

RCHD2301 POND SPECIFICATIONS

Presented to: Rochdale Council

Issued: 17/02/25

Project No.: RCHD2301-EB-PLA-v00.01 – Pond Specifications

1. Introduction

Environment Bank are proposing to create a Habitat Bank at Bone Hays and Cow Heys Farm (the 'Site') near Newhey, Rochdale and is centred at grid reference SD 95181 11074. The Site is 28.26 ha in total – most of which is in Rochdale local authority area but includes an adjoining area which is within Oldham local authority area. This specification deals with the Rochdale local authority area only. The full site predominantly comprises of a series of fields of pasture grassland much of which is upland in nature.

Habitat Banks are large scale habitat creation and enhancement projects that deliver an uplift in biodiversity value and restore nature at scale. The aim of this project is to create a mosaic habitat to provide new opportunities for wildlife within the area.

New pond creation is an integral part of the habitat creation project, which will also include the establishment of species-rich grassland and native mixed scrub. The capital works and initial habitat creation stage is being undertaken during 2025, with pond creation scheduled between early-August and September 2025. Pond creation has been scheduled outside of the main ground nesting bird season to avoid impacts to ground nesting birds and prior to winter rains to allow ponds to naturally fill.

2. Location

Five ponds will sit within areas of relatively lower ground of the holding which are in keeping with where they might naturally occur. The ponds will be positioned within natural depressions in the ground that are likely to become waterlogged during periods of heavy rainfall.

3. Ecological information

A desk-based survey was undertaken, which included obtaining existing records of all protected and priority species from the local records centre (Greater Manchester Local Records Centre) in October 2023, which included the following protected or notable species within 1 km of the Site boundary within the last 10 years:

- Badger *Meles meles*
- Barn Owl *Tyto alba*
- Common toad *Bufo bufo*
- Curlew *Numenius arquata*
- Grasshopper Warbler *Locustella naevia*
- Great Crested Newt *Triturus cristatus*
- Grey partridge *Perdix perdix*
- Lapwing *Vanellus vanellus*
- Skylark *Alauda arvensis*
- Song Thrush *Turdus viscivorus*
- Small heath Coenonympha pamphilus
- Starling *Sturnus vulgaris*
- Stock Dove *Columba oenas*
- Woodpigeon *Columba palumbus*
- Yellowhammer *Emberiza citrinella*
- Brown Long-eared Bat *Plecotus auritus*

Species most likely to be impacted on by the works include ground nesting birds (i.e Curlew, Skylark and Grasshopper warbler). The pond creation works are scheduled to take place between early-August and September 2025 outside of the main breeding season for these species, therefore no impacts on nesting birds are anticipated because of the pond creation works.

The pond creation works will be temporary and are expected to take no more than one week to complete and following completion will offer enhanced habitat for a range of bird species, mammals and bats by increasing the invertebrate diversity across the Site and thus the foraging potential for these species.

The ponds have been designed specifically to provide a range of micro-habitats for local fauna including areas with gentle sloping sides, vertical edges, areas of permanent water, seasonal wet mud, and basking opportunities for invertebrates. The ponds will contribute to the local pondscape and improve connectivity between off-Site ponds for species of amphibian, including Great Crested Newt *Triturus cristatus*, if they are present locally.

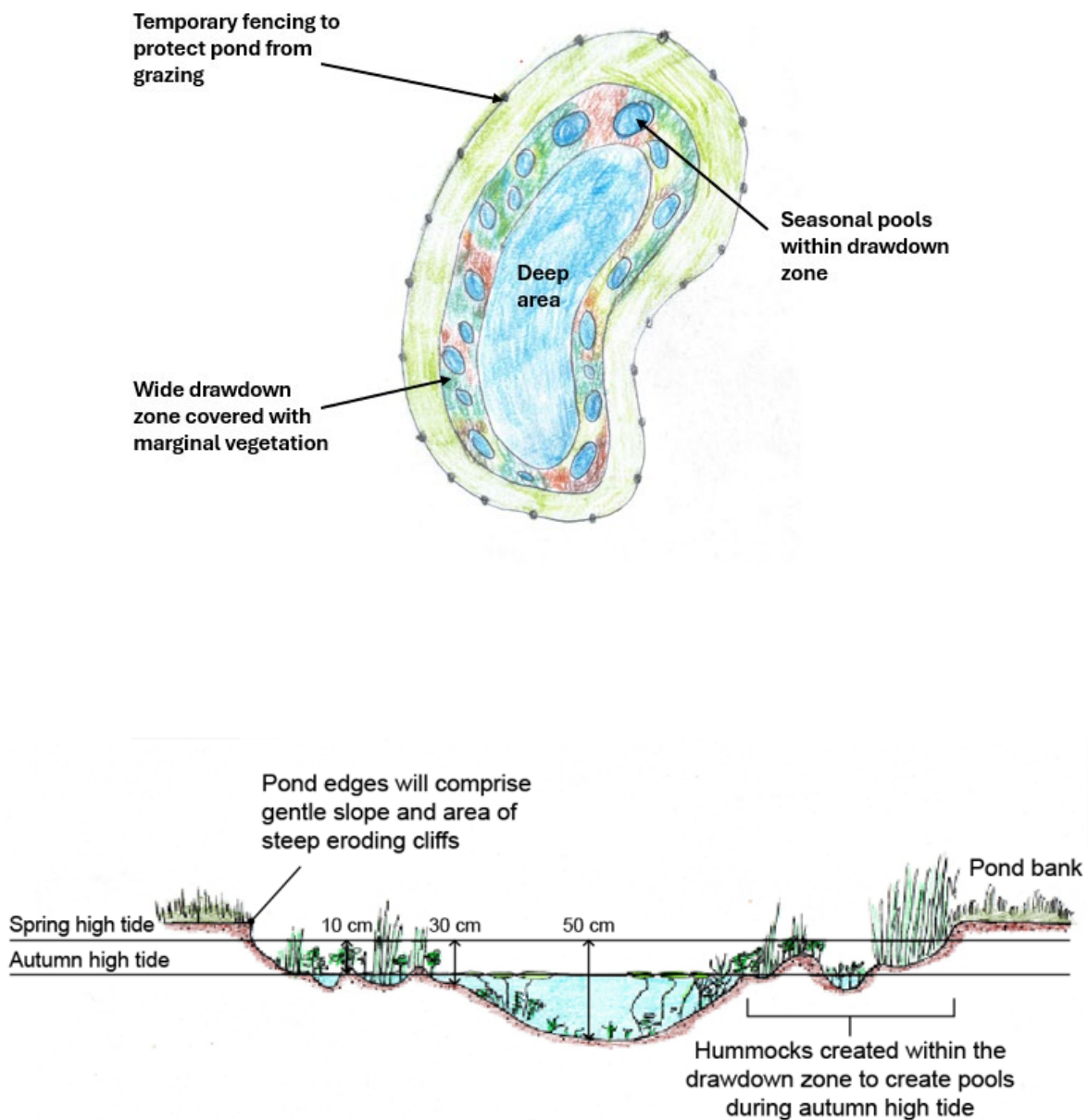
4. Pond design

Ponds will have wide drawdown zones that will be able to hold water during spring and autumn. Where possible, hummocks will be created in the 'drawdown' zone to create pools and varying water levels. These drawdown zones will be between 10-30 cm in depth. The ponds will be deepest towards the centre with depths between 30-50 cm.

Pond 1	Pond 2
Area: c. 339.8 m ²	Area: c. 258.71 m ²
Length (at longest point): c. 29.25 m	Length (at longest point): c. 22.9 m
Drawdown zone - Width: c. 3.5m - Area: c. 189.7 m² - Depth: 10-30cm	Drawdown zone - Width: c. 2.9 m - Area: c. 155.38 m² - Depth: 10-30cm
Deep area - Length (at longest point): c. 21.85 m - Area: c. 150.07 m² - Depth: 30-50 cm	Deep area - Length (at longest point): c.15.25 m - Area: c. 103.33 m² - Depth: 30-50 cm

Pond 3	Pond 4
Area: c. 870.45 m ²	Area: c. 503.84 m ²
Length (at longest point): c. 38 m	Length (at longest point): c. 28.83 m
Drawdown zone - Width: c. 9.86m - Area: c. 612.82 m² - Depth: 10-30cm	Drawdown zone - Width: c. 5.71 m - Area: c. 322.10 m² - Depth: 10-30cm
Deep area - Length (at longest point): c. 26.97 m - Area: c. 257.63 m² - Depth: 30-50 cm	Deep area - Length (at longest point): c.18.51 m - Area: c. 181.74m² - Depth: 30-50 cm

Pond 5
Area: c. 334.74 m ²
Length (at longest point): c. 21.02 m
Drawdown zone - Width: c. 5.14m - Area: c. 225.16 m² Depth: 10-30cm
Deep area - Length (at longest point): c. 12 m - Area: c. 109.58 m² - Depth: 30-50 cm



5. Construction

Ponds will be created using machinery appropriate to the scale of works (e.g. standard sized (c. 13 tonne) tracked excavator with digging bucket) with some manual digging in shallow areas, if required. The ponds will not be lined, and no drainage pipes will be required. The ponds will not be connected to boundary ditches or other waterbodies.

Pond vegetation will be allowed to establish naturally. Temporary fencing will be erected around the ponds to protect the newly created ponds from grazing animals and allow the establishment of pond vegetation. Once the pond vegetation has established successfully, the fencing will be removed to allow livestock to access the ponds.

Ponds will be created prior to the grassland seeding, under ecological supervision, between early August and September 2025.

The ponds will not be created within a Flood Zone. It is proposed that the spoil from the ponds will be kept within the Site and will either be used for bank works or relocated away from the ponds and spread thinly over designated areas.

6. Monitoring

Ponds will be monitored annually for 30 years. Monitoring will include invasive non-native species (INNS) and seasonal water levels. Ponds may need to be re-profiled and dug deeper if monitoring shows that the pond water levels are lower than desired. If INNS are identified within the pond(s), appropriate control measures will be applied. In some cases, the pond(s) may need to be filled-in and recreated elsewhere on site. This measure will only be implemented if the other methods to control INNS are not successful. The original design specifications will be replicated, and the same principles described above will be followed.

7. Conclusions

Pond creation works within the Habitat will be temporary and of a limited scale. Once created the ponds will provide opportunities for a myriad of local wildlife including protected and notable bird species, mammals, amphibians, reptiles and invertebrates. They will add to the mosaic of habitats already proposed within the Site including wildflower meadow, scrub and woodland, adding to the local resource and benefitting biodiversity within the area.