RICKLING GREEN PONDS

BIODIVERSITY ENHANCEMENT PLAN

June 2022

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The information, data, advice and opinions which have been prepared and provided are true, and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional *bona fide* opinion

1. INTRODUCTION

1.1 General Introduction

This enhancement plan has been produced by Essex Ecology Services (EECOS), the ecological consultancy of Essex Wildlife Trust, for Quendon and Rickling Parish Council. The plan provides advice on how ponds at Rickling Green can be managed in order to enhance their value for wildlife.

1.2 Location

Rickling Green is located in the Uttlesford District of Essex. The Ordnance Survey grid reference for the first pond is TL509296, the second is TL506304. The area in which the ponds are located is largely surrounded by arable land, woodland and some residential areas.

1.3 Habitat Descriptions

Pond 1

The first pond, situated at Rickling Green, is in relatively good condition. It has some trees on its southern bank and a high cover of emergent plants, with Iris, Soft Rush and Pendulous Sedge growing in the water margins. However, it is being taken over by Reedmace and Reed Sweet-grass, which is forming a mat on the surface. Both of these species tend to become dominant and will eventually block out light in the pond.

To the north of the pond is mown grassland, while the grassland of the southern bank is not as heavily managed and appears to support a greater diversity of plant species.

The main inflow for the pond appears to be coming directly from the neighbouring farm. This may increase the amount of sediment and nutrients in the pond, which could leave to eutrophication.

The immediate neighbour reported that he has seen amphibians using the pond and bats feeding over it, though not as much now that there is less open water. This suggests that the pond has a healthy invertebrate population, but that this may now be compromised due to the dominant plants and smaller open water space.

Photograph 1. Pond 1 at Rickling Green, showing dense Reed Mace and Reed Sweet-grass.

Pond 2

The second ponds lies to the north of Rickling Green directly next to Brick Kiln Lane. It is separated from an arable field to the south by an earth bund covered in Bramble, nettles and young Blackthorn. It was dominated by Reed Sweet-grass and had some Duckweed on the surface. At its eastern end, it backs directly onto a small area of woodland, which will cause significant shading particularly in the summer months. The water at this end had no emergent vegetation and appeared heavily silted.

There is a small drain that feeds into the eastern end of the pond and is surrounded by short managed grass.

This pond is likely to be affected by the input of pollutants, due to the proximity of the road and being at the bottom of the hill. There is also likely to be a runoff of agricultural chemicals into the water due to the small field margin separating the pond from the adjacent arable farmland.

Photograph 2. Pond 2, directly next to Brick Kiln Lane.

2. RECOMMENDATIONS

2.1 Pond 1

The grassland to the north of the pond is currently overmanaged, and could be left to grow longer, with a cut in the late summer or autumn once most of the flowers have set seed, and removal of the cuttings to reduce the nutrients and encourage less dominant plants. This grassland will provide a buffer from pollutants and provide habitat for species such as newts that need longer grass to safely travel between ponds.

Thinning out Reedmace is important as it helps ensure that the process of 'succession' (the steady build up of silt and plant debris which results in marginal plants growing into the middle of the pond, leading to the pond filling with vegetation and eventually wet woodland) is prevented. The Reedmace will need to be rotationally cleared out. It should not all be removed at the same time, as it is still a valuable habitat for invertebrates but needs some management to stop it dominating. The best way of removing it is by pulling up the whole plant by hand, removing the roots to prevent rapid regrowth. and leaving the plants on the water banks overnight to allow any invertebrates to crawl back in the water before being removed. If removing Reed Sweet-grass by hand, concentrate on removing all pieces of the root or resprouting may occur.

If planting trees near the pond, make sure they are set well back to avoid overshadowing the pond, and do not plant species such as Willow as they can dry up the pond.

Information boards and signage would be beneficial to educate people on the wildlife in the pond, what management is used and why it is necessary. The boards could have a few of the species that might be attracted to the pond, such as Dragonflies and other insects, birds and even bats.

2.2 Pond 2

Shading reduces light for plant growth, which is likely why there is no vegetation within the shaded end of the pond. Falling leaves from trees add to the nutrients in the pond, especially tannins released from rotting dead leaves which acidify pond water. Coppicing

of trees adjacent to pond margins in late winter could be done on a rotation of several years to ensure there is always some shrub growth.

The Reed Sweet-grass is currently not completely covering the pond, but may become a problem if it spreads. It can then be managed by clearing out areas on rotation (see recommendations for Pond 1).

Late autumn is the most practical time to de-silt a pond and will cause the least disturbance to wildlife. Small ponds can be dredged by hand, but do not remove more than half of the silt in any one year to protect the invertebrates that live within it. The eastern end will require dredging, possibly every few years, depending on the build-up.

Pesticide and fertilizer often drift from agricultural fields during application, affecting plants and invertebrates. Grass buffer strips are used to protect ponds from airborne drift, nutrient leaching and runoff. Having a wider buffer strip next to the pond will maintain and enhance water quality and wildlife, by reducing nutrients and sediment. Any opportunities to widen adjacent buffer strips should be taken.

The young Blackthorn on the bund that buffers the field from the pond will need to be managed so that they do not grow too big, encroach and block out light into the pond.

The shorter managed grass next to the pond could be left to grow longer, which will provide further buffer for the pond and habitat for wildlife.