

Eynsham Fish Ponds

Report of the **botanical survey** carried out by the Cotswold rare plants group during the summer of 2004

Before commencing the physical survey, we divided the total extent of the site into ten separate individual areas and these are annotated 'A' to 'J' on the attached map.

The surveys took place on the following days: 10th May: 28th June and 29th July 2004. No survey work was carried out to determine to what extent Spring flowers existed on this site, as we were not aware of the requirements of the survey until the end of April. Given the nature of the site we would not expect any unusual plants to be in evidence earlier in the year.

The listings below are an amalgamation of each of the three surveys, giving a collective record of the type of vegetation within each area. The plants are listed by their English names, as seen and recorded as we perambulated around each area and were then sorted alphabetically for quick identification so that subsequent comparisons can be made.

Where a question mark occurs after a plant's name, this indicates that we couldn't positively determine its correct name due to lack of a flower head as it was 'out of its season'. The flower is the usual determining feature of any plant.

Recommendations for management/improvements to this site conclude this report.

The Survey Results

Area 'A' and sub-area 'A1'

This is the car park hard standing and its immediate surrounding area, where the vegetation is very short (area A1) and the larger area (A) at the western end of the site, bounded by the fence to the sewage pumping station, the road, the northern boundary of the site, the stream that runs south at the change of level of the in-filled area and the northern side of the footpath that runs from the car park to the playing field alongside the stream, hereinafter referred to as the 'stream-side footpath'.

We are led to believe that area 'A' has been extensively backfilled so that no evidence of the earlier fishpond can be determined. Within these two areas were the following plants;

Plant list from Area 'A1'

Annual poa grass	Cut-leaved	Ground Ivy	Shepherd's purse
Black medic	Geranium	Hogweed	Spear thistle
Cherry,	Dandelion	Hop trefoil	Stinging metal
Common ragwort	Elm	Horsetail	Wall barley
Common vetch	False oat grass	Perennial ryegrass	White clover
Couch	Goat rue	Pineapple weed	Yarrow
Cow parsley	Goose grass	Red bartsia	Yorkshire fog
Creeping thistle	Great willow herb	Ribwort plantain	

Plant list from Area 'A'

Alkanet	Dog rose	Hazel	Mock orange?
Ash	Dog violet	Hedge bedstraw	Mustard?
Beech	Doves-foot cranes	Hedge bindweed	Silver birch
Blue cedar?	bill	Herb robert	Smooth hawk's
Bramble	Elder	Hoary plantain	beard
Coastal redwood?	English Oak	Holly	Soft rush
Common bistort	Flattened meadow	Horse chestnut	Sorbus
Common hornbeam	grass	Italian alder	Sycamore
Couch	Goose grass	Ivy	Teasle
Crack willow	Great bindweed	Knotgrass	Tufted vetch
Crack willow (?)	Ground ivy	Laburnum	White dead nettle
Curled dock	Hawthorn	Large leaved lime	Whitebeam

Area 'B'

This area includes the Chillbrook Stream (both banks and the stream bed) and the vegetation between the stream and the north side of footpath that runs alongside it to the playing field. This does include the narrow band of short vegetation on the north side of footpath.

Some of the plants listed can only be seen from the stream itself, as we walked along the stream bed. We would not advise visitors to follow our route as not only is there a safety issue but constant disturbance would be detrimental to the aquatic life therein. Our 'water excursion' was undertaken to enable us to check the extent and variety of plants within the stream area.

Plant list from Area 'B'

(Large ant hill)	Cuckoo pint	Hogweed	Teasel
Angelica	Currant	Honeysuckle?	Three-veined
Ash	Dandelion	Ivy	sandwort
Bamboo!!	Dogwood	Ivy-leaved	Timothy
Beech	Elm (+ suckers)	speedwell	Water chickweed
Bird's foot trefoil	Field bindweed	Jack-by-the-hedge	Water mint
Black medic	Field Horsetail	Male fern	Water Plantain
Blackthorn	Fool's watercress	Marsh woundwort	Wavy bitter cress
Bramble	Germander	Meadow sweet	White convolvulus
Broad-leaved dock	speedwell	Nipplewort	White dead nettle
Broad-leaved dock?	Gypsy wort	Ox-eye daisy?	Wild arum
Brome?	Goose grass	Periwinkle	Willow?
Buddleia?	Great willow herb	Primrose	Wood avens
Celandine	Greater celandine	Pussy willow	Wood forget-me-not
Common Figwort	Greater stitchwort	Red clover	Woodruff?
Common Hornbeam	Ground elder	Reed sweet grass	Woody nightshade
Common ragwort	Ground ivy	Smooth meadow	Yarrow
Common vetch	Groundsel	grass	Yellow cress
Cow parsley	Hawthorn	Square-stemmed St	And a Kingfisher
Cowslip	Hazel	John's wort	nest in the stream
Creeping buttercup	Hedge bedstraw	Stinging nettle	bank.
Creeping buttercup	Hedge woundwort	Sweet violet	
Creeping thistle	Herb robert	Sycamore	

Area 'C'

This area is the triangular space between area 'B' which is bounded by the Chillbrook Stream, 'Harvey's House' platform, the small stream running to the south of the large fishpond and the point where the footpath enters the playing field to the east. It excludes the actual stream (possible line of original course of the Chillbrook) to the north of area 'C', which was surveyed by Pascale Nicole of the Pond Action Group.

The vegetation within this area is, in the main, fairly rank grasses and tall 'weeds' with little in the way of fine grasses or flowers.

Plant list from Area 'C'

Angelica	Dandelion	Hardheads	Pineapple weed
Bramble	Elder	Hawthorn	Ribwort plantain
Broad-leaved dock	Field convolvulus	Hedge woundwort	Rye grass
Celandine	Germander	Hogweed	Sorrel
Clustered dock	speedwell	Horsetail	Stinging nettle
Cock's foot	Goat's rue	Ladies bedstraw	Sycamore
Common vetch	Goose grass	Lesser stitchwort	Timothy
Cow parsley	Great bindweed	Marsh woundwort	White clover
Creeping butter cup	Great willow herb	Meadow fox tail	White dead nettle
Creeping cinquefoil	Ground elder	Meadow sweet	Yarrow
Creeping thistle	Ground ivy	Meadow vetchling	Yorkshire fog

Area 'D'

The greater part of this area is defined on the map as 'Harvey's House' and is a slightly raised platform, which drains more readily than the other areas of the site. The top soil here retains a reduced volume of rain water, which helps to support more of the finer plants and less of the coarse ones.

The northern section, beyond the footpath that crosses this area, slopes down to the line of the 'original course of the Chillbrook', giving damper condition there.

From a botanical point, we found this area the most interesting, as it would appear that man's interference with the levels has benefited the plants that people find more appealing.

Plant list from Area 'D'

Beech (small)	Dandelion	Hedge wound-wort	Smooth meadow
Bird's-foot trefoil	Elder	Hogweed	grass
Black medic	Elm (seedling)	Horsetail	Sorrel
Bramble	Field bindweed	Jack-by-the-hedge	Stinging nettle
Broad-leaved dock	Field maple	Knapweed	Timothy
Celandine	Germander	Ladies bedstraw	Tufted vetch
Cock's-foot	speedwell	Marsh thistle	Velvet bend
Common vetch	Giant Kingcup	Meadow foxtail	White clover
Cow parsley	Goat's rue	Mouse-ear	White dead nettle
Cowslip	Goose grass	Red bartsia	White poplar
Creeping buttercup	Greater pond sedge	Red fescue	Yarrow
Creeping thistle	Grey poplar	Ribwort plantain	Yellow oat grass
Daffodil (garden escape?)	Ground ivy	Rush?	
	Hawthorn	Silver birch	

Area 'E'

This area should be considered as the continuation of Area 'C' on the western side of Harvey's House platform, as the vegetation is very similar, being quite rank but with more tree cover. Perhaps it should be referred to as Area 'C1', as its defining boundaries on the north and south are the same.

The additional plants in this area, over and above Area (C) were as follows:

Angelica	Burdock	Horse chestnut	Willow (with round
Annual meadow	Dogwood	Prunus?	leaves?)
grass	Greater plantain	Sterile brome	Willow?
Blackthorn	Hazel	Water sedge	

Area 'F'

This area is defined as the narrow band of vegetation along the northern boundary, running between the site boundary wall on the north and in the north-east corner of the site, and the damp channel/hollow along the northern edge of the former ponds, with its western end against the in-filled Area (A).

Much of the area is covered in a variety of trees.

Plant list from Area 'F'

Black horehound?	Creeping thistle	Ground Ivy	Silver birch
Bramble	Daisy	Hairy or Wood	Spruce
Broad-leaved dock	Dog rose	brome?	Sterile brome
Burdock	Elder	Hawthorn	Stinging nettle
Caucasain lime?	Elm	Hedge wound wort	Water chickweed
Cherry	False oat grass	Hogweed	White dead nettle
Cock's foot	Field bindweed	Horse chestnut	Wood dock
Couch	Goose grass	Ivy	Yellow pimpernel?
Cow parsley	Great convolvulus	Leyland cypress	Yew
Creeping buttercup	Greater willow herb	Prickly sow thistle	

Area 'G'

This area is defined as the narrow, curving spur of raised land which runs south from the northern boundary area, just west of the stream that flows from the spring in the adjacent field to the north.

It is covered in fairly dense blackthorn scrub and is used by children as a hideaway, camp, den or whatever your local expression is for a play area in woodland.

Due to its relatively dense cover, the number of plant species therein is low.

Plant list from Area 'G'

Blackthorn	Thyme-leaved speedwell	Yorkshire fog
Angelica	Dandelion	Stinking Iris
Wood avens	Germander speedwell	

Area 'H'

This area is defined as the narrow, low lying damp area, immediately south of the former ponds, and bounded by areas 'A'; 'I'; 'J'; 'C'; 'D' and 'E'. It is considered that this is the line of the 'original course of the Chillbrook'. It contains a flora suited to wet areas and is different to anywhere else on the site.

Due to the presence of standing/running water, it was agreed that this should be part of Pascale's survey, (Pond Action Trust) with the driers areas of the ponds being covered by the Cotswold Rare Plants Group.

Plants that were noted as we passed through the 'stream' from north to south were:

Plant list from Area 'H'

Mugwort	Gypsywort	Meadow sweet	Various reeds
Keeled sedge	Bistort	Various sedges	

Areas 'I' and 'J'

Initially we considered that the locations of the original fish ponds would be wet habitat and assumed that these would be surveyed by Pascale of the Pond Action Trust. After a walk through together, it was agreed that the areas were in fact now raised, due to plant material falling into any water that was once there, and over many years building up its own detritus to bring the surface above the former water level, thus effectively making it 'dry ground'.

We then considered surveying each pond area separately, to ascertain if there were any differences therein. This proved to be over ambitious and we therefore modified our pattern of survey for the following reasons:

1. Trying to walk through two metre high, very coarse vegetation was extremely tiring.
2. We found quite quickly that there was such dominance by the plant Hairy willow herb, that finding smaller, finer species was exceedingly difficult.
3. Once into the tall 'undergrowth', it was very difficult to determine where any internal boundaries (raised areas or depressions) were, therefore one couldn't say which pond one was in.
4. We made five crossings of the combined areas (I) and (J) and found little variation in plant life.

What vegetation occurs within the pond areas in springtime could not be ascertained.

The areas 'I' and 'J' are defined as the former fish ponds. Area 'I' being the western pair of ponds and 'J' being the eastern two (or three?).

Plant list from Areas 'I' and 'J'

*Amphibious bistort	Gypsy wort	*Meadow sweet	*Stinging nettle
Broad-leaved dock	*Hairy willow herb	Meadow vetchling	Tufted vetch
*Creeping thistle	(Tens of thousands!)	Mugwort	*Wild angelica
Duck weed (in north channel)	Hard rush	Perennial sow thistle	Willow
False oat grass	Hawthorn	Prickly sow thistle	Yarrow
Figwort	Hedge wound wort	*Reed canary grass	
*Goose grass	Hogweed	Reed sweet grass	
Ground ivy	*Horsetail	Rough meadow grass	
	Marsh woundwort		

* Those plants marked with an * are the dominant plants within the pond areas

The finer, less frequently seen plants are repeated and listed below:

Broad-leaved dock	Gypsywort	Meadow vetchling	grass
Duck weed (in north channel)	Hard rush	Mugwort	Tufted vetch
False oat grass	Hawthorn	Perennial sow thistle	Willow
Figwort	Hedge wound wort	Prickly sow thistle	Yarrow
Ground ivy	Hogweed	Reed sweet grass	Water chickweed
	Marsh woundwort	Rough meadow	Wood dock

End of survey report.

Suggested possible future management of the individual areas for the benefit of wildlife and the public.

Area (A1)

Around the well trodden and driven car park area, there are 30 different species of plant growing in either the hard core forming the parking area or in the very short vegetation at the car parking edge.

Most of these plants are fairly common and are easily seen by passing public. It is suggested that a plant interpretation board is erected in this area to help people learn to identify the common plants.

Area 'A'

Throughout this area there is an interesting collection of trees, many of which are exotic species. To help people identify these specimens, one could apply name tags to individual trees, either by tying to the trunk or a low branch. These tags could be a fairly low cost items, then if any get taken off the Council will not be getting high maintenance bills.

To gain access to the northern area of the ponds (area 'F' on the plan), the existing narrow footpath needs to be widened to at least two metre width and maintained to this width on a regular basis. This will allow people to walk, side-by-side to enjoy the experience, rather than have to follow in single file.

Some overhead branches will need to be cut to allow safer, clearer access.

In the South East section of area there any is a large patch of brambles. This is a very important habitat for butterflies in summer time and one which provides an important food supply for birds and mammals in autumn/winter.

An interpretation board, alongside the path, close to the brambles, should describe the benefits of this plant as many people consider it to be 'a mess' and something that should be cut down and tidied up.

Management of this ever increasing bramble plant, should consist of say one quarter of the overall plant being cut to ground level each year, so that there is a series of different aged stems and levels of cover for the fauna that enjoy this plant.

Area 'B'

Within this area, the prominent feature to the casual visitor is the path alongside the stream, as the stream itself is hidden by vegetation for much of the year.

It is recommended that this route should be mown two or three times a year to provide a two metre wide pathway. Experimentation will be necessary initially, to determine the optimum times for grass cutting. What one would wish to achieve, is a clear walkway where two people could walk side-by-side, but not to cut the grass so frequently as to damage and remove any small flowers that should appear.

The stream is particularly attractive, but it has steep sides for most of its route along this corridor. It could be opened up at one point at the eastern end by cutting back the vegetation beside the path to give a view of it. This would also allow access to the stream for children, as there is a shallow gradient to the bank at this point.

When the walkway comes out into areas 'D' 'Harvey's House', the vegetation on the north side is very different and attractive. This should be kept open to benefit the smaller, finer plants. (See notes on area, 'D' below).

Where the boundary has been drawn on the map, between areas 'B', 'C' and 'D', there is a badger set on the south side of the path above the stream. This area should remain undisturbed in any management activities. At appropriate times of the year, an evening of badger watching could be an attractive activity at this particular point.

Area 'C'

With this area covered in fairly coarse vegetation, it is recommended that the pathway is mown to a two metre width throughout its length, crossing areas 'D' and 'E' to reach the streamside path in area 'B' to the West.

Two additional suggestions are made for this area:

1. That the relatively level ground to the north of the path, over the length of area (C) should be mown on a regular basis to give a lawn effect.
2. At the widest point of this area, on the northern side of the footpath, a seat should be provided. This location offers one of the best views across the former, and maybe recreated, fishponds. This would make an ideal site for a picnic, especially if the grass around the same area was mown to allow people to sit on the grass as well as the seat. Those interested in bird watching will find this an ideal position as one has a range of habitats within view.

Area 'D'

Harvey's House platform provides the best botanical interest on the site.

It is recommended that a late summer grass cut* over the whole of the raised area would be of benefit to the vegetation. This would allow the finer summer plants to grow, flower and set seed before it is cut.

As the surveys did not start until May, there is a possibility that this is one area where the early spring flowers and grasses may be of interest.

Any small trees or scrub should be removed from this area at an early stage, so as to keep it open and light.

The rougher vegetation in the hollow, between 'D' and 'E' areas should be cut* down in the late autumn or winter, so as to prevent the seeds of courser plants migrating into the area of finer vegetation.

* Note: Where grass is to be removed from site for the benefit of subsequent flower displays, it is advised that the cutting process should be carried out with either a hand scythe or a reciprocating mower. This allows the stems of the vegetation to remain entire (rather than smashed and mashed with flail type methods), so that the cuttings are easier to rake up and load on to transport for removal.

Area 'E'

The cutting and maintaining of a two metre footpath is all that is recommended for this area.

Area 'F'

Access to and through this area needs improving by the cutting of a two metre footpath, as previously described.

The lower branches of the trees need to be removed to give a safe and clear access where the footpath wanders through this area.

Whether a board-walk should be created across the far eastern end of area 'J', being the low level wet area between area 'F' and area 'C' and up to the footpath there is open for discussion. If no connection is made, the opportunity to walk around the ponds will be lost, whilst the likelihood of visitors walking into the northern area and returning the same way to the car park is unlikely, so a pleasant experience could be lost.

If open water is to be created in one or more of the ponds, then a view from the north bank (area 'F') with sunshine reflecting off the water and up under the trees could be very attractive.

The possibility of a seat being positioned under the trees could be considered, but being in a damper position appropriate material would need to be carefully considered. This location would provide an excellent bird watching location.

Area 'G'

This is a short, raised spur, in a tangle of fallen or leaning trees and shrubs. It leads to an area where children have gathered together a large and varied collection of 'den' building material.

Given that this site is intended to be a community space, it is suggested that this becomes the children's hideaway location.

It is suggested that contact is made with the local children to ask if they would like to have this area as 'their patch' and to enquire how they would intend to keep it in reasonable order.

Having been a den or camp builder in my younger days, I think this location is ideal for today's young people, who are too heavily control and don't have much opportunity for a bit of adventure and self-discovery. Perhaps a notice could be erected that states 'Only children without their parents allowed in this area!!!'

It will take quite a bit of effort and time to clear out all the material within this area if one wishes to tidy it up, and one suspects, it will only be re-used again by the youngsters. Therefore engagement with them at an early stage would be an advantage.

If this is to be a community recreational area, which will for all and will need to be respected, then the young people must be considered.

Area 'H'

As this area is a linear strip of wet land either side of the course of the original Chilbrook, we would be happy to leave any recommendations on management of this area to the Ponds Conservation Trust.

Areas 'I' and 'J'

Initial thoughts on the ponds areas were that perhaps footways could be cut through these to provide people with an interesting experience of being amongst tall vegetation, with a sense of exploration!

Physically cutting and then removing the considerable amount of material that would be cut whilst creating clear footpaths through these areas, in the central of the site in a difficult position, would be a challenging operation.

The preferred suggestion is that one or more, or even all, of the former fishponds, should be cleared of all vegetation, the sides of the ponds should be found and recreated, and then the ponds could be refilled with water to give a most pleasing effect and create the central feature of the whole site.

From a botanical viewpoint, we would have no problem with this suggestion.

How one physically removes a very large volume of decayed vegetation from these areas we will leave to others to suggest!

The National Trust carried out a large 'Water Meadow' re-creation project at Sherbourne, Gloucestershire some years ago. They even used local carpenters and blacksmiths to make replacement sluices to fit into the original sluice gate positions that were found. The National Trust has an office at Sherbourne if further details are required.

It may be recommended that some of the surrounding trees, particularly in the willows, will need pollarding for safety reasons and also to reduce the leaf fall into the newly opened ponds.

If the ponds are opened, consideration will need taken as to how visitors can circulate around the whole site and across the eastern end of the ponds, in a safe and dry manner. Raised boardwalks have been used on many nature reserves and have proved popular with all ages as they offer a view of open water and wet habitats that cannot normally be seen.

General Comment

As this is an important archeological site and has a diverse set of habitats for nature, interpretation boards should be placed at strategic positions, giving information about a variety of interests.

Some of these could have positions on the boards where 'What has recently been seen' messages can be entered. This gives an air of expectation for regular walkers, making the site more inter-active and adds to the historical interest for the casual visitor, of which you may have many more once the site has been re-established with its ancient fishponds.

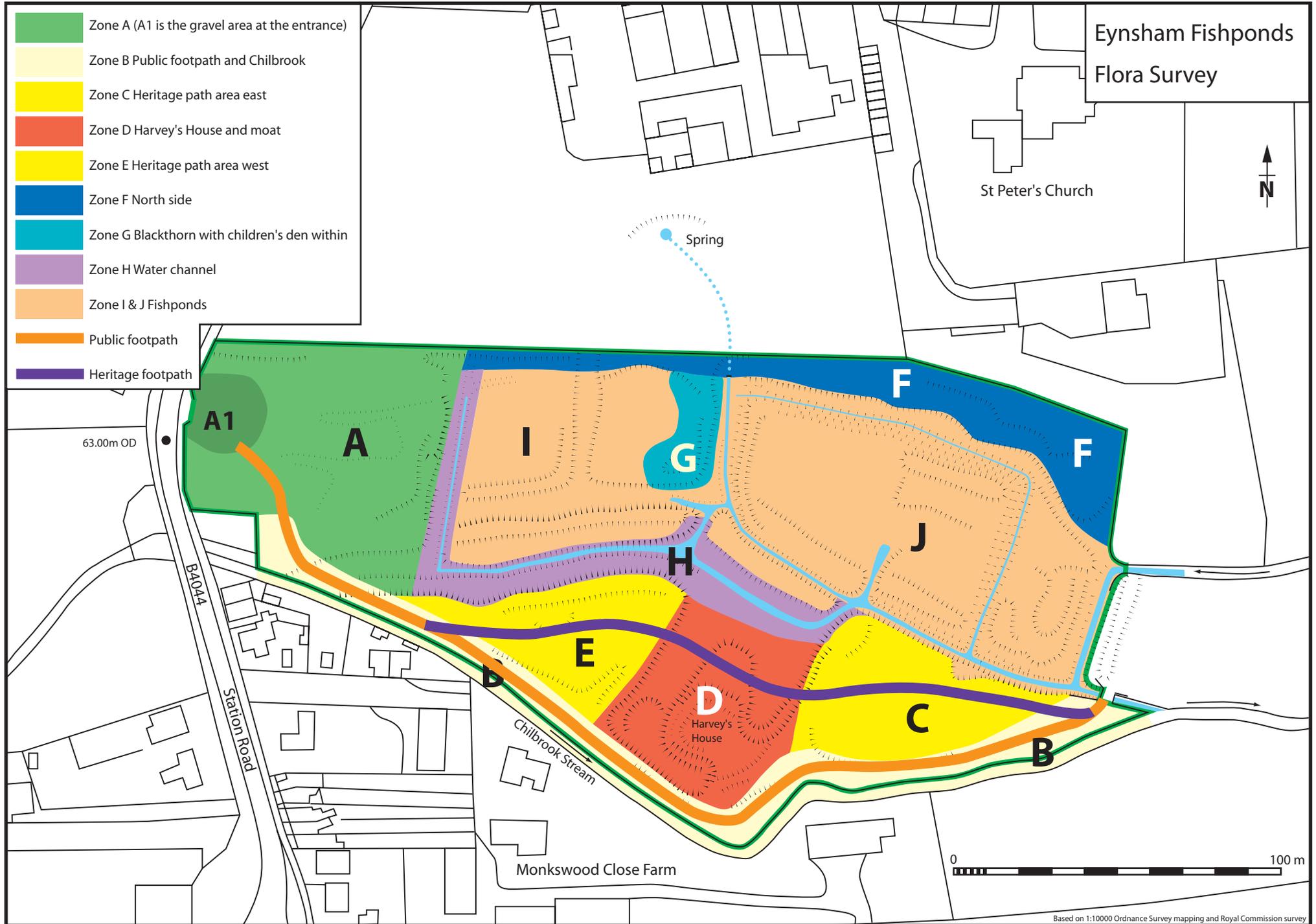
We applaud your vision and are pleased to be associated with this exciting project.

Ken Betteridge

For and on behalf of the Cotswold Rare Plants Group
24th September 2004

Eynsham Fishponds Flora Survey

- Zone A (A1 is the gravel area at the entrance)
- Zone B Public footpath and Chilbrook
- Zone C Heritage path area east
- Zone D Harvey's House and moat
- Zone E Heritage path area west
- Zone F North side
- Zone G Blackthorn with children's den within
- Zone H Water channel
- Zone I & J Fishponds
- Public footpath
- Heritage footpath



Based on 1:10000 Ordnance Survey mapping and Royal Commission survey