

## **Appendix x NEW**

### **Developments on Peat and Off-Site Uses of Waste Peat**

#### **Legislation & Policy**

The **Environment (Wales) Act 2016** introduces the concept of the “sustainable management of natural resources”. This means—

- (a) using natural resources in a way and at a rate that promotes achievement of the objective of meeting the needs of present generations of people without compromising the ability of future generations to meet their needs, and contributing to the achievement of the well-being goals in section 4 of the Well-being of Future Generations (Wales) Act 2015
- (b) taking other action that promotes achievement of that objective, and
- (c) not taking action that hinders achievement of that objective.

One of the 5 Key Planning Principles set out in **Planning Policy Wales Edition 10** is making best use of resources. The efficient use of resources, including land, underpins sustainable development.

The planning system has a vital role to play in making development resilient to climate change, decarbonising society and developing a circular economy for the benefit of both the built and natural environments and to contribute to the achievement of the well-being goals. The national sustainable placemaking outcomes which lead from this principle include making the best use of resources and the prevention of waste.

#### **Peat Resource**

Peat is a body of sedimentary material, usually dark brown or black in colour, comprising the partially decomposed remains of plants and organic matter that is preserved in anaerobic conditions within an essentially waterlogged environment.

There are two principal types of peat:

1. The upper (acrotelm) layer which is quite fibrous and contains plant roots etc. Acrotelmic peat in good condition, is wet. This is the part of the peat profile that may dry out during the summer or times of drought. Water moves relatively quickly through acrotelmic peat. .
2. The lower (catotelm) layers are highly amorphous, with very high water content and tend to have very low tensile strength. Water moves relatively slowly through catotelm layers. The structure of catotelmic peat tends to disrupt completely on excavation and handling.

Peatlands hold large stocks of carbon. When peat is left undisturbed the carbon is protected. Problems only arise when the peat body is drained, burnt or over-grazed. The excavation of peat will result in large carbon losses from the excavated peat and also the areas affected by drainage. Minimising peat excavation will reduce these potential carbon losses and consequently reduce the carbon payback period associated with developments on peat.

Excavated peat will be classified as waste if it is discarded or the holder intends to or is required to discard it. Unless the waste peat is certain to be used for construction purposes in its natural state on the site from where it is excavated, it will be subject to Natural Resources Wales (NRW) regulatory controls.

The recommended management options for developments on peat are based on the the waste hierarchy:

### **Prevention**

The best management option for peat on a development site is to design the development so that it is left in situ wherever possible.

This can be done through the use of forward planning, comprehensive on-site investigations and the use of Peat Management Plans or Natural resource management plans and assessment of alternative construction methods e.g. piling. The early consideration of these techniques will allow developers to prevent/minimise the excavation of peat and the production of waste peat.

### **On-site use**

If the excavation of peat cannot be avoided, developers should prioritise the use of excavated peat on-site in the first instance by exploring restoration opportunities - catotelmic peat is very good for use in peat dams, contour bunds etc, whereas acrotelmic peat is not. These activities should minimise carbon loss and maximise ecological benefit.

### **Off-site options: Uses of peat & recycling/recovery/treatment**

After on-site uses have been exhausted, excavated waste peat may be suitable for use off-site within the local area. This should be identified in the peat management plan, including estimated volumes for each use, destination, final intended outcome and justification of suitability of the peat material and the need for the specified quantities of peat material.

### **Storage**

Highly organic materials such as peat can have a devastating impact on watercourses if they wash off from storage areas. It is also important to use the peat as soon as possible after excavation (to minimise the exposure of the peat to the air) and to maintain moisture conditions in the peat to keep carbon losses to a minimum.

### **Disposal**

Disposal of peat, particularly catotelmic peat, can lead to a number of issues due to its very low tensile strength and high water content e.g.

- It is likely to have a very low load bearing capacity, making it a hazard to people or animals walking on it if not used correctly. There are examples of peat dams and low contour bunds having been constructed from catotelmic peat. Livestock use these dams and bunds to move around on however, they are no more than 30cm high.

- Slides or movement are highly likely and can be caused by heavy rainfall but only if used incorrectly and not re-profiled to allow vegetation colonisation.
- Potential for contaminated run-off again if used incorrectly.

Peat arising and requiring management as a waste within a development will require characterisation and consideration of its condition upon excavation.

The propensity of the waste peat to flow will be a key characteristic in determining whether it can be landfilled i.e. if it is classified as a liquid it cannot be landfilled without some form of pre-treatment.