**Specification for Ponds at Bull Meadow in Fernhill Heath**

**To create a network of wetlands, ponds and scrapes in Bull meadow Fernhill Heath**

**Location.** Bull Meadow off the A38 in Fernhill Heath, Worcestershire.

See appendix 7 and 8

Bull Meadow is a 22 acre site owned by North Claines Parish Council. Within the site there are margins of scrub and ruderal vegetation along the northern edge of the site, along the edge of the Martin Brook woodland corridor. The proposed wetland creation area is at the widest point of this margin. See appendix 3,4,5,6.

**Overview**

**Details of ponds and scrapes**

The proposed wetland area is c.0.29 ha and will contain 5 ponds (covering c. 1000m2, 150m2, 130m2, 50m2, and 50m2), 2 scrapes (c. 130m2 and 130m2), and 1300 m2 of wetland edge. The wetland will have a combination of open water, shallows, marginal vegetation, and scrub. A scrub margin of at least 5m width will be retained along the northern boundary of the wetland along the edge of the woodland. The young oak tree near the proposed wetland should be retained if possible and the wetland digging work and movement of heavy machinery should be kept outside of the Root Protection Zone (12 x trunk diameter at breast hight) of the two oak trees on the edge of the wood next to the proposed site.

Ponds should have irregular shapes with extensive shelved shallows and gently sloping banks: less than 1:5 (12o) and preferably less than 1:20 (3o), and a deep point of at least 1 m. The soil on the base of the pond should have undulations to increase diversity. The scrapes should be relatively shallow at around 30 cm depth, forming irregular-shaped shallow bowls. Several smaller depressions, hollows and small mounds should be created around the wetland area to increase microhabitat

See appendix 1 and 2

See also planning permissions from Wychavon DC

**Materials**

A geotextile clay-liner is to be used to increase water holding potential. It is envisaged that the liner will cover the majority of the wetland area, if not the entire area. The wetland area will need to be excavated to approximately 30-50 cm deeper than the target depth, the liner laid, and then a 30-50 cm layer of sub-soil laid over the liner to hold it in place and provide a base for plants to grow. Topsoil should not be laid over the liner as this will result in excessive nutrient in the water, leading to poor water quality and ongoing maintenance issues. The liner will also need to be anchored in place around the edges following the manufacturer’s guidelines. Care should be taken to avoid any pipes or utilities, particularly sewage pipes in the area, and the proper checks should be made before work.

**Planting around ponds**

The wetlands are to be planted with plugs of a variety of native marginal and emergent plants and a ‘pond edge’ native seed mixture can be sown over bare ground around the wetlands. Common reed and bulrush are not recommended in this case. Less vigorously growing species such as yellow iris (also known as flag iris) and cyperus sedge may be more suitable. Recommended species, locations, and approximate numbers are given within the BEA.

Saved excavated clay to go over the top of the liner to 45-50cm

**Excavated soil**

Bunds to be created from excess soil around the site and to be planted as appropriate.

**Site Preparation**

Areas designated shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed.

**During project**

To avoid mud and dirt on the main road, Appointment of foreman to oversee this.

To keep disturbance on land as minimal as possible.

**End of project**

A 4-inch layer of topsoil shall be placed on all disturbed areas and grass seed to be sown. Site to be left in good order.

**Appendix**

Appendix 1 – sizes of ponds

Appendix 2 – cross section of ponds

Appendix 3 and 4 Topographical surveys of area of ponds

Appendix 5 Topographical survey of whole of Bull Meadow.

Appendix 6 Landscape concept plan

Appendix 7 Bull Meadow Location plan

Appendix 8 Bull Meadow and Fernhill Heath location plan

Appendix 9 Biodiversity enhancement assessment

**Relevant planning applications obtained from Wychavon District Council**

21/01781 – application for change of use including access and discharge of conditions

22/00057 – Construction of ponds and scrapes etc.