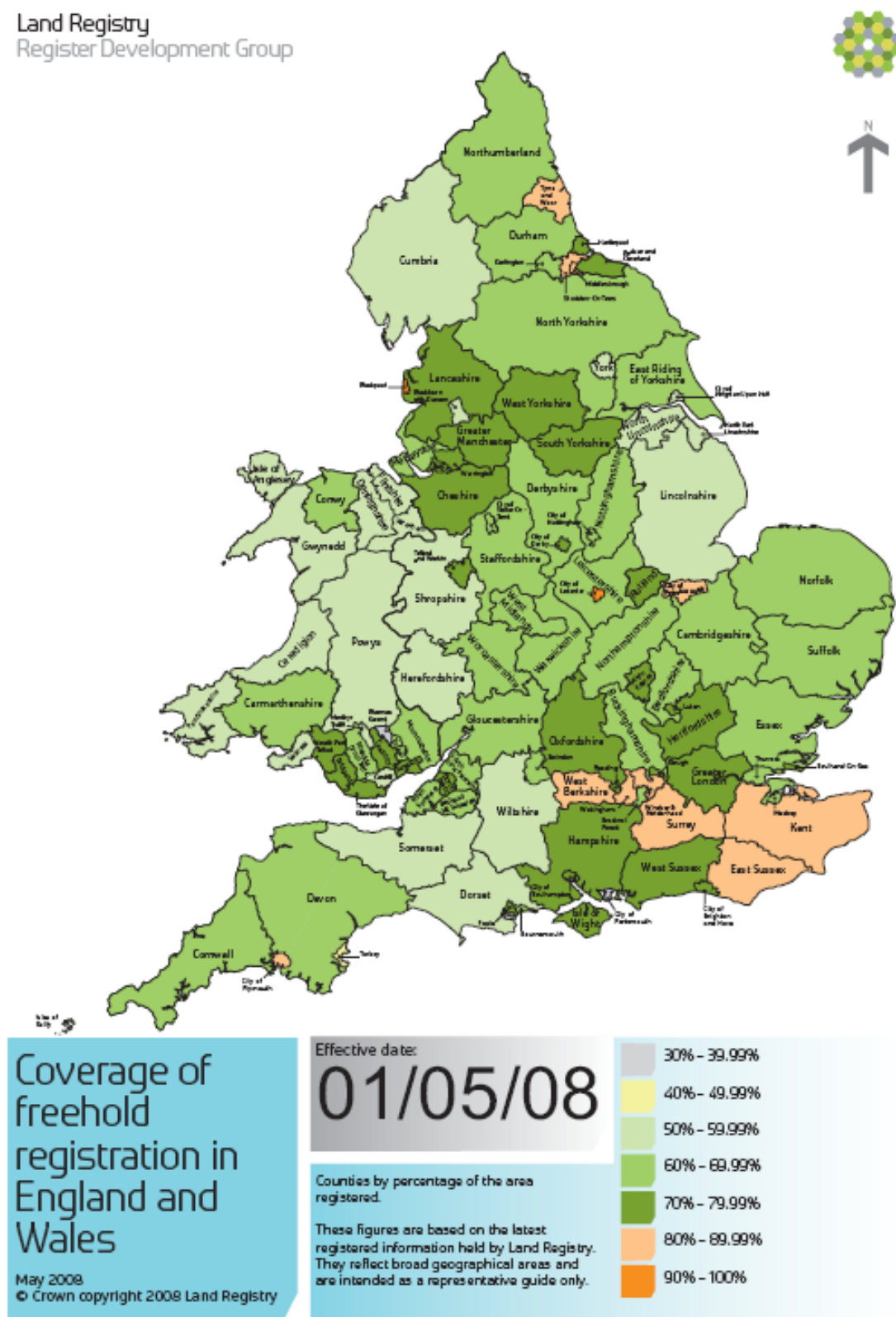
Alistair Yeomans - Mobile: 07765 408957 email: a.yeomans@forestryhorizons.eu

Appendix 2 – Results table from woodland organisation survey

Woodland Agency	Woodland Owner contact details in Oxon	Data protection policy	Potential to share Ownership details
BBOWT	Yes	Yes	Yes
BIHIP	Yes	N/A	N/A
Chiltern Woodland Project	Yes	No	If consent given
CONFOR	Yes	Yes	No
CPRE Oxon	Not specifically	No answer	No answer
International Tree Foundation	Not specifically	Not Sure	Maybe
Oxfordshire Nature Conservation Forum	No	No	Not at present
Oxfordshire Woodland Project	Yes	Yes	Yes
Royal Forestry Society	Yes	Yes	Unlikely
TVERC	No	Yes	N/A
Woodland Trust	Yes but not private	Yes	Already shares to FC

Appendix 3 – Map of England detailing the extent of Land Registry coverage by county in England.

Land Registry
Register Development Group



Appendix 4 - Framework for Identifying woodland owners in Oxfordshire (with notes on 100km² grid square Ordnance Survey (OS) SP42 survey process):

Resources Required:

Mobile telephone

Telephone book

Computer with access to the internet

Excel spreadsheet software for recording woodland owner's details (See Appendix 3)

NIWT data and GIS software

Printer

Car

Process:

Production of map detailing the NIWT polygon on OS map

- 1) Using the NIWT data for Oxfordshire create an overlay onto OS map detailing the polygons depicting wooded areas in the county.
- 2) Identify the woodland or group of woodlands to be investigated to ascertain Woodland owner's contact details.
- 3) Create a print out of the area detailing the OS grid squares. For this survey the OS grid square was divided into quarters producing clear A4 maps for ease of working from and presenting to members of the public (See Appendix 2).

Land Registry Search

- 4) Open the website: www.landregisteronline.gov.uk
- 5) Under search options click on: Map inquiry

The screenshot shows the Land Registry Cymraeg website. The browser address bar displays the URL: <http://www.landregisteronline.gov.uk/lro/servlet/TitleSearchServlet?searchType=map>. The page features a green header with the Land Registry logo and the text 'Land Register Online'. Below the header is a navigation bar with links: 'Property enquiry', 'Guide to service', 'Help', 'About us', 'Service updates', and 'Contact us'. The main content area is divided into three columns. The left column, titled 'Aerial land locator', contains a 'Map enquiry' section with instructions: 'If you know the house number or name of the property, please enter it in the box opposite. Then enter either the postcode, or the street and town of the property, and click on the 'Search' button.' Below this is a 'Don't know the address?' section with instructions: 'You can use our interactive map facility. Simply click on the relevant part of the map of England and Wales to find the property you are interested in. We also provide aerial imagery to help you.' A link 'Help using the Aerial Land Locator' is provided. The middle column, titled 'Map enquiry', contains a form with fields for 'House no/name', 'Street name', 'Town', and 'Postcode', followed by a 'search' button. Below the form is a 'Search options' section with a link to 'Detailed enquiry'. The right column features a map of England and Wales, with a cursor pointing to a specific area. Below the map is a 'Relevant information' section with the text 'To download you will need:' followed by a list: 'a valid debit/credit card', 'Adobe Acrobat Reader software installed', and 'a valid email address'. The footer includes '© Crown Copyright' and a 'W3C XHTML 1.0' logo.

Figure 6 Enter area or postcode of nearest property or click cursor on map of England.

- 6) Either enter the nearest village or town to the wooded area to be identified or with the cursor point to the area of the region on the map of England where the woodland is located.
- 7) With the 'zoom and centre map' tool selected in the commands box, zoom in by placing cursor on map where the woodland to be identified is located and left clicking.

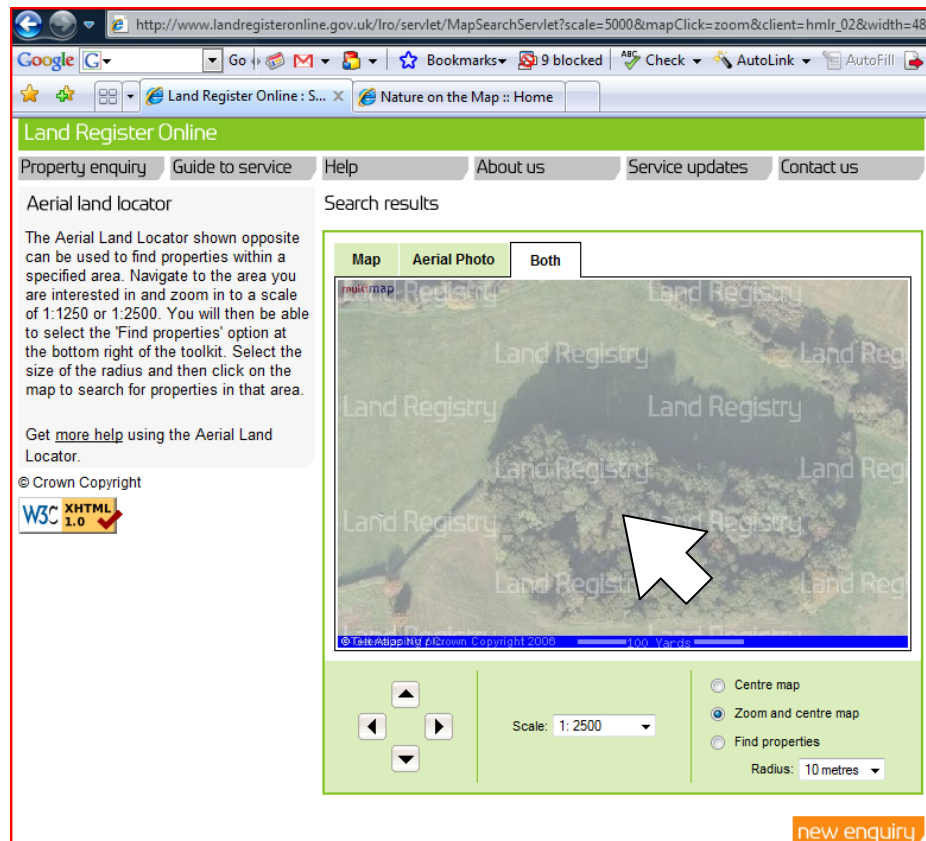


Figure 7 At 1:2500 resolution, highlight 'Find Properties' and click cursor on woodland.

- 8) Repeat process 7 until the 1:2500 resolution is reached and select the 'find properties' tool.
- 9) The cursor will now change to the shape of a circle, place this on the woodland and click, if the land is registered an address will be presented detailing the address that the Land Registry has recorded for this area of land and the aerial photo will automatically centre on the premises address.

We have found one property record for you. The items available are detailed opposite.

Copies of registers and title plans obtained from Land Register Online are for information purposes only and are not guaranteed copies. If you require a guaranteed copy, please apply for a Land Registry Official Copy. To do that you will need to print and complete a [Form OC1](#) application and post it, together with the relevant fee, to the appropriate Land Registry office. Click [here](#) to find the address of the Land Registry office that serves the area where the property you are interested in is located. If the title register and/or plan are not shown as being available, please apply for an Official Copy as referred to above.

If once you have obtained a copy of the register you require copies of certain documents referred to please refer to the [Glossary](#) for help.

The Aerial Land Locator shown opposite can be used to find properties within a specified area. Navigate to the area you are interested in and zoom in to a scale of 1:1250 or 1:2500. You will then be able to select the 'Find properties' option at the bottom right of the toolkit. Select the size of the radius and then click on the map to search for properties in that area.

Address: Down Hill Farm
Worton Road
Middle Barton
Chipping Norton
OX7 7EG

Tenure: Freehold

Price Paid/ Sorry, there is no price paid/value stated information available for this property.

Value Stated Data:

Items available from the Land Registry:

Type	Date	Price	Buy
Title register (example)	(see register)	£3.00	☐
Total:		£0.00	

[new enquiry](#) [checkout](#)

Map Aerial Photo Both

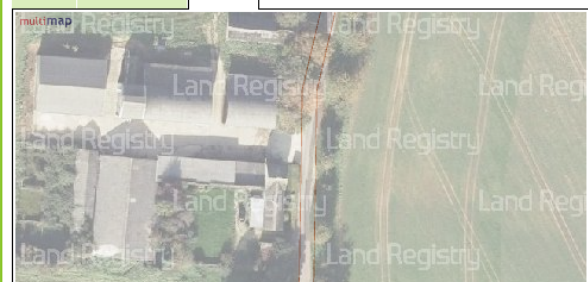


Figure 8 Address for woodland and the aerial photograph of the registered address.

Nature on the Map Search (to establish if the woodland to be identified is included within a Defra agri-environmental scheme).

- 10) Open the website: www.natureonthemap.org.uk
- 11) Select Agri-environment Schemes on the home page.

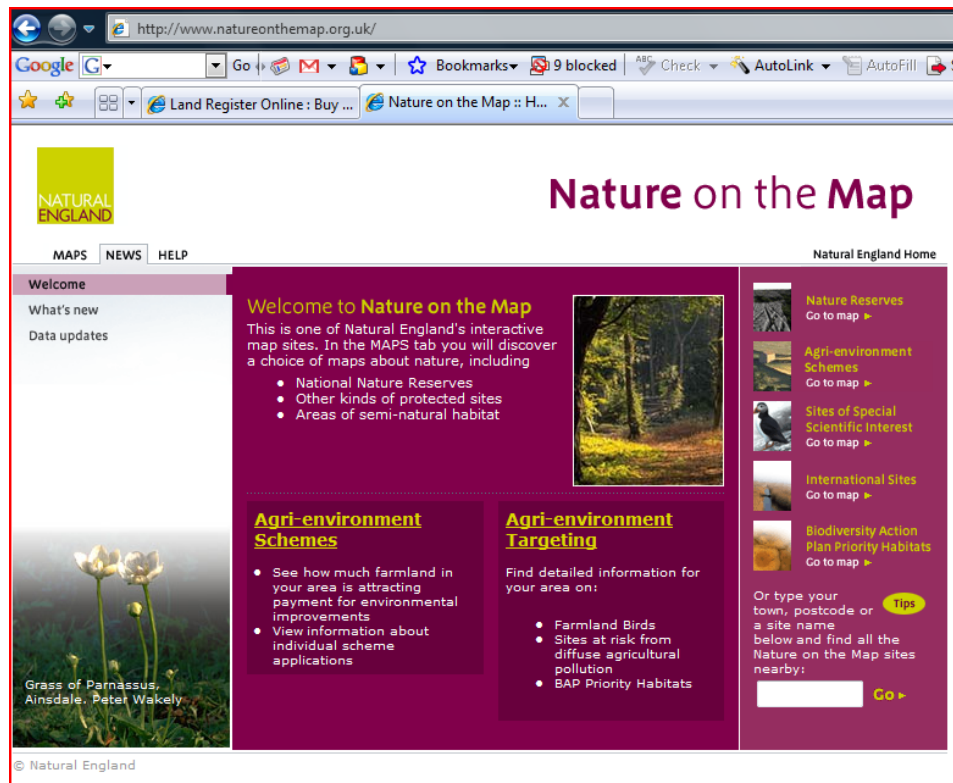


Figure 9 Select Agri-environment schemes.

- 12) Enter into the search box above map the name of the nearest village or town to the woodland, this will produce a map.

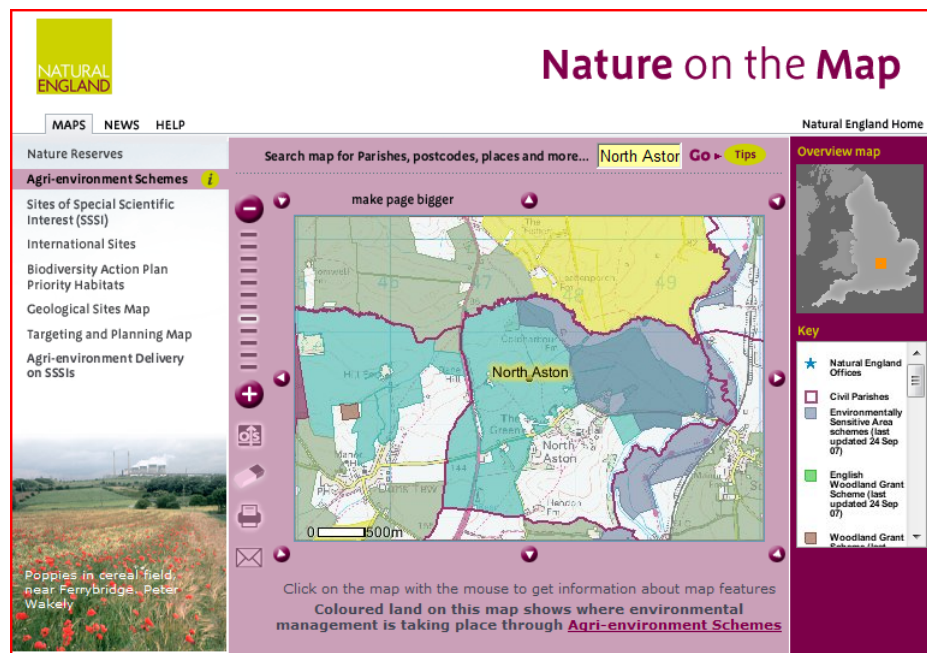


Figure 10 Adjust the resolution and orientation of the map until the woodland of interest is identified.

- 13) Pan in the direction of your woodland using the arrows surrounding the map until the target woodland is depicted on the map.
- 14) If the woodland is covered by an agri-environmental scheme there will be a transparent coloured polygon covering the wooded area. The colour of the polygon represents the type of agri-environmental scheme that the polygon covers.

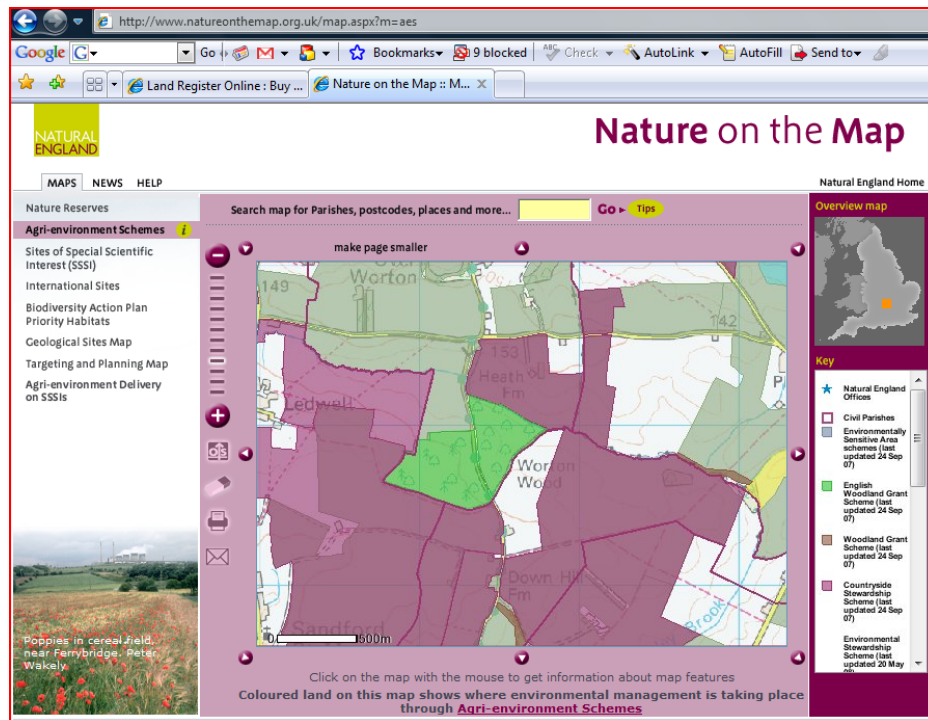


Figure 11 Select with the cursor the woodland if covered by a coloured polygon.

- 15) If the wooded area is not covered by a coloured polygon it is worth assessing the schemes nearby the wooded area, as some wooded areas by their nature are not included in agricultural schemes and therefore excluded. However it is often apparent that a polygon covering non-wooded land adjacent to the wood is likely to be a scheme covering an area owned by the woodland owner or a neighbour.
- 16) Place the cursor over the area of the map depicting the woodland and click.

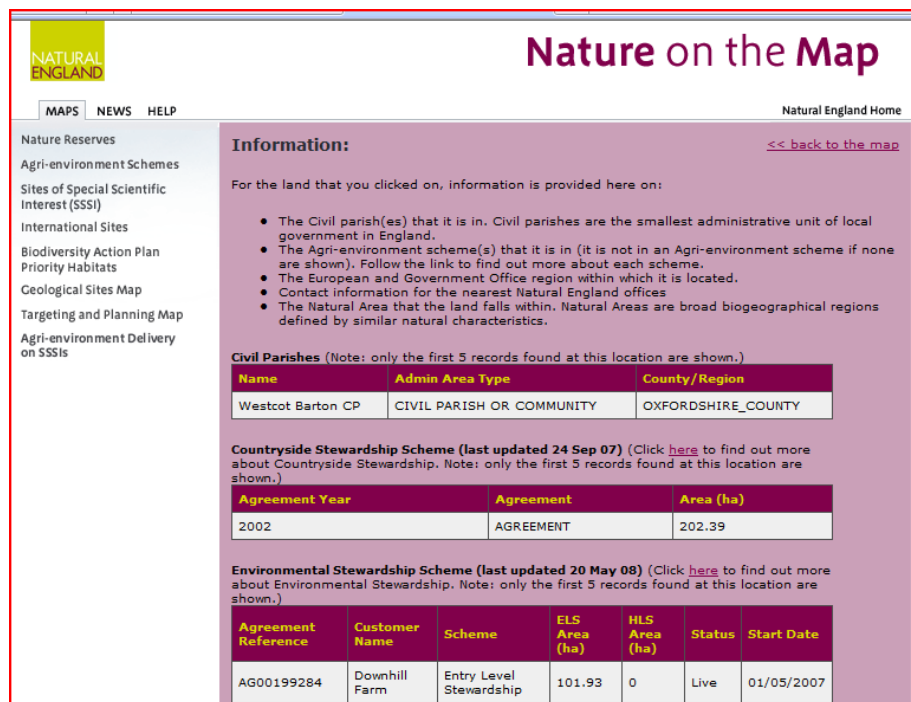


Figure 12 Customer details will be presented in the above boxes.

- 17) A set of results will appear that in most cases will detail the agreement reference, either a name or business for the scheme customer and the type of scheme with land area.

Google and internet search engines

- 18) If the wooded area is covered by an Agri-environmental scheme and not covered by land registry, and therefore not detailing an address, carrying out an internet search by 'googling' the name of the customer or company, if a web profile or business listing exists for either, may provide contact information. This method provided the complete name, address and phone number for one individual woodland owner who happened to be a Councillor in the area and in the case of a farm business the address was listed on a business website.

Phone book

- 19) Given that there is a strong chance that the woodland owner will live in the vicinity of the woodland area, there is the possibility the name of the individual customer detailed on the Nature on the Map website may be listed in the Phonebook. This will provide an address and phone number if they live in the vicinity and are listed in the phone book.

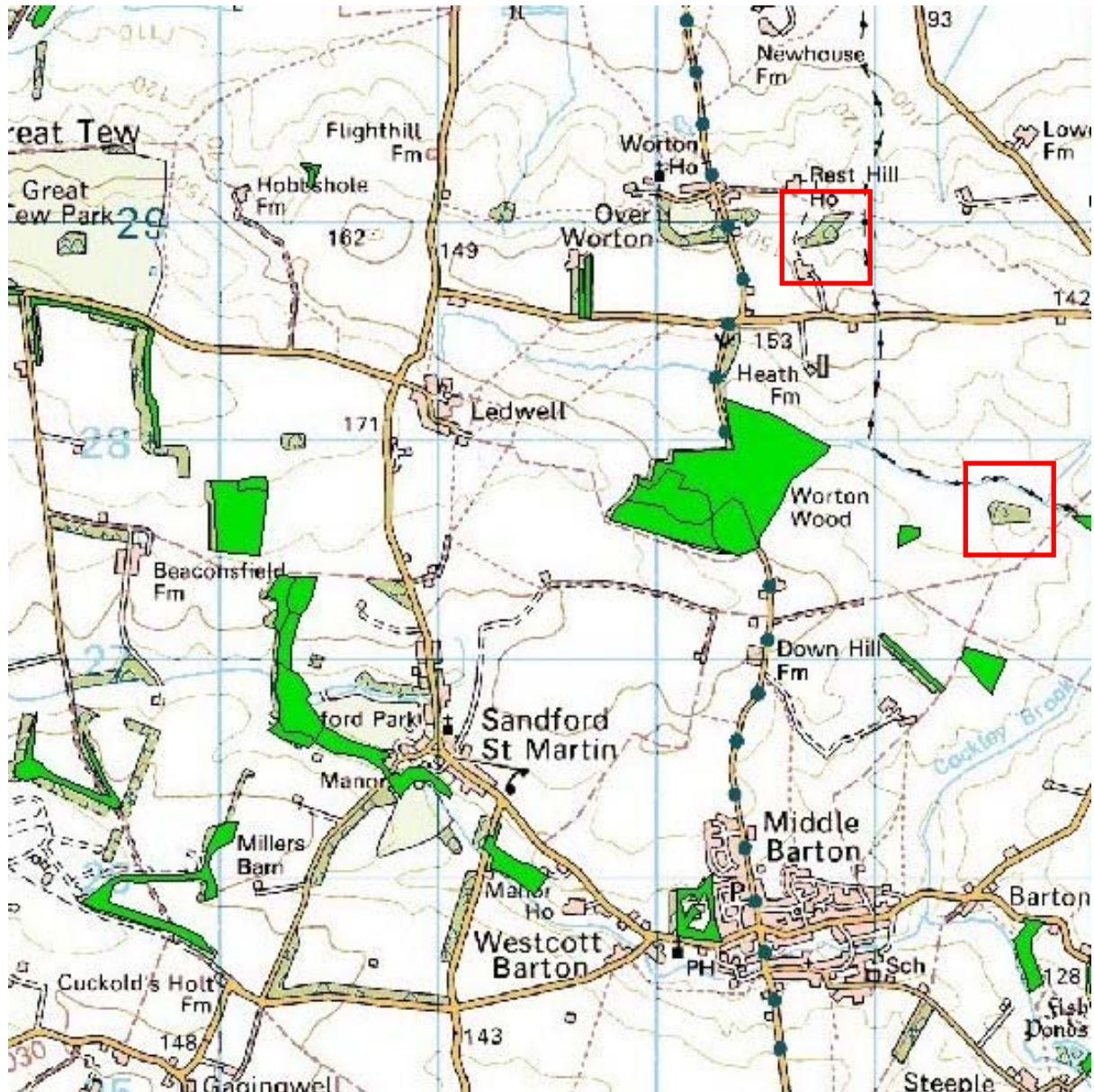
Reconnaissance of area by car

- 20) This involves travelling to the area where the woodland is situated and carrying out a reconnaissance of the unidentified woodland or woodlands by asking local people.

Tips for carrying out this approach include:

- Carry a very clear colour map depicting local village names and roads in the area with the woodlands to be identified clearly detailed. It can be difficult for people to see the wood in question from a road edge due to the presence of hedge rows and linear features.
- Have in ones possession a form of identification and a letter detailing the work that the surveyor is carrying out.
- Be prepared to answer in some cases frank questions such as what you are doing and why the work is of benefit to the community.
- Locate a local nursery – Some nursery staff are local residents with rural interests. This was one line of approach in the reconnaissance of the 100km² block SP42. It yielded a high return providing 4 of the 7 unaccounted for woodlands with names and contact addresses.
- Village post offices and local shops – business that interact with the local residents are sources of information.

Appendix4 – North West corner of 10km² grid square SP42. Example of print out produced for survey purposes. The map also indicates wooded areas detailed on OS map that are not covered by the NIWT (highlighted in red).



Appendix 3 - Woodland ownership record sheet for SP42

Appendix 3 - woodland ownership record sheet for OS grid square SP42							
Grid square	Grid Reference	Nature on the map		Land registry			RECON
		Name	Scheme	Address	Title register	Title Plan	
SP4129	SP414293	Nether Worton Estate	ELS	Sandford St Martin, Chipping Norton	Available	Available	
SP4529	SP452298	x	X	Hill Farm, Duns Tew, Bicester, OX25 6JJ	Available	x	
SP4729	SP476295	North Aston Farms	OELS	X	x	x	
	SP473296	North Aston Farms	OELS	X	x	x	
	SP479298	North Aston Farms	OELS	X	x	x	
SP4228	SP427288	x	X	X	x	x	
SP4328	SP435281	The Grange, ref 2115	EWGS	X	x	x	
SP4127	SP412277	x	X	Conygree Wood Great Tew Estate Great Tew CH	Ava	Ava	
	SP413273	x	X	Sandford Park Estate, Sandford St Martin, CN	Ava	x	
SP4427	SP442276	DownHill Farm	ELS	Down Hill Farm, Warton Road, Middle Barton, CN, OX77EG	Ava	x	
SP4527	SP451275	Batteridge & Son	EL+HLS	Down Hill Farm, Warton Road, Middle Barton, CN, OX77EG	Ava	x	
SP4026	SP402264	Mr M J S Parker	ELS	Tracey Barn Farm, Great Tew, CN, OX7 4JS	Ava	x	
SP4026	SP409261	Mr R Taylor (Adj sch)	ELS	Beaconsfield Farm, Great Tew, CH, OX7 4JR	Ava	x	
SP4126	SP414267	x	X	Park Farm, Ledwell Road, Sandford St Martin, Chipping Norton, OX7 7AH	Ava	x	
SP4226	SP423261	MISS S.C RITTON THOMAS WILL TRUST	ELS	The Manor House, Mill Lane, Sandford St Martin, CN, OX7 7AQ	Ava	x	
SP4426	SP443269	FarmWeald Ltd	ELS	Cherry Tree Cottage, Worton Road, Middle Barton, CN, OX7 7DU	Ava	x	
	SP445269	FarmWeald Ltd	ELS	Cherry Tree Cottage, Worton Road, Middle Barton, CN, OX7 7DU	Ava	x	
SP4626	SP462262	x	CSS	Barton Abbey, Steeple Barton, Bicester	Ava	x	
SP4726	SP471269	x	X	X	x	x	Mr Preston, Warren Farm
	SP475267	Common Barn Estate	WGS	Middle Aston House, Middle Aston, Bicester, OX25 5PT	Ava	x	

Developing effective methods for identifying woodland owners: an Oxfordshire pilot study

Appendix 3 - woodland ownership record sheet for OS grid square SP42							
Grid square	Grid Reference	Nature on the map		Land registry			RECON
		Name	Scheme	Address	Title register	Title Plan	
SP4826	SP483266	T J Davis and Partners	ESS	X	x	x	
SP4025	SP407258	Mr M J S Parker	ELS	Beaconsfield Farm, Great Tew, CH, OX7 4JR	Ava	x	
SP4325	SP432258	x	X	Westcote Barton Lodge, Enstone Rd, Westcote Barton, CN, OX77AA	Ava	Ava	
SP4425	SP442258	Barton Abbey Farms	ELS	Barton Abbey, Steeple Barton, Bicester	Ava		
SP4525	SP452255	Barton Abbey Farms	ELS	Barton Abbey, Steeple Barton, Bicester	Ava		
SP4625	SP461254	Barton Abbey Farms	ELS	Barton Abbey, Steeple Barton, Bicester	Ava		
SP4725	SP473251	Mr Charles Cottrell-Dormer	ELS	X	X	x	
SP4825	SP487257	Mr R Taylor	ESS	X	X	x	
	SP487259	Mr R Taylor	ESS	X	X	x	
SP4024	SP408244	Mr R M Parsons	ESS	X	X	x	
SP4524	SP458248	Barton Abbey Farms	CSS	Barton Abbey, Steeple Barton, Bicester	Ava	x	
SP4624	SP464243	x	X	Ash Cottage, Oxford Road, Steeple Aston, Bicester, OX25 5QH	Ava	x	
				Holly Cottage, Oxford Road, Steeple Aston, Bicester, OX25 5QH	Ava	x	
	SP469241	MISS S.C RITTSO THOMAS WILL TRUST	ELS	x	X	x	
SP4724	SP475248	Mr Charles Cottrell-Dormer	ELS	x	X	x	
	SP478245	x	X	x	X	x	Cottrell-Dormer
SP4824	SP484241	H J Jones & Sons	ELS	x	x	x	
SP4023	SP406236	Mr R M Parsons	ESS	x	x	x	
	SP409239	Kiddington Woodlands	WGS	x	x	x	
SP4323	SP433237	Glympton Park Estate	WGS	Estate Office, Glympton Park Estate, Glympton, Woodstock, OX20 1AH	Ava	x	
SP4523	SP455235	Barton Abbey Farms	ELS	Barton Abbey, Steeple Barton, Bicester	Ava	x	
SP4623	SP462236	x	X	Barton Abbey, Steeple Barton, Bicester	Ava	x	
SP4623	SP468234	Mr Charles Cottrell-Dormer	ESS	x	x	x	

Developing effective methods for identifying woodland owners: an Oxfordshire pilot study

Appendix 3 - woodland ownership record sheet for OS grid square SP42							
Grid square	Grid Reference	Nature on the map		Land registry			RECON
		Name	Scheme	Address	Title register	Title Plan	
SP4723	SP479231	Mr Charles Cottrell-Dormer	ESS	x	x	x	
SP4122	SP417224	x	X	Kiddington Estate, Kiddington, Woodstock	Ava	x	
SP4322	SP434226	Glympton Park Estate	WGS	Estate Office, Glympton Park Estate, Glympton, Woodstock, OX20 1AH	Ava	x	
SP4522	SP454225	Barton Abbey farms	ESS	Barton Abbey, Steeple Barton, Bicester	Ava	x	
SP4622	SP468227	Mr Charles Cottrell-Dormer	ELS	x	x	x	
	SP469224	x	WGS	x	X	x	
SP4722	SP473222	x	WGS	x	X	x	
SP4021	SP402219			x	X	x	
	SP401216	x	X	Ditchley Park, Enstone, Chipping Norton, OX7 4EP	Ava	x	
	SP403214	x	X	Kiddington Estate, Kiddington, Woodstock	Ava	x	
	SP407212	x	X	x	X	x	Kiddington Estate
SP4121	SP414215	x	X	x	X	x	Kiddington Estate
SP4221	SP426218	Glympton Park Estate	WGS	Glympton Park Estate, Glympton Woodstock	Ava	Ava	
SP4321	SP438218	Glympton Park Estate	WGS	Glympton Park Estate, Glympton Woodstock			
	SP439219	Glympton Park Estate	WGS	Glympton Park Estate, Glympton Woodstock			
SP4421	SP442213	Glympton Park Estate	WGS	Glympton Park Estate, Glympton Woodstock			
SP4621	SP467217	x	WGS	x	X	x	
SP4721	SP472218	x	WGS	x	X	x	
	SP471212	x	WGS	x	x	x	
SP4821	SP487212			Kirtlington Stud Ltd, Kirtlington, Kidlington, OX5 3EU	Ava	x	
SP4020	SP405208	OutWood 3619	EWGS	x	x	x	
	SP409208	Kiddington Woodlands	WGS	x	x	x	
	SP404201	M D Hamilton Farms Ltd	OELS	x	x	x	
SP4120	SP416208	Glympton Park Estate	WGS	Glympton Park Estate, Glympton Woodstock	Ava	x	

Developing effective methods for identifying woodland owners: an Oxfordshire pilot study

Appendix 3 - woodland ownership record sheet for OS grid square SP42							
Grid square	Grid Reference	Nature on the map		Land registry			RECON
		<i>Name</i>	<i>Scheme</i>	<i>Address</i>	<i>Title register</i>	<i>Title Plan</i>	
	SP413202	x	X	x	x	x	Kiddington Estate
SP4220	SP429207	Glympton Park Estate	WGS	Glympton Park Estate, Glympton Woodstock	Ava	x	
SP4420	SP448208	Blenhiem Farm Partnership	EWGS	Dornford Grove, Wootton, Woodstock	Ava	x	
	SP446202	Blenhiem Farm Partnership	EWGS	Dornford Grove, Wootton, Woodstock	Ava	x	
SP4520	SP450209	Blenhiem Farm Partnership	EWGS	Wootton Downs, Wootton, Woodstock, OX20 1AF	Ava	x	
	SP454209	Blenhiem Farm Partnership	EWGS	Upper Dornford Farmhouse, Wootton, Woodstock, OX20 1AG	Ava	x	
SP4620	SP469206	Tackley Wood	WGS	x	x	x	
SP4720	SP474208	Mr A C Peake	ELS	Tackley Estate, Tackley, Kidlington			
SP4820	SP488208	Mr A C Peake	ELS	x	X	x	
SP4920	SP491203	Mr A C Peake	ELS	x	X	x	
	SP493201	Mr A C Peake	ELS	x	X	x	