

COLESHILL PARISH COUNCIL

VILLAGE POND MANAGEMENT PLAN



February 2014

COLESHILL VILLAGE POND

Table of Contents

PART 1 DESCRIPTION.....	1
1.1 General Information.....	1
1.2 Physical Information.....	2
Geology and Hydrology.....	2
Water Quality.....	2
1.3 Cultural Information.....	3
Archaeology.....	3
Pond Use.....	3
Pond Cleaning.....	6
1.4 Biological Description.....	8
Flora.....	8
Fauna.....	9
PART 2 OBJECTIVES AND CONSTRAINTS.....	11
2.1 Mission Statement.....	11
2.2 Objectives.....	11
Water Quality.....	11
2.3 Constraints.....	13
i) Legal Status of Pond area.....	13
ii) Public attitudes.....	13
PART 3 RECOMMENDATIONS.....	14
3.1 Remedial Measures.....	14
3.2 Maintenance Measures.....	16

Appendix 1. Scoping Report 2007

Appendix 2. CARP

Appendix 3. Letters relating to Starfruit

Introduction and Acknowledgements

In producing this Management Plan for the Village Pond, I have had the advantage of being able to draw freely on an existing report: the 'Pond Conservation' report written by Rod d'Ayala in 2006 and commissioned by Coleshill Parish Council.

Rod d'Ayala set out various options for management to be considered by the Council. In the present Plan, I have tried to be as specific as possible, and some of the recommendations may divide opinion in the Village and the Council will have to decide on their implementation.

I would like to acknowledge the invaluable help that I have received from Derek Higgins in making this document ready for publication. Also, various members of the Common Management team have given practical help and David Bell assisted by producing bird records.

Chris Wege

1.2 Physical Information

The Pond is a body of water lying at an elevation of 167 metres and of approximately 0.14 hectare in area with an extension of 0.02 hectares. The surrounding land is 0.07 hectare. The O.S. Grid Reference is 948/951. The deepest part of the pond is to the west (the rear), under the overhanging trees. Here it is 1.2 metres deep when at its fullest and from that point it shelves gradually to the shallow margins. The surrounding land has short grass to the north and the east. On the south side, the grass stops half way along the bank and becomes scrub with some semi-mature trees. The rear or west part of the surround is composed of overhanging trees except where the pond adjoins the extension. Here there are the remnants of an earthen bank between the two ponds, with willow trees growing on it. The northern grassed area bears two large weeping willow trees that overhang the water. The floor of the pond is composed of gravel with a layer of overlying silt.

Geology and Hydrology

Coleshill sits on the top of a hill which is capped by Reading Beds. These consist of a layer of graveley clay above a layer of more impervious clay. In some parts of the village, water collects at a depth of about 2 metres, as evidenced by the depth of old water wells. There is seepage of water appearing as springs at the edges of the cap – about 15 metres height below the top of the hill. It is assumed that the accumulation of underground water flows laterally from the higher parts of the village to help feed the pond. Thus there could be pollution from houses well away from the pond. The village was put onto main drainage in 1992 but before that time there would have been more contamination of the ground water.

When the water level in the pond is low, it can be seen to respond quickly to rainfall and so rain must be an important part of the water supply to the pond.

The water level of the pond varies with the seasons, falling in drought conditions, but rarely drying out. The exceptional summer of 1976, leading to a complete drying, has already been mentioned. In 2013, with a dry spring and previous dry autumn, there has been a fall in the level, resulting in an exposed margin of up to 2 metres.

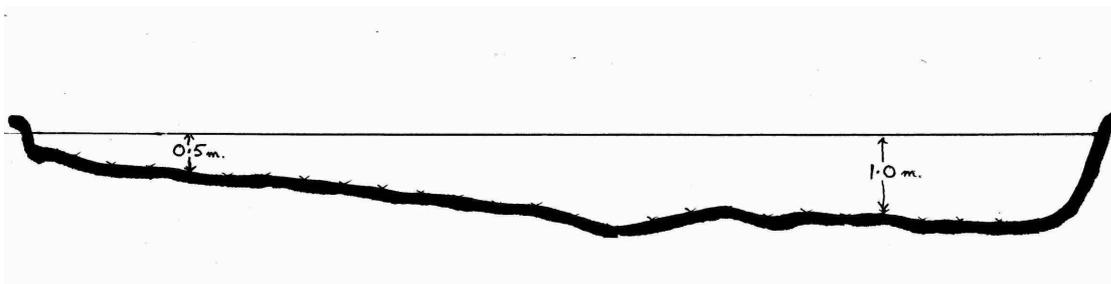


Fig 2. Profile of pond floor. Deepest point: 1.2 m. (Vertical scale x2)

Water Quality

It was the perception in the village that the water quality of the pond was poor and this led to a dredging operation in 2011. Many tons of silt was removed by contractors using a long-armed excavator. It is the prospect that this may produce an improvement in the water that has prompted the Parish Council to commission this Management Plan.

The pond water does not have an unpleasant smell, though the silt exposed by a fall in water level does. This has not been reported as a problem by residents. In January 2014, the pH of the silt was found to be neutral.

1.3 Cultural Information

Archaeology

The Pond was formerly an important part of the wider common and the history of the two is bound together. John Chevenix-Trench wrote:

‘They [the early Saxon settlers] had the priceless asset of a reliable water supply - our village pond. They called it the ‘Clenemer’, the Clean Pond, not because the water was clean, but because it was clear of trees; it stood in a clearing, now the northern tip of the [former] Common. Probably they built shelters round the edge of the clearing, but it is not likely they lived here permanently. They called the place Stock or Stoke, a word which means a Cattle Farm, usually at a distance from its parent village, and it bore this name throughout the Middle Ages.’

‘The pond is named in a document of C13 as "Clenemer". Later, this became "Claremore" which developed to "Claymore" (in which form the name still survives, though not in reference to the pond). There is no evidence that it is artificial, apart from the small westward extension, though the natural mechanisms by which ponds form on hilltops are not well understood.’

The westward extension lies in privately owned land belonging to Friar’s Vane – formerly Lands Farm. The paddock in which it lies was granted to the owner of Lands Farm at the time of the Enclosures. Up to that time the land was a part of Coleshill Common and stock had free access to the pond from all sides. The extension would have been dug when the land was fenced off. The photograph below shows cattle belonging to Lands Farm drinking at the pond.

Pond Use

Over the many centuries the pond has been used by the villagers for a variety of purposes and the photographs that follow on pages 7-9 illustrate some of these.

The most important use of the pond in past times was for the watering of cattle and horses. Cattle from Lands Farm can be seen in Fig. 2 drinking from the pond extension. In addition ducks and geese would be allowed to swim there to find food and maintain their condition. The blacksmith would have needed buckets of water for quenching iron tyres for the wheels he was working on and some larger pieces of iron may have been carried to the pond to be quenched.

Carts and wagons were often driven into the pond to soak the wooden parts of the wheels, to prevent shrinkage and splitting in hot dry weather. Shrinkage could lead to the iron tyre loosening on the wood. There were many working horses in the village in past centuries and they would often have drunk at the pond.



Fig 3. The Pond and Lands Farm



*Fig 4. Stephens Butcher's cart in the pond.
Taken before 1912.*

Apart from these uses that were central to village life, the pond has had an important role in the cultural life of the people. Some anecdotes from older inhabitants of the village relate to the pond:

'Once a year the gypsies would camp there and hold a fair, watering their horses in the pond.'

'One cold winter, Mr Slade made a bet that the pond was solid ice, and drove a team of two horses (shod with ice studs) and a loaded coal wagon across to prove it. He won his bet!'

'During the Queen's Silver jubilee celebrations in the village a pig roast was sited on the banks of the pond. Inattention allowed the pig to catch fire. It was promptly dunked in the pond and then replaced over the fire. It was delicious!'



Fig. 5

The Pond has frozen over quite frequently over the years and the youth of the village would make full use of it for sliding, as in the photo (Fig 4). Pam Appleby related that the children were good at evaluating the ice by the feel of it and deciding 'Will it bear?' or not. A well known resident called his children off the ice because it was

obviously rather thin towards the rear bank. To prove his point he walked across to this area and stamped on the ice – immediately falling through up to his waist! It is said that another resident, having built a canoe in his living room, wanted to test it. Lack of experience led to a capsize out in the middle – in February! He proved the point that in those days there was plenty of water weed growing in the pond.



Fig 6. Aylesbury Ducks on the pond.
Taken early 20th Cent.



*Fig 7. The Pond in 1900.
Note the pollarded willows.*

Pond Cleaning.

In 1898 the Amersham Rural District Council heard from their Inspector that the public pond at Coleshill required cleaning out and the Clerk was directed to write to the Coleshill Parish Council requesting them to cleanse the same pursuant to Section 8 of the Local Government Act 1894.

In their reply, Coleshill Parish Council stated that they did not consider the Pond in that Parish required cleaning out as it was cleaned out in 1890.

Pond cleaning was carried out several times during the 20th Century by villagers, with the event proving popular with the boys, as seen in the photographs below. There are references to this being done in 1935 and 1937, though on the former date only tins were removed!



Fig. 8. Pond Clearance c. 1970

The most recent work on the pond was carried out in January 2011 when silt was removed by contractors at the direction of the Parish Council. Entry into the pond by the long-armed excavator was kept to a minimum to avoid damage to the floor of the pond. It was sited on boards on the road-side bank, and most of the silt was removed from that position. There is speculation in the village that the contractor did not succeed in removing as much silt as had been hoped.



Fig. 9. Silt Removal 2011.

During some periods of drought in the past, the water has receded to expose a wide margin of mud on some occasions.

Writing in 1990, John Chevenix Trench wrote ‘1976, incidentally, was the only year during my 35 years residence in Coleshill when the pond has completely dried out.’ This seasonal falling of the water level allowed a rare plant – Starfruit - to grow on the exposed mud and this was the subject of interest from English Nature, who advised that the pond should not be topped up from the mains.

1.4 Biological Description

Flora

a) Pond.

It appears in 2013 that there is no plant life in the body of the pond.

b) Pond Margins.

The following plants were observed along the margins in 2013:

- Bur marigold – *Bidens tripartita*
- Common Nettle – *Urtica dioica*
- Common Sorrel – *Rumex acetosa*
- Great Hairy Willowherb – *Epilobium hirsutum*
- Greater Plantain – *Plantago major*
- Red Hemp Nettle – *Galeopsis angustifolia*
- Nipplewort – *Lapsana communis*
- Soft Rush – *Juncus conglomeratus*
- Water Mint – *Mentha aquatica*
- Woody Nightshade (Bittersweet) – *Solanum dulcamara*
- Yellow Iris – *Iris pseudoacorus*.

c) Trees present in 2013:

- Ash
- Blackthorn
- Cherry (ornamental)
- Crack Willow
- Silver Birch
- Weeping Willow
- Yew

There is an understorey of Ivy.

Fauna

13. a) **Birds** – recent and historical sightings of birds. Compiled by David Bell on 31-10-

BIRD	2008 - 2013	Before 2008
Little Grebe		11-4-84
Grey Heron	*	
Mute Swan	*	
Gadwall		24-4-86
Mallard	*	
Red Kite	*	
Sparrowhawk	*	
Kestrel	*	
Red-legged Partridge	*	
Moorhen	*	
Coot		5-6-81
Dunlin		26-7-74
Black-headed Gull	*	
Woodpigeon	*	
Collared Dove	*	
Cuckoo	*	
Swift		*
Green Woodpecker	*	
Great Spotted Woodpecker	*	
Swallow	*	
House martin		*
Grey Wagtail	*	
Pied Wagtail	*	
Waxwing	*	
Wren	*	
Dunnock	*	
Robin	*	
Blackbird	*	
Song Thrush	*	
Mistle Thrush	*	
Blackcap	*	
Chiffchaff	*	
Long-tailed Tit	*	
Blue Tit	*	
Great Tit	*	
Magpie	*	
Jackdaw	*	
Rook	*	
Carrion Crow	*	
Chaffinch	*	
Greenfinch	*	
	40 Species	

Where the bird was seen before 2008, but not since, an asterisk is placed in column 3 or a date of a single occasion, if known.

b) Mammals. Bats are seen frequently over the pond, but no survey of species has been carried out.

c) Fish. Carp are present in 2013 as a result of release into the pond. Other species may have been present in the past – again due to release.

d) Crustaceans. Signal Crayfish are reported to have been seen formerly but are now thought to be absent.

e) Amphibians. Frogs bred in the pond annually until after the millennium. There were few spawning frogs in 2012 and none in 2013. The photo in Fig.8 shows frogs mating in the N.E corner of the pond in 1989. Toads also bred in the pond and were seen crossing roads adjacent to the pond in the breeding season. There is anecdotal evidence of Newts in the pond formerly and of the Great Crested Newt in particular, but these have not been seen in recent years.



Fig.10. Frogs in the pond, 1989.

f) Invertebrates. No systematic survey of invertebrates has been done. In the Pond Conservation Report of 2006 (see Appendix 1) Rod D’Ayala said: ‘A brief aquatic survey for invertebrates found little variety, but given the time of year of the survey (October) many species would not be recorded and any statements about the ecological health based on its invertebrate fauna can only be provisional. However, the results are consistent with other known information about the pond, and other similar types of pond. Significantly all of the animals were netted from the strip of fringing aquatic marginal plants.’

PART 2 OBJECTIVES AND CONSTRAINTS

2.1 Mission Statement

The reason for writing this Management Plan is to identify and guide any changes that might help to achieve the following goal:

‘To manage the Village Pond in such a way that wildlife is encouraged for its own sake and for its rôle in enhancing the appearance of the Pond. Also, to maintain the Pond as a village feature, with reasonable access for the public.’

The following objectives will need to be addressed:

- improvement of the water quality
- management of the marginal plant life
- encouragement of aquatic plants
- management of the adjacent trees
- maintenance of the roadside grass
- liaison with the public

2.2 Objectives

Water Quality.

The aim of improving the water quality has to be addressed by reducing the introduction of contaminants into the pond. The following factors are thought to be involved:

a) Ducks. The Pond is frequented by Mallard duck, some of which have become semi-tame as the result of being fed by villagers. In winter the number of duck on the pond sometimes reaches over 40. These birds disturb the silt and their faeces add to the build-up of nutrients in the silt. Adding to this is possible pollution from bread, which is sometimes thrown into the pond in large quantities. The aim should be the avoidance of anything that attracts more duck to the pond.

b) Fish. Over the years fish have been released into the pond by anglers from outside the village. Recently carp have become large enough to be noticeable and have grown to around 30 cm. Numbers are difficult to estimate, but there may be around a dozen. The effects of silt disturbance by both fish and ducks are exacerbated in low water conditions, when every movement is closer to the bottom. Some information about Carp can be seen in an extract from Wikipedia in Appendix 2. The problems are three-fold: that the faeces from the fish introduce nitrates; that they stir up silt; and that they uproot and damage plants as they feed in the silt.

They are also prolific breeders which compounds the other problems. The objective should be the removal of all the fish in the pond.

c) Road Run-off. The road adjacent to the pond has a profile that encourages the formation of a large roadside puddle. At some time in the past, a pipe from the road to the pond was installed for drainage. This has the effect of draining traffic contaminants and road salt into the pond. The presence of the pipe into the pond needs to be addressed, with either its removal or some form of filtration considered.

d) Land Run-off. It is possible that contaminants may reach the pond by draining off adjacent land. Grass cuttings and other garden refuse have been dumped alongside the pond and there may be seepage of nitrogenous matter from these into the water. Agro-chemicals, if used on surrounding grass, could run off into the pond but there is no knowledge of them being used. The piles of garden rubbish need to be removed and not allowed in future.

e) Mains Water. Following the complete drying-out of the pond in 1976, and other low-water years, the Parish Council decided to install a mains water pipe from Barracks Hill to the pond, crossing land belonging to Friars Vane. A valve was fitted to allow the automatic topping-up of the water in the pond. The intention was to avoid the perceived unsightliness of the exposed mud in future droughts. Mains water was used in this way from 1991. Rod d'Ayala points out that phosphates from this water will have persisted and had a deleterious effect on the water quality. The artificial water supply should be shut off and not considered for further use.

f) Water Plants. In 2013 there was a complete absence of plant life in the body of the pond. It is assumed that this was due to the various factors affecting water quality already mentioned; but this lack of plants further exacerbates the poor water quality by preventing the filtering of silt and suspended matter and the oxygenation of the water. (See letter in Appendix 3). The introduction of plants should be considered once some of the other factors have been rectified.

ii) Marginal Plant Life.

The objective with the plants growing along the margin of the pond should be to encourage a variety of plant species. Control will be necessary to prevent them spreading too far into the pond and also blocking public view and access. Invasive species will need to be monitored with particular care.

iii) Aquatic Plant Life.

The presence of submerged or floating plant life would provide cover for a variety of animal life – insects, crustaceans and larvae including tadpoles. The plants would have a filtering effect on the water and provide extra oxygenation. There would be a visual benefit in that the pond would look more 'alive'. The presence of plants can be seen in some of the historical photographs in Figs. 2, 5 and 6. To speed up a hoped-for improvement in pond life, it may be necessary to consider planting suitable native plants in the pond.

iv) Trees.

The objective with regard to the surrounding trees should be to maintain the presence of the band of trees at the back of the pond, to give cover for animals and birds. This area also provides privacy for the owners of the Friars Vane meadow. To the left (facing the pond) there should be easy access for the public as far back as the first large Ash Tree.

Between the main pond and the extension pond, there are some Crack Willows which have grown large boughs since the last time that they were pollarded. These trees are at risk of splitting and collapsing and the objective should be to rejuvenate them by repeating the pollarding. The owner of Friars Vane has agreed that this should be done.

To the right of the pond, the two large Weeping Willow trees are coming to dominate that side of the pond. Some space could be recovered by cutting back or removing the shrubs growing against the cottage boundary. Some degree of reduction of the two trees should be considered

with the objective of opening up that bank of the pond. As the trees have grown, the owner of the nearest cottage has become concerned about the possible effect they might have on his property and the likely concern of the his house insurers. During the time of writing this Plan, a strong wind in October 2013 has brought down a large bough from the more distant weeping willow and this will necessitate some tree surgery. Surgery to the nearer tree, to balance their sizes, should be considered.

v) Grass area.

The banks of the pond should be kept as a grassy area as at present and this area should stretch from the first large (Ash) tree on the left, round the front and as far as and behind the weeping willows on the right. Consideration should be given to allowing a small area of long grass to grow at the far right hand end of the area, to provide cover for insect and amphibian life. The objective should be to maintain the present mowing regime throughout the summer, with the removal of all grass cuttings.

vi) Public.

It will be important to maintain contact with the residents living close to the pond. Their agreement should be sought when changes are under consideration. The wider village will have a great interest in any work that affects the appearance or well-being of the pond and should be kept informed through the Village Website and the Village Newsletter.

Anything that interferes with the reasonable access of the public to the pond should be avoided. However, this should be balanced by keeping one area for wildlife only. Some minor alteration of the abrupt bank could be considered to make it easier for children to reach the floor of the pond and the water's edge.

2.3 Constraints.

i) Legal Status of Pond area.

The Pond and its small surrounding area is Registered Common Land. It is also in a Conservation area within the village of Coleshill. In addition, the two Weeping Willow trees have had Preservation Orders (T.P.O's) placed on them. Any changes involving the pond would have to take into consideration the obligations that these legal restraints impose. This would apply especially to the two trees mentioned.

ii) Public attitudes.

Public attitudes to several important aspects of pond management will have to be considered when change is proposed. Four matters will be to some extent contentious and these are set out below.

a) Tree surgery. Reduction of the Weeping Willow trees will have to be considered at some time and this will inevitably change the appearance of the pond surrounds. Some nearby residents would welcome this, but others may oppose any change in the setting of the pond. The pollarding of Crack Willows and the cutting back of other overgrowing trees would be less obvious, but might still be opposed by some residents.

b) Culling of Fish. If it is decided to remove the Carp from the pond, to aid the establishment of plants, it will be necessary to employ a specialist company. The movement of the fish to another site would require the approval of the Environment Agency and culling is likely to be the practical answer. Opposition might be met on the grounds of cruelty to animals.

c) Feeding of Ducks. The discouragement of feeding would be very desirable for the health of the pond, but feeding ducks is a long-standing tradition. Where children are concerned, it would be unthinkable to restrict the practice. However, on many occasions it is an adult doing the feeding, using unreasonable amounts of food. Adults might be reached by a long-term programme of education via the Village Newsletter, but success is likely to remain uncertain.

d) Water Levels. There are two opposing views of the management of the level of water in the pond. Some residents are displeased by the exposure of mud when the level falls. Others regard this as a natural feature of ponds. At present the dedicated water supply is turned off, but pressure to use it again might increase during a prolonged drought. If argument occurred about the use of mains water, it should be borne in mind by the Parish Council that it does not have direct control of the supply.

e) Cost of Maintenance. Cost could be a restraint to any work on the pond that was planned. There could be one-off expenses on e.g. fish removal or tree surgery. There will also be ongoing expenses on items such as grass cutting and the periodical clearance of spreading plants. The Weeping Willows will need regular reduction, possibly every five years or so. Most of the routine work could be carried out with volunteer labour and grants may be available to assist with larger projects. The present arrangement with Chiltern District Council for a budget to cover expense on the Common does not extend to the Pond. However, since the Pond is in fact Common Land, a separate budget for its maintenance might be logical.

PART 3 RECOMMENDATIONS

3.1 Remedial Measures.

a) Water quality. The fish are a major factor in altering the pond environment by faeces, silt disturbance and damage to plants. They should all be removed from the pond and a watch kept for further releases. Permission from the Environment Agency would be required and a specialist company employed to remove the fish. They would advise whether the fish should be killed or found new homes.

b) Ducks. The ducks are natural wild visitors to the pond but feeding encourages an enlarged population. It also encourages the birds to stay when they would normally have flown off to other places to find their natural food. A policy of education could be carried out through the Village Newsletter to persuade people to limit the amount of food that they give the ducks and to suggest that adults should not feed at all. Scattering food on the bank would be preferable to throwing it into the water.

c) Road Drain. The pipe from the road into the pond needs to be blocked. The County Council should be consulted about any alternative ways of dealing with the rainwater that collects at that point. Ideally, a completely new drain diverting the water elsewhere would be constructed. Failing that, a sump to act as a sedimentation tank, with overflow into the pond, is a possible answer. If any flow is to remain, the possibility of a reed-bed filter should be investigated. This would unfortunately place relatively tall plant growth right in the centre of the roadside margin and shield some of the view of the open water.

d) Mains Water Supply. On the grounds of both cost and chemical pollution, the mains water supply should be kept turned off. Calls to the Parish Council for topping up the pond should be resisted. Landowners may change over the years and the Council should ensure that they have control of the supply.

e) Weeping Willow Trees. The two Weeping Willow trees have arguably outgrown their space and dominate the visual setting of the pond. In the opinion of the writer, one of them should be removed. The second tree has just (October 2013) suffered damage in a storm and requires tree surgery. The damage has unbalanced the tree and an opposite bough will need to be cut back. Willows are renowned for rapid recovery from cutting and this tree should soon look attractive again, but it is the right time to consider its future. In the event that the first tree is not chosen for felling, it would need to be cut back to match the second tree. The leaf fall from these two trees, adding to the formation of silt, is considerable.

f) Crack Willow Trees. The Crack Willows on the boundary of the main and extension ponds are in need of pollarding, to rejuvenate them and prevent catastrophic collapse. The pollarding could be done incrementally: perhaps one tree per year, to minimise the effect on the appearance of the pond and spread the cost. Some young trees (principally Silver Birch) have grown through the branches of these willows and they should be removed at the time of the pollarding. Chiltern District Council approval will have to be sought prior to any work.

g) Plants. The planting of suitable native plants, of species found in the area, both aquatic and marginal, should be tried as soon as the fish have been removed. The sooner plant life can be established, the sooner an improved appearance will be obvious to villagers. Water quality may also be enhanced.

h) Access. Consideration should be given to creating a ramped area of the bank by cutting back around three metres of edge and creating a slope of about 30°. This would allow children to go down to the water's edge, particularly in low water conditions. Inserting a single step at one side of the ramp might be an alternative for stepping down.

3.2 Maintenance Measures.

i) Grass area. Regular mowing will be needed using a contractor during the summer months. All cuttings must be removed. Cutting should extend right up to the edge of the bank to prevent invasion of the grass from marginal plants. If a small area of long grass is agreed for the far right hand corner, this should be cut once a year, around August. At the time of writing, the self-set shrubs growing along the boundary with Park End Cottage, have been removed with the kind co-operation of the owner of that property. The planting of some less bulky plants along the fencing might be considered.

ii) Pond Margins. Designated stretches of the margin should be kept clear of plants to provide clear access to the pond. Plants can be allowed to invade the floor of the pond to a small extent, but must be controlled regularly. The Yellow Iris is particularly invasive and needs to be controlled annually, allowing a maximum of around a metre width of growth from the bank to develop.

iii) Aquatic plants. If the establishment of plants in the water body is successful, it may be necessary to control them at intervals in order to keep some part of the surface clear of growth.

iv) Trees. Regular monitoring of all the trees is required to pick up excessive or unsafe growth in good time. Some occasional cutting back of branches in the 'wild' area on the rear bank of the pond may be necessary, but this area is essentially not to be touched. The Crack Willows will need to be re-pollarded every 12-15 years and this could follow a rotational programme. The Weeping Willows will also need tree surgery at slightly shorter intervals than that to keep them in check; this recurring cost is another argument for removing one of the trees.

v) Monitoring. Tree monitoring has been referred to above, but it is necessary also to watch for any return of fish, either from fish fry remaining in the pond or from new unauthorised introductions. A watch for the excessive feeding of ducks should be kept and gentle discouragement given when appropriate.

APPENDICES

1. Pond Scoping Report 2007
2. Carp information
3. Correspondence relating to Star Fruit

Appendix 1. Scoping Report, 2007

Pond Conservation
For Life in Fresh Waters

REGISTERED CHARITY 1107708

COLESHILL VILLAGE POND

Options for the management of Coleshill Village Pond and its local environs for the benefit of people and wildlife



Coleshill Village Pond, October 2006

Contents

Executive Summary	Page 1
Suggested Way Forward	Page 2
Coleshill Village Pond – Site Background	Page 3
General Pond Ecology	Page 4
Issues Affecting Coleshill Village Pond	Page 5
Issues and Opportunities, Coleshill Common and Other Areas	Page 7
General Issues and Opportunities	Page 8
Possible Pond Management Options – Village Pond and Common	Page 9
Provisional Project Timetable	Page 12

Executive Summary

This document sets out a series of options for the management of Coleshill Village Pond and its local environs, with the intention of looking after its plant and animal life as well as maintaining the pond, as a feature the local people can be proud of, i.e. a good pond for both people and wildlife.

Coleshill Village Pond is in many ways typical of ponds found on the clay cap of the Chilterns and village ponds in general. However, in at least one way it is very unusual, being one of only a handful of recorded locations in the UK for the very rare plant Starfruit, *Damasonia alisma*. This plant has only been recorded from a few ponds in the Buckinghamshire Chilterns.

Managing ponds until recently was uncomplicated, following traditional beliefs and methods of what a good pond should be. However, recent research carried out by Pond Conservation has shown how ponds really work in an ecological sense – and many of these findings run contrary to the “traditional” approach to pond management. Ponds are in fact much more complicated, with types of pond considered to be traditionally “poor” shown to be good for wildlife. Coleshill Village Pond is a very typical traditionally managed pond. In recent years, for example, it has been artificially topped up to maintain it as a permanent pond and ducks are a popular and sometimes numerous feature of the site. The aquatic environment produced by such traditional management and use, is often not wildlife friendly - including Starfruit the special plant of the site. In contrast to the recent management of Coleshill Pond, the life cycle of this plant requires all or part of a pond to dry up, at least in some years.

The reasons for the management of local landscape features such as Coleshill Pond can be numerous, including for example traditional aesthetic / landscape considerations, public access and recreation and nature conservation. As a local site managed by the Parish Council on behalf of the local community it is important that all people who want to be able to be involved in the future decisions and management of their site.

To help enable people make better informed decisions this document identifies basic background information about Coleshill Village Pond and the main issues when deciding the appropriate management of the site - including potential or actual conflicts and problems. This information is provided on the basis that understanding problems and issues will improve the local and wider debate about what should be done. The document does not favour or promote one particular solution but sets out some options for how to proceed. Other ideas or options may appear during the consultation process.

Suggested Way Forward

The current period of discussion and planning for Coleshill Village Pond and its local environs began in autumn 2006, when the Parish Council with the support of the Chilterns AONB and in conjunction with Buckinghamshire County Council and Pond Conservation began the process of developing a formal plan for the Village Pond and potentially other areas within the village. To ensure the planning is robust enough to ensure the final proposed solution(s) works at all levels, both the decision making process and actual work phases will be phased. This phasing of the process will allow time for local and other consultation, and for the effects of management to be monitored to assess its success (and modifications to plans to be made if required):

Phase One, Autumn 2006 to Spring 2007

Draw up summary scoping document for Coleshill Village Pond and the potential options for its management i.e. this document. These options are to be discussed at local level by the Parish Council and local community, and more widely by other external interested individuals or organisations. The aim of this period of debate and consultation is to develop an agreed plan of action. (If universal agreement is not possible at least plans are acceptable to the majority of people.)

Phase Two, Spring 2007 to Winter 2007/08

Following agreement, or at least general consensus, on the preferred option(s) for work, draw up a five year, or ten year (whatever is sensible) management plan – the content and scope of work being dependent on the findings of this Phase. This plan is likely to include a mix of capital (one off) tasks and ongoing work.

There are two parts to Phase Two work – firstly the information gathering and survey work – and secondly the actual plan writing. To develop a detailed work programme will require detailed survey work, both for the Village Pond itself and other areas that may be included in the plan. This survey work is projected to take place in 2007. Aspects that will need investigation include critical environmental issues such as local hydrology (understanding the local water regime is essential in managing or creating ponds) and wildlife surveys (aquatic and terrestrial). Once completed the plan will need to be agreed and signed off prior to its implementation.

Phase 3, Winter 2007/08 and Beyond

It is not possible to predict the resources required to implement the planned work in advance. One benefit of having a detailed plan is that it will make the costing of work much easier and thus help the process of finding resources to carry out the work. Grant giving bodies need to know what is required and when it needs to be done and often insist on a detailed working plan. A well thought out plan is thus very important.

Coleshill Village Pond - Site Background

Coleshill Village Pond is situated in the centre of the village in a prominent location adjacent to the main road. The Parish Council have been managing the pond and its immediate surrounds without any objections, but if major plans are to be developed which could result in significant changes then the ownership issue needs to be sorted out. (The Parish Council applied for common land registration in 1968, which was accepted, but there is no owner listed in the register.) The pond is more or less permanent, for example it reportedly “dried out” in the extreme drought of 1976, but not in 2006. In 2006 although many ponds did dry up, Coleshill pond may not have dried because in recent years it had been topped up with tap water by means of an automatic valve operated mains water supply. Topping up ceased in the summer of 2006 (for financial reasons). The water level subsequently dropped to reveal an approximately two metres wide band of exposed mud. The water level has now risen such that it is more or less full with no exposed pond margins.

Aquatic plants are restricted to a relatively narrow and discontinuous strip around the pond margins, with none elsewhere in the pond. Fish were present in the past, but are currently believed to be absent. There are, as with many village ponds, plenty of domesticated ducks with numbers varying but reported as high as sixty being present at times. There are also wild water birds e.g. Moorhens. This number of ducks will make a significant negative impact on the ecological value of the pond. A brief aquatic survey for invertebrates found little variety, but given the time of year of the survey (October) many species would not be recorded and any statements about the ecological health based on its invertebrate fauna can only be provisional. However, the results are consistent with other known information about the pond, and other similar types of pond. Significantly all of the animals were netted from the strip of fringing aquatic marginal plants.

The adjacent road verge consists of short regularly mown grass. The road verge appears, in part, to be made up ground - suggesting that in the past the pond may have been bigger, extending over what is now the main road through the village. However, the pond has escaped some of the more dramatic infilling that can be seen in some village ponds and it retains a wide shallow margin. To either side of the pond are houses with gardens - and to the rear a managed short grassland paddock. The pond has open sunny banks on the roadside, and is shaded by a row of trees along its back edge. The side banks are part shaded by trees and adjacent boundary hedges.

In the past the pond has been managed in an attempt to improve the site for Starfruit. (*pers. comm.* Andy McVeigh, Buckinghamshire County Council). Specifically, the pond was part dredged in 1990/91 for Starfruit, *Damasonia alisma* as part of the rare plant “Back From The Brink” project led by the plant conservation charity Plantlife. There was further smaller scale clearing of silt in 1996/97 for the same reason. There is no known current management of the pond itself, though its immediate surrounds are regularly cut.

General Pond Ecology

Despite a commonly held traditional vision of what is a good pond, research by Pond Conservation has shown that all ponds can be ecologically valuable for wildlife. The four most important controlling factors for ponds are clean water (the amount is less important), the variety of habitats or physical structure within the pond, how wildlife friendly the surrounding area is and fourth (to a lesser extent) being close to other freshwater habitats including other ponds. Other factors e.g. the actual type(s) of habitat in which the pond is located, the amount of shade, depth and permanence of water etc, are only variables that control the type of life that can live in a pond. Pond Conservation uses a broad definition of what a pond is i.e. a more or less still water body up to two hectares (five acres) in area, which normally holds water for four months of the year or more. This definition thus includes many small and temporary water bodies most people would not even think of as ponds.

The classic “good” pond is often seen as one with a some aquatic and marginal vegetation, but also lots of open water, perhaps light shade from scattered trees around the margin and sometimes a greater or lesser numbers of water birds and/or fish. This vision of a standard or good pond has probably been derived from, and maintained by, the type of pond found in the traditionally managed (agricultural) landscape – a pond type whose form has been created and controlled by its social and economic function(s) more than its ecology. In a technical sense this type of pond would be described as a mid-succession pond - that is neither a brand new (early succession) pond, nor a very old (late succession) pond – which if full of plants or other debris – these often being described as “overgrown”, “choked” or “drying out”. Good mid-succession ponds can indeed support a large number of species. They would often have been maintained in this state by regular use and/or specific management.

However, each phase of the life of a pond will be suitable for and used by a suite of different organisms, some being specialists of one particular phase. A brand new pond with no plants and little or no below or above water structure will be suitable for open water specialists – some of which are only or usually found in the first few months of its existence. Similarly an old pond, for example a woodland pond entirely surrounded by and filled with living and dead trees, will have lost most of the species from its early and middle incarnations. But under the right conditions a suite of specialist species only capable of living in shady ponds full of natural woodland debris will have colonised. None of these ponds are ecologically better or worse, they are just different! Even ponds that dry out every year, or every few years are good – with most aquatic organisms having mechanisms to cope with regular (e.g. seasonal) or occasional drying. Some specialist species actually need regular dry conditions as part of their life cycle. There is no part of a pond that is not used by plants or animals. Having said this open water is generally a poor habitat for most species – as it is often barren and dangerous – it is the plants and other accumulated debris (silt, large and small) which provides the structure for organisms to shelter, lay in ambush, hide, lay eggs, sources of food, sources of material to build larval cases (Caddis Flies), etc.

Thus a whole range of ponds can be good for wildlife, including:

- Large / small
- Deep / shallow
- Sunny / shady
- Permanent / semi-permanent / temporary water
- Long lived / short lived
- Calcareous / acid

Where one or more of the four controlling factors are not as good as they could be a pond may still be ecologically useful, but it will not fulfil its maximum potential. When managing ponds it is important to understand their whole ecology, including its biological and hydrological conditions. Where problems exist these either need to be solved or work plans devised such that the problems are negated as far as possible if it can't be fixed. Poor water quality is one of the most common and difficult overriding issues, which often cannot be solved. Common factors, which cause poor water quality include contaminated run off from agricultural land or roads and overstocking with fish and/or ducks. Water may appear clean but in reality be enriched – for example mains (tap) water has relatively high levels of nitrates and phosphates and can contribute to algal blooms and other water quality related problems. Particular management actions may improve water quality - but often it is a fact of life, which has to be accepted and worked with.

Issues Affecting Coleshill Village Pond

There are a variety of issues and/or problems that impact on Coleshill Village Pond and probably other ponds in the village. Some of these issues are real and some perhaps only perceived. The list below may not be exhaustive but is indicative of the type of issues to resolve as part of the planning process.

Environmental / Ecological Issues

Water Quality is the single most important factor controlling the ecological quality of a pond. Coleshill Village Pond is unlikely to have the best water quality for the probable following reasons. Ducks are numerous, and the pond is a popular place to feed them. Water is enriched by both duck faeces and also (though it may not be a major problem in Coleshill)) any food brought for the ducks that remains uneaten. Ducks (and fish) can also maintain higher nutrient levels by continually disturbing the silts, which also has the effect of increasing water cloudiness. Two other problems have also added to water quality problems – keeping the pond topped up (until 2006) with mains water would have added nutrients some of which may no longer be present as they do not persist (e.g. nitrates), but others persist (e.g. phosphates tend to remain in the system once introduced). The pond also receives road run off, a potential source of numerous contaminants such as metals and salt.

It is very normal for pond water levels to fluctuate on an annual or seasonal basis and over a period of years. Species that live in ponds have adaptations to cope with this and some actually require drying out as part of their lifecycles. There are several plants, which need bare non-flooded ground to germinate, Starfruit being one of them. Thus during the period of topping up with mains water there was no or very little chance of this species re-appearing. If this and other similar species is to have a future in this pond (and as far as is known it has never been seen in any other pond in Coleshill) then at least part of the pond needs to dry out at some time.

Even from two brief conversations with local people passing the pond it appears there is anecdotal evidence of declines in some of the wildlife using the pond - for example, one person said that the number of spawning Frogs has declined in recent years. Anecdotal information is not always reliable by its nature and can be very difficult to quantify – but

often it is indicative of real trends. If wildlife is an important part of the ponds local function, then the precise cause(s) of any declines (if these declines are real) in the wildlife using the pond needs to be established and if possible addressed as part of the planning process. There are old records for Signal Crayfish in the pond, the most common of the foreign invasive species, which has been a major factor in the decline of our native Crayfish across large parts of the country. A site policy will be required if they still present (which is very unlikely under present conditions) or they re-colonise.

Practical Issues

Silt Removal - If silt removal is required on a large scale it could be very expensive. Pond silts will need to be tested as part of any planned removal and if heavily contaminated or enriched cannot be dumped just anywhere. If badly contaminated they could be classed as hazardous or toxic waste which is potentially even more expensive to remove as it has to be taken away to a secure landfill site. If possible larger scale silt removal is to be avoided for other reasons as well. For example, larger scale physical disturbance can lead to even worse temporary water quality problems than existed prior to its removal. Many animals live in or use the silt and thus species could be lost.

Hydrology – Ponds are wetland habitats and water is the key component of the system - thus a complete understanding of where it is from, what it is like and when it gets to the pond is essential. Coleshill Village Pond is apparently simple being fed by direct precipitation, local surface run off from its immediate surrounds and run off from the adjacent road. However, even high up plateau ponds like this can have elements of ground water or springs. Hydrological studies would also include an investigation of the water quality. Water quality is a key issue, which needs to be addressed as part of planning for the pond. The fluctuations in pond level are also critical in devising plans, whether the emphasis is on creating the “perfect” village pond with more or less fixed water levels - or maximising its value for wildlife (with fluctuations being desirable and/or encouraged).

Perceived Issues

Silt and ducks - Ducks and duck feeding are a popular village activity - with some people at least. Concern was expressed that the deep silt layers are, or may be, detrimental to the health of the ducks. There is no obvious connection between the two, though it is possible that poor water quality (which may not be helped by rich or contaminated silts) could affect the health of ducks as well as other animals and plants. However, in this case it is also possible that the concern about the ducks health may be acting as a cipher for peoples general and usually unnecessary concerns about silt in ponds. Silt in ponds is natural and a valuable habitat and resource for animals and plants. In duck ponds or other polluted ponds silts can become very rich and along with closely related issues of poor water quality cause major problems for life in ponds. Perversely however, ducks seem to live very happily in large numbers on the most polluted urban park ponds - which are otherwise almost lifeless.

Pond Ecology or “How Ponds Work” – Generally there is little widespread understanding of how ponds actually work as natural environments and from the few conversations with local people this appears to be the case in Coleshill. This is not unusual as many people have yet to catch up with recent findings about ponds. Thus the relationship between factors such as

ducks, duck feeding, fluctuating water levels, water quality and the best way to improve its nature conservation value and/or aesthetic appeal (e.g. nobody likes green smelly ponds) is poorly understood. To get the best decisions about the future management of the pond and other related works or areas, people need to be better informed.

Issues and Opportunities, Coleshill Common and Other Areas

Generally, whatever final plans are agreed for the Village Pond, Coleshill Common offers a great opportunity for people and wildlife. It is already a valuable local resource for both - and a review of its current value for both people and wildlife could create more opportunities still. Given its more natural surrounds it arguably offers better opportunities for nature conservation than the Village pond itself. For example, the ponds on Coleshill Common will generally be much less impacted by pollutants and other problems - and therefore be better ecological habitats. However, for Starfruit in particular, which has only as far as known been recorded from the Village Pond this may not be the case. If there is no seed bank on the Common then it is not going to benefit from any plans to improve the common, without very specific and potentially complicated (physical and administrative) plans to “seed” one or more ponds.

Including the Village Pond and other areas of public owned or other land into a single plan will rationalise and enable better use of finite management resources (money and volunteers) and other potential opportunities for external grants. An holistic approach will avoid any potential conflicts between the variety of local land uses and management. It could benefit the whole community by bringing them together to develop a vision for Coleshill, benefiting people and the wider environment.

Coleshill Common

Ownership - One overriding issue for Coleshill Common that needs to be highlighted is its ownership. It is understood that Coleshill Common is an “exempt common”. Under the Common Registration Act 1965 (dated August 1966) Amersham District Council applied for an Exemption Order. This Order was made in December 1966 which registered the fact that there were no commoners rights and no known owners. On its application the Order listed the Shardloes Estate as the owner. The Common is now under the auspices of the Chiltern District Council (Amersham District Council now defunct) which as delegated the management to Coleshill Parish Council. Thus, the Parish Council have been managing it without any objections, but if major plans are to be developed which could include more significant changes then the issue of ownership needs to be clarified. It is not uncommon for ownership of Commons to be complicated and often not clear!

Coleshill Common has a mix of open grassland, woodland and trees, in part an historically traditionally grazed landscape - but also in part abandoned clay and/or sand diggings. The upper central part of the common is dominated by grassland, which appears (from a brief autumnal walk over survey only) to be reasonably species rich. It is managed in part by cutting, and is also heavily grazed by rabbits. Much of the woodland is relatively recent secondary in origin and dominated by typical scrub species such as hawthorn - and thus probably too young to be very rich at least in terms of species typical of older woodland. However there are areas of apparently more mature wood pasture (traditionally grazed common land), at least adjacent to the open grassland. The former industrial nature of part of

the common has created an undulating landscape of variable soil types and wetness with good ecological and visual variation. Overall, this variety of physical structure and habitats offers great potential for ecological enhancement – in the process adding extra, or refining existing, features of interest for local people.

As regards ponds on Coleshill Common, there is very good potential for both common and rare species for the existing ponds and also plenty of scope for creating new ponds as well. There are currently at least three ponds on site and potentially other temporary ponds not visible at the time of the initial (brief) site survey. One pond is remarkable, possibly even unique, as it apparently has live cables running through the bottom of the pond!

The Chilterns Conservation Board with other organisations are piloting a project to assess the value of Chilterns Commons - with the future aim of improving their management. The opportunity to improve the Village Pond and expand work to include work on Coleshill Common as well would be an opportunity to be involved in this project at an early stage.

There is at least one potentially problematic (potentially invasive) species of plant on the common i.e. Himalayan Balsam, which may need to be monitored and controlled if this is deemed necessary. However, among ecologists there is not universal agreement that this species is a problem, and this is one of the many issues that would need to be explored as part of any plans if they were to include the Common as well as the Village Pond.

General Issues and Opportunities

- By ensuring all relevant information is gathered any proposed work is more likely to be successful. Thus although it may seem to some that a lot of time and resources are being put into planning it is best it is not rushed – if only to avoid wasting money and/or making major practical, ecological or other mistakes. For example the aim will presumably to improve the Village Pond, not accidentally drain it because either its physical structure and/or water supply was not understood and damaged by accident during work.
- Another advantage of good planning is that any proposals are more likely to be successful at attracting grants. A good management plan with clear objectives and annual targets will allow a bid to be put together more easily and make reporting back to the same funding bodies and others much easier.
- Working in partnership with local people, and other organisations with a known track record (e.g. Bucks County Council, Pond Conservation) will also help in any grant applications.
- Some of the possible options for the management of the Village Pond could involve significant costs. By contrast management of the ponds on the common would probably be relatively cheap and new pond creation potentially even cheaper – by comparison with the Village Pond.

Possible Pond Management Options – Village Pond and Common

The options listed below for the Village Pond are **outline suggestions only** and details of work tasks and methods e.g. amount and methods of silt removal (if required), disposal of silts (if required), temporary or permanent storage of materials, etc. - will all need to be developed as part of the detailed planning process.

Possible work tasks are identified for each option, but note these are indicative only and only after the selection of the preferred option(s) and detailed planning will it be possible to define the actual tasks.

Options Involving Only Coleshill Village Pond

Option 1 - “Natural Pond”

Aim: To manage the pond in a “natural” way for the maximum benefit of wildlife, e.g. allowing water levels to fluctuate over the whole of the pond. This will impact on some of its current uses, for example its role as a duck pond and potentially its aesthetic appeal. In this option the pond would not always be full of water and the at least some of the surrounds would be managed less frequently and in a less regimented way.

Work tasks could include the following:

- If required, partially or completely drain the pond and/or allow its level to drop naturally over the course of one or two years. Dig out more recent (top) layer of heavily enriched silt and dispose of as required in legal manner.
- Remove all fish (if any still alive) from the pond, and do not return when work is finished. Fish removal would be easier when the water level is lower.
- Adopt a policy of not artificially topping up the pond during low periods. Fluctuating water levels are an important component of the pond's ecology. Remove the feed pipe from the pond and/or the adjacent land.
- Stop or ameliorate the effects of road run off. Methods to do this could include one or more of the following: routing run off away from pond altogether, allowing it to enter only part of the pond (i.e. sealed off from the main bulk of the pond) which soaks away to ground and not the main pond, install an external silt trap, install internal “reedbed” to filter and clean water either as part of main pond or a stand alone small internal pond.
- Limit, and control, if required the number of resident domestic water birds. The best option would be to have no resident domestic birds at all. Ban additional feeding of any sort to discourage birds to move onto and/or stay on the pond. Truly wild birds that come and go are an accepted and welcome part of the pond's wildlife. Ducks can have major negative effects on water quality, which is the most important factor for a good wildlife pond.
- Allow pond level to fluctuate naturally to encourage Starfruit and other typical species associated with seasonally dry areas and shallow waters.
- Record / monitor pond water levels (probably monthly) and other ecological features as required (e.g. extent and type of plant cover etc.) These features could include water depths, silt depths, width of draw down zone, aquatic plants, amphibians, dragonflies, etc.

- If target species do not appear develop additional plans (if sensible or possible) to encourage them either in the Village Pond or as a fall back option elsewhere e.g. ponds on Coleshill Common. The obvious target species is Starfruit, but there may be others identified as part of the survey work carried out to devise the detailed plan.
- Within existing limits (e.g. highways requirements) manage the surrounds (limited though they are) on a less regular and less intensive manner such that the adjacent terrestrial habitat is also better for wildlife.

Option 2 - “Classic” Village Pond with Ducks and/or Fish

Aim: To maintain the pond as a traditional village pond with regularly managed surrounds, a resident population of ducks and possibly fish. Nature conservation, by default, to be of secondary importance, as many species will not tolerate the ecological conditions associated with such a management policy. (This Option is more or less the current management policy.)

- This option will almost inevitably mean that the pond will be relatively poor ecologically, especially if the numbers of ducks / fish is not controlled and supplementary duck feeding is not controlled.
- The immediate consequence of this is that nature conservation, if it is deemed to be an important component of the ponds and other areas in the village, will need to be accommodated elsewhere. The obvious site for this would be Coleshill Common (ownership issue permitting) with its existing ponds and potential for pond creation. Other local ponds, as yet unknown, which owners are keen to manage with nature conservation as a very important or main aim could also form part of a wider village wildlife pond network.

Option 3 – Village Pond and Wildlife

Aim: To maintain the pond as mix of both traditional village pond but with wildlife also very high priority (assumed equal for the scenario outlined here). This option will involve compromises for both perspectives and could be a difficult thing to do in one pond. Two possible approaches are outlined below.

- Option 3A - Retain pond as one continuous water body, but within it define zones or areas with differing management priorities, access arrangements etc. For example some areas to be deliberately maintained as expanses of open water (if an important part of its visual aesthetic appeal) with the water levels managed that could be topped up if required (mechanism to be decided) - but some drying out encouraged in other parts.
- Option 3B - Adapt the pond such that it is in two distinct and separate parts, one part being mostly permanent deeper water (e.g. this could be topped up by using all the road run off) and the other generally shallower which dries out to a greater or lesser extent on a regular basis (its entire water supply being clean sources i.e. rain water and immediate but not road run off).

- Both these options could be very difficult or even impossible to achieve in practise, but are concepts that could be explored. The permanent “deep” water would hopefully be preferred by the ducks and the very shallow semi-permanent in part temporary pond by other species e.g. Starfruit.
- For either of these options (3A and 3B) to work it will be necessary to define and work to limits (upper and / or lower) for features such as numbers of ducks and/or fish, amount of plants, type of plants etc. If these limits were not devised then one or other of the target reasons i.e. traditional village pond or wildlife will decline / dominate. Specified features would need agreed control method(s), instigated when limits were reached (or about to be reached).
- Both Option 3 plans would probably need to include a designated feeding area for ducks, preferably away from the water and any wildlife friendly areas, to minimise the effects of the feeding on the water quality but also generally to improve visual aspects such as green water.
- It is probable that active intervention to maintain the pond will be required on a regular basis – which is likely to be more costly in terms of resources than either of the two preceding Options (One and Two).

Village Pond and Other Areas

Option 4 – Also Manage Ponds Other than the Village Pond and/or Create New Pond(s)

Aim: Enhance and improve opportunities for both people and wildlife by making use of other existing ponds and/or creating new ponds (on Coleshill Common or elsewhere). These ponds to complement and increase the variety of opportunities offered by the Village Pond for both people and wildlife – whichever management option is chosen.

Note: This option is not dependent on what happens to the Village Pond and can be taken up in combination with any of the Village Pond Options (1, 2, 3A and 3B).

- The possibilities for work under this option have yet to be fully explored. However, Coleshill Common appears to have great potential for ponds generally – through its existing ponds but also through further pond creation. Pond creation could benefit nature conservation as well as produce attractive and accessible ponds for people to enjoy as well. The ecological value of its existing ponds needs to be carefully assessed before any major changes are made to them for any reason, ecological or other.
- The incorporation of other village ponds (with the agreement of local landowner(s)) as part of a formal, or informal pond network, could also provide similar benefits. New pond creation does not have to be limited to Coleshill Common, but could be undertaken on other land as well.
- One of the benefits of widening the scope of work to other sites, i.e. Coleshill Common or elsewhere, is that it could include much larger areas of surrounding terrestrial habitats. One of the most important controlling factors for good wildlife ponds is the ecological quality of their (terrestrial) surrounds.

[Note: Work on private land with no public access is less likely to attract grant aid unless some element of public engagement, for example permitted access to visit ponds included in the local pond network scheme. Most grant schemes require a strong people element to any projects they support.]

Provisional Project Timetable

Listed below is provisional timetable outlining the possible date and type of work required in compiling a thorough and sound practical plan for Coleshill Village Pond and (potentially) other ponds or areas (e.g. Coleshill Common). It is included as a guide only and may change, depending on circumstances e.g. funding.

Task 1 - Prepare Scoping Document – To be used to inform and be part of local consultation in spring 2007 – For March 2007

Task 2 - Detailed Surveys – Ecological, environmental of Coleshill Village Pond, Coleshill Common etc. (as required) – Spring and Summer 2007

Task 3 - Survey of Local Views and Opinions – The views of local important people are important, as these are their spaces. The process should be two way, gaining the opinions of people but also providing the local people with information so that they are best informed to contribute more fully to the debate - Spring and Summer 2007

[Note – Part of the above could be promoting Pond Conservations “Parish Pond Survey” which could be used a mechanism to both educate people about how ponds really work ecologically and also identify potentially suitable ponds for some of the more interesting local species (perhaps even Starfruit!) and candidates for a local pond network.]

Task 4 - Collate information, draw up plans. Agree the way forward, seek funding / resources. - Autumn / Winter 2007/08 etc.

[Note - These plans will need to be approved, this approval should include an appropriate consultation process. The plan will be a key document in getting resources to carry out the work.]

Task 5 - Practical Work – To begin as appropriate as soon as resources available – Spring 2008 and Beyond

Appendix 2. CARP

Extracts from a Wikipedia article give the following information about Carp:

The Carp is on the List of the world's 100 worst invasive species.

The average size of the common carp is around 40-80 cm and 2-14 kg.

They can easily survive winter in a frozen-over pond, as long as some free water remains below the ice.

Carp are able to tolerate water with very low oxygen levels, by gulping air at the surface.

Common carp are omnivorous. They can eat a herbivorous diet of water plants, but prefer to scavenge the bottom for insects and crustaceans.....

Due to their fecundity and their feeding habit of grubbing through bottom sediments for food, they are notorious for altering their environments. In feeding, they may destroy, uproot, disturb and eat submerged vegetation.....the vegetation they consume is not completely digested, and rots after excretion, raising the nutritional level of the water and causing excessive algal growth.

Appendix 3. Letters relating to Starfruit

Reference....JWS/PW.....

Coleshill PC for information.

NOTE FOR THE FILE

COLESHILL POND, BUCKS - DAMASONIUM ALISMA SITE

Meeting between Parish Council representatives, EN and County Council ecologist over future management of the pond, held at pond on morning of 6.9.91.

Present at meeting:

JWS, CO Buckinghamshire
Emma Lansdell, County Ecologist
Patsy White-Warren, Clerk to Parish Council
Tony? Parish Councillor
Mrs Valentine, owner of land adjacent to part of pond

The parish council have recently installed a ball cock and mains water supply to regulate flow into the pond, using money made available by the BCC environment fund. Their concerns are over the pond drying out again, killing the ornamental fish, leaving the ducks without water and exposing the evil-smelling mud at the centre of the pond. The drying out, at least to some degree, is essential to the conservation of the Damasonium population, last seen in abundance in the 1970s.

Emma Lansdell alerted the parish council to the importance of the pond and the protected nature of the plant and so a meeting was called.

It was clear from the brimful pond that the water supply was working well and that the pond is unlikely to dry out in the future, but it does also mean that water levels can be adequately controlled to favour Damasonium if the parish could be persuaded to do so. Some suitable edge habitat could be created at the edge of the pond while retaining water in the centre.

Much of the meeting was given over to encouraging the parish representatives to look upon the Damasonium (and other pond plants) as an asset and advice was given on sources of advice for pond management and funds for management work or tools and they have been provided with Plantlife address (in order to seek advice and funds) and Alan Showler's address for best support and help with volunteer action. Grant application forms for EN support have been posted to the parish.

The parish responded very favourably to this approach of seeking compromise through an agreed management regime and intend to hold a work party day this winter to start some work on the grassy edge of the pond. EN should try and be present at this to both encourage and direct operations. It is possible that a small ~~Kelsta~~ digger might be available to help with the work.
KV307A

If all progresses well and active management of the pond is set in motion, it should aim to cover the following:

1. Scrape of perennial grasses and vegetation along pond edge along road.
2. Grade off the steep cliff of clay along this edge to ease future management and encourage a little trampling and access.

3. Scrape off the shelf of glyceria in the right hand corner (near church) and, if possible, raise this a little with any surplus mineral clay from cliff or gravel from outside, to develop suitable exposed mineral clay sites as at Gerrards Cross.
4. Set in operation management work that keeps the vegetation at bay every winter and churns up the edge of clay and gravel a little prior to inundation in winter.
5. Sets in operation control of water level so that pond is flooded after management work has taken place in autumn/winter, and lower water level sufficiently in spring and summer to provide suitable habitat along the edges and on the 'shelf' in the church corner. It is essential that this combination of winter flood, summer drawdown and suitable managed habitat comes together.
6. The trees surrounding the pond are managed to reduce the silting of the pond from leaf fall. The small willow bush needs removing, the big willows need cutting back or pollarding, or at least the overhanging limbs lopping, and there is a good case for cutting back the ornamental cherry near the pond to allow in more light to the edge.

In 1976 the pond dried out completely and there was a mass of Damasonium plants recorded growing in the centre of the pond. If the edge management fails to recover the Damasonium from the edges in a few years of effort, it would be worth considering trying to recover some of the seedbank from the centre of the pond.

Dawe

ACTION: Alert Plantlife to possibility of Coleshill parish getting in touch with them. Forward grant forms to PC. Await contact from Coleshill re working party day and the development of a PC-adopted management plan for this pond. EN to provide as much assistance as possible to this project (and to encouraging restoration of the common) via advice and, if possible, grant aid.

JONATHAN SPENCER
 Conservation Officer for Buckinghamshire and Chilterns

13 September 1991



BUCKINGHAMSHIRE COUNTY COUNCIL

Planning Department
County Hall Aylesbury Bucks HP20 1UX
Telephone Aylesbury (0296) 383205

Doc. Exchange DX 4133 Aylesbury
Fax no. Aylesbury 382848

G E Schoon County Planning Officer

Please reply to
The County Planning Officer

This matter is being dealt with by E Lansdell
Tel. 0296-38 2759
Your Ref.
My Ref. AD64 EL/DI
Date 1 May 1991

Miss Wright-Warren
Coleshill Parish Council
1 Amber Cottages
Coleshill
Amersham
Bucks

Dear Miss Wright-Warren

As suggested in our telephone conversation, the planting of reeds and other aquatic plants in the 'receiving' pond (on private land) would act as a natural filter to silt and suspended material, as well as oxygenating water.

The following are suggested plants for this area:

Submerged oxygenators

- Hornwort spp. (Ceratophyllum spp)
- Water milfoil (spp) (Myriophyllum spp)

Emergent plants

- Bur-reed (Sparganium erectum)
- X Common reed (Phragmites australis)
- Reed canary grass (Phalaris arundinacea)

*up to 25cm
4-5 clumps each*

Many other species could also be considered, but it will be important not to overplant this small waterbody. Recommended local suppliers for native species are:

Dove Cottage Herbs
Glyn and Jan Onione
Penn House Estate
Penn Street
Nr. Amersham
Bucks HP7 OPS Tel: 0494 718203

*Skelspit Wildflower.
Winklow 029671 4676*

If you need any more help or advice please do not hesitate to contact me.

Yours sincerely

Emma Lansdell
Ecologist
for County Planning Officer



UNIVERSITY BOTANIC GARDEN
CORY LODGE BATEMAN STREET CAMBRIDGE CB2 1JF

Telephone (0223) 336265

CB/BJH

29 March 1990

S C Ware
Clerk to the Parish Council
"Nightingales"
Coleshill
Amersham
Bucks.

Dear Sir or Madam

Coleshill Village Pond

I am working on a Nature Conservancy Council contract in which I am attempting to elevate the populations of some of Britain's rarest plant species. One of these is the small, annual, semi-aquatic Damasonium alisma or Starfruit. Currently this species is known from just two sites in Britain which places it in the same 'rarity bracket' as Lady's slipper Orchid. Apart from these, the last place that this species was seen in Britain was in Coleshill Village Pond (by Mr M Southam in 1976).

Starfruit has a curious lifecycle as its seeds will only germinate below water but the resulting seedlings will usually only reach maturity and flower and fruit above water, in other words it can survive only in ponds whose water-level fluctuate i.e. are full of water in the winter but dry up at least partly during the summer. A further aspect of interest concerning this plant is the fact that its seeds can remain dormant in the mud at the bottom of the pond for long periods of time, (perhaps even several decades) waiting for suitable conditions in which to germinate. It is thus quite possible that viable seeds of Starfruit remain in your village pond. In 1976 when Mr Southam saw Starfruit it was growing on the dried-up bottom of the pond however, when I visited the pond last year I was surprised to find it brimming with water despite the drought. I can only conclude that someone has been keeping this pond topped-up with water. I am writing to enquire if you can confirm my supposition. If you are able to do this I would also be most grateful for the name and address of whoever is responsible in order that I can appeal to them to cease this activity, allow the water level in the pond to fall in the summer and thereby, with luck, allow this critically rare plant to return to a former habitat.

I am very grateful for any help you can offer and enclose some information on Starfruit which may be of interest to you. I also enclose a S.A.E.

Yours faithfully

Chris Birkinshaw
(Plant Conservator, Nature Conservancy Council)

c.c. Mr. J Spencer, NCC, Buckinghamshire

COLESHILL PARISH COUNCIL

2nd April 1990

Mr C. Birkinshaw
Plant Conservator
Nature Conservancy Council
University Botanic Garden
Cory Lodge
Bateman Street
Cambridge.

Dear Mr Birkinshaw

Danthonia alicata.

Mr Ware, our Clerk, has passed your letter on to me, as I chair the sub-committee for open spaces in Coleshill.

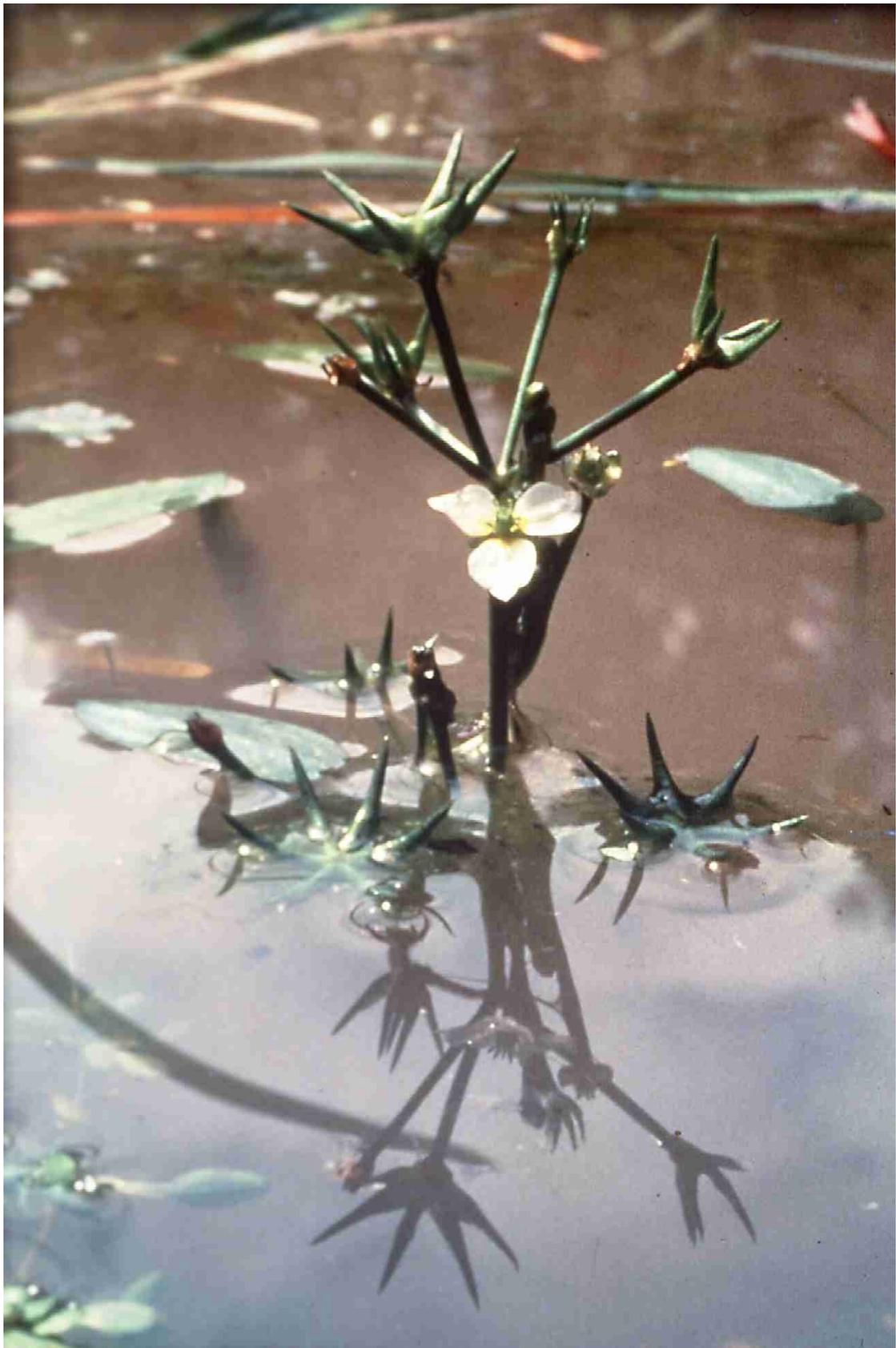
I was very much interested in your letter, and assure you that we shall do all we can to safeguard this rarity. It is a great pity that we had never been told of its presence.

You are right in supposing that the pond was re-filled during last years drought. It was done to safeguard the young mallard from predators while they were unable to fly. Since mallard are not an endangered species, there is no doubt which way the conservation argument would have gone, had we known of the Danthonia.

1976, incidentally, was the only year during my 35 years residence in Coleshill when the pond has completely dried out. I shall keep the information sheet you sent us and keep a look out for the plant if the pond should dry out again.

Yours sincerely

John Chenevix Trench
Deputy Chairman.



Starfruit Damasonia alisma

Appendix 3. Starfruit