Driver & Vehicle Licensing Agency

Biodiversity Action Plan for the DVLA Swansea

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Biodiversity Action Plan for the Driver and Vehicle Licensing Agency (DVLA), Swansea

April 2015 - March 2017

Craig Hughes BSc (Hons) Environmental Conservation

With special thanks to Julia Ashford and Nigel Robins.

Contents

Executive summary

The Drivers and Vehicle Licensing Agency (DVLA) first created a Biodiversity action plan (BAP) in 2013 and has since seen a remarkable difference in biodiversity on its sites. To continue maintaining and enhancing the agency's sites and to continue complying to the law set on government agencies to have regard to the conservation of biodiversity on their sites, a second BAP has been commissioned.

This BAP will be for the April 2015 to March 2017 period and will include actions that will provide the agency with suggestions to maintain the biodiversity that they have and simple methods that will enhance its biodiversity further. These actions include;

- creating a baseline so that a minimum level of biodiversity is expected,
- setting a strict mowing regime on more areas of the agency's sites and,
- creating a biodiversity group.

In addition to devising objectives and creating actions for this action plan, the author will, amongst others, review the agency's previous BAP, glance at the history of BAPs and look at the law behind the creation of biodiversity action plans and current biodiversity law. Furthermore, this action plan will create maps to visually display the agency's sites and habitats as well as maps to display detailed information.

Having such detailed visualisations and reviews of aspects that are behind the creation of and have an effect on biodiversity action plans will allow for better understanding and planning.

This BAP will again concentrate solely on the agency's Morriston and Tŷ Felin sites, as these sites offer the best conditions and opportunity to concentrate resources. Additionally, this BAP will provide the same advice on planting (what species to use and what not) as the agency's first BAP as it is a valuable piece of information. These can be found in the appendices.

Without biodiversity, the Earth's integrity will be compromised. Food, wildlife, medicine, communities and economies depend on a diverse structure of species, ecological and genetic diversity. With the DVLA producing this action plan, the agency is showing the commitment to comply with its legal duties and in conserving and enhancing biodiversity. With an integral position in the social fabric of Swansea and south west Wales, and as a government agency, the DVLA has an opportunity to act as a leader and a good example in environmental conservation.

Introduction

As a government agency, the Drivers and Vehicle Licensing Agency (DVLA) is required by law to have regard to the conservation of biodiversity on its site(s). With an integral position in the social fabric of Swansea and south west Wales, the DVLA has an opportunity to act as a leader and a good example in environmental conservation. This is due in part to the amount of people the DVLA employ and due to its site(s) being positioned in areas where there is every chance for commuters, customers and nearby residents to notice and observe the biodiversity present and conservation work being implemented.

To help comply with the legal duties set upon the agency, a Biodiversity Action Plan (BAP) has been commissioned. The DVLA had produced and implemented its first BAP in 2013 and has, amongst others, provided the agency with conservation management techniques, valuable indicative data of the biodiversity present and acted as a toolbox for guidance in choosing what plants to use and not use. This action plan was initially designed to be reviewed and updated in 2014; however, it has only now been possible to do so. Therefore, included in this action plan is a review of the agency's previous BAP. It is hoped that since its inception there has been an improvement overall in biodiversity; that at least some of the principles have been acted on and that there has been an improvement in conservation management i.e. mowing regimes.

The fact that a second BAP has been given the go ahead, shows the commitment by the agency to comply with its legal duties and in conserving and enhancing the biodiversity at its sites, thus, this action plan will outline its objectives with feasible actions. It should also be noted that this BAP will set to establish a baseline of the biodiversity at the agency's sites. This is to ensure that future action plans have the information to succeed. To establish a baseline, ecological surveys will be completed. Furthermore, due to constraints at the agency's Swansea Vale site, this BAP, similarly as the first, will concentrate on the Morriston and Tŷ Felin sites only.

1. Biodiversity and its benefits

Biodiversity, short for biological diversity, is a term that is used to describe the variety of all life on Earth, whether that is species diversity, ecological diversity or genetic diversity (DEFRA, 2007). From the smallest cell to the strongest man, and from the brightest poppy to the densest forest, we are all incorporated in the term biodiversity.

To many, biodiversity is a term that is regularly associated with areas such as the rainforest. After all, rainforests cover less than 2% of the Earth's surface, yet house approximately 50% of its species (The Nature Conservancy, 2015). However, even in 21st century Britain, explore our varied habitats, including our darkest city alleys and you will find biodiversity.

There are many benefits to encouraging and maintaining biodiversity. For example, without biodiversity many of the treatments and cures we have for diseases would not have been discovered. Research into the biology and genetics of Earth's diverse animal and plant species have provided humans with a mechanism of fighting the toughest of illnesses. Therefore, if one specie were to become extinct, the chance to possibly cure more diseases will be lost forever (National Wildlife Federation). Additionally, biodiversity plays an important part in providing ecological services that make life liveable on Earth. The simplest of plants clean our water; trees provide our oxygen, whilst the natural views formed by diverse habitats help maintain economies.

Ultimately, ensuring that as individuals we minimise our impact on biodiversity, we will ensure a diverse Earth that we all value in one form or another.

2. History of biodiversity action plans

2.1. History of biodiversity action plans

At the 1992 United Nations (UN) Environmental Programme Convention on Biological Diversity in Rio de Janeiro, over 150 heads of states or governments signed the motion to halt the worldwide loss of animal and plant species as well as genetic resources. Thus, pressure was put on governments to create a mechanism in implementing each country's responsibility in maintaining and enhancing biodiversity within its jurisdiction. By 1994, the UK Government were the first country to produce a BAP.

Following devolution in 1998, the four countries of the UK, with the first UK BAP in mind, developed their own strategies in conserving biodiversity. However, in 2007 this was updated as all four countries adopted and committed to a framework where working together, rather than individually, would be beneficial to meet the challenges shared by the four administrations in conserving biodiversity. After all, biodiversity has no borders. This framework is called 'Conserving Biodiversity – The UK Approach.'

Due to the failure of not ensuring the halt in the decline in biodiversity by 2010, as agreed by world leaders at the 2002 Earth Summit in Johannesburg, a change in approach to conserving biodiversity was needed. As a result of further summits and a European Union Biodiversity Strategy (EUBS), the UK government produced the 'UK Post-2010 Biodiversity Framework' and is designed to identify the activities needed to galvanise and complement country strategies to achieve the 'Aichi Biodiversity Targets.' Two of these targets include (by 2020) to ensure people are aware of the value of biodiversity and sustainability, and the reversal in the decline of threatened species.

Closer to home, the first BAP implemented at the DVLA was for the January 2013 to March 2014 period, and was established to set out a framework for the protection, conservation and enhancement of wildlife within the boundaries of the DVLA estate. This BAP was also created as the DVLA had to comply with its legal duties set upon by the UK Government. Actions were chosen to ensure that the agency did not make any net loss of habitat, understand and improve the numbers and diversity of native flora and fauna on site, and increase awareness and knowledge of biodiversity amongst staff.

2.2. What is in a biodiversity action plan?

Biodiversity action plans are becoming ever more popular with more companies, universities, public authorities and government agencies producing them. There may be many reasons as to why one has been produced, but it is likely because they feel morally obliged in this more environmentally aware society or have a legal duty to establish and implement a BAP for their site(s)/area(s). These action plans may also come in different, but similar names, such as 'Nature Action Plan' and 'Local Biodiversity Action Plan.'

3. Law and requirements

As a government agency, the DVLA has a legal duty to have regard to the conservation of biodiversity under the Natural Environment and Rural Communities Act (2006) (NERC), and must in particular have regard to the UN Environmental Programme Convention on Biological Diversity of 1992. To be specific, the NERC (s40, 2006) states that;

a) **'Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'**

Similarly, published in 1994, the UK was the first country to issue a nationwide BAP. This BAP was derived from the UN Environmental Programme Convention on Biological Diversity (1992) and states that it intends;

b) **'To conserve and enhance biological diversity within the UK and to contribute to the conservation of global biodiversity through all appropriate mechanisms'**

Regarding the agency's requirement to have regard to the UN Environmental Programme Convention on Biological Diversity (1992), the agreement by the 150 states that attended the convention agreed on, amongst others, that each party shall;

c) **'Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species...'**

d) **'Promote and encourage research which contributes to the conservation and sustainable use of biological diversity...'** and,

e) **'Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity...'**

Moreover, the DVLA, under the Greening Government Commitments (GGC) must be open and transparent on the steps they are taking to address biodiversity and the natural environment, climate change adaptation and the procurement of sustainable and efficient products. Adding more detail, the GGC includes that as a government agency the DVLA must show what steps are being taken to;

f) **'...Adapt the estate to a changing climate...'**

As a result of legislation over the last 25 years, this BAP will consider and take note of the requirements the DVLA must undertake to comply with the law.

4. Sites; description, biodiversity, maps and current threats

4.1. Description

The DVLA has three sites in Swansea, south Wales - Morriston, Swansea Vale and Tŷ Felin. Thus, all are situated in different areas of Swansea that have retained different types of habitat. All sites have different natural and industrial history, purposes and differ in size and worker population. However, due to its size and nature of the built area at Swansea Vale, it is unviable to establish a feasible bio-diverse site. Therefore, this BAP will concentrate solely on the Agency's Morriston and Tŷ Felin sites.

4.1.1 Tŷ Felin biodiversity

Although there was a brief spot-lighting or 'lamping' analysis of the Tŷ Felin site in 2013, where a small number of frogs and newts were discovered, a more thorough basic ecological survey at Tŷ Felin was not completed until March 2015. During the 2015 survey, Longworth traps and a camera trap were set up and a lamping survey was conducted over three nights. During this time, thirty Longworth traps were set and captured three Wood mice (Apodemus sylvaticus). They were later released, unharmed. Furthermore, there were plus 50 sightings each of both the Common newt (Triturus vulgaris) and Common frog (Rana temporaria) during this time. There is also evidence of foxes (Vulpes vulpes) possibly visiting the site as there are small entrances under some areas of the security fence.

4.1.2 Morriston biodiversity

A detailed ecological survey was conducted during 2013 by Nigel Robins at the Clase Farm Car Park at the agency's Morriston site. Results of this survey can be found here: Clase Farm SMS 2013 small.pdf. As of yet there has been no further surveys. There have also been sightings of foxes (Vulpes vulpes) and hedgehogs (Erinaceus europaeus) at this site.

4.1.3 Future ecological surveys

There are currently plans to conduct a thorough ecological survey during 2015. To completely gain an insight in to the biodiversity at the whole of the agency's Tŷ Felin and Morriston sites, this survey will include Longworth traps, camera traps and transects.

4.2. Maps

In the maps below, you will find an image of both sites and their characteristics. Additional colour coded description of the habitat classifications at both sites will be in the appendices (Map images courtesy of Google Earth).

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Map 1 – Tŷ Felin

Map 2 – Morriston

4.3. Current threats

4.3.1. Internal development

The DVLA site in Morriston is a large site where the majority of their 5600 employees work. As this site is also the point of call for a large amount of customers and many contractors, DVLA Morriston often experiences problems with car parking. The Felindre 'park-and-ride' scheme has helped alleviate the car parking on site issue, however, with the City and County of Swansea looking to develop that particular area in their Local Development Plan (LDP), the DVLA may need to create additional parking spaces on site potentially at the cost of the environment.

With a smaller workforce, working on a shift pattern, Tŷ Felin rarely experiences any issues with on-site car parking, thus is not treated as a current threat there. However, there is a threat that the integrity of the pond and pond area of becoming compromised by the excess Bulrush and European gorse (Ulex europaeus).

4.3.2. External development

As already mentioned, the City and County of Swansea are currently going through a LDP process. Although this may not have a direct threat on the internal environment of the DVLA sites, the integrity of the environment may alter if the council were to develop land adjacent to the DVLA. For example, the council have identified the land adjacent to Clasemont Road (the road to the north of DVLA Morriston), as being an area for housing. Due to the loss of a green corridor for species that may only visit the agency's ground to explore/live/hunt; and due to fewer plants at that site, affecting the number and variety of plant species on DVLA premises, there is a possibility of a decrease in biodiversity at the agency. Thus, it is important that the DVLA prepares for such possibilities.

5. Review of the initial DVLA biodiversity action plan

The following review of the initial BAP will not be on the action plan itself, but rather of the actions taken to act in accordance of the plan. To do this, each initial BAP principle will be a header and any actions taken will be noted beneath them.

The initial Biodiversity Action Plan was introduced in January 2013 and had nine objectives ranging from 'No Net Loss of Habitat' to 'Staff Involvement.' As an initial action plan, it was designed with objectives that could bring quick and easy results and had been designed to be reviewed after 12 months. With an experienced and knowledgeable ecological surveyor as its author, this BAP had informative and detailed lists of what plant species were best to gain increases in biodiversity.

i. No net loss of habitat

There has been no on site development since the initial BAPs introduction thus no net loss of habitat has been recorded. There has however been a change in habitat make-up with some areas being allowed to grow without being mown.

ii. Use native species

A native species list has been introduced and all new/replacement planting has complied with this list.

iii. Locally appropriate natural associations (LANA)

No actions taken.

iv. Multifunctional design

There was an introduction of ten bird boxes in April 2014 in various locations across the Morriston site. Additionally beehives were introduced to the Tŷ Felin site during 2013 to allow bees to take advantage of the 'wilder' habitat found at that particular site.

v. Connectivity

Mowing regimes have been altered in places. This has allowed for better connectivity, increase in habitat size and an overall improvement in land management for the increase in biodiversity. In particular, this has worked well in the Clase Farm car park and near and along the pond in Tŷ Felin.

vi. Patch size and edge effect

As with point v, 'Connectivity,' the change in mowing regimes has allowed patch sizes and partial edge effects to increase in some places, namely Clase Farm car park and Tŷ Felin pond.

vii. Gradation of habitats

A change in mowing regimes has helped create a limited gradation of habitats in some places, namely Clase Farm car park and Tŷ Felin pond.

viii. Structure and location of habitats

A small amount of cuttings from grass mowing, trees and excess gravel have been left for the benefit of wildlife in Clase Farm car park.

ix. Staff involvement

A biodiversity section was added to the sustainability page on the DVLA intranet site. It provides information on the initial BAP, a piece on a 'Green Champions' strategy – where persons would be chosen to be a focal point for environmental issues at work; climate change and a 'Green Blog' – a blog on being more environmentally friendly.

As can be seen, actions taken by the agency to comply with the initial BAP were minimal, but still achieved some desired effects. The change in mowing regimes in certain places has allowed habitats to naturally grow and seed with little interference from staff and the public, thus allowing biodiversity to increase and flourish. This is especially true for Tŷ Felin. However, certain areas could've received some more attention to detail. For example, the cuttings were placed without much thought for structure. This was an unfortunate error as placing these cuttings correctly or adding refugia would've had a much more profound effect on increasing biodiversity, as these methods can attract a large amount of species.

Additionally, staff involvement could have received more attention. For example, the 'Green Blog' was last updated in February 2014, and nothing came of the 'Green Champions' strategy.

However, one success was the implementation of two beehives at Tŷ Felin. The involvement of two members of staff to maintain the hives helped increase staff engagement in biodiversity. Furthermore, branching out and involving those with a relevant qualification to complete this BAP also set a good example for other departments to do the same.

Therefore, this action plan will, amongst others, look to expand strict growing regimes for certain areas, and look to increase staff involvement.

6. Objectives

In this section the objectives of this BAP will be outlined with a rationale, any relevant information and actions required to meet the said objective. All objectives, unless otherwise stated, should be initiated, if not completed by the next BAP in 2017. Additionally, please see appendices for detailed maps, timetable and information regarding the location and legal requirements.

6.1. Staff engagement

a) Rationale

Engagement with staff at the agency from those who are in charge of environmental issues can help collaboration in long-term resource management and facilitate co-operation and concerted action. Therefore, to ensure staff and those who have a stake in the agency work together, in one form or another, the DVLA will take actions to guarantee that; trust, exchanges, rules and connectedness are transparent and available to all.

b) Action

- Biodiversity/Environmental group

  A group focusing on biodiversity issues will not only help raise awareness of the agency's biodiversity work/issues, but it will also be a platform to share information, pool knowledge and skills, be of an educational/work experience nature and gather individuals who are willing to volunteer for activities, such as pond clearing, beehive maintenance and surveys.

- Green Blog

  The last time the Green Blog on the agency's intranet was updated was in February 2014. Having a dedicated blog author with guest authors will potentially encourage staff engagement with biodiversity and the environment. At the very least, it has the potential to increase knowledge in these fields, allow staff to ask questions/make suggestions and support staff who would like to make a change in playing their part in maintaining a bio-diverse agency and/or lifestyle.

6.2. Create a baseline

a) Rationale

Without a baseline, it is difficult to measure yourself in achieving a goal. Not only that, it may be costly, time consuming and create issues if one wanted to make adaptations but had no original baseline. Therefore, in creating an informative and detailed ecological baseline, the agency will have the ability to monitor project performance, monitor biodiversity and possibly help reduce expenditure on environmental management.

b) Action

- Ecological survey

  Although an ecological survey was performed on the Clase Farm car park in 2013, further surveys across the site and Tŷ Felin will be conducted. Therefore, with the assistance from an experienced ecological surveyor, an ecological survey will be conducted. This will commence from the beginning of March 2015 and will be fully completed by the end of September 2015. Further studies should be continued on a yearly basis.

- Monitoring

  It is important to take on board the legal requirements set upon the agency regarding the environment. In doing so, the DVLA will minimise any issues that may arise relating to non-compliment and are able to become an example of good practice. Therefore, in line with objective 6.2, a baseline and annual monitoring is required to assess the state of the biodiversity on the agency's sites.

  Furthermore, in line with the first BAP published in 2013 and the legislation detailed in points 3a and 3b of this action plan, a 'no net loss of habitat' stance will continue.

6.3. Maintain and enhance

a) Rationale

The legal requirements set upon the DVLA express that the agency should play its part in conserving, enhancing and restoring a species population and a habitat(s). Additionally, having a regard set upon the agency for other legal documents, it is noted that the agency is required to help eradicate invasive non-native species, promote research, promote understanding and adapt to a changing climate.

It is fortunate however, that part of these requirements can be achieved relatively easily. The current mowing regime in place, devised from the first BAP, has seen remarkable results and should be continued and replicated in other areas.

Additionally, the majority of the agency's sites are not accessible to the general public, thus are fenced off. These fences provide a route in and out for flora and fauna, but keep the public and general traffic out. Therefore, the DVLA's sites have become somewhat of a haven for biodiversity, as they are protected from a large amount of disturbance.

With this being the second BAP, the agency has shown a commitment to identifying and establishing an action plan to increase awareness and research on its site(s) as well as address any environmental issues on its site(s) and identify measures to comply with legal requirements.

b) Action

- Tŷ Felin – Hibernacula , pond maintenance, mowing regime

  One area that will require special attention will be the pond and the adjoining land at the Tŷ Felin site. This small parcel of land contains a large variety of biodiversity in an area that is heavily developed.

  Simple methods such as monitoring, pond clearing, continuing the current mowing regime and creating a small number of hibernacula/refugia will attract further species to the site, thus enhancing the agency's biodiversity status. Additionally, the beehives will continue to be a benefit to the site.

- Morriston – Hibernacula, gravel dividers, mowing regime

  At the agency's Morriston site, the Clase Farm car park is looking more bio-diverse since the implementation of the previous BAP. One measurement the DVLA will re-asses is the methods of leaving wooden and gravel piles on its verges, as current methods are too simplistic and are unsuitably placed.

  Moreover, with the decline in overall population across the UK, the agency will evaluate providing 'hedgehog homes' for hedgehogs to help reverse the decline of this species.

  At the 'Car Sharers' car park, the gravel filled dividers should be replaced with native shrubs as stated in appendices 6 and 7. This method will increase biodiversity as it will provide insects and birds especially, with a home and a food source.

  The current mowing regime for certain areas has been a success and the agency will investigate to expand this regime elsewhere. An example of this would be on land on the southern boundary of the Clase Farm car park and on land on the north-east boundary of the Car Sharers car park. This will provide extra habitat for flora and fauna to occupy and use for their own purposes.

  Studies have shown that diversifying mowing regimes actually increases species such as butterflies and ground beetles (Cizek et al. 2011).

6.4. Eradicate invasive non-native species and the use of herbicides/pesticides

a) Rationale

An invasive non-native species is any non-native animal or plant that has the ability to spread (GB Non-native species secretariat, 2015). In many cases, invasive non-native species are a detriment to the environment and society.

If the DVLA were to experience an issue with an invasive non-native species, it will be more than likely to have a problem with Japanese Knotweed (Fallopia japonica). This invasive non-native species is renowned for its colonisation in Swansea, where it is estimated that it would take approximately 50 years to eradicate from the county (Devon County Council).

There is evidence at the Clase Farm car park, near the eastern fence that Japanese Knotweed was present on the agency's Morriston site. The agency has been pro-active in ensuring much of the knotweed was removed from site using approved procedures and is continually monitored.

There is currently no evidence that Japanese Knotweed has colonised Tŷ Felin. However, it is evident that there is an unidentified bamboo encroaching from a nearby business on the north-western fence that will require attention.

To remove these invasive species, a phasing out of using herbicides/pesticides should be considered. Using these particular methods seriously damages the environment and poses a risk to the health of those who may come in to touch with it.

b) Action

- Monitoring

  The agency will continue to monitor for invasive non-native species and discuss appropriate measures when and if needed.



6.5. Holistic approach

a) Rationale

The natural world has no boundaries. Whether great or small, every animal and plant species in the natural world, including humans, are all interconnected and will ultimately have an effect on one and another.

For example, if a bridge was built over Swansea Bay, there would be many implications to the area. Not only would the bedrock be affected by the digging and drilling, but the surrounding habitats too would suffer. Sediment would be deposited in different areas as tidal currents will be moving around an obstacle that was not there before, thus affecting, amongst others, the temperature, pH, conductivity and species at the site. Additionally, pollution may worsen with the increase in sea traffic during construction and road vehicles and people thereafter.

Therefore, if the agency thought of the environment and biodiversity in a holistic manner, then understanding the factors that affect them may increase, thus pressures on these subjects may alleviate.

b) Action

- Environmental impact assessment and ecological impact assessment

  To help mitigate future developments, an Environmental Impact Assessment (EIA) or Ecological Impact Assessment (EcIA) will be incorporated in to the agency's environmental policy. In doing so, this will help analyse if a particular area is of significance to the biodiversity status of the agency, thus all considerations are reviewed and appropriate measures are implemented.

- BS 8583, Biodiversity — Guidance for businesses on managing the opportunities and risks

  BSI has recently published a new standard to help businesses become more aware of how biodiversity issues can affect their environmental impact. This will be reviewed to establish how best to integrate its recommendations.

6.6. Climate change and development preparation

a) Rationale

Climate change is a natural occurrence and the Earth and its inhabitants have mostly always adapted. However, since the 1880s the Earth has overall been continuously warming and it is believed to be due to man and its burning of fossil fuels.

The warming situation has gradually worsened; twenty of the hottest years on record have occurred since 1981, and the situation is looking likely to get worse. By 2050(s) it is likely that the mean annual average daily temperature in Swansea will rise by up to 3°C, with rainfall during the summer likely to decrease by up to 20% in the region (UK Climate Projections, 2009).

Under the GGC the agency is required to adapt the estate to a changing climate and with other government documents such as the Climate Change Risk Assessment (CCRA) stating a changing climate has the potential to affect staffing hours and distribution of energy supplies, as well as a potential to affect staff health and a decrease in water levels, it is important the agency prepares its sites.

b) Action

- Framework

To prepare the agency's biodiversity for a changing climate, the DVLA will create a framework where assessments and risks can be evaluated and actions, analysis and reviews can be carried out.

The Highways Agency (HA) for example has a Climate Change Adaptation Strategy and Framework where risks were identified and possible solutions were created. Although the HA is responsible for the whole road network of England, a smaller, more suitable assessment of climate change on the agency's biodiversity can be adapted for the DVLA. In doing so, the agency is able to systematically manage the impacts of a changing climate on biodiversity.

Equally there is also an opportunity here to consider how we use biodiversity to help the agency become resilient to the impact of climate change.

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Appendices

Appendix 1 – Target note details and maps

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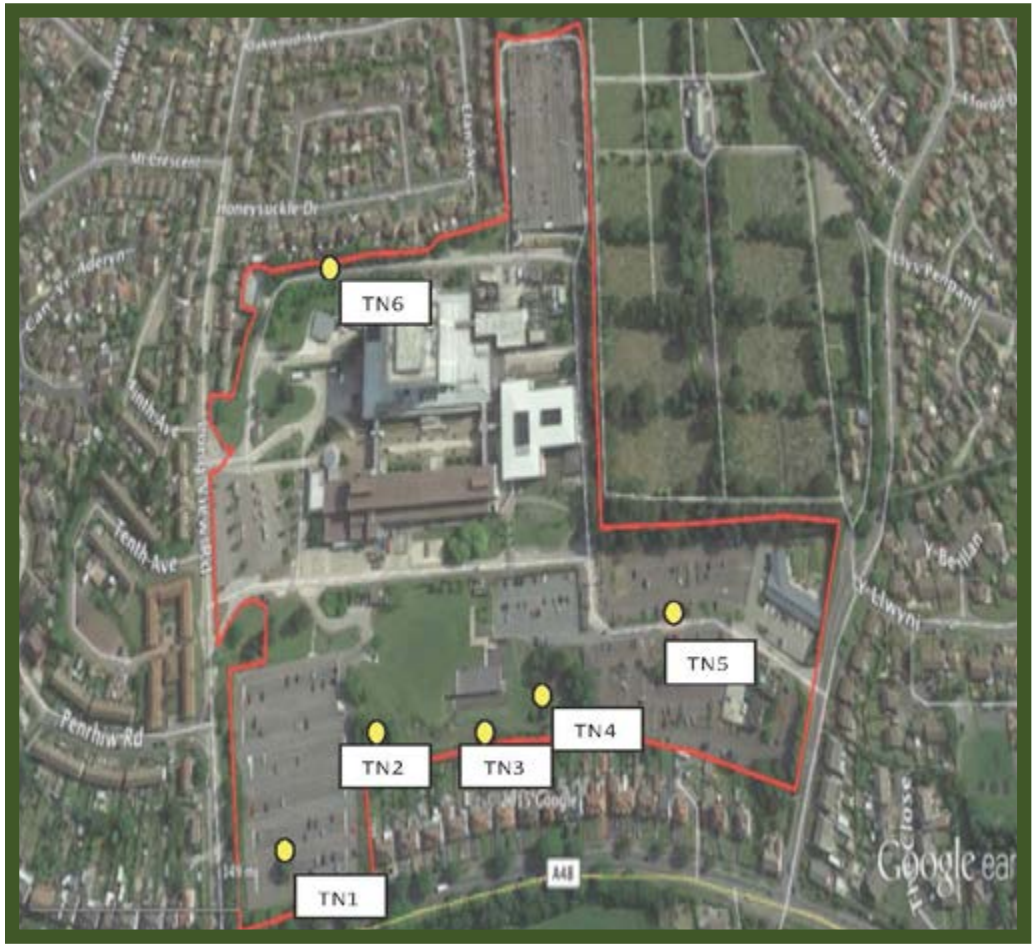


Map 5 – Habitats of Morriston
Oakwood Ave
Elm Ave
Mt Crescent
Honeysuckle Dr
Aderyn
Ninth Ave
Tenth Ave
Penrhiw Rd
Bond View Rd
Llys-Penpant
Y-Bellan
Y-Llwyni
The Close
A48
© 2015 Google
Google earth

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Table 1 – Map colour key

Colour	Key
	J1.2 – Amenity grassland
	Open mosaic habitat
	J1.4 – Introduced shrub
	J2.2 – Defunct hedge
	G2 – Running water and direction of travel
	G1 – Standing water
	Deciduous tree*
	Coniferous tree*

* Represents only presence of trees and not the number of trees.

Table 2 – Target note information

Target Note	Details
TN1	Clase Farm car park – Includes north, west, south and east verges as well as the trees located in the car park itself. An ecological survey was conducted here in 2013 with an abundance index of 81.
TN2	Conifers – These conifers surround a gas system with an entrance gate. Situated to the west of Clase Farm car park and adjacent to houses on Clasemont road. The area is mown rigorously on its outskirts.
TN3	North Verge – This area acts as an additional boundary with the fence. There is a mix of plants, shrubs and trees with an area of mown grass on its edges.
TN4	Land on the Car Sharers car park's North/East boundary – This area of mown grass has a few deciduous trees located in it with a seating area on the adjoining path.
TN5	Car Sharers car park – This car park contains gravel dividers which can be improved, especially as other dividers in the car park contain shrubs and trees.
TN6	South road – This includes the trees that line both sides along South road. There is a potential to create the same results here as is seen down Clase Farm car park, especially along the fence boundary on the southern side of South road.
TNF1	Tŷ Felin pond – This area includes the pond, its feeding stream and its banks*. This area is the most bio-diverse in all of DVLA's sites and has the potential to increase its biodiversity with the introduction of refugia and maintenance.
TNF2	Tŷ Felin boundary – The boundary along Tŷ Felin has generally been left to grow. This has allowed the site to develop naturally which has provided a mosaic of habitats including tall grass, wetland and trees.

*Banks = from the ponds summer water level to 2 feet from the top of the banks where it levels out

Appendix 2 – Adhering to the relevant legal requirements and target notes

Table 3 – Objectives and relevant legal requirements

Objective	Relevant legal requirement (As per section 3)
6.1 – Staff Engagement	3b, 3d, 3e, 3f
6.2 – Create a baseline	3b, 3d
6.3 – Maintain and enhance	3a, 3b
6.4 - Eradicate invasive non-native species and the use of herbicides/pesticides	3c
6.5 – Holistic approach	3a, 3b, 3d, 3e, 3f
6.6 – Climate change and development preparation	3d, 3e, 3f

Table 4 – Objectives and Target Notes

Objective	Target notes		
	Morriston		TŷFelin
6.1 – Staff engagement	Group	N/A	N/A
	Blog	N/A	N/A
6.2 – Create a baseline	Whole site		Whole site
6.3 – Maintain and enhance	Refugia	TN1	TNF1
	Gravel dividers/ pond maintenance	TN5	TNF1
	Mowing	TN1, TN2, TN3, TN4, TN6	TNF1, TNF2
6.4 - Eradicate invasive non-native species and the use of herbicides/ pesticides	Whole site		Whole site
6.5 – Holistic approach	EIA/EcIA	Whole site	Whole site
6.6 – Climate change and development preparation	Framework	Whole site	Whole site

Table 5 – Update of completion from previous BAP

Principle Number	Action Number	Action	Target date for completion	
PN 3,4	1	Increase the bird population on site		
	a	Bird counts	30-Jun-13	Ongoing
	b	Bird boxes in line with no maintenance guidelines	01-Jun-13	Complete
	c	Bird tables around seating areas with suitable bird feeders	01-Jun-13	Ongoing
PN 1,2,3,4	2	Increase trees and shrubs on site		
	a	Specific areas need to be agreed such as for example- Clase Farm car park, house side	30-Apr-13	Complete
PN 2,3	3	Improve the native plant species on site		
	a	Change the Species planting list within the PFI/ the landscaping contract.	30-Apr-13	Complete
	b	Agree whether there are any areas we need to address immediately	See action 2a	Complete
PN 6,7	4	Better align landscaping activities with best practice guidelines for improving biodiversity.		
	a	Change the grass cutting regime on specific areas of the estate.		Complete
	i	Agree the areas for changing the regime	30-Apr-13	Complete
	b	Draw up standards required and guidance	30-Apr-13	Complete
PN - ALL	5	Understand and resolve any NERC Breaches		
	a	Understand breaches which are documented in the full BDAP report	Quarterly	N/A
	b	Agree a plan to address these breaches	Quarterly	N/A
PN 4	6	Improve staff engagement with the site and the biodiversity and in turn support the Health and Wellbeing team in achieving their objectives		
	a	Improve the communication of the ecological interest of the site	30-May-13	Ongoing
	i	Put interpretation signs up	30-Jun-13	Ongoing
	ii	Create a communications plans	30-Apr-13	Ongoing
	b	Create a network of interested volunteers to help deliver on some of the previous actions and develop more actions for the future.	30-May-13	Ongoing
PN - ALL	7	Monitor progress and improvements		
	a	Agree the set of baselines required	N/A	Complete
	b	Agree the targeted improvements		Complete
	i	Improve the diversity and variety of planting on site -	30-Apr-13	Ongoing
	ii	Increase the number and variety of birds on site -	30-Apr-13	Ongoing
	iii	Increase the awareness of the biodiversity of the site with staff -	See action 6.a.ii	Ongoing

Appendix 3 – Suggested timetable

Objective	Action	Date											
		M	A	M	J	J	A	S	O	N	D	J	F
6.1 – Staff engagement	Establish group	X											
	Establish blog		X										
6.2 – Create a baseline	Survey for baseline	X	X	X	X	X	X	X					
6.3 – Maintain and enhance	Create refugia		X										
	Discuss gravel dividers/pond maintenance		X										
	Establish new mowing Regime Areas			X									
	Establish Monitoring regime			X									
	Assess and provide hedgehog homes				X								
6.4 - Eradicate invasive non-native species and the use of herbicides/pesticides	Survey for non-native invasive species						X						
6.5 – Holistic approach	Incorporate EIA/EcIA in to policy								X				
6.6 – Climate change and development preparation	Begin/asses establishing framework/												
	BS 8583			X									
Cont. – Timetable	Update for 2016/17												X

Appendix 4 - Further reading

Trees or turf?

Trees or turf? (Woodland Trust, 2011) was a landmark study from the Woodland Trust that demonstrated how cost effective moving to woodland-based areas can be for some owners. Trees or turf provides objective comparisons of the costs of maintaining grassland with that of various types of woodland. Its findings demonstrate that, in addition to the potential budget savings, trees and woodland provide a wide range of key benefits for quality of life in urban and suburban areas.

Comparing costs

Nine regimes were chosen applicable to urban or suburban areas; five mowing treatments and four woodland types, based on a one hectare site with a path running through the middle, simulating accessible open space. Maintenance costs were broken down into three successive phases:

- Years 1-4: Establishment phase
- Years 5-9: Post establishment phase
- Years 10-50: Long term management phase

The results of the study revealed that:

- Naturally colonising woodland and pioneer style woodland can be considerably cheaper to maintain than all types of grassland.
- Maintenance costs of managing woodland in managed green spaces are more expensive during the establishment phase than informal woodland but are still less than the maintenance of amenity grassland.
- Complex mixed woodland planting is the most expensive of the woodland types to establish but costs are still less than the cost of maintaining amenity grassland. However, the long term cost of managing complex woodland does rise above those for amenity grassland. Careful consideration of tree species and their siting can mean that the benefits of woodland in the urban environment are far reaching, with potential budget savings representing just one of many motives for establishing trees. Benefits of urban tree cover include:
- ·Trees and urban greenspace improve the environment and encourages healthy lifestyles, improving public health.

- Shelter from trees can reduce energy costs – research suggests a per tree saving in carbon emissions as a result of reduced building energy use of around 10-11kg per year.
- Well designed tree planting can improve air quality, removing particulates, nitrogen dioxide and ozone.

Grass mowing regimes

Grasslands are a habitat created by traditions of farming, the grassland plants being promoted to provide food to support animals that will be milked or slaughtered for meat and, in the past, horses and cattle that were kept to pull ploughs, carry goods and people. Thus grasslands were managed so as to maximise their utilitarian value for these purposes, usually by a combination of grazing and, on accessible sites, cutting for hay. The majority of wild flowers that are characteristic to our richest wild meadows are perennial species that are adapted to certain levels of grazing and seasonal cutting. Whereas some grazing is considered important to maintain the wild-plant diversity of species-rich grasslands, this may not be possible for small areas such as those in gardens or in urban greenspace. In this case, mowing can be used as an alternative method. However, mowing will be needed at least two, possibly three times in a year. The following are guidelines for typical 'urban' meadows. Cutting in early spring may be inappropriate on very wet sites. For sites that are usually gang mown but hold populations of 'special' plants, all that may be necessary could be to stop mowing for 4 weeks, providing a window for flowering and, if appropriate setting seed (although this isn't usually vital for perennial species).

Summer meadow – cutting schedule

This approach mimics that of hay meadow management. The early-spring cut is sufficiently early that it will not prevent cowslips from flowering. To establish and maintain Yellow Rattle it is vital that the grass is short at both the beginning and end of the growing season.

Late September: Cut, leaving the cuttings.

Management thereafter will depend on the site and circumstances. In some cases, the grassland will be incorporated into the wider cutting regime used for adjacent open space. Some wild plants will actually disappear if the cutting isn't intensive enough once they have flowered. Meadow Saxifrage, for instance, is a plant of pastures rather than hay meadows. It flowers in early May and spreads by vegetative propagation. Its leaves also hug the ground. If the grass is allowed to grow too high in June and July, the Meadow Saxifrage will decline in quantity. For this species it is particularly important to cut and remove the grass in mid-June and thereafter keep the grass cut quite short. Under such management this species will continue to flourish.

Appendix 5 – Good practice guides

This is a list of useful references and good practice guides on the creation of habitats and enhancements for species.

Reference		
Land Use Consultants in association with Wardell Armstrong (1996) Reclamation of Damaged Land for Nature Conservation. HMSO Department of the Environment	Species-rich grassland, standing open water, wet woodland, trees & scrub, rivers, reedbed, ponds, bats, invertebrates, amphibians, reptiles	Handbook including fact sheets providing technical information on planning and reclamation for nature conservation, including specific techniques associated with nature conservation evaluation and habitat creation, including case studies.
Hill MO, Mountford JO, Ry DB and Bunce RGH (1999) Ellenberg's indicator values for British plants – ECOFACT Volume 2 Technical Annex. ITE/DETR	All habitats	Provides indicators for British plant species tolerance of light, moisture, reaction (soil or water pH), nitrogen (soil fertility) and salt.
White G, Gilbert J, Benstead P, Fasham M & Jose P (2003) Habitat Creation Handbook for the Minerals Industry. RSPB	Species-rich grassland, trees & scrub, wet woodland, standing open water, reedbed, rivers, ponds, bats, water voles, otters, reptiles, amphibians, invertebrates.	Provides useful guidance on techniques for creating and managing BAP habitats, with case studies (applicable for all industries, although targeted at the minerals industry).
Parker DM (1995) Habitat creation – a critical guide. English Nature.	Species-rich grassland, Trees & scrub, wet woodland,	Detailed guidance on habitat creation and management with case studies.
Merritt A (1994) Wetlands, Industry and Wildlife: A Manual of Principles and Practices. The Wildfowl and Wetlands Trust	Wet woodland, standing open water, rivers, ponds, reedbed, amphibians, wetland birds, water voles, otters	Useful guidance on wetland habitat creation and management
Gilbert, OL & Anderson, P (2004) Habitat Creation and Repair. Oxford University Press	Species-rich grassland, trees & scrub, standing open water, reedbed,	Detailed guidance on habitat creation and repair.
Gent, T & Gibson S (1998) Herpetofauna Workers' Manual. JNCC	Amphibians, reptiles	Includes guidance on habitat creation and management for amphibians and reptiles

Ferris, R & Carter, C (2000) Managing Rides, roadsides and Edge Habitats in Lowland Forests. Forestry Commision	Woodland, trees & scrub, invertebrates, birds, reptiles, amphibians	Includes guidance on design and management of edge habitats
Dryden, R (1997) Habitat Restoration Project: Fact Sheets and Bibliographies. English Nature Research Reports (Number 260)	Woodland, species-rich grassland, wetlands	General guidance on habitat creation, sources of further information and case studies
LIFE Project (1998) Reedbed Construction Guidelines for Environmental Improvement Applications 3rd Edition. LIFE	Reedbed	Guidance on reedbed design, planting and management.
Flora Locale Website http://www.floralocale.org/	All habitats	Factsheets and guidance on habitat creation and use of native species.
Froglife http://www.froglife.org/advice.htm	Amphibians and Reptiles	Advice sheets and guidance on habitat creation and enhancements for amphibians and reptiles
Highways Agency Design Manual for Roads and Bridges Volume 10, Section 4	Bats, Otters, Amphibians, Reptiles	Includes advice on habitat creation for bats, otters, amphibians, reptiles.
Natural England http://www.naturalengland.org.uk/	All Habitats and Species	Guidance, reports and general information on habitats and species
Kirby, P. (2001). Habitat Management for Invertebrates: a practical handbook. RSPB, Sandy.	Invertebrates	Guidance on habitat requirements and management for invertebrates
Strachan, R & Moorhouse, T (2006). Water Vole Conservation Handbook. Second Edition	Water Voles	Guidance on habitat creation and management for water voles

Appendix 6 - Plants for Urban, Domestic and Landscaping Planting Areas

Use where a semi-natural habitat is to be created. Use the lists below to select the species most suitable.

Locations	Common name	Scientific name	A native species?	Flowering date	Well drained/ light	Clay/heavy	Acidic
Bed planting	Hollyhock	Alcea rosea		6-8	*		
Bed planting	Chives	Allium schoenoprasum	yes	6-7	*		
Bed planting	Aquilegia	Aquilegia vulgaris	yes	6-7	*	*	
Bed planting	Bellflowers	Campanula spp		7-8	*		
Bed planting	Creeping blue blossom	Ceanothus thyrsiflorus var. repens		5-8	*	*	
Bed planting	Common knapweed	Centaurea nigra	yes	8-9	*	*	
Bed planting	Rock rose	Cistus		6-8	*		
Bed planting	Crocus	Crocus spp.		4-5	*		*
Bed planting	Delphinium	Delphinium spp.		6-8	*		
Bed planting	Teasel	Dipsacus fullonum	yes	7-8	*	*	*
Bed planting	Viper's bugloss	Echium vulgare	yes	6-9	*		
Bed planting	Sea Holly	Eryngium maritimum	yes	7-8	*	*	
Bed planting	Everlasting wallflower	Erysimum spp.		6-8	*		
Bed planting	Escallonia	Escallonia 'Donard Beauty' or 'Apple Blossom'		6-8	*		
Bed planting	Meadowsweet	Filipendula ulmaria	yes	6-9	*		
Bed planting	Fuchsia	Fuchsia spp.		6-8	*		
Bed planting	Snowdrops	Galanthus ikariae	yes	2-3	*	*	*
Bed planting	Crane's-bills	Geranium spp.		6-7	*	*	

Bed planting	Water avens	Geum rivale	yes	5-9		*	*
Bed planting	Rock roses	Helianthemum spp		5-9	*	*	
Bed planting	Sunflower	Helianthus annuus		6-8	*	*	
Bed planting	Dead-nettles	Lamium spp.		5-9	*	*	*
Bed planting	Everlasting pea	Lathyrus spp.		5-9	*	*	*
Bed planting	Lavender	Lavandula angustifolia var. 'Munstead',		6-8	*		
Bed planting	Drooping laurel	Leucothoe fontanesiana		6-7	*		*
Bed planting	Catmint	Nepeta 'Six hills giant'		7-9	*		
Bed planting	Marjoram	Origanum vulgare	yes	7-9	*		
Bed planting	Lacy phacelia	Phacelia tanacetifolia		5-9	*		
Bed planting	Shrubby cinquefoil	Potentilla 'Abbotswood', beesii, fruticosa,		6-8	*		
Bed planting	Lungwort	Pulmonaria officinalis	yes	4-5	*	*	
Bed planting	Flowering currant	Ribes sanguineum	yes	4-5	*		
Bed planting	Rosemary	Rosmarinus officinalis	yes	6-8	*		
Bed planting	Wild raspberry	Rubus idaeus	yes	6-8	*		*
Bed planting	Sage	Salvia officinalis var. purpurascens		6-8	*		
Bed planting	Scabiouses	Scabiosa/Succisa/Knautia		7-9	*		
Bed planting	Comfrey	Symphytum officinale	yes	5-6	*		
Bed planting	Thyme	Thymus spp,		5-8	*		
Bed planting	Periwinkle	Vinca major		4-5	*	*	
Shrub	Berberis	Berberis darwinii		5-6	*	*	
Shrub	Buddleja	Buddleja spp: non-invasive species only NOT davidii!		7-9	*	*	
Shrub	Heathers	Calluna spp., Erica spp.	yes	7-9	*		*

Shrub	Broom	Cytisus scoparius	yes	5-6	*		
Shrub	Spindle	Euonymus europaeus	yes	5-6	*		
Shrub	White Gem Hebe	Hebe brachysiphon (other spp. potentially invasive)		7-9	*	*	*
Shrub	Oregon-grapes	Mahonia spp		5-6	*		*
Shrub	japanese wineberry	Rubus phoenicolasius		5-7	*		
Shrub	Spiraea	Spirea japonica 'Golden Princess'		6-8	*	*	
Shrub	Gorse	Ulex europaeus	yes	3-8	*		*
Shrub	Guelder rose	Viburnum opulus	yes	6-7	*		
Tree and scrub	Field maple	Acer campestre	yes	5-6	*	*	*
Tree and scrub	Hawthorn	Crataegus monogyna	yes	5-6	*	*	*
Tree and scrub	Honeysuckle	Lonicera periclymenum (and other non-invasive species)	yes	5-6	*		*
Tree and scrub	Crab apple	Malus sylvestris	yes	5	*		*
Tree and scrub	Blackthon	Prunus spinosa	yes	4-5	*		
Tree and scrub	Ornamental cherries	Prunus spp avoiding complex blooms and NOT Portugal Laurel Prunus lusitanica		4-5	*		
Tree and scrub	Willows and sallows	Salix spp. – native varieties	yes	3-4	*	*	
Tree and scrub	Elder	Sambucus nigra	yes	6-7	*		
Tree and scrub	Rowan	Sorbus aucuparia	yes	5-6	*	*	*

Appendix 6 - Plants for Urban, Domestic and Landscaping Planting Areas

Use where a semi-natural habitat is to be created. Use the lists below to select the species most suitable.

Base Mix - Grasses		Flowering months	Neutral soils	Damp soils	Acidic soils	Sandy soils
Common bent	Agrostis Capillaris	n/a	*	*	*	*
Sweet vernal grass	Anthoxanthum odoratum	n/a	*	*	*	
Crested dog's-tail	Cynosurus cristatus	n/a	*	*	*	*
Red fescue	Festuca rubra	n/a	*	*	*	*
Flower species						
Yarrow	Achillea millefolium	6-8		*		*
Sneezewort	Achillea ptarmica	7-8		*		
Bugle	Ajuga reptans	4-6	*			
Wild Angelica	Angelica sylvestris	6-8		*		
Betony	Betonica officinalis	6-9		*		
Ling	Calluna vulgaris	7-8			*	
Common knapweed	Centaurea nigra	8-9	*	*	*	*
Greater Knapweed	Centaurea scabiosa	6-8				
Wild Basil	Clinopodium vulgare	7-9				
Wild Carrot	Daucus carota	6-8				*
Foxglove	Digitalis purpurea	6-8	*			
Viper's Bugloss	Echium vulgare	6-9				*
Heathers	Erica spp.	7-8			*	
Eyebright	Euphrasia spp.	7-8	*		*	
Meadowsweet	Filipendula ulmaria	6-9		*		

Dropwort	Filipendula vulgaris	5-8				
Lady's Bedstraw	Galium verum	7-8		*		*
Cat's-ear	Hypochaeris radicata	6-9	*		*	
Yellow flag iris	Iris pseudocorus	5-7		*		
Field scabious	Knautia arvensis	7-9	*	*	*	
Meadow vetchling	Lathyrus pratensis	5-8	*	*	*	
Autumn hawkbit	Leontodon autumnalis	6-10	*		*	
Rough hawkbit	Leontodon hispidus	6-9	*		*	
Ox-eye daisy	Leucanthemum vulgare	5-9	*	*		*
Common Toadflax	Linaria vulgaris	7-10				*
Bird's foot trefoil	Lotus corniculatus	6-9	*	*		*
Ragged Robin	Lychnis flos-cuculi	5-8		*		
Purple loosestrife	Lythrum salicaria	6-7		*		
Musk Mallow	Malva moschata	7-8				*
Water Mint	Mentha aquatica	7-10		*		
Red Bartsia	Odontites vernus	5-9	*		*	
Restharrow	Ononis repens	5-9	*			*
Marjoram	Origanum vulgare	7-9				
Burnet-saxifrage	Pimpinella saxifraga	7-8		*		
Trailing Tormentil	Potentilla anglica	6-9			*	
Tormentil	Potentilla erecta	6-9			*	
Salad Burnet	Poterium sanguisorba	5-8				
Cowslip	Primula veris	3-6	*	*		*
Primrose	Primula vulgaris	3-6	*			
Selfheal	Prunella vulgaris	6-9	*	*		*

Meadow buttercup	Ranunculus acris	5-8	*	*	*	*
Bulbous Buttercup	Ranunculus bulbosus	4-6				*
Wild Mignonette	Reseda lutea	6-9				
Yellow rattle	Rhinanthus minor	5-8	*	*		
Small Scabious	Scabiosa columbaria	7-9				
Red Campion	Silene dioica	3-10	*			
Bladder Campion	Silene vulgaris	6-8				*
Betony	Stachys officinalis	6-9	*		*	
Hedge Woundwort	Stachys sylvatica	7-9	*			
Devil's-bit scabious	Succisa pratensis	6-10	*	*	*	
Wild Red Clover	Trifolium pratense	5-9	*	*		
White clover	Trifolium repens	6-9	*			
Bilberry	Vaccinium myrtillus	4-6			*	
Tufted vetch	Vicia cracca	6-8	*			

Annex 8 – The Do not use list

This is a list of species that are invasive in nature and should never be used in planting schemes

Leek, Few-flowered	Allium paradoxum	Schedule 9 of the Wildlife & Countryside Act
Garlic, Three-cornered	Allium triquetrum	Schedule 9 of the Wildlife & Countryside Act
Buddleia	Buddleia davidii	Potentially invasive
Cotoneaster, Small-leaved	Cotneaster microphyllus	Schedule 9 of the Wildlife & Countryside Act
Cotoneaster, Hollyberry	Cotoneaster bullatus	Schedule 9 of the Wildlife & Countryside Act
Cotoneaster	Cotoneaster horizontalis	Schedule 9 of the Wildlife & Countryside Act
Cotoneaster, Entire-leaved	Cotoneaster integrifolius	Schedule 9 of the Wildlife & Countryside Act
Cotoneaster, Himalayan	Cotoneaster simonsii	Schedule 9 of the Wildlife & Countryside Act
Montbretia	Crocosmia x crocosmiiflora	Schedule 9 of the Wildlife & Countryside Act
Knotweed, Japanese	Fallopia japonica	Schedule 9 of the Wildlife & Countryside Act
Knotweed, Hybrid	Fallopia japonica x Fallopia sachalinensis	Schedule 9 of the Wildlife & Countryside Act
Knotweed, Giant	Fallopia sachalinensis	Schedule 9 of the Wildlife & Countryside Act
Rhubarb, Giant	Gunnera tinctoria	Schedule 9 of the Wildlife & Countryside Act
Hogweed, Giant	Heracleum mantegazzianum	Schedule 9 of the Wildlife & Countryside Act
Himalayan Balsam	Impatiens glandulifera	Schedule 9 of the Wildlife & Countryside Act
Archangel, Variegated Yellow	Lamiastrum galeobdolon subsp. argentatum	Schedule 9 of the Wildlife & Countryside Act
Creeper, False Virginia	Parthenocissus inserta	Schedule 9 of the Wildlife & Countryside Act
Creeper, Virginia	Parthenocissus quinquefolia	Schedule 9 of the Wildlife & Countryside Act
Portugal Laurel	Prunus lusitanica	Potentially invasive
Azalea, Yellow	Rhododendron luteum	Schedule 9 of the Wildlife & Countryside Act
Rhododendrum	Rhododendron ponticum	Schedule 9 of the Wildlife & Countryside Act
Rhododendron	Rhododendron ponticum x Rhododendron maximum	Schedule 9 of the Wildlife & Countryside Act

Rose, Japanese	Rosa rugosa	Schedule 9 of the Wildlife & Countryside Act
Salvinia, Giant	Salvinia molesta	Schedule 9 of the Wildlife & Countryside Act
Alexanders, Perfoliate	Smyrnium perfoliatum	Schedule 9 of the Wildlife & Countryside Act
Hebe	Species other than brachysiphon or dieffenbachia	Potentially invasive

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