Tormarton pond, Tormarton

(ST779786)

Survey and report
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Avon Wildlife Trust

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This large pond is located in the angle formed by High Street and Rectory Lane in the centre of Tormarton village. Covering approximately 1ha the pond and its surrounds is believed to be of considerable age and overlies a thin band of Jurassic Fuller's Earth Clay. The depth increases from a shallow shelf on the eastern edge to a deeper area covering much of the pond; a small island is present in the eastern centre. A small stream flows along the northern edge of the pond, takes the outflow from the pond and is mostly culverted, emerging as a spout in the eastern boundary wall.

The pond is not visible from the road but screened by a belt of mature trees and scrub which occupies much of the northern and western margins. The southern margin is essentially a narrow sloping bank which is covered with tall herb vegetation. The eastern margin has considerable tall herb vegetation but also bare areas where members of the public stand to feed ducks or sit on the adjacent wall which borders the site on the northern, eastern and western sides. The southern boundary is a post and wire fence.

Adjacent land use is as follows: private garden on the southern side, public house car park on the western side, metalled road on the north and an un-metalled track on the east; in essence the pond is surrounded by housing.

The pond is owned by Anthony Grigg, (the Earl of Altrincham), and the executors of the estate of Mr John Grigg, but managed on an ad hoc basis by local villagers. The site was surveyed by Phil Quinn and Gemma Gwyther of Avon Wildlife Trust on 10th June 2003 at the invitation of Mr and Mrs Wells who are resident at Drake House on the southern side of the pond.

Detailed description –vegetation

Approximately half of the site consists of the pond whilst the remainder comprises tall herb vegetation, an area dominated by mature trees and shrubs, and an area of swamp in the west.

The pond could only be surveyed from the shore as no boat was available. A thin band of emergent vegetation fringes the southern bank whilst a large raft of amphibious bistort *Persicaria amphibia* fringes the eastern bank and the central island. The island itself supports several young ash *Fraxinus excelsior*. Of particular note on the eastern fringe is a plant of water dock *Rumex hydrolapthum*; this species is scarce in the Bristol region and mostly found on the Somerset Levels. An area of marsh marigold *Caltha palustris* is also present near the outflow. Emergent vegetation is scarce around the other banks of the lake where trees and shrubs cast considerable shade and the edge of the pond shelves deeply.

The dominant impression of the pond is of well-wooded site. Trees and shrubs occupy the northern and western edges of the pond as well as the southwestern and south eastern corners. Crack willow *Salix fragilis* and ash are the dominant trees with few of the willow showing past evidence of pollarding. Several large trees extend their canopy some distance over the pond.

Within the wooded western edge of the pond is a swamp area where it appears a small pond has become silted up and been partially colonised by emergent vegetation and willow species. Flag iris *Iris pseudacorus* occurs in two large stands but the most interesting plant here is almond willow *Salix triandra*, a scarce species in the Bristol region with most records coming from the South Gloucestershire lowlands. It is thought that this western part of the site may once have supported a small withy bed; this would help explain the presence of almond willow which is thought to have once been a popular cultivated willow.

Where tree cover is sparse a dense tall herb vegetation is dominant. Here nettle *Urtica diocia* is dominant

Given the location of this site –high on the Cotswold ridge of South Gloucestershire – there are a surprising number of uncommon wetland plant species present here which are more typical of the coastal lowlands.

Detailed description – fauna

Mammals

In the western swamp area there were several scattered droppings which appeared to be those of the endangered water vole *Arvicola terrestris*; however it was not possible to get close enough to them to confirm this. It is likely that water voles could be present here given their confirmed presence on several of the headwater streams in the Tormarton area. Local residents ascertain that water voles were definitely recorded here 5 or 6 years ago (recorder unknown).

Birds

Mallard ducks were observed during the survey; it is believed that these are encouraged by villagers feeding them. In addition moorhen were observed here.

Odonata

Damselflies were frequent on the southern margin of the pond during the survey, in particular azure blue *Coenagrion puella* and large red *Pyrrhosoma nymphula* were abundant on the tall herb and emergent vegetation on the southern fringe.

Miscellaneous

Furthermore the following species have been recorded on the site in recent years by local people:

Frog	"Bat"
Toad	Hedgehog
"Common newt"	Rat
Goldfish	"Mice"
Minnow	"Shrew"
	"Vole"

Frogs are said to be usually common in the pond although in 2003 very few were seen.

Butterflies

During the survey the following butterflies were recorded:

Painted lady
Speckled wood
Holly blue
Small white

Plant list

The following is a list of plant species recorded during the survey (see appendix).

Management proposals

At present the pond and its surrounds offer an excellent site for wildlife. The variety of habitat, from open water of varying depths through fringes of emergent vegetation to tall herbs, mature trees, scrub and the willow swamp, will allow many species to be present in quite a limited area.

The core aim of any management on this site will be to maintain this diversity of habitat. Beyond this there exist opportunities to increase the area of most productive habitat – the pond edge. Encouraging low key public access to the site is also a major consideration as it is likely that the site may be in the ownership of the parish council in the near future.

The following proposals are framed within a ten year time span.

Open water

It is proposed that very little management is undertaken here. The only exception will be if it is felt that silt levels become very high across much of the pond; from the present condition this would seem unlikely within the next ten years.

No species of plant must be introduced to the pond. Many species of aquatic alien plants have been released into the countryside and have caused great problems, such as out-competing native species, clogging up of ponds and introducing diseases to which native species have little immunity.

Equally, to encourage amphibians and invertebrates it is proposed that introduced fish currently in the pond are removed. Local people should be informed on the dangers of introducing fish to the pond: such dangers include heavy predation of young amphibians

The island

It is proposed that the young ash trees present here are coppiced at least on a ten year cycle to prevent them developing into mature trees. As mature trees they would cast considerable shade onto the open water.

Emergent fringe

This is the area of vegetation with its roots in the water but with its leaves and flowering parts above water. The emergent fringe is often the most productive and species-rich part of a pond for it is here that the water meets the land and many species can find a niche. The existing fringes on the south and east of the pond must be maintained; ideally no work should take place here unless coarser vegetation (or reed-mace *Typha latifolia* encroaches). If undesirable plant species colonise this fringe it will be necessary to remove them; any encroaching bramble should be cut back annually.

Furthermore it is proposed to increase the area of emergent fringe by limited removal of overhanging trees and shrubs on the other banks (q.v.)

Overhanging trees and shrubs
Many of the mature willow and ash around the pond cast considerable shade over the water and prevent the development of an emergent fringe on the northern and western banks. Furthermore many of the willows show signs of disease or stress and pose a health and safety hazard. It is proposed that most of the willows near the edge of the pond be pollarded or at least have a number of the large branches lopped. Where possible this management should also be undertaken on large ash overhanging the pond.

Blocks of scrub between the large trees should also be trimmed so that at least 60% of the immediate bankside area in the north and west is free from shrub cover. To prevent additional public access to these areas of bank (and thereby reducing disturbance to wildlife) it is proposed that scrub which is not immediately on the bank be kept in situ. Cut material could be put across gaps in the scrub to act as a deterrent to public access. The 40% of bankside scrub which will not be cut will act as cover for water birds to nest.

Tall herb area
Most of this consists of nettles, docks and other species that are usually thought to be of low value and little interest. However this vegetation is what one would naturally expect to find around ponds and watercourses. As such it is utilised by a large number of species (mostly invertebrates). Tall herb vegetation is necessary for many species of invertebrates to complete their lifecycles and should be left intact and in situ as much as is possible – some insects even overwinter in the dead stems of nettles and docks.

It is accepted however that a more formal path may be required between the gateposts and the eastern bank where the public congregate at present. If so it will be necessary to retain as much tall herb vegetation as possible; the reasons for doing this will probably not be understood by many members of the public as they will have a poor understanding of the value of this plant community. It will be important to educate the community on this matter, and indeed about other aspects of the proposed management.

If scrub starts to predominate in the tall herb area it may be necessary to undertake some limited scrub clearance to ensure the continuity of tall herbs.

Willow swamp
This little visited area should continue to remain as inaccessible as at present. The attractiveness of the irises here when in flower might lead people to seek easier access so they can be viewed. However it is possible that water voles might be present here, and the presence of other uncommon wetland species might be compromised by opening up this area. It is good to have a “wild” part to a site wherever possible as this allows wildlife a refuge.

It is accepted however that the swamp may silt up and become scrubbed over by the end of the ten year period. If this appears to be happening quite rapidly it will be necessary to look again at the site and assess whether scrub clearance and limited excavation might be necessary.

General issues

Given the use of the pond at present by local people and the possibility that more people may visit it under parish council ownership several further issues need to be addressed:

Access to the eastern bank. At present there is trampling on the eastern bank where people stand to feed the ducks. It may be necessary to have this thin area between the pond and the boundary wall as a "sacrificial" public access area where heavy public access will be accepted.

Health and safety. With public access to a waterbody it might be necessary to erect a buoy or at least notices alerting the public to the dangers of being next to the water. This consideration is not really part of a conservation management plan of this scale but is of importance and is also a valid consideration when carrying out the proposed management works.

Education. Mention has been made of informing the public of the need to carry out certain works, preserve plant communities and retain wild, unvisited areas. Education will be essential before any management work is conducted so as to avoid conflicts of interest and misunderstandings.

APPENDIX

Incidental plant species list

The following is a list of those plant species which were recorded during the brief visit. A longer survey period would yield more species:

Ground elder	Aegopodium podigara
Cow parsley	Anthriscus sylvestris
Fool's watercress	Apium nodiflorum
False oat-grass	Arrhenatherum elatius
Cuckoo pint	Arum maculatum
Water-starwort	Callitriche sp.
Marsh marigold	Caltha palustris
Hedge bindweed	Calystegia sepium sepium
Wavy bittercress	Cardamine flexuosa
Enchanter's nightshade	Circaea lutetiana
Field bindweed	Convolvulus arvensis
Hawthorn	Crataegus monogyna
ornamental hawthorn	Crataegus sp
Cock's-foot	Dactylis glomerata
Great willowherb	Epilobium hirsutum
Broad-leaved willowherb	Epilobium montanum
Ash	Fraxinus excelsior
Cleavers	Galium aparine
Herb robert	Geranium robertianum
Herb benet	Geum urbanum
Ivy	Hedera helix
Flag iris	Iris pseudacorus
Common duckweed	Lemna minor
Oriental privet	Ligustrum ovalifolium
Cultivated apple	Malus domestica
Water mint	Mentha aquatica
Amphibious bistort	Persicaria amphibia
Annual meadow-grass	Poa annua
Curled pondweed	Potamogeton crispus
Creeping buttercup	Ranunculus repens
Bramble	Rubus fruticosus
Water dock	Rumex hydrolapathum
Broad-leaved dock	Rumex obtusifolius
Wood dock	Rumex sanguinea
Grey willow	Salix cinerea
Crack willow	Salix fragilis
Almond willow	Salix triandra
Elder	Sambucus nigra
Bittersweet	Solanum dulcamara
Nettle	Urtica diocia
Pink water-speedwell	Veronica catenata

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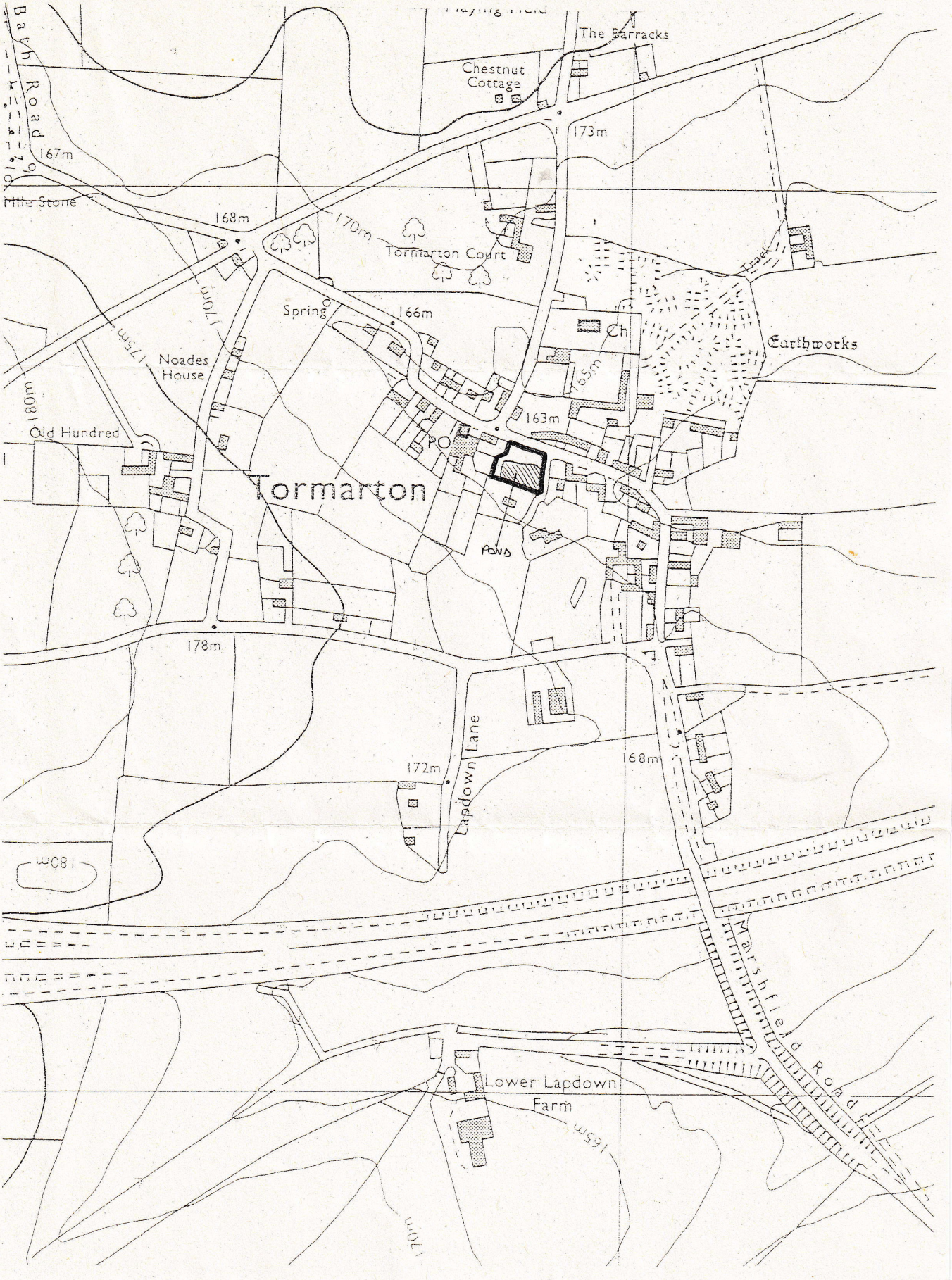

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