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Glastir Woodland Creation Opportunities Map Guidance

Welsh Government Rural Communities - Rural Development Programme for Wales 2014 - 2020



Glastir Woodland Creation: Opportunities Map Guidance

This guidance shows how the Glastir Woodland Creation (GWC) opportunity map works in order to support decision making on new planting in Wales.

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1. WHERE TO FIND THE GWC OPPORTUNITY MAP

Lle is a spatial data system provided by the Welsh Government and serves as a centre for online geographical information. It can be found by navigating to <u>http://lle.gov.wales/apps/woodlandopportunities</u>. Alternatively, navigate through the Lle website by selecting "Applications" and choose "Glastir Woodland Creation – Opportunities Map" – see Figure 1 below.

Figure 1 - A guide to navigate to the GWC opportunity map from the Lle homepage



2. LANGUAGE SELECTION

On opening the Glastir Woodland Creation opportunity map, an information box will appear. In the top right corner Cymraeg can be selected. The language selection can be changed between English and Welsh at any time.

3. USING THE GWC OPPORTUNITY MAP

This section shows how to determine the suitability of an area for new planting, and how to find whether there are any constraints or sensitivities associated with that area (see Annexe 4 for more information).

Step 1: Find the area of interest

There are 3 ways to find a place of interest:-

- Use the scroll button on the mouse to zoom in to the area of interest
- Use the zoom buttons in the top left of the map screen (+ and symbols) (see Figure 2 – 1A)
- Use the search option at the top centre of the map screen (see Figure 2 1B) by typing a place name, postcode, or grid reference, e.g. Aberystwyth, SY23 3UR (use a space when using postcodes) or SN 591 809.

A 6 digit national grid reference will be displayed wherever your cursor is over the map browser. This is shown in the bottom right corner of the screen and may be useful for planting applications (see Figure 2 - 1C).

In Figure 2, there are green areas of different shading as well as transparent areas showing the Ordnance Survey (OS) map underneath. A green area indicates there are <u>no</u> <u>identified constraints or sensitivities</u> for woodland creation. A transparent area indicates an area with a sensitivity which is likely to require stakeholder consultation.

Step 2: Select a base map

The next step is to select which base map you would like to use - either greyscale mapping, colour mapping or aerial photography (see Figure 2 - 2A).

Step 3: Set the layers of choice and adjust transparency

Only the 'Woodland Creation Score' on the Scoring Layer is switched on, but others can be selected, existing woodland for example (see Figure 2 - 3A). Annexe 2 gives more information on the Woodland Creation scoring layer.

To adjust layer transparency, click the eye symbol and scroll the transparency bar until the optimal displace is reached (see Figure 3 - 3B).

Step 4: Draw a new planting area

Click the 'Measure distances and areas' box (see Figure 2 - 4A) and select the 'Create new area measurement' option. The cursor and left mouse clicks can be used to draw an area of interest around a proposed woodland creation site.

Once a suitable area has been drawn, double left click the mouse on the final point and an 'Area Measurement' box will appear (see Figure 4). The area of potential new woodland is shown in hectares which can be used in a GWC application.

Step 5: Draw a fence line

Click the 'Create a new line measurement' (see Figure 2 - 4A) to get fencing length around a new woodland creation site. Use the left mouse button to click from the beginning to the end of the fencing and use additional mouse clicks for corners or bends. Figure 5 shows a red line representing a fencing length around a new planting area.

Step 6: Find out if there are sensitivities in the new planting area

Green shading represents an area without constraints or sensitivities. In transparent areas, constraints or sensitivities will be shown once a new planting area has been drawn (Step 4). To determine individual sensitivities, click on the blue text "Click here to view the points of interest the area intersects" (see Figure 6 – red box A). To get more information on the sensitivity, click the sensitivity label (see Figure 6 – red box B). This will bring up another information box describing the sensitivity and will often direct you to the relevant stakeholder (see Figure 6 – C).

Step 7: Information on Woodland Creation scoring

Click on the Woodland Creation Score title to get more information on the layers (see Figure 7 – red box A). Each of the scored input layers can also be clicked on for additional information (see Figure 7 – red box B and C). Annexe 3 gives some background information on the Woodland Creation scoring layers.

Step 8: Information on Special Guidance layers

Each Special Guidance layer can be clicked on to get more information on their creation and what the data shows. For example, the e.g. Acid Sensitive Catchments background information can be found by clicking its title in the table of contents – see Figure 8 red box A. Links to stakeholders can also then be used by clicking the blue text (see Figure 8 red box B).

Figure 2: Finding an area of interest (Step 1)

Figure 3: Adjust the transparency (Step 3)



Figure 4: Draw a new planting area (Step 4)



Figure 5: Draw fence line (Step 5)





Figure 6: Find out if there are sensitivities within a new planting area (Step 6)

Figure 7: Woodland Creation scoring layer (Step 7)

Woodland Creation Score

This layer gives a strategic overview of the areas which have the best opportunities for woodland creation. As a site becomes more suitable for woodland creation i.e. more overlapping GIS layers advocate that woodland creation would benefit the site, then the shade of green becomes darker. Once again, bear in mind that the lighter shade of green will still have areas which should benefit from woodland creation. The datasets used to create the scoring layer are as follows:

- · Air pollution areas
- Communities First Clusters

Habitat Suitability

- New Flood Plain Woodland (NFPW)
- Nitrate Vulnerable Zones (NVZs)
- Noise Pollution
- Woodland creation to support market and non-market goods (UEA)
- Woodland Habitat Networks (WHNs)

Scoring Layers

✓ Woodland Creation Score

Special Guidance Layers

- Acid Sensitive Water Bodies I water Bodies
- Common Land 👁
- Open Access 💿
- 📕 Red Squirrels 👁
- 📕 Water Vole 💿
- Constraints to Planting
- Existing Woodland 👁



New Flood Plain Woodland (NFPW)

This dataset was provided by Natural Resources Wales (NRW), via a FCW project developed by Peter Van-Velzen in 2009. Much of Peter's work is based on the effort and methodology provided by Forest Research' Samantha Broadmeadow & Tom Nisbet, in their report "Opportunity Mapping for Trees and Floods in Yorkshire & The Humber Conservancy" (Nov.2008). Full acknowledgement goes to the authors for their original work.

The dataset identifies areas of fluvial floodplain and stream riparian zone within Wales where there is potential to create or expand floodplain and riparian woodland for reducing flood risk within urban populations. The NFPW dataset aims to generate a suitability-map identifying areas within Wales where woodland planting is free of constraints and could benefit flood management by reducing flood generation. Reduction of runoff containing sediment and nutrients could also benefit water quality. Cambrian Ma

Figure 8: Woodland Creation scoring layer (Step 8)



Annexe 1: Why the opportunity map was developed?

Glastir is the Welsh Government's (WG) land management scheme which financially rewards land managers and farmers for the delivery of specific environmental goods and services. Glastir Woodland Creation (GWC) aims to support land managers and farmers to create new woodland within Wales <u>gov.wales/glastir</u>

Stakeholders have provided spatial data which show suitable and less suitable areas for new planting (see Annexe 2 for details of the spatial data). The GWC opportunities map has been developed to show the results of merging these spatial datasets.

Annexe 2 : How the opportunity map was developed

Each geographic data layer acquired from stakeholders was either allocated to a **scoring layer** or an **information layer** i.e. shows constraints or sensitivities which may impact on new planting. A list of all data layers included in the current GWC opportunity map is shown in Table 1.

Scoring layer (Green layer)	Information layer (Transparent layer)
Communities First Areas	Areas of Outstanding Natural Beauty (AONBs)
Noise Pollution Areas	Bracken with Pearl Bordered Fritillary Habitat
Nitrate Vulnerable Zones (NVZs)	Upland Special Protection Area (SPA) with 500m buffer
Habitat Suitability (habitat surveys)	NRW Sensitive Habitats (habitat surveys)
New Flood Plain and Riparian Woodland (NFPW)	National Parks with 800m buffer (excluding Brecon Beacons)
Air Pollution Areas	Grassland Fungi Potential Habitat
Woodland Habitat Networks (WHNs)	Sensitive Arable Plant Records
University of East Anglia: Woodland creation potential	Deep peat and modified deep peat
	Protected Species (Birds) Potential Habitat
	Protected Species (Great Crested Newt) Potential Habitat
	Regionally Important Geodiversity Site (RIGS)
	Scheduled Ancient Monument (SAM)
	Sites of Special Scientific Interest (SSSIs)
	Biological SSSI with 300m buffer
	Historic Environment Features (WATs_
	Historic Landscape Areas (WATs)
	Historic Parks and Gardens
	World Heritage Site

Table 1 – Layers shown in the GWC opportunity map

Annexe 3: Woodland Creation scoring layers

To create the "**woodland creation score**" 8 scored layers were aligned to a representation of a $20m^2$ grid – these 8 datasets are shown in Figure 9.





The scored layers were overlaid and added together (see Figure 10) giving the final woodland creation score which is represented as a shade of green on the opportunity map. The Woodland Creation scores ranges from 0 to 38.





Areas of dark green indicate areas which are most suitable for new planting, for example areas where there is a woodland habitat network layer or an area of high noise pollution overlapping. Figure 11 shows the GWC opportunity map and the areas of dark green are most suitable for new planting at a strategic level.





Annexe 4: Woodland Creation information layers

There are 18 information layers (see Figure 12) which show constraints or sensitivities for woodland creation. These information layers were provided by stakeholders and are deemed to be potentially unsuitable for new woodland creation.

It is important to bear in mind data resolution here. The information layers often take a precautionary approach to ensure that areas to be conserved are well protected. To ensure a fair application, all GWC plans are verified by Natural Resources Wales to comply with UK Forestry Standard (UKFS).



Fig. 12: Information layers used for the GWC opportunities map

Approximately 50% of Wales is covered by at least one information layer. These areas are shown as transparent in the GWC opportunity map. Over time these information layers will change as refined data becomes available or as policy changes. There may also be suitable areas for woodland creation within these transparent areas particularly within large expanses of landscape designations such as AONBs or National Parks so it is important to seek advice from the appropriate stakeholder.