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| **Biodiversity Policy Procedures**  |

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|  **Author** | Lecturer in Geography and Environmental Management |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 1.1:** Invasive plants |

1. **Introduction and Purpose**

Invasive plants are a major cause of biodiversity extinction and can cause physical damage to buildings and hard surfaces. If invasive plants are left un-controlled they may need excessive control costs, and if they are allowed to spread on to neighbouring land could result in prosecution and compensation claims. There are 96 established non-native plants that are invasive, but the most widespread are:

* Japanese knotweed (see procedure 1.2)
* Giant hogweed (see procedure 1.3)
* Himalayan balsam (see procedure 1.4)
1. **Legal Requirements**

It is not a legal offence to have invasive plants growing on site, and there is no legal requirement to remove or treat them. However, it is a legal offence to (1) intentionally plant invasive plants; (2) allow or encourage them to grow in the wild, spread on to neighbouring land, or cause nuisance (intentionally or by negligence); and (3) incorrectly handle or transport off site contaminated materials (plants and soils).

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Compliance**

If left untreated invasive plants will continue spreading. So, this procedure must be followed when invasive plants on site are identified. This procedure will be a requirement for contractors working on campus.

First, once an invasive plant has been identified on campus a fence must be placed around it. Second, appropriate posters and signs must be placed in grounds maintenance offices to inform grounds staff of the relevant procedures. Third, where appropriate, signs must be placed around the fence to inform the users of the space. Fourth, the appropriate control method must be decided. Fifth, depending on the control method ensure compliance with relevant legislation on using pesticides on, cutting, burning, burying and disposing of invasive plants (see procedures listed below). The treatment of invasive plants may need to involve any or a combination of methods such as:

* Herbicides (see procedure 1.5)
* Digging up (see procedure 1.6)
* Cutting and burning (see procedure 1.7)
* Burying (see procedure 1.8)
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

For information on alert and invasive species, see the Non-native Species Secretariat website (NNSS)

See Biodiversity Reference Document (Sections 1.1, 1.2 and 1.3)

1. **Effects and Action of Non-Conformance and How to Report Incidents**

There is no requirement to report to the Environment Agency or to English Nature if invasive plants are found on site. However, five invasive species (called alert species) should be recorded on the Non-native Species Secretariat website. Alert species are listed in the Biodiversity Reference Document (Sections 1.3).

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
| Clarified that the NNSS website includes alert invasive species (i.e. need reporting) |
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|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 1.2**: Japanese knotweed |

1. **Introduction and Purpose**

Japanese knotweed spreads by broken off pieces and/ or rhizomes. Rhizomes are underground stems that look like roots. Plant pieces and rhizomes can be easily transported off site through running water, moving soil containing them, fly-tipping, or by being caught on footwear, clothing, vehicles and machinery.

1. **Legal Requirements**

Individual plants can have underground rhizome networks up to several square meters. Moreover, herbicides may kill the plant over ground but the rhizome network may still be alive and dormant underground. Soil disturbance can make a dormant rhizome network to grow again even if many years have passed. Therefore, it is essential to eradicate the whole plant effectively and safely at the earliest stage.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Action to Ensure Compliance**

The procedure must be followed every time a Japanese knotweed plant is identified on campus. This procedure will be a requirement for contractors working on campus.

First, when handling Japanese knotweed special attention must be taken to avoid or minimise (a) excavating soil that contains plant material, (b) stockpiling plant and soil materials, and (c) contaminating clean soil. Second, the following must be avoided all times: (a) using a strimmer in contaminated areas, (b) composting Japanese knotweed material, and (c) putting cut plant materials in contact with the ground (i.e. use membranes to prevent ground contact and wind blows). Third, tracked vehicles must not enter, but if they do they must be pressure-washed before leaving, the contaminated area. Fourth, all cut stems must be removed from cleared areas and disposed accordingly (see below). Fifth, treated soil can be reused on same site but cannot be moved to other sites (except land fill). Finally, note that clearing the leaves and stems of Japanese knotweed that are above ground and then removing soil contaminated with roots, rhizomes and seeds can provide faster and more effective results than herbicides.

**Herbicides**

* To kill the plant the extensive underground rhizome network must be killed
* A minimum three year herbicide treatment may be required to renter a plant dormant
* Use herbicides that kill the over ground plant and the rhizome (e.g. Glyphosate)
* Apply herbicides in late summer from flowering onwards

**Digging up**

* The rhizome network for a plant can extend over 4 meters depth and 7 square meters area
* Digging up must cover the whole of the affected area and depth
* Cleared areas must be checked regularly for any signs of the plant growing back
* Early re-growth could be treated by herbicides

**Cutting**

* Cutting can be used alongside other control measures
* Continuous cutting will weaken the plant eventually, but the rhizome will not be affected
* Cut material must be handled and disposed of accordingly (see below on burning and burying)
* Cut stems may be left out to dry in the sun, but need covering to avoid soil contact

**Burning**

* Burning may not kill the plant
* Burned material should be placed on a membrane and checked for re-growth
* Open air fires may require an environmental permit or a waste exemption

**Burying**

* Rhizomes may survive buried for over 20 years
* Material may need burying at least 5 meters below ground and covered with membrane on top
* The hole on top of the membrane must be filled with clean soil
* See the Japanese knotweed code of practice for burying in less depth (on development sites)
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

Identifying Japanese knotweed rhizomes is essential for its management and control.

See Biodiversity Reference Document (Section 1.1).

See Biodiversity procedures 1.5, 1.6, 1.7 and 1.8.

For development sites follow the Japanese knotweed code of practice.

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

See procedure 1.1

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
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| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 1.3**: Giant hogweed |

1. **Introduction and Purpose**

Giant hogweed develops large, umbrella-like flowers, each of which can produce up to 50,000 seeds. Seeds fall within 4 metres of the parent plant and are also transported further afield by running water, moving soil containing them, or by being caught on footwear, clothing, vehicles or machinery.

1. **Legal Requirements**

Even if parent plants are eliminated, seeds in the soil may remain dormant for up to 15 years. This means that control programmes may need to last several years to ensure that plants do not re-grow. Therefore, it is essential to prevent seeds spreading effectively and safely.

The sap of Giant hogweed is **poisonous** (the older the plant, the more poisonous it is). Sap is released when the plant is cut, but it is also present on stinging hairs on the stem and on the leaves. So, even brushing against plants can lead to contact with the sap. Contact with the sap may lead to skin developing blisters and sensitivity to sunlight. Symptoms may be painful, they will eventually go away but they could re-occur for several years.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Compliance**

The procedure must be followed every time a Giant hogweed plant is identified on campus. This procedure will be a requirement for contractors working on campus.

First, in terms of **health and safety**, land owners must put measures in place to protect staff and the public from coming into contact with the sap (the skin or eyes). Second, full protective clothing must be worn by people handling the plant (i.e. gloves, hood and a full-face visor). Third, the protective clothing must be washed before taking it off. Fourth, if sap contacts the skin, the affected skin area must be covered from the sun immediately, and the person must go indoors and wash with soap and a lot of running water.

First, in terms of **control**, Giant hogweed must be treated before it comes into seed. Second, a strimmer must never be used on Giant hogweed. Third, clearing the leaves and stems of Giant hogweed that are above ground and then removing soil contaminated with roots and seeds can provide faster results than herbicides. Finally note that dense grass swards sown with variety of grass mixes can prevent Giant hogweed seeds germinating.

**Herbicides**

* Seeds can lay dormant and germinate 15 years after they were produced
* Herbicide treatments may last for years, and need checking for re-growth each growing season
* Treat plants up-stream on riversides to ensure that seeds are not transported down stream
* Glyphosate can be effective against Giant hogweed
* Apply herbicides in April or May before the plants start to flower

**Digging up**

* The area around the plant that will need removing may be up to 4 metres and 0.5 meters deep
* Cleared areas will need checking for re-growth regularly
* Re-growth should be treated with Glyphosate as early as possible and before flowering

**Cutting**

* Cutting Giant hogweed plants before flowering is an effective measure
* Eradicating by cutting may take many years
* The sap in cut material remains toxic
* Never leave cut material where it could come in contact with people of livestock

**Burning**

* Open air fires may require an environmental permit or registered waste exemption

**Burying**

* Seeds can be viable and able to germinate for up to 15 years
* Buried material needs several years to ensure that plants do not grow back
* Material may need burying at least 1 meter below ground and covered with membrane on top
* The hole on top of the membrane must be filled with clean soil
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

Identifying Giant hogweed plants before flowering is essential for its management and control.

See Biodiversity Reference Document (Section 1.1).

See Biodiversity procedures 1.5, 1.6, 1.7 and 1.8.

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

See procedure 1.1

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
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| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 1.4**: Himalayan balsam |

1. **Introduction and Purpose**

Himalayan balsam spreads by seeds that are produced in seedpods. Each flower can produce up to 2,500 seeds. Seeds fall within 7 metres of the parent plant and are also transported further afield by running water, moving soil containing them, and footwear, clothing, vehicles or machinery.

1. **Legal Requirements**

Even if parent plants are eliminated seeds in the soil may remain dormant for several years. This means that control programmes may need to last at least two years to ensure that plants do not re-grow. Therefore, it is essential to prevent seeds spreading effectively and safely at the earliest stage.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

The procedure must be followed every time a Himalayan balsam plant is identified on campus. This procedure will be a requirement for contractors working on campus.

First, Himalayan balsam must be controlled before it comes into seed (i.e. in early summer).

Second, non-chemical methods may be the most appropriate for controlling Himalayan balsam. Third, consider chemical methods only after non-chemical have not succeeded. Fourth, the preferred option for controlling Himalayan balsam is trimming or hand puling. Fifth, annual cutting, mowing, grazing or spring herbicide treatment can also be effective.

**Herbicides**

* Herbicide treatments may last for several years, and need checking for re-growth each season
* Treat plants up-stream on riversides to ensure that seeds are not transported down stream
* Glyphosate can be effective against Himalayan balsam
* Apply herbicides in April or May before the plants start to flower

**Digging up**

* The area around the plant that will need removing may be up to 6 metres and 0.5 meters deep
* Never remove soil if seedpods are present
* Cleared areas will need checking for re-growth regularly
* Strim or pull by hand any re-growth before the plants flower
* Treatment may take several years to eradicate the plants (because seeds are viable)

**Cutting**

* Puling by hand before the plants flower is the most effective control measure
* Never cut the plants before flowering (this is pruning and will result in bushier plants)
* Cut in late May
* Cut the plant below the first nodule
* Cut stems may be left out to dry in the sun, but need covered by membrane to avoid soil contact

**Burning**

* Open air fires may require an environmental permit or registered waste exemption

**Burying**

* Seeds can be viable and able to germinate for several years
* Buried material needs several years to ensure that plants do not grow back
* Material may need burying at least 1 meter below ground and covered with membrane on top
* The hole on top of the membrane must be filled with clean soil
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

Identifying Himalayan balsam plants before flowering is essential for its management and control.

See Biodiversity Reference Document (Section 1.1).

See Biodiversity procedures 1.5, 1.6, 1.7 and 1.8.

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

See procedure 1.1

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
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|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 1.5:** Control of invasive plants with herbicides |

1. **Introduction and Purpose**

Herbicides are chemicals that can cause harm to human health and to the environment. Herbicide treatment of invasive plants is common and can be effective. However, chemical treatment of invasive plants often needs many re-applications. This increases the risk of overuse and/ or misuse of herbicides with potential negative consequences for human health and for non-target species.

1. **Legal Requirements**

Staff using herbicides must hold a certificate of technical competence and must comply with all of the conditions on the product label. If they do not hold a certificate they must work under the direct supervision of a certificate holder. Moreover, the appropriate aquatic part of the qualification is required for using pesticides in or near water. Technical competence and compliance with product label will ensure minimising the risk to own health and to the environment.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed every time herbicides are used on campus to control invasive plants. As best practice it could also be followed when herbicides are used generally on campus. This procedure will be a requirement for contractors working on campus.

First, an appropriate type of herbicides needs to be identified for the particular invasive plant that needs controlling (see below about BASIS). Second, a Control of Substances Hazardous to Health (COSHH) assessment for using any pesticide needs to be completed. Third, staff using pesticides must be certified, comply with the product label and wear appropriate protective equipment. Fourth, people using pesticides must be aware of the code of practice for plant protection products (Health & Safety Executive). Fifth, particular attention is required when (a) herbicides are used in or near water courses and (b) disposing pesticide wastes.

**In or near water**

* Herbicide treatment should not be the first option for plants in or near water
* Environment Agency approval is needed for using herbicides in or near water bodies
* To gain approval complete the herbicide form AqHerb01 and send it to the Environment Agency
* Some formulations of Glyphosate and 2.4-D amine can be used in or near water

**Disposal of herbicide wastes**

* Pesticide wastes are likely to be classed hazardous
* Pesticide wastes must be stored, transported and disposed of safely
* Pesticide wastes must be kept separate from other waste
* Some herbicide waste containers must be rinsed (check product labels)
* Some herbicide waste containers must be handled as herbicides (check product labels)
* Water used for rinsing is classed as dilute pesticides or biocides
* An environmental permit, registered waste exemption or trade effluent consent may be required for disposing water used for rinsing
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See BASIS for professional register of qualified advisers on pesticides and fertilisers

See the Non-native Species Secretariat (NNSS) website for species specific examples and information

See the code of practice for plant protection products (Health & Safety Executive).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Environment Agency approval is required for using pesticides in or near water courses and for disposing some herbicide wastes. For using pesticides in or near water courses complete the herbicide form AqHerb01 and send it to the Environment Agency. For disposing herbicide wastes see procedures 1.6, 1.7 and 1.8.

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
| Corrected the information about the BASIS website (i.e. not about pesticides but about advisers).  |
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|   MMU Environmental ManagementSystem |  **Ref** | BD1.6 |
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|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 1.6:** Control of invasive plants by digging up |

1. **Introduction and Purpose**

Digging up the soil can stimulate dormant rhizomes to re-grow, can break up and disperse fragments of plants, rhizomes and seeds, and can bring light to buried seeds allowing them to germinate. So, digging up if done carelessly can help invasive plants spread instead of controlling them.

1. **Legal Requirements**

Keeping to a minimum the amount of soil materials and waste that contains invasive plants, their seeds and rhizomes is the main consideration when digging up. Waste from digging up, where possible, should be treated on site. Only a licensed waste carrier can take material off site and transport it to authorised landfill site. Environment Agency approval is required for digging near a river.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed every time digging up is used on campus to control invasive plants. As best practice it could also be followed when digging up is used generally on campus. This procedure will be a requirement for contractors working on campus.

First, never stockpile contaminated soil or plant material within 10 metres of a watercourse or within 7 metres of the site boundary. Second, do not remove soil from banks of water courses because this can cause water pollution. Third, secure dug up areas from flooding. Fourth, collect any water used for cleaning vehicles working in contaminated areas and do not discharge it untreated into a water course. Fifth, treat the water used for cleaning vehicles by first passing through a settlement tank and then through a very fine mesh sieve. Sixth, speak to the Environment Agency to determine the best option for disposing sieved material.

**Good practice for digging up invasive plants**

* The area that contains invasive plants must be clearly marked and fenced off
* The fence should be at least 7 meters from the invasive plants (to cover soil and roots)
* Ensure that contaminated soil, seeds and plant material are not spread to unaffected areas
* Limit or stop the use of tracked machinery where possible
* Lorries and haulage vehicles carrying contaminated soil or plant material must be covered
* Clean tracked machinery and other vehicles when they leave the contaminated areas
* Have a dedicated cleaning area for machinery and vehicles close to the affected area
* Carry out visual inspections of wheels of vehicles and machinery before leaving the site
* Check for re-growth along roads and in areas where vehicles have been parked or cleaned
* Spray any re-growth with herbicide
* During winter look for dead canes from the previous year to identify infected areas
* Inspect development site for evidence of invasive species before they are cleared
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors. It must also be followed by all other contractors that may be entering dug up areas with invasive plants.

1. **Where to Look for Further Information**

See gov.uk on managing invasive plants

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Environment Agency approval is required for digging near a river (contact the Environment Agency).

Environment Agency advice is required for disposing sieved material from cleaning vehicles that have come in contact with invasive plants (contact the Environment Agency).

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
| Vehicle washing and cleaning (PPG13) guidance was withdrawn and replaced with information on gov.uk website.  |
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|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 1.7:** Control of invasive plants by cutting and burning |

1. **Introduction and Purpose**

Cutting invasive plants and burning the waste material can be an effective and cheap control method and can reduce the volume of waste that needs disposing off site. However, burning must not endanger human health; cause pollution to water, air or soil; pose a risk to plants or animals; cause nuisance (e.g. noise or odour); or adversely affect the countryside or places of special interest.

1. **Legal Requirements**

A D7 exemption needs to be registered with the Environment Agency in order to burn certain waste plant tissue and untreated wood. The D7 exception is given if the plant waste is less than 10 tonnes and can be burned on site within a 24 hour period.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed every time cutting and burning is used on campus to control invasive plants. As best practice it could also be followed when cutting and burning is used generally on campus. This procedure will be a requirement for contractors working on campus.

First, apply to the Environment Agency for a D7 exception to burn plant materials (note: apply for an environmental permit to replace exceptions that were registered before 6 April 2010; or apply for an environmental permit for burning in an incinerator or similar plant). Second, select a site for the burning that will not endanger human health, cause pollution to water or soil, pose a risk to plants or animals, cause nuisance or spread to other areas. Third, ensure that the plant materials when burned will only produce white smoke (i.e. do not mix with other materials of chemicals). Fourth, supervise the burning and ensure the fire is put out at the end. Fifth, inform the local fire brigade before and after the burning.

**Good practice in burning invasive plants**

* Burning plant material should only give rise to white smoke
* Inform the local fire brigade before and again at the end of the burning
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See waste exemption (D7) for burning waste in the open on the Environment Agency website

See guide on Non-hazardous waste: treatment and disposal.

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

The Environment Agency must be notified at least a week before the burning

The local authority environmental health officer must be notified at the same time

Inform the local fire brigade before and again at the end of the burning

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
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|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 1.8:** Control of invasive plants by burying |

1. **Introduction and Purpose**

Moving contaminated soil and plant material off site increases the likelihood of spreading invasive plants. Since plants cannot survive without sunlight burying on site can be an effective control method. However, careless burial of plant material may cause water pollution and land contamination, and may allow invasive plants to re-grow.

1. **Legal Requirements**

Only plant material and soil containing invasive plants that have originated on site can be buried and at depths that are deep enough but not affecting ground water levels. Approval from the Environment Agency is required to ensure that burying on site is allowed. The Environment Agency may need to oversee the burying process.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed every time burying is used on or off campus to control invasive plants. As best practice it could also be followed when burying of invasive plant materials is used generally on campus. This procedure will be a requirement for contractors working on campus.

First, for **burial on site**, apply for approval from the Environment Agency that burying on site is allowed. Second, ensure that deep burial does not interfere with the ground water level. Third, do not bury plant material that has been treated with persistent herbicides (check product label). Fourth, ensure that material for burial has only been treated with Glyphosate herbicide. Fifth, soil contaminated with some persistent herbicides is classed as hazardous and needs special disposal.

First, for **burial off site**, the landowner has a duty of care to ensure that plant waste is stored, handled and disposed safely and legally by licensed individuals or businesses. Second, where possible any invasive plant waste produced should be treated on site. Third, only licensed waste carriers can transport contaminated materials to authorised landfills. Fourth, vehicle must be covered or sheeted so that seeds and plant material cannot be blown away. Fifth, waste transfer notes (WTNs) must be available for any invasive plant material leaving the site.

**Good practice in burying invasive plants on site**

* Material should be buried in an area that is not likely to be disturbed
* Records should be kept of the quantity, the type, location and depth (with a map)
* Put up signs to mark the burial pit
* Keep heavy tracked machinery off the burial pit area
* Do not bury materials deeply within 7 metres of an adjacent landowner’s site

**Good practice in burying invasive plants off site**

* Waste plant material or contaminated soil can only be accepted by sites with an environmental permit that specifically allows disposal of invasive plants at the site
* Landowners must check with the waste site in advance to make sure they can accept material containing invasive plants
* The waste site may need notice so that an area can be prepared for invasive plant waste
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors. Also, it must be follow by waste operators who transfer invasive plant materials off site.

1. **Where to Look for Further Information**

See guide on Hazardous farm waste: treatment and disposal (it applies equally to urban and recreational sites).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Approval from the Environment Agency is required to ensure that burying on site is allowed.

Waste Transfer notes (WTNs) are needed to record all transfers of plant waste between businesses

All WTNs, signed by both businesses, should be kept for at least two years.

Consignment notes should be used to record any transfer of hazardous waste between businesses.

All consignment notes, signed by both businesses, should be kept for at least three years.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD2.1 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 2.1**: Injurious weeds |

1. **Introduction and Purpose**

Injurious weeds are native species and are important for conservation. However, uncontrolled injurious weeds could cause damage to the environment and to crops and live stock in farms. If injurious weeds are allowed to spread on to neighbouring land could result in prosecution and compensation claims. There are five injurious weeds:

* Common ragwort
* Spear thistle
* Creeping or field thistle
* Broad-leaved dock
* Curled dock
1. **Legal Requirements**

It is not an offence to have injurious weeds on site. However, there is a legal obligation on landowners to (1) control injurious weeds on their land; (2) prevent them from spreading on neighbouring land, on agricultural land or areas of special conservation importance; and (3) to prevent injurious weeds from causing nuisance. There is a legal obligation on Natural England to serve enforcement notices to landowners who fail to prevent the spread of injurious weeds.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

If left untreated injurious weeds may spread to adjoining land. So, this procedure must be followed when potential infestations of injurious weeds need controlling. This procedure will be a requirement for contractors working on campus.

First, land owners can choose the most appropriate methods of control for their circumstances. Second, emphasis must be given on good land management aimed at preventing infestation. Follow the procedures for:

* Common ragwort (procedure 2.2)
* Spear thistle (guidance note on controlling injurious weeds)
* Creeping or field thistle (guidance note on controlling injurious weeds)
* Broad-leaved dock (guidance note on controlling injurious weeds)
* Curled dock (guidance note on controlling injurious weeds)
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See guidance note on the methods that can be used to control harmful weeds.

See Biodiversity Reference Document (Section 1.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

There is no legal requirement to report injurious weeds on site. However, for best practice the same records as those kept for invasive plants should be kept when treating injurious weeds infestations.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD2.2 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 2.2**: Common ragwort |

1. **Introduction and Purpose**

Common ragwort is toxic to livestock and can be a serious risk to animal health. Horses, ponies, cattle and sheep are particularly affected due to cumulative liver damage. All parts of the plant are toxic and remain so after they are treated and wilted.

1. **Legal Requirements**

Common ragwort must not be allowed to spread to neighbouring land, agricultural or nature conservation areas or allowed to cause nuisance. Areas with Common ragwort growing at least 100 meters from the site boundary are considered low risk (medium risk if 50-100 meters, and high risk if less than 50 meters, from the site boundary).

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

If left untreated Common ragwort may spread to adjoining land. This procedure must be followed when potential infestation of Common ragwort needs controlling. This procedure will be a requirement for contractors working on campus.

First, keeping grasslands in good condition is central to controlling Common ragwort. Second, check every six months that any ragwort plants are not spreading near the site boundary. Third, check areas of bare and disturbed ground for new ragwort growth. Fourth, avoid moving soil from roadside verges. Fifth, ensure that any plant residues and wastes are kept in sealed containers preventing seed dispersal.

**Must not:**

* Dig, bury or plough ragwort plants in the soil
* Dry ragwort plants in areas that may be accessible to animals
* Allow ragwort decomposing liquids to enter any ditch, drain or watercourse
* Burn wet ragwort
* Transport ragwort unnecessarily or handle it inappropriately

**Treatment**

* Spot-treatment with herbicides on individual the plant rosettes
* Herbicide treatment will not completely eliminate ragwort (seeds keep germinating)
* Herbicides should be applied in late spring and in the autumn (before first frost)
* Avoid using ‘2,4-D’, although most effective it also kills almost everything else
* Prefer products containing citronella oil

**Disposal**

* Ragwort can grow from both seed dispersion and from broken off root sections
* Take precautions to avoid dispersal of roots and of seeds
* Use sealed bags and containers for both live plants and for plant residues
* See guidance on the disposal options for common ragwort
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See guidance on the disposal options for common ragwort.

See guidance note on the methods that can be used to control harmful weeds.

See Biodiversity Reference Document (Section 1.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

See procedure 2.1.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD3.1 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 3.1**: Plant pests and diseases |

1. **Introduction and Purpose**

New planting stock may introduce plant diseases on campus. Plant pests, pathogens and infections are spread via footwear, tools, machinery or vehicles that have come into contact with contaminated soil and/or plant debris. Plant pests and diseases can kill plants and can lead to excessive costs in controlling their spread and/ or replacing damaged plants.

1. **Legal Requirements**

It is important to prevent the spread of plant pests including insects, mites, nematodes, bacteria, fungi, viruses, virus-like organism, and parasitic plants. Planting materials that have been moved between areas and regions may be spreading existing plant diseases and be introducing new ones. Correct handling of new and bought plant materials will minimise the risk of plant infestations.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when new plants are bought and planted on campus. Also regular tests for plant disease should be undertaken during ongoing maintenance. This procedure will be a requirement for contractors working on campus.

First, new plant material must be bought from certified suppliers only. Second, staff should be trained at identifying the main infestations. Third, existing and new plants must be checked regularly for signs of disease and infestations. Fourth, suspected infestations must be reported to the Plant Health Authorities and managed accordingly. Fifth, plant passport documentation is required for certain plants. Specifically see the procedures relating to:

* Plant pests and disease during sourcing and arrival of new plants (procedure 3.2)
* Plant pests and disease during planting and ongoing management (procedure 3.3)
* Plant pests and disease and people (procedure 3.4)
* Plant infections, outbreaks and passports(procedure 3.5)
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See Fera, (2012), Nurseries, Retailers and Landscapers: bio security best practice protocol, Food and Environment Research Agency, York, UK.

See Biodiversity Reference Document (Sections 1.5 and 1.6).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Notify the Plant Health and Seeds Inspectorate (PHSI; this is part of the Food and Environment

Research Agency).

Suspected cases on mature trees and woodland specifically should be notified to the Forestry Commission Plant Health Service.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD3.2 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 3.2:** Plant pests and disease during sourcing and arrival of new plants |

1. **Introduction and Purpose**

Plant infections can spread with plant materials that have arrived on site from nurseries that use poor plant hygiene procedures. If new plants are not checked to make sure they are free of disease they may be carrying pests and parasites that may spread on campus.

1. **Legal Requirements**

Checking new plants for signs of disease will prevent inadvertently allowing the spread of plant pests such as insects, mites, nematodes, bacteria, fungi, viruses, virus-like organism, and parasitic plants. Good plant husbandry and hygiene are central to stopping the spread of plant pests.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when new plant material is bought for planting on campus. This procedure will be a requirement for contractors working on campus.

First, the supplier must be certified by an appropriate body. Second, the supplier must provide satisfactory documentation that the plants are healthy. Third, before accepting new plants the landowner must check that they are free of disease. Fourth, before plants are used they should be quarantined in an appropriate and safe area.

**Sourcing of plants**

* Ensure the supplier has a track record of supplying healthy stock free of pests and disease

**Handling of plants on receipt**

* Ensure that the documentation (i.e. delivery notes) provided by the supplier demonstrates that the plants supplied comply with all necessary plant health legislation such as plant passport requirements and origin of material
* Ensure that you are keeping all purchase records for at least a year (i.e. invoices and official documents, supplier, date of arrival, previous cropping history and treatments, and where relevant plant passport details)
* Ensure that the supplier has not sprayed the plants with anti-*Phytophthora* fungicides for six weeks prior to supply (fungicides may mask infection)
* Check the plants to ensure they do not have symptoms of disease or infection
* Only accept the delivery if you are content that the plants are free from *Phytophthora* and other pests, diseases and weeds

**Management of a plant quarantine area**

* Ensure access to a suitably designed and operated area for keeping in quarantine plant deliveries that may be infected
* Ensure quarantine periods from two weeks (if all is in order and confident no fungicides were used) to six weeks or more (if potentially fungicides were used)
* Monitor quarantined stock at least weekly or more frequently, deal with any symptoms accordingly and if infection identified notify the Plant Health Authorities
* Use the plants if quarantine period is successful
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See Fera, (2012), Nurseries, Retailers and Landscapers: bio security best practice protocol, Food and Environment Research Agency, York, UK.

See Biodiversity Reference Document (Sections 1.5 and 1.6).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

See procedure 3.1.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD3.3 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 3.3:** Plant pests and disease during planting and ongoing management |

1. **Introduction and Purpose**

Plant infections can spread quickly within sites. If plant infections, pests and disease are not identified at early stages they may spread and cause significant damage to plants and sites.

1. **Legal Requirements**

Checking regularly the plants for signs of disease will allow identifying potential infestations early and treating them before they become a problem. Good plant husbandry and hygiene throughout maintenance are central to stopping the spread of plant pests and disease.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed during ongoing grounds maintenance. This procedure will be a requirement for contractors working on campus.

First, ensure that records are kept on where new plants have been planted. Second, undertake regular surveillance checks for signs of disease. Third, use best practice techniques for plant husbandry, hygiene and water management. Fifth, treat material that has been infected in a safe way.

**Design and layout**

* Keeping records of clients, locations and dates of where material is planted and how (to be able to track outbreaks)
* Ensure that landscape design places the correct plants for the local soil and water conditions
* Ensuring that different hosts are not placed near each other
* Ensuring that the same butch of plants is not spread over different sites

**Risk assessment and surveillance**

* Ensure that all relevant staff is aware of potential plant hosts and trained at identifying basic symptoms of disease and infections (e.g. using lateral flow devices)
* Monitor the planted material for disease and infection of a regular basis (weekly or every two weeks in spring, summer and autumn)
* Test for suspect symptoms and report to Plant Health Authorities if infection identified

**Husbandry**

* Use best practice techniques for correcting nutrient deficiencies in soils, pruning, trimming and plant handling that reduce risk of soil contamination of foliage
* Use best practice techniques that can reduce the spread of disease levels by creating environmental conditions that are unfavourable for the pathogen
* Use best practice techniques that are reducing need for fungicide use

**Hygiene**

* Ensure that a standard recommended disinfection kit is always available
* Ensure that the standard disinfection procedure is followed when moving from site to site
* Ensure that correct procedures are followed for handling contaminated plants and materials
* Ensure that tools and equipment (including hands and footwear) are disinfected when moving between sites and/ or regularly

**Water management**

* Correct poor drainage, standing water and water logging (these conditions are favourable for root-infecting *Phytophthora* and *Pythium* species and may also facilitate outbreaks of many foliar pathogens, including *Phytophthora ramorum* and *P. kernovia)*
* Test river waters for *Phytophthora* at least annually

**Disposal of plant waste**

* Ensure that plant waste that is infected or diseased is collected, packaged and handled using the appropriate hygiene methods
* If send to land fill then ensure that the land fill is licensed and that duty of care is followed (i.e. proper storage, transport and disposal)
* If burned on site (or of site) ensure that appropriate exemptions are followed
* If composted on a large composting plant (on or off site) ensure that the operator has the relevant permit (i.e. SR2010no14)
* If composted on a small composting plant (on or off site) no permit is required (i.e. environmental permitting regulations exemptions T23) but still duty of care
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See Fera, (2012), Nurseries, Retailers and Landscapers: bio security best practice protocol, Food and

Environment Research Agency, York, UK.

See Biodiversity Reference Document (Sections 1.5 and 1.6).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

See procedure 3.1.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD3.4 |
| **Version** | 3 |
| **Date** | 29/12/2015 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 3.4:** Plant pests and disease and people |

1. **Introduction and Purpose**

Plant pests and diseases can spread quickly. Staff and visitors can inadvertently aid the spread of pests and plants disease. This can cause damage to plants and sites and entail excessive costs for control.

1. **Legal Requirements**

Grounds staff should have appropriate training and be aware of common plant pests and diseases and know what to do if Phytophthora ramorum or P. kernoviae is found on the site. Furthermore, grounds staff should know basic plant hygiene and husbandry techniques that prevent the spread of disease. The Plant Health Authorities can issue a Statutory Notice for controlling outbreaks of P. ramorum or P. kernoviae on site.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when there is a suspected outbreak of Phytophthora ramorum or P. kernoviae on campus. This procedure will be a requirement for contractors working on campus.

First, grounds staff at different levels needs appropriate training in identifying and dealing outbreaks of infections. Second, in case of an outbreak grounds staff should speak to the Plant Health Authorities for the best way to communicate the outbreak internally and externally. Third, visitors, staff and contractors should be made aware of any outbreak and what to do to prevent it spreading.

**Staff**

* All grounds staff should have appropriate training in identifying plant pests and diseases and on appropriate hygiene and husbandry methods
* Senior members of ground staff with specific roles in relation to the prevention, control and reporting of plant pests will be given more-detailed training

**Visitors and public**

* Ensure that visitors to sites of production on nurseries are aware of the potential for the spread of pests and diseases on contaminated footwear, vehicles or equipment
* Prevent visitors going to infected areas
* Provide facilities for disinfection

**Contractors**

* As a general requirement, contractors should ensure that their footwear, vehicles and equipment are free from potentially infested soil or plant debris before they enter or leave the site. Clean footwear is particularly important if their work
* If the contractors do not have their own, satisfactory protocols, provide them with a copy of this procedure
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See Fera, (2012), Nurseries, Retailers and Landscapers: bio security best practice protocol, Food and Environment Research Agency, York, UK.

See Biodiversity Reference Document (Sections 1.5 and 1.6).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

See procedure 3.1.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD3.5 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 3.5:** Plant infections, outbreaks and passports |

1. **Introduction and Purpose**

Plant infections when they are not reported they may not be treated appropriately or effectively. This may facilitate the spread of plant disease. Illegally imported plants are a main source of plant diseases.

1. **Legal Requirements**

Plant infections need reporting to the Plant Health Authority. In case of infection the Plant Health Authority will issue a Statutory Notice for its control. Certain plants need a plant passport and sufficient document to verify their origins and that they are not carrying pathogens. It is a legal offence to buy plants that require a plant passport without the relevant documentation.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when there is a suspected outbreak of Phytophthora ramorum or P. kernoviae on campus. Also, this procedure must be followed when plant passports are required (i.e. when buying new planting stock). This procedure will be a requirement for contractors working on campus.

In case of a suspected outbreak of a plant infection, first the Plant Health Authority must be notified. Second, the Authority will test for the infection and if positive will issue a Statutory Notice. Third, the Statutory Notice will include details of the control methods required.

Certain plants moving within and between EU states require a plant passport (also called phytosanitary documentation <https://www.gov.uk/guidance/issuing-plant-passports-to-trade-plants-in-the-eu#when-you-need-a-plant-passport>). If dealing with any of these plants staff must ensure that the passports are available from the grower and/ or retailer.

**Outbreak situations**

If symptoms that could be caused by P. ramorum or P. kernovia are identified **YOU MUST**:

* Notify the relevant Plant Health Authority immediately
* Inspect and keep observing all other susceptible plants in the vicinity for symptoms
* Inspect and keep observing the perimeter of the site where it has susceptible plants
* Restrict (or, where practical, stop) the use of overhead watering
* Obtain and provide the Plant Health Authority with all necessary documentation and records

If symptoms that could be caused by P. ramorum or P. kernovia are identified **YOU MUST NOT**:

* Handle or move the plants
* Apply anti-Phytophthora fungicides (these could suppress rather than kill the infection)

**The Plant Health Authority will test samples from affected plants:**

* If infection is not found, then continue as normal
* If infection is confirmed a Statutory Notice will be issued
* Eradication and containment actions must be taken within a specified time
* During the specified time there will be two inspections before giving the clear (or extending the Statutory Notice)

**Eradication and containment actions in a Statutory Notice will include:**

* All affected plants, known hosts up to 2m radius, growing media, and containers destroyed; and all affected surfaces disinfected
* All natural hosts within 10m radius cannot be moved for at least three months
* Prohibition of using fungicides and overhead irrigation
* Prohibition of planting susceptible plants within 4m radius of infected plants for three years
* Removal and deep burial of half a metre depth of soil from a 4m radius of infected plants
* Steam or chemical treatment of the soil may be attempted as an alternative to removal
* All staff should be made aware of the outbreak and their role in dealing with it
* All staff should be made aware of the communication strategy for the outbreak (both internally and externally)

**Plant passports**

* If passports are not available for the restricted plant the plant health authority must be notified
* Keep plant passports for at least a year
* The passport must always accompany the plant (from producer to retailer)
* Plant passports must include the words ‘EC Plant Passport’, a country identifier and a reference number
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See Fera, (2012), Nurseries, Retailers and Landscapers: bio security best practice protocol, Food and Environment Research Agency, York, UK.

See Biodiversity Reference Document (Sections 1.5 and 1.6).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

See procedure 3.1.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD4.1 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 4.1**: Animal pests |

1. **Introduction and Purpose**

Some animal populations may grow quickly and become pests. Animal pests can cause damage to trees, plants and property and can spread disease. The most common animal pests are:

* Rabbits
* Brown hares
* Grey squirrels
* Mice and rats
* Moles
* Edible dormice
1. **Legal Requirements**

Best practice in the management of animal pests will ensure that infestations do not occur.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when there is concern that animal pest infestations may occur on campus. This procedure will be a requirement for contractors.

**Rabbits**

* Rabbits are considered pests
* Rabbits can cause considerable damage on land
* Often is required working with neighbour landowners to plan control measures
* Landowners have responsibility for preventing them from causing damage
* It is legal to kill or take them by lawful methods at any time of year

**Brown hares**

* The brown hare is a Biodiversity Action Plan (BAP) species
* The goal of the BAP is to increase hare populations
* Brown hares only have limited legal protection
* There is no close season and they can be killed or taken by lawful means at any time of year
* It is only an offence to sale adults or leverets during the main breeding season (1 March-31 July)
* Self-locking snares, crossbows, explosives, bows and live decoys are banned
* The recommended and most widely used control method is shooting

**Grey squirrels**

* Grey squirrels can cause damage on specimen trees
* They out-compete and spread disease to native red squirrels
* Grey squirrels have no specific legal protection
* They can be controlled by lawful methods at any time of year
* Certain spring traps are approved for using

**Mice and rats**

* Rats and mice are attracted to where feedstuffs and foodstuffs are available
* Access to feedstuffs and foodstuffs should be minimised to reduce the risk of rodent infestation
* Mice and rats carriers of disease and can contaminate both feedstuffs and foodstuffs
* The local authorities are responsible for managing mice and rats infestations
* Landowners must tell their local authority if substantial numbers of rats or mice are on their land

**Moles**

* Moles can cause damage to gardens and farms
* Moles do not have any specific legal protection
* They can be taken or killed by legal methods any time of year
* Trapping or gassing with aluminium phosphide are the two method most often used

**Edible dormice**

* The edible dormouse can cause to trees and to buildings
* It is protected against certain methods of killing or taking
* They may be killed or taken by any non-prohibited method without needing a licence
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See guidance relating to rabbits on gov.uk website

See guidance relating to brown hares on the Natural England website

See grey squirrel control in England from the Forestry Commission website

See grey squirrel policy from the Forestry Commission website

See guidance on managing urban grey squirrel problems on the Natural England website (archived)

See control and management of house mice on the Natural England website (archived)

See control and management of rats on the Natural England website (archived)

See advice relating to moles on the gov.uk website

See advice relating to edible dormice on the gov.uk website

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Rat and mice incidents need reporting to the Local Authority (who is responsible for dealing with time). There is no requirement for reporting control of other animal pests.

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
| Corrected the sources of information for further guidance, because some guidance had moved from the Natural England to the gov.uk websites.  |
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|   MMU Environmental ManagementSystem |  **Ref** | BD5.1 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 5.1**: Protected plants |

1. **Introduction and Purpose**

Currently the Wildlife and Countryside Act 1981, Schedule 8 lists 183, and the Conservation of Habitats and Species Regulations 2017, Schedule 4 lists 9 specially protected plants. These lists are reviewed every five years. The lists include vascular plants (including flowering plants, ferns and horsetails), bryophytes (including mosses and liverworts), charophytes (stoneworts), lichens and fungi. Non-vascular plants are protected against removal from the substrate. From the 192 plants that are specially protected in the UK (including EU plants) those of particular interest for Manchester and Crewe are:

* Creeping marshwort
* Early gentian
* Fen Orchid
* Lady’s slipper orchid
* Floating water plantain
* Grass-wrack pond weed
* Killarney fern
* Shore dock
* Slender naiad
* Yellow marsh saxifrage
1. **Legal Requirements**

It is a legal offence to intentionally pick, uproot, destroy, possess, sell or exchange any of the specially protected plants or any of their parts. A license from Natural England is required for dealing with any of the specially protected plants. All wild plants are protected from uprooting; they can only be uprooted by the owner or occupier of the land; someone having the owners or occupiers permission; someone authorised in writing by the appropriate local authority.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when a protected plant is identified on campus or it is suspected to grow on campus.

First, undertake a detailed identification to positively identify the suspected protected plant. Second, undertake a detailed ecological study to determine the range of the protected plant on campus. Third, report the presence of the protected plant to the local biodiversity recording office. Fourth, where appropriate, put up signs to inform the grounds staff and the public. Fifth, ensure that day to day management and maintenance does not cause inadvertent destruction of or damage to the plant. Sixth, apply to Natural England for a license to deal with any of the specially protected plants.

**Licenses for dealing with specially protected plant species**

* Natural England can issue licenses for dealing with specially protected species
* License for research for nature conservation
* License for preventing serious damage to property or farming
* License for preventing the spread of disease
* License for preserving public health or public safety
* Applicant must demonstrate imperative reasons of overriding public interest
* Contact Natural England for the appropriate form for each type of license required
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See Schedule 8 of the Wildlife and Countryside Act 1981 (legislation.gov).

See Schedule 4 of the Conservation of Habitats and Species Regulations 2017 (legislation.gov).

See Biodiversity Reference Document (Section 2.1).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.1 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.1**: Protected animals |

1. **Introduction and Purpose**

There are 9,803 animals in the UK that are specially protected by legislation. The list includes fish (465 species), invertebrates (6,584), reptiles (119), terrestrial and marine mammals (853), amphibians (53) and birds (1,729). Protected animals have nature conservation importance, may be threatened with extinction, or may be locally or internationally rare. Preventing damage to these animals and their habitats is central to their conservation. The protected animals that may be found in Manchester and Crewe are:

* White-clawed crayfish (see procedure 6.2)
* Otters (see procedure 6.3)
* Badgers (see procedure 6.4)
* Bats (see procedure 6.5)
* Hazel dormice (see procedure 6.6)
* Great crested newts (see procedure 6.7)
* Water voles (see procedure 6.8)
* Birds (see procedure 6.9)
* Reptiles (see procedure 6.10)
1. **Legal Requirements**

There are different legal offences associated with different protected animals. It is important to prevent damage to specially protected animals or their habitats. See individual procedures outlined above.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when a protected animal is identified on campus or it is suspected to grow on campus.

See individual procedures for each different specially protected animal. First, undertake a detailed identification to positively identify the suspected protected animal. Second, undertake a detailed ecological study to determine the range of the protected animal on campus. Third, report the presence of the protected animal to the local biodiversity recording office. Fourth, where appropriate, put up signs to inform the grounds staff and the public. Fifth, ensure that day to day management and maintenance does not cause inadvertent destruction of or damage to the animal or its habitat. Sixth, apply to Natural England (and for aquatic to the Environment Agency also) for a license to deal with any of the specially protected animals.

1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

See Schedules 5-7 of the Wildlife and Countryside Act 1981 (legislation.gov).

See Schedules 2-3 of the Conservation of Habitats and Species Regulations 2017 (legislation.gov).

See Biodiversity Reference Document (Sections 2.2, 2.3 and 2.4)

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

Environment Agency for some licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.2 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.2**: White-clawed crayfish |

1. **Introduction and Purpose**

White-clawed crayfish is the only native crayfish in the UK and is specially protected. Landowners should try to prevent harm because their populations are under threat.

1. **Legal Requirements**

It is not an offence to kill white-clawed crayfish or damage their habitats. It is an offence to: (1) Intentionally move or remove white-clawed crayfish from the wild; and (2) sell, try to sell, or advertise that you buy or sell (any part, dead or alive). A licence from Natural England is required to trap white-clawed crayfish. Also permission from the Environment Agency is required to remove or trap crayfish.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when white-clawed crayfish are identified or suspected to be on campus.

White-clawed crayfish are found throughout England. They require clear, well-oxygenated water rich in calcite. They are usually in water 0.75 to 1.5m deep. Their habitats include: Streams (including those that are very shallow); Brooks; Rivers (sometimes found in slow-flowing rivers up to 2.5m deep); Lakes; Reservoirs; and Water-filled quarries.

Landowners where possible must avoid the following activities that can harm crayfish:

* Creating pollution that affect water quality
* Undertaking intensive river works
* Allow silt or sediment deposits to built in the water (siltation)
* Destroying or removing habitats
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website

See Biodiversity Reference Document (Section 2.4)

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

Environment Agency for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.3 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.3**: Otters |

1. **Introduction and Purpose**

Otters, their breeding sites and resting places are specially protected. Adjusting planned work, in most cases, is enough for avoiding harming or disturbing otters.

1. **Legal Requirements**

It is an offence to intentionally or by negligence: (1) capture, kill, disturb or injure otters; (2) damage or destroy a breeding or resting place; (3) obstruct access to their resting or sheltering places; and (4) possess, sell, control or transport live or dead otters, or parts of otters. A license from Natural England is required for disturbing otters or damaging their habitats.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when otters are identified or suspected to be on campus.

Otters are found throughout England. Their habitats include Rivers; Streams; Ditches; Ponds; Lakes; Canals; Marshes; Coastal areas; Estuaries; and/ or Land close to these habitats. Otter resting or breeding places include tree root systems; holes in banks; under rocks; drains; caves; vegetation (including dense scrub, reedbeds and rank grassland); pipes; and buildings.

Landowners must avoid activities that can harm otters including any that are:

* Disturbing otters’ usual routes, forcing them to use roads or bridges
* Cutting off access to habitats
* Significantly changing water quality
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website.

See Biodiversity Reference Document (Section 2.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.4 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.4**: Badgers |

1. **Introduction and Purpose**

Badgers and their setts are specially protected. Adjusting planned work, in most cases, is enough for avoiding harming or disturbing badgers.

1. **Legal Requirements**

It is an offence to (1) wilfully capture, kill or injure badgers; (2) damage, destroy or block access to setts (even accidentally); (3) disturb badgers in setts; (4) cruelly ill-treat a badger; (5) deliberately introduce a dog into a sett ; (6) bait badgers; (7) dig for badgers; (8) possess, sell or offer for sale a live badger; (9) possess or control a dead badger or parts of a badger (if unlawfully obtained); and (10) mark or attach a device to a badger. A license from Natural England is required for disturbing badgers or damaging their habitats.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when badgers are identified or suspected to be on campus.

Badgers are found throughout England in both rural and urban areas. Their habitats include: Woodland; Pasture; Farmland; Embankments and slopes; Parks; and Gardens.

Landowners must avoid activities that can harm badgers such as:

* Destroying or damaging setts
* Causing noise, additional lighting or vibration
* Pile driving, lighting fires or using chemicals
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website.

See Biodiversity Reference Document (Section 2.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.5 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.5**: Bats |

1. **Introduction and Purpose**

**All bat species** and their breeding or resting places (roosts) **are specially protected**. Adjusting planned work, in most cases, is enough for avoiding harming or disturbing bats. Bats may use different roosts in different times of year. So, bat roosts are still protected even if there are no bats in there at the time. If a bat roost is found during building work it must stop immediately until further advice.

1. **Legal Requirements**

It is an offence to intentionally or by negligence: (1) capture, kill, disturb or injure bats; (2) damage or destroy a breeding or resting place; (3) obstruct access to their resting or sheltering places; and (4) possess, sell, control or transport live or dead bats, or parts of them. A license from Natural England is required for disturbing bats or damaging their habitats.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when bats are identified or suspected to be on campus.

Bats are found throughout England. Their habitats include: roofs and eaves of houses; churches and other old buildings; barns and old farm buildings; under bridges; trees with holes, cracks and splits, or loose bark; underground places like basements, tunnels and church crypts; foraging areas like pasture or woodland; and using linked routes such as hedgerows.

Landowners must check for bat roosts before undertaking activities that can harm bats such as:

* Renovating, converting or demolishing a building
* Cutting down or removing branches from a mature tree
* Repairing or replacing a roof
* Re-pointing brickwork
* Insulating or converting a loft
* Installing lighting in a roost, or outside if it lights up the entrance to the roost
* Removing commuting habitats such as hedgerows, watercourses or woodland
* Changing or removing their foraging areas
* Using insecticide (see pest control products safe to use in bat roosts)
* Treating timber (see treatment products safe to use in bat roosts)
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website.

See Biodiversity Reference Document (Section 2.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.6 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.6**: Hazel dormice |

1. **Introduction and Purpose**

Hazel dormice, their breeding sites and resting places are specially protected. Adjusting planned work, in most cases, is enough for avoiding harming, disturbing hazel dormice. They hibernate just beneath the surface of the ground (early October to late April or early May). In the summer they build ball-shaped nests from bark, grasses and leaves.

1. **Legal Requirements**

It is an offence to intentionally or by negligence (1) capture, kill, disturb or injure hazel dormice; (2) damage or destroy a breeding or resting place; (3) obstruct access to their resting or sheltering places; and (4) possess, sell, control or transport live or dead hazel dormice, or parts of hazel dormice. A license from Natural England is required for disturbing hazel dormice or damaging habitats.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when hazel dormice are identified or suspected to be on campus.

Hazel dormice have been re-introduced in Cheshire and elsewhere. In the rest of the country they are widespread but scattered but patchy. Their habitats include: Woodlands (particularly those with fruiting hazel and oak trees); Hedgerows (especially when connected to woods); Plantations; and Heath lands (rarely).

Landowners must avoid activities that can harm hazel dormice such as:

* Woodland and hedgerow management
* Removal of hedgerows
* Clearing woodland
* Noise and lighting
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website.

See Biodiversity Reference Document (Section 2.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.7 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.7**: Great crested newts |

1. **Introduction and Purpose**

Great crested newts, their breeding sites and resting places are specially protected. Great crested newts are protected throughout their lifecycle. Eggs are laid in spring, larvae emerge in August, maturity reached in 2-4 years. Terrestrial phases may range considerable distances from breeding sites (i.e. ponds). Adjusting planned work, in most cases, is enough for avoiding harming, disturbing newts.

1. **Legal Requirements**

It is an offence to intentionally or by negligence (1) capture, kill, disturb or injure great crested newts; (2) damage or destroy a breeding or resting place; (3) obstruct access to their resting or sheltering places; (4) possess, sell, control or transport live or dead newts, or parts of them; and (5) take great crested newt eggs. A license from Natural England is required for disturbing newts or damaging habitats.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when Great crested newts are identified or suspected to be on campus.

Great crested newts are found throughout England. Their habitats include ponds and ditches; farmland, woodland, scrub, and grassland; in rural, urban and post industrial areas. Great crested newts do not require very high water quality and they prefer vegetated ponds and with neutral pH

Landowners must avoid activities that can harm great crested newts such as:

* Removing habitat or making it worse
* Fragmenting or isolating habitats
* Changing habitats of other species, reducing the newts’ food sources
* Increasing shade and silt in ponds or other water bodies used by the newts
* Changing the water table
* Increasing the amount of chemicals that run off into ponds
* Introducing fish, which will eat newt eggs or larvae
* Increasing the numbers of people, traffic and pollutants in the area
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website.

See Biodiversity Reference Document (Section 2.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.8 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.8**: Water voles |

1. **Introduction and Purpose**

Water voles, their breeding sites and resting places are specially protected. Adjusting planned work, in most cases, is enough for avoiding harming, disturbing water voles.

1. **Legal Requirements**

It is an offence to intentionally or by negligence (1) capture, kill or injure water voles; (2) damage, destroy or block access to their places of shelter or protection; (3) disturb them in a place of shelter or protection; and (4) possess, sell, control or transport live or dead water voles or parts of them (but not water voles bred in captivity). A license from Natural England is required for disturbing water voles or damaging habitats.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when water voles are identified or suspected to be on campus.

Water voles are found throughout England. Their habitats include banks of water bodies such as Slow-flowing Rivers; Ditches; Dykes; Lakes; Ponds; Marshes or bogs; Canals and Reed beds.

Landowners must avoid activities that can harm water voles such as:

* Destroying or disturbing their habitat
* Destroying or disturbing places used for shelter or protection
* Changing water quality
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website.

See Biodiversity Reference Document (Section 2.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.9 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.9**: Birds |

1. **Introduction and Purpose**

**All wild bird species are specially protected**. However, the nests and the young of Schedule 1 birds are protected more strictly than the rest of the wild birds. Adjusting planned work, in most cases, is enough for avoiding harming, disturbing wild birds.

1. **Legal Requirements**

It is an offence to intentionally or by negligence (1) kill, injure or take wild birds; (2) take, damage or destroy a wild bird’s nest while it’s being used or built; (3) take or destroy a wild bird’s egg; (4) possess, control or transport live or dead wild birds, or parts of them, or their eggs; (5) disturb them while they’re nesting or building a nest (schedule 1 birds only); and (6) disturb their dependent young (schedule 1 birds only). A license from Natural England is required for disturbing wild birds or damaging their habitats.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when activities on campus are likely to disturb birds.

Wild birds are found in all habitats throughout England in both urban and rural areas. Their habitats include: Gardens; Hedgerows; Scrub; Trees; Woodland; Grassland; Buildings (barn owls typically nest in agricultural buildings); and Wetlands.

Landowners must avoid activities (especially during breeding) that can harm wild birds such as:

* Creating noise, lighting and vibration
* Renovating, converting or demolishing a building
* Cutting down or removing branches from an old tree
* Managing or cutting down woods and hedgerows
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website.

See Biodiversity Reference Document (Sections 2.2 and 2.3).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD6.10 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 6.10**: Reptiles |

1. **Introduction and Purpose**

Adders, grass snakes, common lizards, slow-worms, smooth snakes and sand lizards are specially protected. Breeding places and resting sites of sand lizards and smooth snakes are also protected

Adjusting planned work, in most cases, is enough for avoiding harming, disturbing reptiles.

1. **Legal Requirements**

Regarding sand lizards or smooth snakes it is an offence to intentionally or by negligence (1) capture, kill, disturb or injure them; (2) damage or destroy a breeding or resting place; (3) obstruct access to their resting or sheltering places; and (4) possess, sell, control or transport live or dead sand lizards and smooth snakes, or parts of them.

Regarding adders, grass snakes, common lizards and slow-worms it is an offence to kill them without holding an appropriate a license. A license from Natural England is required for disturbing reptiles or damaging their habitats.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when reptiles are identified or suspected to be on campus.

Reptiles are found throughout England. Their habitats include: Lowland heath land; Brownfield sites; Allotments; Compost heaps; Railway and road embankments; South-facing banks; Chalk grassland; Rough grassland; Areas where the habitat is diverse, such as grassland with scrub edges; Woodlands; Sand dunes and other coastal habitats.

Landowners, where possible, should avoid activities that can harm reptiles such as:

* Developing or clearing land
* Damage or destroy connections between habitats
* Damage or destroy hedgerows, strips of woodland, rough grassland, ditches or scrub
1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

JNCC website.

See Biodiversity Reference Document (Section 2.4).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local biodiversity recording centres for presence of protected plants on campus.

Natural England for licenses.

**CHANGES TO THE PROCEDURE**

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|   MMU Environmental ManagementSystem |  **Ref** | BD7.1 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 7.1**: Protected areas |

1. **Introduction and Purpose**

Certain areas with nature conservation importance are designated for special protection by legislation. In England there 224 National Nature Reserves (NNRs) and more than 4,000 Sites of Special Scientific Interest (SSSIs), 230 Special Areas of Conservation (SACs) and Sites of Community Importance (SCIs); and 81 Special Protection Areas (SPAs). Nearby landowners should be aware of the potential impacts of their activities on designated areas.

1. **Legal Requirements**

In addition to development activities, landowners should not allow invasive plants, injurious weeds, plant pests and diseases, and animal pests to spread or have an impact on nearby designated areas. Developers and nearby landowners must assess their potential impacts on designated areas. Notification to the appropriate authority is required in case of potential risk designated areas.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when activities on campus may present a potential significant risk to nearby designated areas.

First, undertake an assessment of the potential impacts of maintenance operations on nearby designated areas. Second, if maintenance operations have potential impacts assess their significance. Third, if potential significant impacts are identified the appropriate authorities should be notified (i.e. Natural England, the JNCC and/ or the local planning). Fourth, permission should be gained for activities that may have a significant impact on nearby designated areas.

1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

Natural England website

JNCC website

Local biodiversity recording centres

See Biodiversity Reference Document (Sections 3.1 and 3.2)

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Natural England for UK designations.

JNCC for European designations.

Local Planning Authority for local designation.

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
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|   MMU Environmental ManagementSystem |  **Ref** | BD7.2 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 7.2**: Tree preservation orders |

1. **Introduction and Purpose**

Local authorities can protect certain important trees with a Tree Preservation Order (TPOs). Any damage on trees with a TPO is prohibited.

1. **Legal Requirements**

It is an offence to intentionally cut down, top, lop, uproot, damage or destroy a tree with a TPO. An application for consent from the local planning authority is required for interfering with trees with TPOs. Planning consent from the local planning authority is required for changing protected trees.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when dealing with trees on campus that have a TPO.

First, undertake an assessment of the potential work required on the protected tree. Second, check if the work can be carried out by exemption. Third, apply to the local planning authority for planning consent (or exemption). Fourth, planning consent must be gained before any work on a protected tree can be undertaken. Fifth, any consent conditions that may be imposed by the local planning authority must be followed.

1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

Local planning authority.

See Biodiversity Reference Document (Sections 3.1 and 3.2).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local Planning Authority for planning consent to deal with a tree having a TPO.

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
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|   MMU Environmental ManagementSystem |  **Ref** | BD7.3 |
| **Version** | 4 |
| **Date** | 10/01/2019 |
|  **Author** | Lecturer in Geography and Environmental ManagementEnvironmental Management And  |
| **Approved by** | Environment and Energy Manager |
| **Biodiversity Procedure 7.3**: Important hedgerows |

1. **Introduction and Purpose**

Hedgerows that are more than 30 years old and meeting one of the criteria in schedule 1 of the Hedgerows Regulations 1997 (SI 1997/1160) are designated as important and are specially protected. Removing important hedgerows is prohibited and working on them requires permission.

1. **Legal Requirements**

It is an offence to (1) remove important hedgerows, or (2) work on them without planning consent.

An application for consent from the local planning authority is required for interfering with important hedgerows. Planning consent from the local planning authority is required for changing important hedgerows. Owners may be required by the planning authority to replace important hedgerows.

For up to date information on relevant biodiversity regulation visit MMU’s Environmental Legislative Register at:

<https://product.legislationupdateservice.co.uk/index.php>

For access, contact the Sustainability Engagement Manager.

1. **Actions to Ensure Legal Compliance**

This procedure must be followed when dealing with important hedgerows on campus.

First, undertake an assessment of the potential work required on the important hedgerow. Second, check if the work is permitted or it can be carried out by exemption. Third, apply to the local planning authority for planning consent (or exemption). Fourth, planning consent must be gained before any work on an important hedgerow can be undertaken. Fifth, any consent conditions that may be imposed by the local planning authority must be followed.

A hedgerow is important if it has existed for 30 years or more; and satisfies at least one of the criteria listed below:

1. It marks the boundary of a pre-1850s parish or pre-1600s estate or manor

2. It is visibly related to any building or other feature of pre-1600s estate or manor

3. It forms a part, or incorporates parts, of a scheduled of monument

4. It contains species that are protected or in the Red Data book

5. It contains at least between 4 and 7 woody species (depending on specific woody plants, the location, and how many other criteria the hedgerow meets)

Note: for the detailed list of criteria see The Hedgerows Regulations 1997 (SI 1997/1160), Schedule 1 part II.

1. **Roles and Responsibilities**

This procedure must be followed by grounds maintenance staff and grounds contractors.

1. **Where to Look for Further Information**

Schedule 1: Criteria for determining important hedgerows (SI 1997/1160).

Local planning authority.

See Biodiversity Reference Document (Sections 3.1 and 3.2).

1. **Effects and Actions of Non-Conformance and How to Report Incidents**

Local Planning Authority for planning consent to deal with an important hedgerow.

**CHANGES TO THE PROCEDURE**

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| **REASON FOR THE CHANGE** |
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**Relevant legislation**

* Countryside and Rights of Way Act 2000 (2000 c.37)
* Environmental Permitting (England and Wales) Regulations SI 2010/675 (air, water and land)
* Environmental Protection Act 1990 (duty of care for waste)
* Ragwort Control Act 2003 amending the Weeds Act 1959 (preventing the spread of ragwort)
* Protection of Badgers Act, 1992
* The Conservation of Habitats and Species Regulations 2017 (SI 2017/1012) as amended
* The Environmental Damage (Prevention and Remediation) (England) Regulations 2015 (SI 2015/810) as amended
* The Natural Environment and Rural Communities Act 2006 (2006 c.16), as amended
* The Plant Health (England) Order 2015 (SI 2015/610) as amended
* The Hedgerows Regulations 1997 (SI 1997/1160)
* The Town and Country Planning (Tree Preservation) (England) Regulations 2012 (SI 2012/605)
* Weeds Act 1959 (injurious weeds, including ragwort)
* Wild Mammals (Protection) Act 1996
* Wildlife and Countryside Act 1981 (protected plants and animals and invasive plants)

**Sources of information**

* <https://www.gov.uk/managing-wildlife-on-your-land>
* <https://www.gov.uk/environmental-management/wildlife-habitat-conservation>
* <https://www.gov.uk/japanese-knotweed-giant-hogweed-and-other-invasive-plants#spraying-invasive-plants-with-herbicide>
* <https://www.gov.uk/wild-plants-dangerous-invasive-and-protected-species>
* <https://www.gov.uk/wild-mammals-management-and-control-options>
* <https://www.gov.uk/environmental-management/wildlife-habitat-conservation>
* <http://jncc.defra.gov.uk/page-1747>