Draft Pollinator Report for Rudby Parish

Martin Allen, November 2023



Aim: To increase the habitat suitable for pollinators within the public space managed by the Parish Council and to reduce any practices that may be harmful to pollinators and other insects.

There is guidance for the Parish Council within the Climate Action Plan adopted in 2021 for works to 'improve the environment and biodiversity'. In addition I think the Parish should hold a record of sites (or know how to access the records of others) that have been given national designations e.g. Ancient Woodland like Bank Wood, Old Leven Wood etc. and where there are sites of County importance designated as Site of Importance for Nature Conservation (SINC) of which several road verges in the Parish have recently been designated for their grassland wildflowers; information is held at the Local Environmental Record Centre for North and East Yorkshire (NEYEDC) https://www.neyedc.org.uk/partners-projects (scroll down to local wildlife sites).

It would be helpful to have a list of the wildflowers, fungi, birds, insects, etc. within the Parish to note what biodiversity is currently present and use as a way of assessing whether changes are causing improvements. This may make a good future project for the Council in terms of both raising awareness and celebrating the heritage habitats within the Parish, but also encouraging people to collect biodiversity data in their local area. The NEYEDC https://www.neyedc.org.uk/about provides support for such actions e.g. the Hull Biodiversity Challenge https://www.neyedc.org.uk/hull-cnc-2023.

When looking at interventions that can be made to be of benefit to pollinators the first is always along the lines of 'Increasing the quantity of suitable pollen- and nectar-rich flowers' throughout the year but with a peak in abundance required in summer.

Some of the most frequented plants by pollinators, Hogweed, thistles, Bramble, Ragwort (source https://ukpoms.org.uk/flower-charts) are often viewed by the public as weeds or weedy plants of neglected areas. It is worth bearing that in mind and encouraging them in corners or edges of land where people don't visit as much and also trying to make local people aware of their importance.

Similarly, Dandelions are a good source of pollen and nectar early in the year when there is little else available.

Meadow with abundant wildflowers is very rare in the area and so looking for opportunities where this can be developed is a priority. To be successful it generally requires nutrient-poor soil so that the wildflowers can grow without being out-competed by vigorous grasses, and most of the areas looked at for this report don't have that. I've suggested a small trial site on the Northern Green to see what happens when simply planting wildflowers into existing vegetation and changing the management, and a second trial at the playing fields which involves stripping turf to remove soil nutrients.

One way often suggested to reduce nutrients in the soil is by continually collecting the cuttings whenever grass is cut and removing them from the site; currently there are two restrictions to that method – the machinery to cut and collect is not often available and there is a difficulty of what to do with the clippings, but the technique does work. This is a good .pdf outlining the issue https://butterfly-conservation.org/sites/default/files/2019-10/Giles%20Nicholson%20Dorset%20Council%20-%20Persuading%20decison%20makers%20to%20manage%20verges%20for%20ecology.pdf

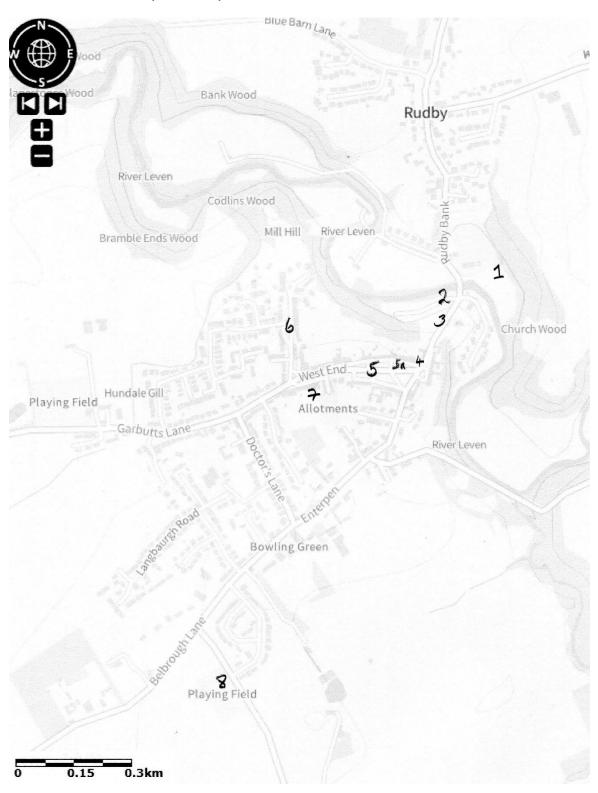
In general, other simple actions to take are to not mow up to the very edge of hedges, leave corners uncut and have wood piles, leaf piles and herbaceous stem piles over the winter for hibernation sites (i.e. don't be too tidy if you don't need to be).

Night lighting has been shown to have an adverse effect on moths and so the Parish should look at what lighting operates and whether it can be angled with deflectors to target it downwards or onto pavements/roadways, or even reduced by switching it off for part of the night https://www.york.ac.uk/news-and-events/news/2019/research/street-light-switch-off-night-time-pollinators/. It is worth being aware for the future that LED lighting (which is good at reducing electricity use) has been shown to have an even more adverse effect on moths (ref. https://butterflyconservation.org/news-and-blog/streetlights-reduce-moth-populations) and research is underway to see if changing the lighting colour slightly can help reduce the negative effects.

It would make a difference to have more gardens managed to benefit pollinators and the Parish Council could encourage this via the Village Garden Club, the Care for Our Village Group, and to have perhaps a page on the website linking to sites would be of practical use. Of particular help for gardeners is the RHS page https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators which gives lists of plants that people can choose from to enhance their gardens for pollinators (and themselves).

The Parish Council is to look at reducing the amount of herbicides it uses or authorises for use on its behalf (case studies on pesticide-free towns here https://www.pan-uk.org/pesticide-free-towns-success-stories/) and similarly with pesticides (though I doubt it uses any). One particular use of pesticides that residents may be unaware of is flea and tick treatments for dogs and cats which are damaging when they get into the water system https://www.imperial.ac.uk/news/243875/toxic-flea-tick-treatments-polluting-uk/. Talking to the local vet about alternative treatments which may be possible and could be recommended to local pet owners, and a note in any Parish magazine/website to alert pet owners to the issue would be sensible actions.

MAP of sites discussed (numbered)



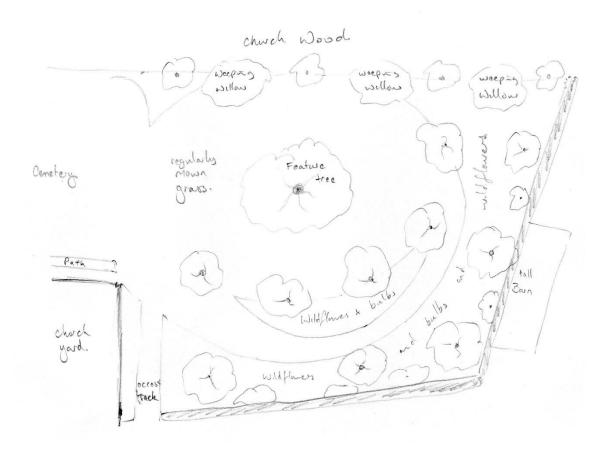
1, Cemetery extension



The site is too wet for burials but appropriate for scattering of ashes and for providing a quiet contemplative space for visitors to the Churchyard. The soil on site has been landscaped and sown with grass seed. Three Weeping Willows interplanted with Alder trees have been planted adjacent to Church Wood. Two sides of the site are fenced with a hawthorn hedge planted on the field side of the fence.

I think planting a selection of trees and shrubs that would flower or provide interest throughout the year would be suitable. Given the abundance of native trees and shrubs within the surrounding Leven Valley then the cultural practice of planting non-native trees and shrubs within churchyards would be appropriate here, alongside some seating. As with the rest of the churchyard then planting of groups of Daffodils for spring flowering would be appropriate except I would suggest that only white-flowered or predominantly white flowered varieties are used for the area to be distinctive.





A feature tree could be planted offset from the middle of the site so that the eye is lead away from the tall barn in the field behind and towards the wood. Seating around the tree could be bespoke if there is someone local who could create something (like in the photo below) and would give a focal



space to walk to and a place for contemplation. An oval area around the tree could be regularly cut grass with line of perhaps different cultivars of Cherry Trees for their spring blossom at the edge of the mown grass. A regularly mown grass walk through a selection of shrubs and trees planted to have interest throughout the year could lead back to the churchyard. A selection of robust wildflowers that like damper ground can be planted around the

edges of the site and a selection of white daffodils (or predominantly white) planted for spring.

Suitable trees. For the feature tree a spreading variety of Sweet Gum (*Liquidambar styraciflua*) would be good if the area is not a frost pocket. Pin Oak (*Quercus palustris*) can cope with damp conditions and makes a medium sized tree with striking autumn colour after a hot summer. Providing the area is not frequently waterlogged then the Great White Cherry (*Prunus* 'Tai Haku') is a distinctively shaped spreading tree that provides striking white blossom in spring and shade in summer though will not grow too big. Depending on how damp the soil is here, it may be that people wish to try an English Oak here first to see how it would do.

Surrounding trees and shrubs could be *Cornus florida*, *Lonicera* × *purpusii* 'Winter Beauty', variegated Holly (in a drier area), Dogwood, Guelder-rose, *Sorbus aucuparia* varieties, *Acer griseum*. See also https://www.rhs.org.uk/plants/for-places/wet-soils though not all are suitable.

Appropriate wildflowers for the damp nutrient-rich soil (that can also be found growing along the banks of the River Leven) are Meadowsweet, Giant Bellflower, Red Campion, Dame's Violet, Sweet Cicely, Meadow Crane's-bill, Hogweed, Cow Parsley, and along the ditch at the base of Church Wood, Yellow Iris, and Wild Angelica.

2, Mill field

The sloping bank adjacent to the road can be managed by being left uncut. Oxeye Daisy, Hogweed and Meadow Crane's-bill would all grow well here. This will look fine as the grass around the picnic benches is to be regularly mown by contrast.

The non-native invasive plant Himalayan Balsam grows on the banks of the River Leven and within the wooded area adjacent to Hutton Bank road. Whilst it may prove difficult to eradicate on the banks of the Leven where seed can wash down from upstream, it should prove easier to remove from the wooded area by the road. It is an annual and easily pulled up out of the ground; for full eradication plants must be removed before they can seed and for several years in a row. The River Tees Trust is currently running a trial to see if a plant rust (fungus) can help control the spread of Himalayan Balsam https://www.teesriverstrust.org/inns.

Variegated Yellow Archangel is present adjacent to the track near the entrance to the Mill Field and around the large Ash tree and it too is invasive (via spreading and rooting to form new plants rather than seed) and should be removed. It is possible to do this by carefully and meticulously digging it out (the roots are not deep nor does it grow back from the roots) though given it grows amongst Nettles this may not be a popular option, and so careful application of weedkiller would also kill it off.



Branches left in piles within the woodland area would be helpful for hibernating insects & dead wood specialists.

3, Footpath beside Hutton Bank



In the middle of the hill leaves have collected at the edge of the path making the path feel smaller; if cleared so that the whole width of the path can be used by pedestrians then it will feel safer to walk on.

Whilst Nettles are good insect habitat it isn't appropriate to have them growing immediately adjacent to the path and so these can be removed (I think on my last visit Oct 12th they had been sprayed with weedkiller). The bankside below the hedge is a good space to add a range of local wildflowers – from woodland areas where it is shady and from grassland areas near the top where it is more open. There already exist a good range of wildflowers here (see Appendix 1), possibly because some have been planted here in the past.

At intervals up the hill were some stone troughs that possibly had been planted at one time with garden annuals. They could be cleared and planted with suitable perennial wildflowers such as Primrose, Cowslip, Sweet Woodruff, and Wood Forget-me-not.

I would be inclined to coppice any tree saplings growing on the bank between the hedge and the path at approximately five-year intervals; given the proximity to the road it would be more appropriate to encourage trees to form to maturity within the hedge-line at the top. Regularly coppiced tree species can a good habitat too.

4, Small Garden at the top of the Hill by the pub



This site has been planted with plants that give a wide range of flowering times and is very good example of a public space that is both pleasant for people to sit and suitable for pollinators and insects generally (there were plenty of bees around when I visited).

I think adding some Marjoram or Compact Marjoram (if a neater effect is required) for some late summer nectar out in the open somewhere and Ice Plant (*Hylotelephium spectabile* formerly known as *Sedum spectabile*) for similar reasons would be a good option. *Cyclamen hederafolium* under the Rowan tree would add some late autumn flowers. Leaving some dead stems of herbaceous plants tucked at the back near the wall will give some hibernation habitat.

It's difficult know what spring bulbs are present here, so I'll just add that there are many varieties of Grape-hyacinth which are good for nectar when queen bees emerge from hibernation.

5, The Green

Currently the green is mown regularly with the cuttings being left where they fall. Daffodils (and crocus) are planted under some of the trees and the areas around them are not cut until the leaves die down after flowering.

Having looked to see what wildflowers are present within the turf on the green there is little there that could be left to grow long in the summer and would flower in the same manner as a conventional hay or wildflower meadow. There are large patches of Creeping Buttercup (with some cuckooflower) at **5a** on the map and elsewhere denser areas of White Clover. I suggest that the

contractor has a trial run at leaving those areas longer (i.e. uncut) when these plants are in flower (in May and late June/early July respectively) and then cutting the areas after the majority of the flowers have finished and before the vegetation gets too long. If the flower patches have a mown neat edge around them then it should be obvious to residents what the intention of not mowing them has been. The downside to this is that when cut, the longer cuttings may look unsightly for a while — ideally, they could be collected and removed from site but this depends very much on the machinery and facilities available to the mowing contractor. The photo below shows the effect for White Clover being allowed to flower on a roundabout by the Tees Barrage.



Adjacent to the areas where the daffodils are planted it would be possible to add seeds of wildflowers that grow locally and flower at a similar time so that cutting of the area can occur as it does currently. Bulbous buttercup, Cowslip, Primrose, and Pignut would all grow in those spaces and be valuable additions.

The central area of the green around the old phone box had several different fruiting bodies of fungi when I visited in October, all of which is positive in terms of biodiversity. I was asked by a resident if they were poisonous to dogs and like the case with humans, some are toxic and some aren't. The particular ones we were looking at were Shaggy Inkcap (*Coprinus comatus*) which shouldn't be a problem. If residents are concerned, then training their dogs not to eat anything they aren't given by the owner is a given and the following is a useful list to be aware of https://www.thekennelclub.org.uk/health-and-dog-care/health/health-and-care/a-z-of-health-and-care-issues/poisons-in-your-garden/ although it doesn't give any statistics on how often dogs are poorly from ingesting common plants like daffodils.

The flower barrels: I have researched plants that would be appropriate both in terms of colour and pollinators and can't find anything obvious that would provide reliable colour, not grow too much

over the summer and so require more watering, and be suitable for the site other than including amongst other bedding plants such things as Sweet Alyssum for the summer and Forget-me-nots for the winter/spring. Perhaps it's something that the Care for Our Village group could look at & trial on a small scale? Plants used in the tubs could be sourced to be peat-free and pesticide-free – this blog from 2017 outlines some of the issues http://www.sussex.ac.uk/lifesci/goulsonlab/blog/bee-friendly-flowers though the situation may have changed since then.

6, The Northern Green



One of the residents requested a wildflower meadow on the green in front of their house and given it is such a small area I think this would be an excellent idea to trial and understand the advantages and disadvantages to leaving grass long over the summer and see what residents think of it. The site mainly has Dandelion currently, with a few Oxeye Daisy and Cuckooflower that should enjoy growing



amongst longer grass during the summer months. I'd suggest adding some more plants of Oxeye Daisy, some Common Knapweed, Meadow Buttercup, Common Sorrel, and Common Bird'sfoot-Trefoil and see how they grow in the first year. For management of the area - let it have the first cut of the year in March(?or whenever it is the contractor starts) and then don't cut it again until the end of August/early September when the cuttings need to be raked off and removed from the site. The area can then be mown like the rest of the Greens until the end of the mowing season.

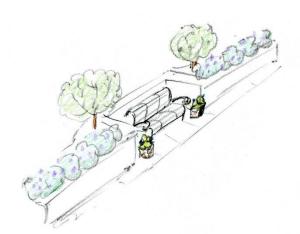
In order to make it clear what is occurring, the 30cm at the edge of the road should be regularly mown or a rope (see photo above) cordoning off the area can be put in place.

The growth of grasses on the greens at the north end are too vigorous (a sign of nutrient-rich soil) to have any wildflowers other than dandelion compete with them and unless the level of nutrient can be reduced adding wildflowers to the grassland will not be very successful.

7, Allotments

In general terms allotments are very good areas for pollinators due to the diversity of planting https://www.nature.com/articles/s41559-018-0769-y and that is the case here.

A couple of suggestions to add to the site.



Plant a couple of small apple trees on M27 rootstock which is the most dwarfing rootstock and requires the tree to be permanently staked, though it is unlikely to grow bigger than 1.8m as a bush. Also consider Rosemary ('Miss Jessopp's Upright' is a good and hardier form) underplanted with a scented leaved herb like Lemon Balm and then plant a Lavander hedge along the edge of the top of the retaining wall.

Some of the allotment users may be interested in No-dig gardening as popularised by Charles

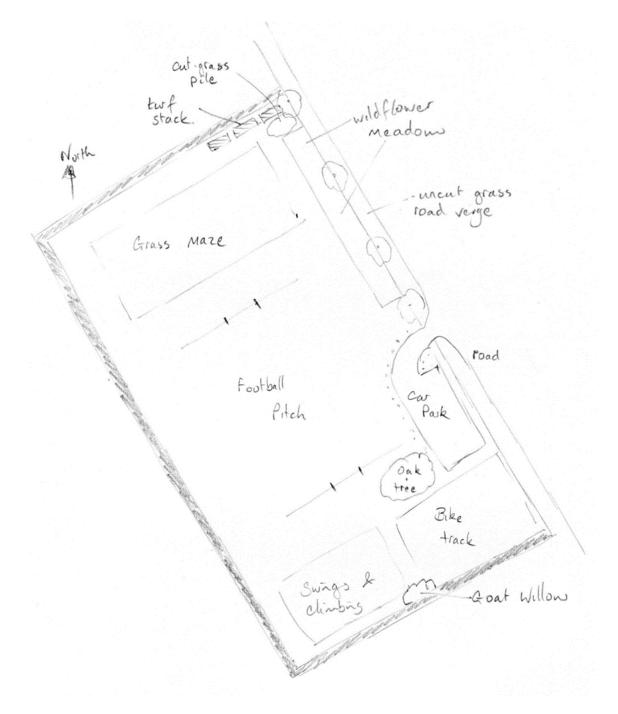
Dowding which gives a much healthier soil and enables vegetables to be grown with less physical effort. There are books at https://www.charlesdowding.co.uk/product/no-dig and https://www.charlesdowding.co.uk/product/organic-gardening-the-natural-no-dig-way . As such they may be interested in building a more formal communal compost area. I think there was a Comfrey patch already there but if not then it's worth planting as they make a useful leaf mulch and some plants can be left to flower as some bee species really enjoy them.

8, The Playing Field

Currently the field is regularly mown and the surrounding hedges are cut annually for the most part.

This site has the best site conditions to try and create a native wildflower meadow, something that is currently not found on public land within the Parish. The best option is to create it gradually (i.e. some each year until the allotted area is completed) starting from the north corner and prepared as follows: lift turf approx. 5cm thick from the area to be meadow and stack near the hedge (where it will create a mound with gaps between the turves suitable for hibernation) – lifting turf is the most effective way of quickly reducing the nutrients of an area of land. Collect seed from the selected road verges in the Parish (see Appendix 2) and sow promptly on site. These will germinate and it is best to have rather sparse germination initially rather than dense growth of seedlings. The site is then cut at

the end of August/early September and the cuttings removed (they can be placed in a pile next to the turf stack). It will take two or three years before the plants build up to become a dense sward. The strip of meadow can then be extended along the stretch of fencing to the north of the entrance.



Adjacent to the meadow strip can be a grass maze created in the summer by simply leaving the grass uncut and then mowing a pathway through it, however when the longer grass is cut at the end of the summer you may find the length of the cuttings require them to be raked off the site. A grass maze can also be created as short grass i.e. the whole area is mown on a high setting and then the path on a lower one so it shows up. I would suggest that you experiment first with a shorter grass setting and then see if you want to change. Having an area of slightly longer grass will enable existing wildflowers growing in the grass like Germander Speedwell a bit more height to flower. There are some ideas

here https://michellerumney.com/portfolio/grass-labyrinths/ it need not be a maze; several wiggly paths that intersect at intervals would work too and of course it is easy to create a new pattern of paths afresh.

Leave grass uncut an extra half a metre to 1m next to hedge, where possible, so that forms a winter refuge for insects. There are patches of Nettle already growing at the hedge base (and also cleavers/sticky grass) which is a good habitat for insects, but also a useful learning opportunity for children.

Hedges. They don't have to be cut regularly or uniformly. There are patches of Hazel already within the hedge at the sides which can be left to simply grow into large bushes (which will produce Hazel nuts) and patches of Field Maple that can be left to become a small tree either with stems singled out to create a single trunked tree or with multiple stems left. Hawthorn can be trimmed in sections, one year in three to allow for longer branches to flower better and form haws for birds to eat. If the hedge cutting is rotated round the site it means that there is always some blossom and consequently haws on site. The Hawthorn adjacent to the bike track can be left to grow tall; if at some point in the future it is felt to be too tall then the whole of the section can be traditionally laid – it may be something that could make a training session for local people on how to lay a hedge. Plant some Wild rose/Dog-rose adjacent to the hedge for flowers and rose-hips. Similarly, Goat willow planted next to the hedge at the end of the bike track would be of use to pollinators for its spring flowers. It could be coppiced every five years to keep it a smaller size for the area, or left to grow larger.

I think there is scope for planting a few new trees to provide summer shade near seating areas as currently the site is very open. An Oak tree (*Quercus robur*) would I'm sure be popular – think about one that will have more spreading branches rather than very upright growth.

Not really pollinator related, but this website looking at how Parks can be made more welcoming to teenage girls https://www.makespaceforgirls.co.uk/ is helpful in starting a conversation into making the area as inclusive as possible.

Appendix 1

Plant lists surveyed on 10th and 12th October 2023 and showing most of what is present on site but should not to be seen as covering all plant species present. Some species had only one or two plants present.

Hutton Bank road-verge

Scientific Name	Common Name	
Achillea millefolium	Yarrow	
Alliaria petiolata	Garlic Mustard	
Anthriscus sylvestris	Cow Parsley	
Fraxinus excelsior	Ash	
Galanthus nivalis	Snowdrop	
Galium aparine	Cleavers	
Geranium pratense	Meadow Crane's-bill	
Geranium robertianum	Herb-Robert	
Geum urbanum	Wood Avens	
Hedera helix agg.	lvy	
Juglans regia	Walnut	
Ligustrum vulgare	Wild Privet	
Mercurialis perennis	Dog's Mercury	
Narcissus agg.	Cultivated Daffodil	
Primula vulgaris	Primrose	
Rubus caesius	Dewberry	
Silene dioica	Red Campion	
Silene latifolia	White Campion	
Urtica dioica	Common Nettle	
Vicia sepium	Bush Vetch	
also noted from Streetview, May 2021		
Ficaria verna	Lesser Celandine	
Lamium album	White Dead-nettle	
Primula veris	Cowslip	

The Green

Scientific Name	Common Name
Achillea millefolium	Yarrow
Anthriscus sylvestris	Cow Parsley
Bellis perennis	Daisy
Cardamine pratensis	Cuckooflower
Centaurea nigra	Common Knapweed
Cerastium fontanum	Common Mouse-ear
Cirsium vulgare	Spear Thistle

Dactylis glomerata	Cock's-foot
Festuca rubra	Red Fescue
Geum urbanum	Wood Avens
Lamium album	White Dead-nettle
Plantago lanceolata	Ribwort Plantain
Plantago major	Greater Plantain
Poa annua	Annual Meadow-grass
Prunella vulgaris	Selfheal
Ranunculus acris	Meadow Buttercup
Ranunculus bulbosus	Bulbous Buttercup
Ranunculus repens	Creeping Buttercup
Rumex obtusifolius	Broad-leaved Dock
Senecio jacobaea	Common Ragwort
Stellaria media	Common Chickweed
Taraxacum agg.	Dandelion
Trifolium repens	White Clover
Veronica chamaedrys	Germander Speedwell
Veronica filiformis	Slender Speedwell
Veronica serpyllifolia	Thyme-leaved Speedwell

The North Green (including the War Memorial)

Scientific Name	Common Name
Achillea millefolium	Yarrow
Anthriscus sylvestris	Cow Parsley
Arrhenatherum elatius	False Oat-Grass
Bellis perennis	Daisy
Cardamine pratensis	Cuckooflower
Cerastium fontanum	Common Mouse-ear
Cirsium arvense	Creeping Thistle
Cirsium vulgare	Spear Thistle
Crocus nudiflorus	Autumn Crocus
Cyclamen hederifolium	Sowbread
Dactylis glomerata	Cock's-foot
Festuca rubra	Red Fescue
Fragaria vesca	Wild Strawberry
Hedera helix agg.	lvy
Heracleum sphondylium	Hogweed
Lamium album	White Dead-nettle
Leucanthemum vulgare	Oxeye Daisy
Lolium perenne	Perennial Rye-grass
Muscari armeniacum	Garden Grape-hyacinth
Pilosella aurantiaca	Fox-and-cubs
Plantago lanceolata	Ribwort Plantain

Plantago major	Greater Plantain
Poa annua	Annual Meadow-grass
Prunella vulgaris	Selfheal
Ranunculus bulbosus	Bulbous Buttercup
Ranunculus repens	Creeping Buttercup
Rumex acetosa	Common Sorrel
Rumex obtusifolius	Broad-leaved Dock
Sambucus nigra	Elder
Senecio jacobaea	Common Ragwort
Stellaria media	Common Chickweed
Taraxacum agg.	Dandelion
Trifolium dubium	Lesser Trefoil
Trifolium repens	White Clover
Urtica dioica	Common Nettle
Veronica chamaedrys	Germander Speedwell
Veronica filiformis	Slender Speedwell
Veronica serpyllifolia	Thyme-leaved Speedwell

The Playing Field

Scientific Name	Common Name
Acer campestre	Field Maple
Anthriscus sylvestris	Cow Parsley
Arrhenatherum elatius	False Oat-Grass
Bellis perennis	Daisy
Cardamine pratensis	Cuckooflower
Cerastium fontanum	Common Mouse-ear
Cirsium vulgare	Spear Thistle
Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Dactylis glomerata	Cock's-foot
Festuca rubra	Red Fescue
Galium aparine	Cleavers
Heracleum sphondylium	Hogweed
Holcus lanatus	Yorkshire-fog
Hypochaeris radicata	Cat's-ear
Lolium perenne	Perennial Rye-grass
Plantago lanceolata	Ribwort Plantain
Plantago major	Greater Plantain
Prunella vulgaris	Selfheal
Ranunculus acris	Meadow Buttercup
Ranunculus repens	Creeping Buttercup
Stellaria graminea	Lesser Stitchwort
Taraxacum agg.	Dandelion

Trifolium repens	White Clover
Urtica dioica	Common Nettle
Veronica chamaedrys	Germander Speedwell
Veronica filiformis	Slender Speedwell

Appendix 2: Sites to collect local seeds from.

I always suggest that seeds are collected from local plants. This serves two purposes, local people get to know where they can find and experience examples of heritage habitats in their locality and must also learn about how to identify the plants and when their seed is ready to collect, and it also helps conserve local plant diversity and therefore the insects that are used to using the plants for food either through eating leaves or stems or feeding from nectar and pollen. It's a lot more useful than just buying a packet of seeds off the internet that you have no idea where they have been collected or how they will grow under local conditions.

On the following map 1, 2, 5, 6, 7 and 8 are all road verges and so being public land seeds can be collected freely though be always mindful of health and safety when visiting. Sites 1 and 7 are good for Cowslip and Common Knapweed seed. Site 3 is Church Wood and permission of the land owner should be asked before collecting any of the woodland wildflower seed. Site 4 is the grassy bank to the east of the track at Spout Bank and is also a private site needing permission to collect seed.

