

# *Wick Golden Valley Local Nature Reserve Site Management Plan (2003-2008)*



# *Golden Valley Local Nature Reserve Site Management Plan January 2003 – January 2008*

This management plan was produced by Gloucestershire Wildlife Management Ltd through community consultation. The views expressed are those of the community of Wick.

2002



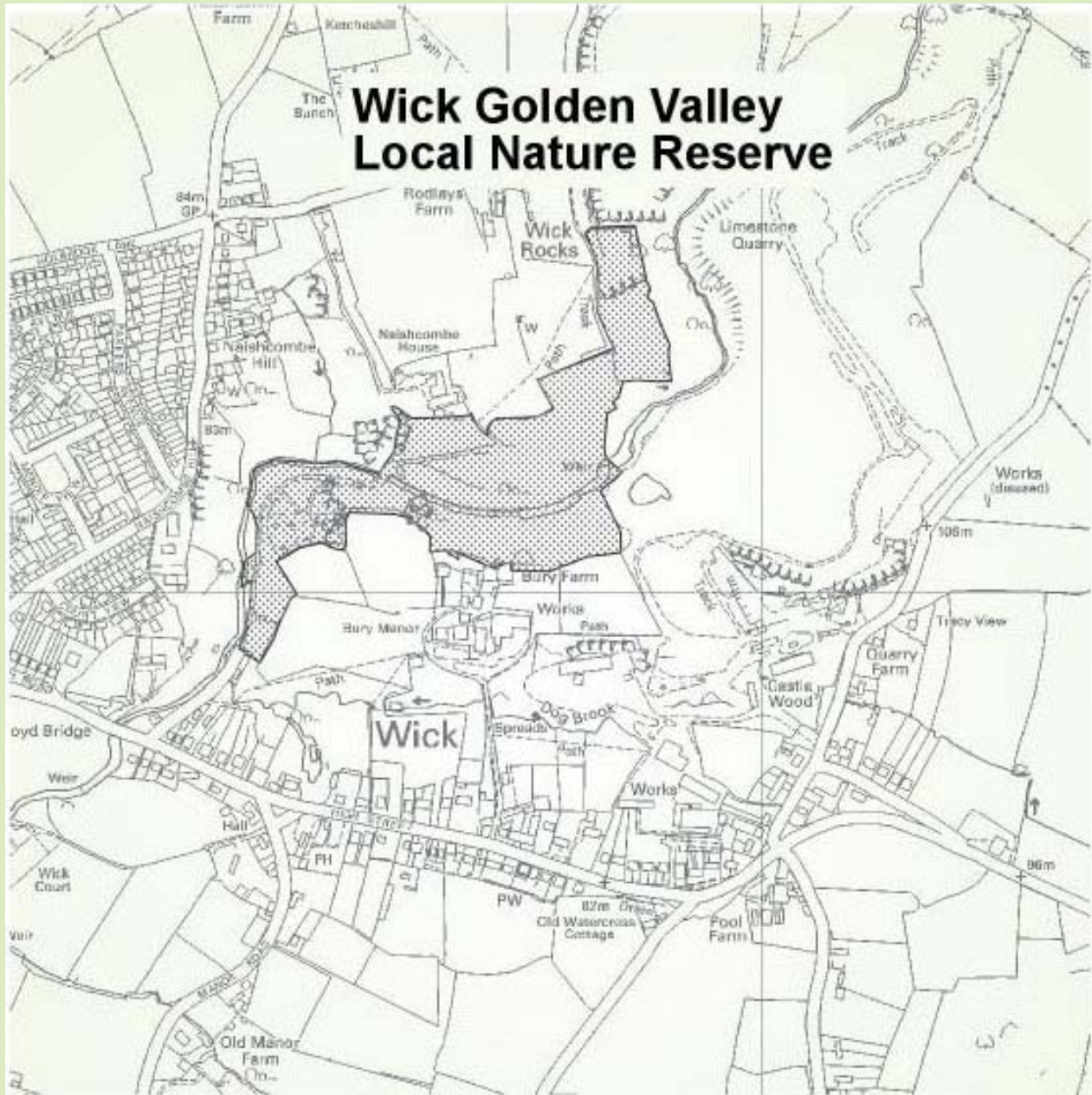
**“This is a paradise...  
right on our doorstep”**

*Don West, 1993*

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## MAP 1 - SITE LOCATION



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## Part 1 – SITE DESCRIPTION

### 1.1. GENERAL INFORMATION

#### 1.1.1. LOCATION

Site Name: Golden Valley (Proposed Local Nature Reserve)

District: South Gloucestershire

Parish: Wick and Abson

Grid Reference: ST 706732

Area: 8.8 hectares

Access: Pedestrian access is from several designated footpaths surrounding the Golden Valley. The most accessible entrance is via Ochre Works Lane at the southern tip of the reserve ST 704729.

#### 1.1.2. SUMMARY DESCRIPTION

The site contains a variety of habitats including early and late successional communities within the valley slopes and bottom. Habitats include river corridor, woodland on steep valley slopes and grassland. Quarrying and the production of refined ochre in the 20<sup>th</sup> century heavily influence the semi-natural communities.

The River Boyd runs through the site. A long stretch of the river corridor contained within the boundaries of the site has been straightened. Woodland communities contain some large old trees including ancient woodland indicator species. Other areas of woodland are dominated by Sycamore and contain some garden escapes.

Pockets of grassland are present throughout with one large area at the highest point known as Raven's Rock.

The valley bottom contains the remains of buildings used to manufacture ochre. Hard standing is present from the entrance at Ochre Works Lane to the weir. Scrub has developed on the valley bottom to form a mosaic of grassland and early successional trees such as birch (*Betula spp*) and willow (*Salix spp.*).

### **1.1.3. Tenure**

To be arranged by RMC Aggregates (UK) Ltd and South Gloucestershire Council (SGC) see appendix 4 for details.

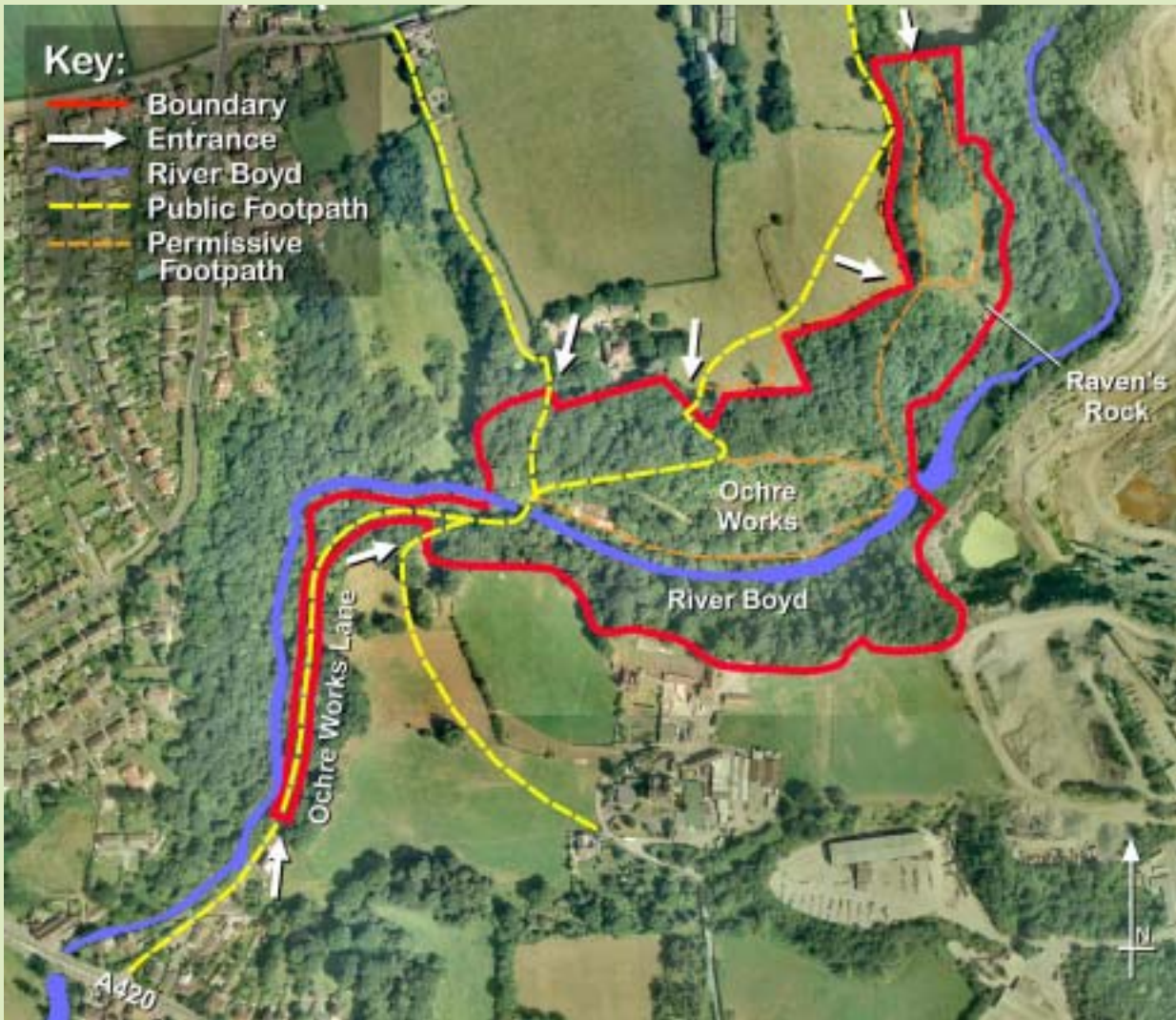
### **1.1.4. Map Coverage**

O.S. 1:50,000 Landranger Sheet 172 (1998)  
O.S. 1:25,000 Explorer Sheet 155 (1997)  
O.S. 1 inch Ordnance Survey First Edition (c1830)

### **1.1.5. Photographic Coverage**

1:10000 aerial photographs (1975, 1991 and 2000) held at South Gloucestershire Council Offices in Thornbury.

## MAP 2 - PROPOSED SITE BOUNDARIES AND ACCESS



## 1.2. ENVIRONMENTAL INFORMATION

### 1.2.1. PHYSICAL

#### *Hydrology:*

Almost all hydrological activity is concentrated in the valley bottom and runs into the River Boyd, a permanent stream. When in spate the river will flood the adjacent hard standing and scrub areas and exit at the lower reaches according to temporary streams. One temporary stream runs underground to exit at the bridge joining the south and north sides of the site.

#### *Geology:*

Quarrying activity has created an excellent variety of sections through the geology of the Golden Valley. Some faces are now overgrown, although survey records of eight different areas of the reserve are held. Two of the faces are recognised as RIGS (Regionally Important Geological Sites). The valley itself is a RIGS SSSI (Site of Special Scientific Interest). The geology is as follows:

Stratigraphy 1 Carboniferous/Silesian/Dinantian

Stratigraphy 2 Namurian/Visean/Westphalian

Rock Names    Millstone Grit  
                  Hotwells and Carboniferous Limestone  
                  Quarzitic and Cromhall sandstone groups  
                  Coal measures

#### *Topography:*

The majority of the site is contained within valley slopes and bottom. Raven's Rock is the exception existing as a plateau below the surrounding farmland. To the east of Raven's Rock is a steep cliff dropping to a wetland area created by the weir.

#### *Altitude:*

The Golden Valley extends to 100 metres above sea level at the northern boundary and 50 metres above sea level at the valley bottom.



### *Site Boundaries:*

A transition between open farmland and woodland forms the boundary of the northern and southern edges of the site. The northern edge borders Upper and Lower Rodlays Fields. The cliff and steep slope surrounding Raven's Rock dropping to the weir defines a further boundary and Naishcombe House is the boundary adjacent to Lower Rodlays Field.

The former dwelling of Rock House is present within the boundary, the garden borders Upper Rodlays Field. Land ownership on the Ochre Works Lane includes some woodland to the north of the road. See map 2 for further details.

## 1.2.2 BIOLOGICAL

### Habitat Communities

The site contains broad-leaved woodland, grassland, scrub and river.

**Woodland:** Sessile Oak (*Quercus petraea*) is present throughout the wooded areas with Ash (*Fraxinus excelsior*). English Elm (*Ulmus procera*) and Wych Elm (*Ulmus glabra*) are found in large numbers, some quite large, indicating a tolerance or avoidance of Dutch Elm Disease. Silver Birch (*Betula pendula*) is frequently found in a mosaic of scrub. Sycamore (*Acer pseudoplatanus*) forms a canopy near the former site of Rock House whilst Beech (*Fagus sylvatica*) and Apple (*Malus sp.*) are found occasionally. Wild Cherry (*Prunus avium*) reach an impressive size in the Valley woodland to the south, several of which are present as dead wood (both standing and fallen). Hazel (*Corylus avellana*) and Hawthorn (*Crataegus monogyna*) are present throughout the understorey. Buckthorn (*Rhamnus cathartica*) occurs occasionally. Wild Service-tree (*Sorbus torminalis*), an indicator of ancient woodland, is within the woodland adjacent to Rock House. A single Small-leaved Lime (*Tilia cordata*), possibly planted, is present in the valley woodland south of the River Boyd.

A diverse ground flora, indicative of long established woodland, includes Bluebell (*Hyacinthoides non-scripta*), Wood Spurge (*Euphorbia amygdaloides*), Lords-and-ladies (*Arum maculatum*), Pignut (*Conopodium majus*), Hairy Violet (*Viola hirta*) and Wood Anemone (*Anemone nemorosa*). Hart's-tongue (*Phyllitis scolopendrium*) is frequent in the valley woodland where the canopy is dense. Cleavers (*Galium aparine*) and Bramble (*Rubus fruticosus agg.*) are found throughout.

**Grassland:** Pockets of grassland are present throughout. A 0.6 hectares area of unimproved grassland is found at Raven's Rock. False Oat-grass (*Arrhenatherum elatius*), Yorkshire-fog (*Holcus lanatus*), Common Knapweed (*Centaurea nigra*), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Small Scabious (*Scabiosa columbaria*) occur frequently in the sward. Several orchids (*Orchidaceae spp.*) have been recorded, including Bee Orchid (*Ophrys apifera*) and Pyramidal Orchid (*Anacamptis pyramidalis*). Bush Vetch (*Vicia sepium*) is particularly abundant in the small grassland bordering the most northern edge.

**Scrub:** The valley bottom exhibits stages of succession to woodland from open ground through pioneer grassland communities to mature scrub. Goat Willow (*Salix caprea*), Silver Birch and Bramble are frequent components of the mature scrub areas. Bracken (*Pteridium aquilinum*) dominates in a distinct localised area of the hard standing. Butterfly-bush (*Buddleja davidii*) grows on scree and exposed locations of the valley bottom. Snowberry (*Symphoricarpos albus*) forms dense scrub in the former garden of Rock House. Further Willow scrub runs parallel to the river Boyd between the bridge and weir.

## Flora

**Vascular Plants:** The Golden Valley supports several species of local interest and is well represented in the orchid family including Early Purple-orchid (*Orchis mascula*), Pyramidal Orchid, Bee Orchid and Common Spotted-orchid (*Dactylorhiza fuchsii*). Bluebell, a BAP species of conservation concern, is widespread.

## Fauna

**Invertebrates:** The Golden Valley supports an excellent diversity of butterflies which have been recorded over several decades. White-letter Hairstreak (*Satyrrium w-album*), a nationally notable species, benefits from the large population of Elm (*Ulmus spp.*) on which it lays eggs. Silver-washed Fritillary (*Argynnis paphia*), a BAP species of conservation concern, utilises the combination of woodland and open areas. Orange Tip (*Anthocharis cardamines*), Brimstone (*Gonepteryx rhamni*), Red Admiral (*Vanessa atalanta*) and Peacock (*Inachis io*) are amongst the more common species recorded. A good diversity of the Skipper family (*Hesperiidae*) have also been recorded including the local Essex Skipper (*Thymelicus lineola*).

Moths include the local Scarlet Tiger (*Callimorpha dominula*). The nationally notable Ruddy Darter (*Sympetrum sanguineum*) is present.

**Reptiles and amphibians:** Grass Snake (*Natrix natrix*), Adder (*Vipera berus*), Common Toad (*Bufo bufo*), Common Frog (*Rana temporaria*) and Slow-worm (*Anguis fragilis*) have been recorded, all of which are BAP species of conservation concern.

**Mammals:** Pipistrelle (*Pipistrellus pipistrellus*), a BAP priority species, are seen regularly. BAP species of conservation concern including Hedgehog (*Erinaceus europaeus*), Badger (*Meles meles*), Stoat (*Mustela erminea*), Weasel (*Mustela nivalis*), Water Shrew (*Neomys fodiens*), Common Shrew (*Sorex araneus*) and Pigmy Shrew (*Sorex minutus*) have been recorded. Roe Deer (*Capreolus capreolus*) are witnessed in the site regularly and several other species of bat are present in the local area including Noctule (*Nyctalis noctula*) which is also a BAP species of conservation concern.

Otter (*Lutra lutra*), a BAP priority species, have been recorded in the catchment of the River Boyd.

**Fish:** Bullhead (*Cottus gobio*), a BAP species of conservation concern are recorded.

**Birds:** The range of habitats supports a variety of bird species. Nesting Peregrine (*Falco peregrinus*) are visible from Raven's Rock on an exposed rock face outside the site, as are Raven (*Corvus corax*). Dipper (*Cinclus cinclus*) and Kingfisher (*Alcedo atthis*) are regularly seen on the River Boyd. Song Thrush (*Turdus philomelos*), Blackcap (*Sylvia atricapilla*), Chiffchaff (*Phylloscopus collybita*) and Treecreeper (*Certhia familiaris*) have been recorded in the wooded areas. Green Woodpecker (*Picus viridis*) feed from the numerous ant nests. Hobby (*Falco subbuteo*) are in the area although have not nested at the site. Nightingale (*Luscinia megarhynchos*) were present but have not been recorded since the 1950's. Many of the species of bird recorded are BAP priority species, BAP species of conservation concern or red/amber listed species of conservation concern.

All species records including designation under the national Biodiversity Action Plan, or birds of conservation concern are given in Appendix 2.

**Silvicultural assessment:** A variety of native broadleaved species in a range of age classes grow throughout the site. Few trees could be considered to be useful for sawlogs and access is poor for the better individuals. Scrub areas are dominated by willow species which have little silvicultural value. Some Sycamore are situated close to Upper Rodlays Field with reasonable access and may be convertible to useful timber, more likely as turning products than sawn timber. The majority of the oak is heavily branching due to wide spacing and any timber value is outweighed by conservation importance.

### 1.2.3 CULTURAL

#### Land Use

The features and wildlife of the Golden Valley have been influenced by a long history of human activity in the area. It is thought that quarrying was taking place in the Golden Valley prior to the establishment of an Iron Rolling Mill in the mid eighteenth century. The river Boyd was dammed to provide power for this mill which created a large water body within the Golden Valley, seen in photographs collected by D.R. and D.E. Hamblett (Hamblett and Hamblett 1999). Wick Court (established in 1615 by the Lord of the Manor of Wyke, Sir Edward Wintour) paid for the construction of the dam.

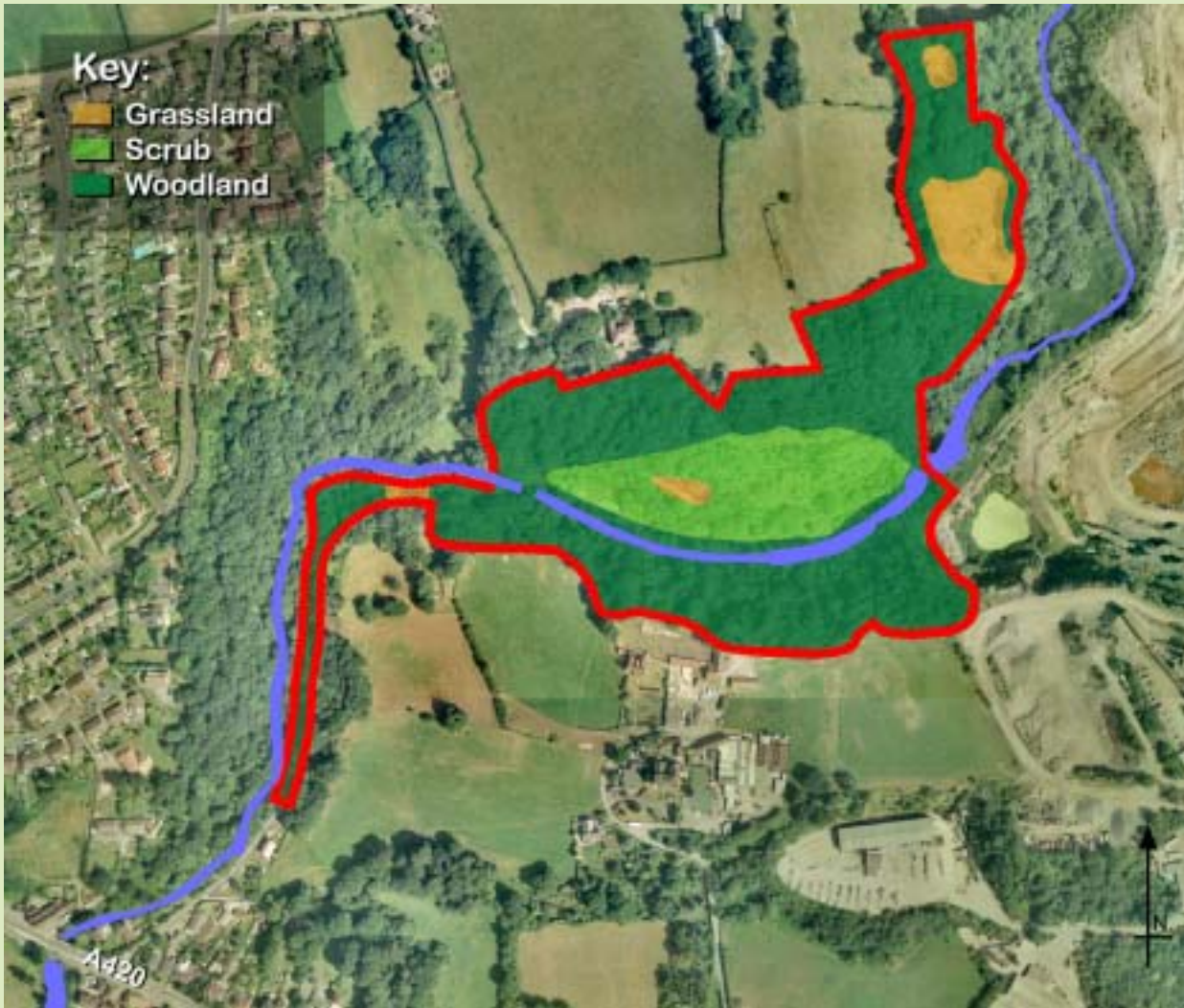
The Mill was adapted in 1892 to process red ochre, a naturally occurring earth found locally in large quantities. The Ochre Works, as it was known, became an important part of the local economy, employing up to 200 people at its peak. Further buildings were added to the site including Rock House and Naishcombe House, constructed circa 1905 for Mr Charles Beavis, Managing Director of the Ochre Works (see map 2). The former gardens of Naishcombe House and Rock House influence the natural communities found in the Golden Valley today.

In 1968 the dam was lowered, seen by many people as a precursor to closure of The Ochre Works (Smith and Breakspear 1998). In 1970 production ceased and since this time much of the built history has been removed. The Golden Valley has remained an important recreational site since the Ochre Works closed and is highly valued by the local community for this purpose. Many records and memories are held by the local community but have not been formally archived as yet.

#### Past Conservation Management

Very little management has taken place which can be considered to be directed towards conserving the biodiversity of the site. In winter 2001/2002 Ash saplings growing on the unimproved grassland community (see map 3) were felled to prevent scrub encroachment.

### MAP 3 - HABITAT MAP



### 1.3. BIBLIOGRAPHY

*Biodiversity: The UK Steering Group Report (1995)*

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Morgan, C.L. (1889-90) The Geology of the Wick Rocks Valley. Proceedings of the Bristol Naturalists Society 6.

Smith, R.B.J. and Breakspear, M.J. (1998) *The Ochre Mines and Works at Wick, South Gloucestershire*. Bristol Industrial Archaeology Society Journal 3.

Smith, S. (1930) The Carboniferous Inliers of Codrington and Wick. Quarterly Journal of the Geological Society.

## Part 2 – EVALUATION AND OBJECTIVES

### 2.1. CONSERVATION STATUS

Site of Nature Conservation Interest (SNCI) no. 77/182G and 77/528G.  
Regionally Important Geological Site (RIGS) no.177 and 182.

### 2.2. SITE DEFINITION AND BOUNDARIES

See map 2 for site boundaries

### 2.3. EVALUATION OF FEATURES

An excellent range of habitats, species and structures from the industrial past are present within the boundaries of the Golden Valley Local Nature Reserve. Habitats include unimproved grassland and ancient semi-natural woodland both of which are BAP priority habitats, river corridor and scrub. There are few reserves in South Gloucestershire with such a diverse collection of habitats that are as readily accessible to the local community. Subsequently the reserve should be maintained as a high quality area for nature and heritage conservation with appropriate public access. The establishment of links with natural and industrial history groups would enhance existing records and the value of the reserve as a whole.

Structures of the industrial past are largely unrecognisable to visitors, however many local residents can describe the location and function of buildings used in the processing of ochre from the remaining built features. The winding house is the best preserved feature although structural integrity is probably due to the secluded location. The remaining structures should be made safe. Public consultation has not established any requirement to restore other buildings.

The close proximity of the reserve to Wick and opportunities for recreation are greatly appreciated by the local community. Paths run throughout the reserve although few are recognised as rights of way. The establishment of permissive rights of way and their maintenance should be a priority.

There are many natural and built hazards within the reserve. The Local Nature Reserve designation should be accompanied by regular safety audit and subsequent action. Habitat management works should ensure that cables, pipes and all other utilities structures are established before works take place.

The local community values the abundance of industrial and cultural history associated with the Golden Valley. There is an identified need to document and archive this history which should be made available on request. Interpretation and literature would be appreciated, as would the establishment of educational links with schools and colleges. As a charity with experience in interpretation and environmental education, the establishment of links with the Avon Wildlife Trust may be advantageous for effective implementation of the management plan.

The Forest of Avon recognise the Golden Valley Local Nature Reserve as a Phase 1 Forest of Avon Gateway Site, that is, as a gateway to the wider countryside for the local community and as an important link to strategic rights of way. The Forest of Avon objectives include improved interpretation, access and public transport which fit closely with the objectives established by community consultation.

## 2.4 FACTORS INFLUENCING MANAGEMENT

### 2.4.1 Management Obligations

The management of the site has several legal implications. These can be summarised as:

- **Wildlife and Countryside Act 1981** - must be adhered to during all management work.
- **Occupier's Liability Act** - this act imposes an obligation on South Gloucestershire Council to ensure that every reasonable care is taken to remove any risks to any visitor on the site. In compliance it will be necessary to; ensure all footpaths and other constructions are safe, remove any hazardous objects and conduct a safety audit to identify any further hazards.
- **Health and Safety at Work Act** - all operations must be undertaken by trained personnel, using methods and equipment approved by the Health and Safety Executive (HSE). Appropriate precautions should be taken to prevent attack by Adders which have been recorded within the boundary of the reserve.
- **Legal Formal Agreements** – The Golden Valley Local Nature Reserve is owned by RMC Aggregates (UK) Ltd and managed under agreement by South Gloucestershire Council.
- **Public Rights of Way** – maintenance of public rights of way.
- **Tree Preservation Orders** – any management works on trees designated with such an order should be approved prior to works taking place.



## **2.4.2 Natural Trends**

Ecological surveys of the Golden Valley indicate that some wooded areas have remained so for a considerable period of time, while scrub areas have developed since the cessation of industrial activity. The grassland areas are likely to succeed to scrub if left to natural processes, although this community is growing on thin soils in places and it may be sometime before scrub dominates entirely. The natural communities which have established since the closure of the Ochre Works are unlikely to remain as rich in species without appropriate habitat management.

## **2.4.3 Human-induced Trends**

Human activity is concentrated in the valley bottom although a network of informal paths extends throughout the reserve. Activity includes occasional fires, cycling and visits from local groups. Vandalism is not a severe problem at present, however built structures are vulnerable and fences have been destroyed or dismantled in the past. The vulnerability of built structures to vandalism should be considered before construction.

## 2.5. MANAGEMENT OBJECTIVES

1. To provide for public access and community involvement.
2. To maintain and enhance the biodiversity and industrial heritage.
3. To provide for educational use.
4. To fulfil all legal obligations.

### 2.5.1 Rationale

#### **Objective 1**

##### **To provide for public access and community involvement**

Local interest in the reserve has been recognised through the establishment of a Liaison Group. The experience of the local community is essential to include in the decision making process. A 'Friends of' group would enable wider consultation and involvement to take place.

Existing access is valued greatly. The establishment of recognised rights of way is a priority. Access for persons with limited mobility is possible as far as the weir due to hard-standing remaining from the Ochre Works. Improvements are necessary however, as some sections are less accessible during poor weather. Access from the boundary of the reserve should be improved if possible.

Circular walks which take in the features of the Golden Valley Nature Reserve should be designed. Feasibility study should be employed when necessary to ensure that access is enhanced sensitively.

Facilities for car parking are limited and promotion of public transport is the preferable method of reaching the Golden Valley Local Nature Reserve. Some parking is available at Wick Parish Hall. Traffic calming to improve the safety of visitors should be investigated.

#### **Objective 2**

##### **To maintain and enhance the biodiversity and industrial heritage**

The reserve can be divided into several sections according to habitat. Regular survey and the opportunity to involve natural history societies, colleges and universities in research projects should be encouraged.

Grassland areas should be managed to maintain species diversity by reducing scrub encroachment and the establishment of a rank, nutrient enriched, species poor sward.

Woodland areas generally have a desirable structure. There would be little benefit in dramatically altering the current management. The woodland south of the river Boyd is largely inaccessible and would make an excellent minimum intervention area to allow natural processes to take place. In the former garden of Rock House, Sycamore should be limited and regular removal is desirable to prevent further encroachment. Invasive species should be removed or managed if necessary. Whitebeam (*Sorbus aria*) is present but as the woodland is likely to be ancient semi-natural, survey should take place to establish the presence of rare sub-species.

At present scrub growth on the northern side of the river bank creates a wind tunnel effect running east to west. Scalloping of sections on the northern bank should ensure that scrub encroachment is limited and habitat diversity is improved through establishing micro-climates within the scallops.

Regular cutting of the scrub area in the valley bottom as part of a cycle should ensure that a diversity of flowering plants is maintained and that nesting sites are enhanced. The existing built structures may be suitable nesting sites, however bird boxes including for owls and bat boxes should be considered where suitable natural features are absent.

The Winding House, Arch and Grotto should be conserved if possible with agreement of the landowner. Other built structures should be made safe. Consultation recommended that other buildings were not in need of restoration.

The Weir is recognised as a safety hazard but has been a popular viewpoint. Action to ensure structural safety of the weir and appropriate works to enable safe access are of high priority.

### **Objective 3**

#### **To provide for educational use**

Educational use of the site is to be encouraged, taking into account potential safety dangers. Existing links with educational establishments should be maintained, especially with local schools and colleges. Interpretation should provide information on the natural and industrial history. Digital storage of information is likely to be the most suitable method of ensuring that records are accessible.

The importance of the reserve should be emphasised by regular talks to ensure that the local community are aware of the historical and natural significance of the Golden Valley Local Nature Reserve.

**Objective 4**  
**To fulfil all legal objectives**

A safety audit should be carried out regularly and recommendations implemented. Visitors to the site should be made aware of the potential hazards.

Before management works are carried out a risk assessment should be prepared and recorded according to Health and Safety Executive guidelines. Any work on the site must be carried out by suitably trained staff.

Fencing should be installed where dangerous gradients are encountered. Access via hazardous paths should be prevented if possible, to prevent the creation of additional safety issues. Constructions, including the remains of buildings, should be checked on a regular basis.

Funding sources should be examined to secure the long-term management of the site beyond the period of this management plan.

## Part 3 – PRESCRIPTIONS

### 3.1 WORK PROGRAMME

#### 3.1.1 Management years

Year	Calendar year
1	2003
2	2004
3	2005
4	2006
5	2007

#### 3.1.2 Detailed prescriptions

See maps 4a and 4b for further details

##### **Community**

Year 1	Establish a 'Friends of' group for the Golden Valley LNR.
Years 1-5	Liasion Group to continue to meet and oversee project.
Years 1-5	Co-ordinate one open day each year for the local community.
Years 1-5	Involve local community in practical habitat management when possible.
Years 1-5	Organise an 'April spring clean' to clear litter.

##### **Access**

Year 1	Establish formal access points into the reserve.
Year 1	Improve access to site by installing kissing gates and removing all stiles (landowner and SGC permissions required).
Year 1	Install a radar gate or other gate suitable for disabled access.
Year 1	Agree permissive footpaths on site and notify Permissive Rights Of Way unit.
Year 1	Establish Permissive Rights Of Way unit network and create links to other villages, routes etc.
Year 1	Undertake feasibility study for disabled access to and around the site including possibility of a disabled parking bay on Ochre Works Lane.
Year 1-2	Provide information on access to the Golden Valley by public transport for communities close to the Golden Valley. Encourage better links if existing are unsuitable. Identify parking available at the Parish Hall.
Years 1-5	Carry out an annual Health and Safety survey and take action where necessary. Provide information in case of emergency.
Year 1	Investigate traffic calming measures on A420.

## Interpretation and signage

- Year 1-5      Hold one talk each year on the history of Golden valley.  
Collate historical documents and photographs on the Golden Valley.  
Collate an oral history of memories.  
Archive as a DVD ROM and through the Wildspaces website (www.wildspaces.info.).  
Record items of Ochre Works donated to Warmley Museum.  
Involve local schools and community groups in the history and wildlife of the Golden Valley.
- Year 1      Undertake interpretation feasibility study and indicate suitable locations for interpretation boards (eg Panel on Ochre Works Lane, Village Hall etc).
- Year 1      Install no through road sign at junction with A420.
- Year 2      Waymark two circular walks and establish a heritage trail.
- Year 2      Produce an information leaflet for the reserve.
- Year 2      Produce educational material through liaison with groups.

## Ecological Surveys

- Year 1      Survey Whitebeam for rare sub-species.
- Year 1-5      Survey bats, butterflies, birds and flowering plants annually.  
Survey for freshwater invertebrates and fish.  
Survey amphibians, reptiles and mammals including otter every 3 years.  
Encourage research projects with local colleges and universities.  
Co-ordinate results and send species records to:  
Bristol Regional Environmental Record  
Ashton Court Visitor Centre,  
Ashton Court Estate,  
Long Ashton,  
Bristol BS41 9JN

## Area 1 – Scrub mosaic

- Year 1-5      Coppice one scrub compartment each year (circa 0.06 hectares).
- Year 1-5      Open up one selected area adjacent to river each year.
- Year 1      Temporarily fence off the weir and make repairs to allow access.
- Year 2      Install artwork at bridge acknowledging the Ochre Works and importance to the local community.  
Improve surface conditions of the path to the weir.  
Consider installing a permanent fire site for visiting educational groups.

## **Area 2 – Sycamore dominated woodland**

- Year 1-5      Fell selected Sycamore and replant with suitable native species such as Oak, Hazel, Field Maple (*Acer campestre*), Whitebeam, and Spindle (*Euonymus europaeus*).  
Remove invasive species if necessary (for example Snowberry).

## **Area 3 – Raven’s Rock**

- Year 1-5      Remove invasive scrub annually.  
Year 1          Fence hazardous areas according to safety audit.  
Year 2          Repair the stone wall at the boundary with Upper Rodlays Field. Retain all trees other than Sycamore adjacent to the wall.

## **Area 4 – Species rich grassland**

- Year 1-5      Manage grassland to maintain the species diversity. Consider annual cutting and raking after flowers have set seed.

## **Area 5 – Valley woodland**

- Year 1          Designate woodland as a minimum-intervention area.

## **Area 6 – Mature woodland**

- Year 2          Install nest boxes for birds and bats in suitable locations. Monitor bird boxes. Qualified surveyors to monitor bat boxes.

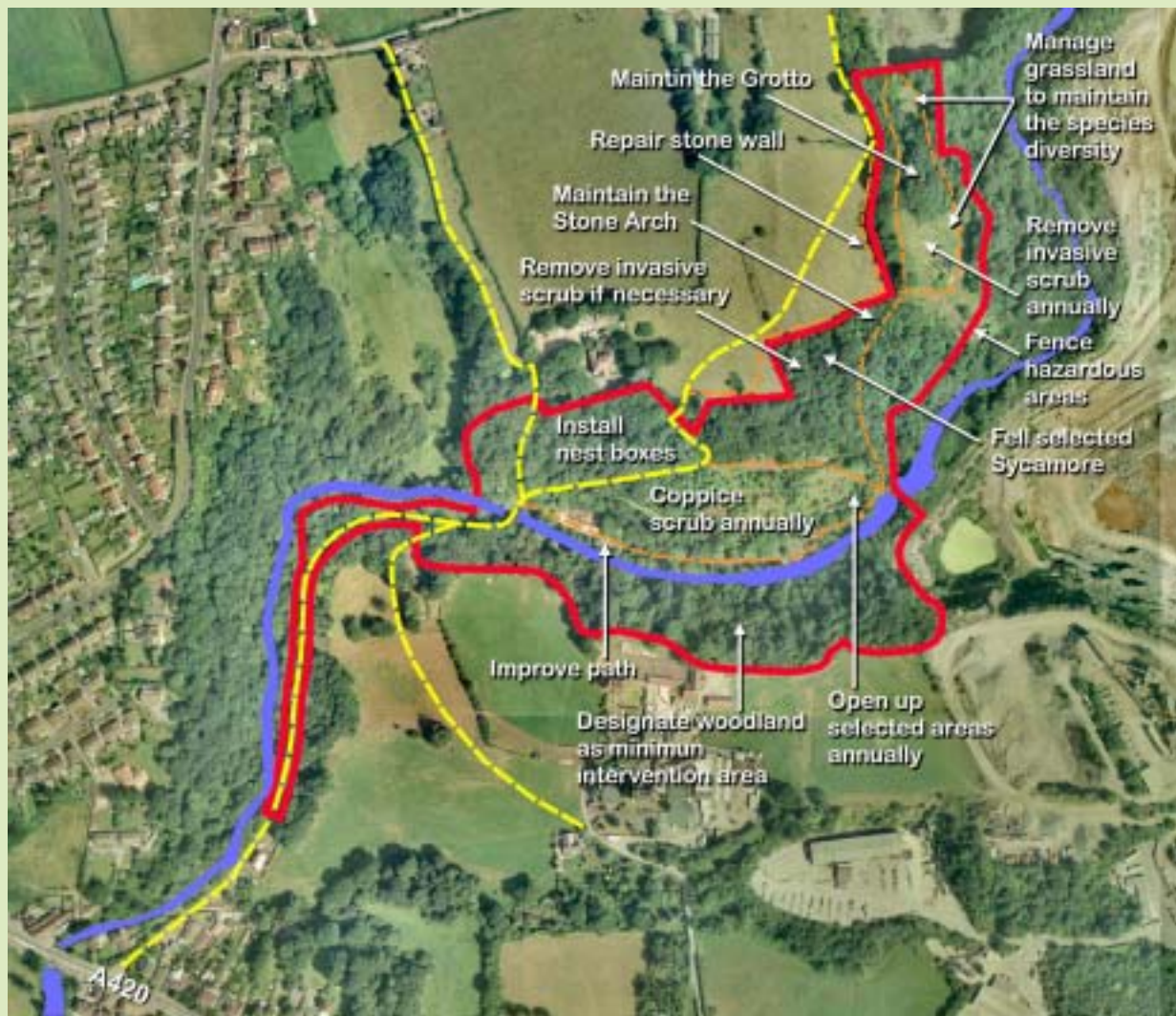
## **Physical structures**

- Year 1-5      Maintain the Grotto and Stone Arch.  
Restore the winding house on approval with landowner.  
Investigate suitability of the bunkers for use by bats.  
Install dog droppings bin at the entrance gate.  
Year 1          Seek advice on suitability of tunnels as bat roosts and install grills over the entrances.  
Year 2          Install three log benches at locations agreed by Liaison Committee.

## **Funding**

- Year 1-5      Apply for funding to carry out prescriptions including Woodland Grant Scheme, Wildspace!, Aggregates Sustainability Levy Fund and RMC Environment Fund.

# MAP 4A - PRESCRIPTIONS





**APPENDIX LIST**

**APPENDIX 1 – BOTANICAL SURVEY**

**APPENDIX 2 – SPECIES LIST**

**APPENDIX 3 – CONTACTS**

**APPENDIX 4 – AGREEMENT WITH RMC**

**APPENDIX 5 – MANAGEMENT RECORDING FORM**

**APPENDIX 6 – LOCAL COMMUNITY COMMENTS**

## Appendix 1 – Botanical survey

### Key to species designations

BAP (Biodiversity Action Plan)

BAP species are those that have been identified as declining nationally or locally. The BAP process also includes habitats. Of those proposed The Golden Valley contains unimproved grassland and river habitat.

BAP priority species	**
BAP species of conservation concern	*
BAP proposed species South Glos	~
Red list bird of high conservation concern	++
Amber list bird of medium conservation concern	+

Surveyed by Tom Dearnley during 2002

Scientific name	Common name
<i>Acer campestre</i>	Field Maple
<i>Acer pseudoplatanus</i>	Sycamore
<i>Aegopodium podagraria</i>	Ground-elder
<i>Aesculus hippocastanum</i>	Horse-chestnut
<i>Agrimonia eupatoria</i>	Agrimony
<i>Ajuga reptans</i>	Bugle
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Allium ursinum</i>	Ramsons
<i>Allium vineale</i>	Crow Garlic
<i>Alnus glutinosa</i>	Alder
<i>Anagallis arvensis</i>	Scarlet Pimpernel
<i>Anemone nemorosa</i>	Wood Anemone
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Anthriscus sylvestris</i>	Cow Parsley
<i>Arctium minus</i>	Lesser Burdock
<i>Arrhenatherum elatius</i>	False Oat-grass
<i>Artemisia vulgaris</i>	Mugwort
<i>Arum maculatum</i>	Lords-and-ladies
<i>Phyllitis scolopendrium</i>	Hart's-tongue
<i>Athyrium filix-femina</i>	Lady Fern
<i>Barbarea vulgaris</i>	Winter-cress
<i>Bellis perennis</i>	Daisy
<i>Betula pendula</i>	Silver Birch
<i>Bryonia dioica</i>	White Bryony
<i>Buddleja davidii</i>	Butterfly-bush

*Campanula trachelium*  
*Carex flacca*  
*Centaurea nigra* Common  
*Centaureum erythraea*  
*Centranthus ruber*  
*Chamerion angustifolium*  
*Leucanthemum vulgare*  
*Circaea lutetiana*  
*Cirsium arvense*  
*Cirsium vulgare*  
*Clematis vitalba*  
*Clinopodium vulgare*  
*Conopodium majus*  
*Cornus sanguinea*  
*Corylus avellana*  
*Crataegus monogyna*  
*Crepis capillaris*  
*Crepis vesicaria*  
*Cynosurus cristatus*  
*Dactylis glomerata*  
*Daucus carota*  
*Deschampsia cespitosa*  
*Digitalis purpurea*  
*Dipsacus fullonum*  
*Echium vulgare*  
*Hyacinthoides non-scripta*  
*Epilobium montanum*  
*Euphorbia amygdaloides*  
*Fagus sylvatica*  
*Filipendula ulmaria*  
*Fragaria vesca*  
*Fraxinus excelsior*  
*Lamium galeobdolon*  
*Galium aparine*  
*Galium mollugo*  
*Galium odoratum*  
*Galium verum*  
*Geranium dissectum*  
*Geranium pratense*  
*Geranium robertianum*  
*Geum urbanum*  
*Glechoma hederacea*

Nettle-leaved Bellflower  
Glaucous Sedge  
Knapweed  
Common Centaury  
Red Valerian  
Rosebay Willowherb  
Oxeye Daisy  
Enchanter's-nightshade  
Creeping Thistle  
Spear Thistle  
Traveller's-joy  
Wild Basil  
Pignut  
Dogwood  
Hazel  
Hawthorn  
Smooth Hawk's-beard  
Beaked Hawk's-beard  
Crested Dog's-tail  
Cock's-foot  
Wild Carrot  
Tufted Hair-grass  
Foxglove  
Teasel  
Viper's-bugloss  
Bluebell \*  
Broad-leaved Willowherb  
Wood Spurge  
Beech  
Meadowsweet  
Wild Strawberry  
Ash  
Yellow Archangel  
Cleavers  
Hedge Bedstraw  
Woodruff  
Lady's Bedstraw  
Cut-leaved Crane's-bill  
Meadow Crane's-bill  
Herb Robert  
Wood Avens  
Ground-ivy

<i>Hedera helix</i>	Ivy
<i>Heracleum sphondylium</i>	Hogweed
<i>Hieracium spp.</i>	Hawkweed
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Hypericum calycinum</i>	Rose-of-Sharon
<i>Hypericum perforatum</i>	Perforate St John's-wort
<i>Ilex aquifolium</i>	Holly
<i>Lapsana communis</i>	Nipplewort
<i>Leontodon hispidus</i>	Rough Hawkbit
<i>Ligustrum vulgare</i>	Wild Privet
<i>Linum catharticum</i>	Fairy Flax
<i>Lolium perenne</i>	Perennial Rye-grass
<i>Lonicera periclymenum</i>	Honeysuckle
<i>Malus sylvestris</i>	Crab Apple
<i>Mercurialis perennis</i>	Dog's Mercury
<i>Melica uniflora</i>	Wood Melick
<i>Milium effusum</i>	Wood Millet
<i>Mycelis muralis</i>	Wall Lettuce
<i>Myosotis arvensis</i>	Field Forget-me-not
<i>Ononis repens</i>	Restharrow
<i>Origanum vulgare</i>	Marjoram
<i>Oxalis acetosella</i>	Wood-sorrel
<i>Phleum pratense</i>	Timothy
<i>Picea abies</i>	Norway Spruce
<i>Pinus sylvestris</i>	Scots Pine
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Plantago media</i>	Hoary Plantain
<i>Poa trivialis</i>	Rough Meadow-grass
<i>Polypodium vulgare</i>	Common Polypody
<i>Polystichum aculeatum</i>	Hard Shield-fern
<i>Polystichum setiferum</i>	Soft Shield-fern
<i>Potentilla sterilis</i>	Barren Strawberry
<i>Sanguisorba minor</i>	Salad Burnet
<i>Primula vulgaris</i>	Primrose
<i>Prunus avium</i>	Wild Cherry
<i>Prunus spinosa</i>	Blackthorn
<i>Pteridium aquilinum</i>	Bracken
<i>Quercus petraea</i>	Sessile Oak
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Ribes uva-crispa</i>	Gooseberry
<i>Rosa arvensis</i>	Field Rose
<i>Rosa canina agg.</i>	Dog Rose
<i>Rumex obtusifolius</i>	Broad-leaved Dock

*Rubus fruticosus*  
*Salix caprea*  
*Salix fragilis*  
*Sambucus nigra*  
*Scabiosa columbaria*  
*Sedum rupestre*  
*Senecio jacobaea*  
*Silene latifolia*  
*Silene dioica*  
*Silene vulgaris*  
*Sonchus arvensis*  
*Sorbus torminalis*  
*Stachys sylvatica*  
*Stellaria holostea*  
*Symphoricarpos albus*  
*Symphytum officinale*  
*Tamus communis*  
*Taraxacum officinale*  
*Taxus baccata*  
*Teucrium scorodonia*  
*Thymus polytrichus*  
*Tilia cordata*  
*Trifolium campestre*  
*Trifolium pratense*  
*Trisetum flavescens*  
*Tussilago farfara*  
*Urtica dioica*  
*Ulmus glabra*  
*Ulmus procera*  
*Veronica chamaedrys*  
*Veronica montana*  
*Veronica officinalis*  
*Viburnum opulus*  
*Vicia sepium*  
*Vinca minor*  
*Viola hirta*  
*Viola reichenbachiana*  
*Viola riviniana*

Bramble  
Goat Willow  
Crack Willow  
Elder  
Small Scabious  
Reflexed Stonecrop  
Ragwort  
White Campion  
Red Campion  
Bladder Campion  
Perennial Sow-thistle  
Wild Service-tree~  
Hedge Woundwort  
Greater Stichwort  
Snowberry  
Common Comfrey  
Black Bryony  
Dandelion  
Yew  
Wood Sage  
Wild Thyme  
Small-leaved Lime  
Hop Trefoil  
Red Clover  
Yellow Oat-grass  
Colt's-foot  
Common Nettle  
Wych Elm  
English Elm  
Germander Speedwell  
Wood Speedwell  
Heath Speedwell  
Guelder-rose  
Bush Vetch  
Lesser Periwinkle  
Hairy Violet  
Early Dog-violet  
Common Dog-violet

## Appendix 2 – Species list

For records to be accepted by the Bristol Environmental Records Centre a recorder and date are essential. The following species have been recorded in the Golden Valley.

Scientific name	Common name
<i>Flowering plants</i>	
<i>Adoxa moschatellina</i>	Moschatel
<i>Agrimonia eupatoria</i>	Agrimony
<i>Anacamptis pyramidalis</i>	Pyramidal Orchid
<i>Arabis hirsuta</i>	Hairy Rock-cress
<i>Campanula trachelium</i>	Nettle-leaved Bellflower
<i>Centranthus ruber</i>	Red Valerian
<i>Cirsium eriophorum</i>	Woolly Thistle
<i>Carduus nutans</i>	Musk Thistle
<i>Clinopodium vulgare</i>	Wild Basil
<i>Dactylorhiza fuchsii</i>	Common Spotted-orchid
<i>Echium vulgare</i>	Viper's-bugloss
<i>Euonymus europaeus</i>	Spindle
<i>Helianthemum nummularium</i>	Common Rock-rose
<i>Hypericum calycinum</i>	Rose-of-Sharon
<i>Knautia arvensis</i>	Field Scabious
<i>Inula conyza</i>	Ploughman's-spikenard
<i>Lathraea squamaria</i>	Toothwort
<i>Linum catharticum</i>	Fairy Flax
<i>Lithospermum officinale</i>	Common Gromwell
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil
<i>Lythrum salicaria</i>	Purple-loosestrife
<i>Odontites verna</i>	Red Bartsia
<i>Ononis repens</i>	Restharrow
<i>Ononis spinosa</i>	Spiny Restharrow
<i>Ophrys apifera</i>	Bee Orchid
<i>Orchis mascula</i>	Early-purple Orchid
<i>Origanum vulgare</i>	Marjoram
<i>Ornithogalum umbellatum</i>	Star-of-Bethlehem
<i>Sanguisorba minor</i>	Salad Burnet
<i>Saxifraga tridactylites</i>	Rue-leaved Saxifrage
<i>Scabiosa columbaria</i>	Small Scabious
<i>Sedum acre</i>	Biting Stonecrop
<i>Sedum anglicum</i>	English Stonecrop
<i>Sorbus torminalis</i>	Wild Service-tree
<i>Tilia cordata</i>	Small-leaved Lime

*Thymus polytrichus*  
*Verbascum thapsus*  
*Verbena officinalis*

Wild Thyme  
Great Mullein  
Vervain

*Birds*

*Accipiter nisus*  
*Aegithalos caudatus*  
*Alcedo atthis*  
*Anas platyrhynchos*  
*Buteo buteo*  
*Carduelis cannabina*  
*Carduelis carduelis*  
*Carduelis chloris*  
*Certhia familiaris*  
*Cinclus cinclus*  
*Columba oenas*  
*Columba palumbus*  
*Corvus corone corone*  
*Corvus corax*  
*Corvus frugilegus*  
*Corvus monedula*  
*Cuculus canorus*  
*Emberiza citrinella*  
*Erithacus rubecula*  
*Falco peregrinus*  
*Falco subbuteo*  
*Falco tinnunculus*  
*Ficedula hypoleuca*  
*Fringilla coelebs*  
*Gallinula chloropus*  
*Garrulus glandarius*  
*Motacilla alba*  
*Motacilla cinerea*  
*Parus ater*  
*Parus caeruleus*  
*Parus major*  
*Parus palustris*  
*Passer domesticus*  
*Phasianus colchicus*  
*Phylloscopus collybita*  
*Phylloscopus sibilatrix*  
*Phylloscopus trochilus*  
*Pica pica*

Sparrowhawk \*  
Long-tailed Tit  
Kingfisher + \*  
Mallard \*  
Buzzard \*  
Linnet ++ \*\*  
Goldfinch \*  
Greenfinch \*  
Treecreeper \*  
Dipper \*  
Stock Dove +  
Woodpigeon  
Carrion Crow  
Raven  
Rook  
Jackdaw  
Cuckoo +  
Yellowhammer ++ \*  
Robin  
Peregrine + \*  
Hobby \*  
Kestrel + \*  
Pied Flycatcher \*  
Chaffinch  
Moorhen  
Jay  
Pied Wagtail  
Grey Wagtail + \*  
Coal Tit \*  
Blue Tit \*  
Great Tit \*  
Marsh Tit ++ \*  
House Sparrow ++  
Pheasant  
Chiffchaff \*  
Wood Warbler + \*  
Willow Warbler + \*  
Magpie

*Picus viridis*  
*Prunella modularis*  
*Pyrrhula pyrrhula*  
*Regulus regulus*  
*Sitta europaea*  
*Streptopelia decaocto*  
*Sturnus vulgaris*  
*Sylvia atricapilla*  
*Sylvia communis*  
*Sylvia curruca*  
*Troglodytes troglodytes*  
*Turdus iliacus*  
*Turdus merula*  
*Turdus philomelos*  
*Turdus pilaris*  
*Turdus viscivorus*

*Butterflies*  
*Anthocharis cardamines*  
*Aglais urticae*  
*Aphantopus hyperantus*  
*Argynnis paphia*  
*Artogeia napi*  
*Artogeia rapae*  
*Celastrina argiolus*  
*Coenonympha pamphilus*  
*Colias crocea*  
*Gonepteryx rhamni*  
*Inachis io*  
*Lasiommata megera*  
*Lycaena phlaeas*  
*Melanargia galathea*  
*Ochlodes venatus*  
*Pararge aegeria*  
*Pieris brassicae*  
*Polygonum c-album*  
*Polyommatus icarus*  
*Pyronia tithonus*  
*Satyrrium w-album*  
*Thymelicus lineola*  
*Thymelicus sylvestris*  
*Vanessa atalanta*  
*Vanessa cardui*

Green Woodpecker + \*  
Dunnock + \*  
Bullfinch ++ \*\*~  
Goldcrest + \*  
Nuthatch \*  
Collared Dove  
Starling ++  
Blackcap \*  
Whitethroat \*  
Lesser Whitethroat \*  
Wren  
Redwing + \*  
Blackbird  
Song Thrush ++ \*\*~  
Fieldfare + \*  
Mistle Thrush +

Orange Tip  
Small Tortoiseshell  
Ringlet  
Silver-washed Fritillary \*  
Green-veined White  
Small White  
Holly Blue  
Small Heath  
Clouded Yellow  
Brimstone  
Peacock  
Wall  
Small Copper  
Marbled White  
Large Skipper  
Speckled Wood  
Large White  
Comma  
Common Blue  
Gatekeeper  
White-letter Hairstreak  
Essex Skipper  
Small Skipper  
Red Admiral  
Painted Lady



*Moths*

*Callimorpha dominula*

*Cucullia verbasci*

*Zygaena filipendulae*

Scarlet Tiger

Mullein Moth

Six-spot Burnet

*Dragonflies and Damselflies*

*Aeshna cyanea*

*Calopteryx splendens*

*Calopteryx virgo*

*Enallagma cyathigerum*

*Libellula depressa*

*Sympetrum sanguineum*

*Sympetrum striolatum*

Southern Hawker

Banded Demoiselle

Beautiful Demoiselle

Common Blue Damselfly

Broad-bodied Chaser

Ruddy Darter

Common Darter

*Amphibians and reptiles*

*Anguis fragilis*

*Bufo bufo*

*Natrix natrix*

*Rana temporaria*

*Vipera berus*

Slow-worm \* ~

Common Toad \*

Grass Snake \*

Common Frog \*

Adder \*

*Fish*

*Anguilla anguilla*

*Cottus gobio*

*Neomacheilus barbatulus*

*Phoxinus phoxinus*

*Rutilus rutilus*

*Salmo trutta fario*

Eel

Bullhead \*

Stone Loach

Minnow

Roach

Brown Trout

*Mammals*

*Apodemus sylvaticus*

*Capreolus capreolus*

*Clethrionomys glareolus*

*Erinaceus europaeus*

*Meles meles*

*Mustela erminea*

*Mustela nivalis*

*Neomys fodiens*

*Oryctolagus cuniculus*

*Pipistrellus pipistrellus*

*Sciurus carolinensis*

*Sorex araneus*

*Sorex minutus*

*Vulpes vulpes*

Wood Mouse

Roe Deer \*

Bank Vole

Hedgehog \* ~

Badger \*

Stoat \*

Weasel \*

Water Shrew \*

Rabbit

Pipistrelle \*\*

Grey Squirrel

Common Shrew \*\*

Pygmy Shrew \*\*

Fox

## Appendix 3 – Contacts

- **Golden Valley Local Nature Reserve Management Liaison Group**

This group has representatives from the local community, Wick and Abson Parish Council, RMC Aggregates (UK) Ltd and South Gloucestershire Council. The group meets every six months to discuss issues affecting this site.

- **Friends of the Golden Valley Local Nature Reserve**

A new group is being set up in 2003 to help secure long term management of the local nature reserve. Members of the local community will be encouraged to get actively involved in the setting up of this group and the management of the site.

- **South Gloucestershire Council**

The Local Authority is responsible for the management works listed in this management plan. For further information please speak to John V Morris, Wildspaces! Partnership Officer on 01454 863581 (South Gloucestershire switchboard is 01454 868686). Or write to:  
Planning, Transportation and Strategic Environment Department  
The Civic Centre  
High Street  
Kingswood  
South Gloucestershire  
BS15 2TR

For information about the Golden Valley Local Nature Reserve or the other reserves in South Gloucestershire please visit the Wildspaces! website: [www.wildspaces.info](http://www.wildspaces.info)

**Appendix 4 – Access Agreement between with RMC Aggregates (UK)  
Ltd and South Gloucestershire Council**

**Access Agreement signed on 1st February 2005.**

**Copy available upon request.**

## Appendix 5 – Management recording form

**Name of Recorder:**

**Date of Management works:**

**Number of volunteers involved:**

**Number of hours worked (total):**

**REPORT – details of works undertaken:**

## Appendix 6 – Local Community Comments

'I spent the majority of my childhood in the remnants of the Ochre Works and surrounding areas. Experienced the regrowth of the natural environment that had previously been literally choked with ochre dust that blanketed every leaf of the surrounding woodland. Over the past 30 years the area has slowly been colonised by native species and has become a quiet little wildlife haven. The vast majority of locals are very respectful of the area and genuinely appreciate its worth.'

'The site is one of the few local non-agricultural areas with public access. I have observed the Natural History here for 50 years. The site of the Ochre Works is of Industrial Archaeological Interest and what is left of it is worth preserving.'

'It's an informal location where wildlife flourishes. The industrial archaeological remnants add to its atmosphere, I would like to see low key management, perhaps coppicing in some areas and clearance of scrub encroachment on specific habitat or at Raven Rock. The industrial remains could be conserved possibly by forming a "Friends of Golden Valley" group to arrest further deterioration. It's a beautiful place. Lets keep it that way.'

'There's such a large range of wildlife. Also it's really good place for the children to play and learn about the local animals, plants insects and birds.'

'The more reserves the better! Very interesting place - great fauna and flora. I remember adjoining wild flower meadows. Be great to replace. Extend reserve maybe?'

'Generations of my family have lived in Wick continuously for well over 100 years and I have lived here all my life. My mother who is now 86 lives with me and has a wealth of local knowledge. Friends and family worked in the Ochre woods and my parents once lived in the Ochre Works cottages. My late father worked in the works and my aunt was secretary to the manager. The changes in Wick over the last 45 years have not all been for the best and I think that the peaceful, unspoilt nature of the Golden Valley must be preserved. I hope that the management of the site will help to maintain the area for the benefit of the villagers for many generations to come.'