

Proposal to enhance wildlife habitat and support bees and other insects at the heart of Freshford village

Friends of Freshford, January 2021

The intention of this plan is outline a set of community based projects which offer a positive contribution towards local biodiversity, in light of the serious decline of bees and other wildlife and as part of a wider response to the climate and ecological emergency,



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Executive Summary

There is a call across the country to address the global climate and ecological emergency and Freshford Parish Council has responded to this by declaring a climate emergency in the summer of 2019 and an ecological emergency in November 2020.

In response to this, but also reflecting concerns that pre-dated these measures, Friends of Freshford have prepared this proposal to recommend a series of changes that can be made immediately, and over a longer time frame, to address a loss of biodiversity. This proposal focuses on enhancements the village can make to a large piece of public land, The Tynning, which can currently be broadly described as monoculture, in order to enhance its use to wildlife and improve carbon storage. Being set in the centre of the village it is an important stepping stone to connect habitats.

In the first instance increasing habitat for insects creates the building blocks for improvements in the wildlife chain but the aim is to create a mosaic of naturalistic habitats rich with nectar and food whilst enhancing community enjoyment and usability but also maintaining the open aspect of a village green. Friends of Freshford believe that the proposal is good for the climate and ecology of Freshford and its residents now and in future years.

Friends of Freshford are currently proposing that they will fund the purchase of elements within the plan but it recognises that there are actions to be taken by the parish council, impacts on ongoing maintenance and potentially public consultation required. Therefore, in this request for approval, we ask the council to consider the summary tables in each project area of the plan that outline the ongoing impacts that the parish council needs to consider in giving that approval. Each project can, to a large extent, be viewed independently and therefore if the council feels that there are projects that require further input or consideration, we request that it gives approval to the parts that can move forward and sets out next steps, timetable or further information that is required for the remaining projects.



Community native bulb planting on the Tynning 1st November 2020

Plantings are based on advice from The Chalkhill Environmental Assessment July 2015, commissioned by Freshford Parish Council.

There are many ways in which to engage all ages and groups in nature projects on the Tynning and beyond:

Positive publicity and signage

Volunteer Days

Tree planting

Orchard activities - pruning, harvesting, wassail

Apple Day

Festival of wild flowers, bees and trees

School wildlife learning opportunities

Sponsor a Tree (groups within the village could sponsor a tree; Brownies, WI, Horticultural soc., Freshford Primary School, Football club etc.)

Map A: Overview of proposed planting & maintenance

Tying Lane

- ① Un-mown hump (biodiversity strip)
- ➔ Pedestrian entry gaps
- ✗ Car passing places
- ② 18 x Bollard trees
- ➡ Mown grass pathways
- Mown flat area

NW corner copse

- ③ 10 x Small to medium native trees

Heritage Trees

- ④ 1 x Oak
- ⑤ 1 x Walnut
- ⑥ 1 x Lime

Community Orchard

- ⑦ 10 x apple trees & 4 x plum & cherry trees

Water and wetland

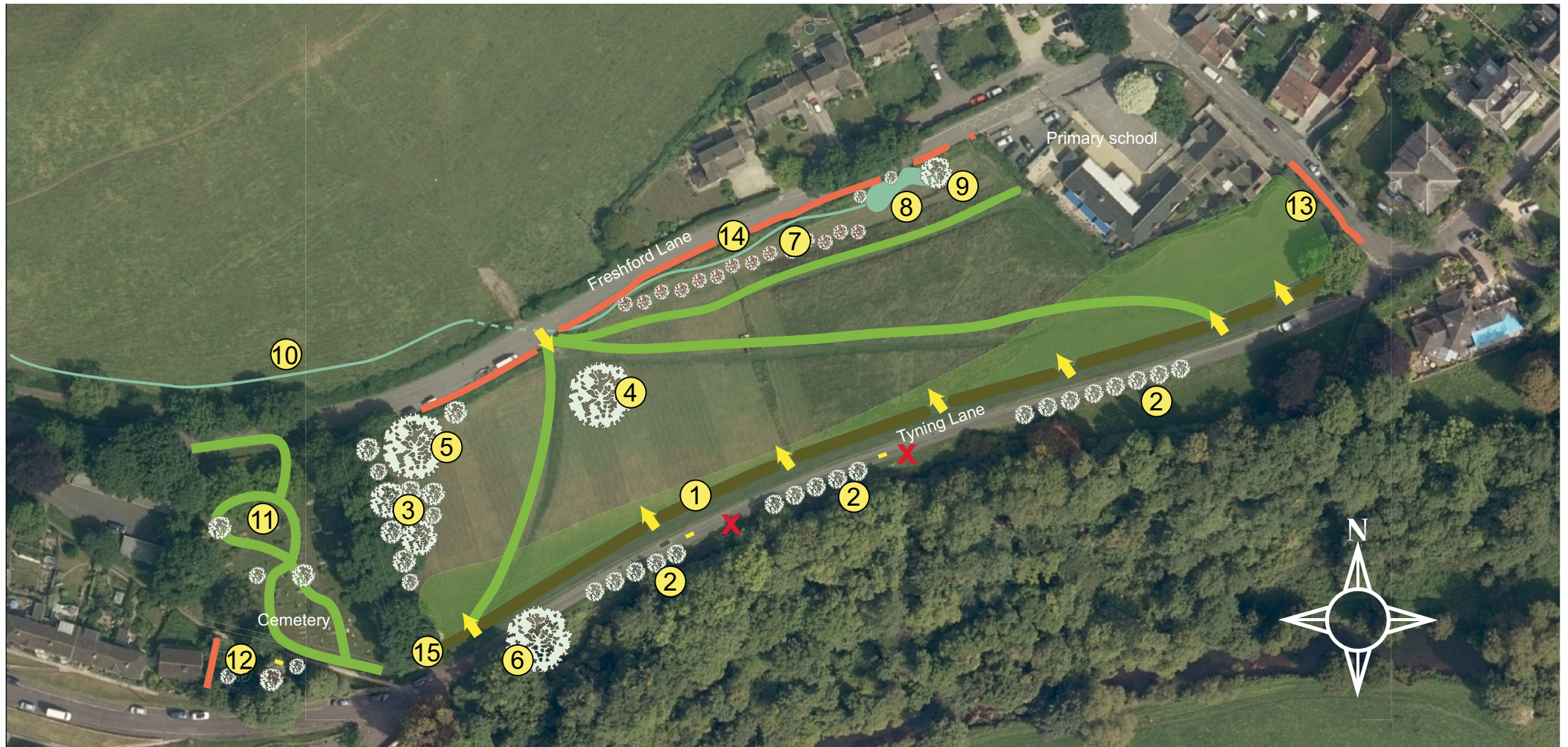
- ⑧ Wildlife pond
- ⑨ Wetland-tolerant trees x 3
- ⑩ Stream

Cemetery

- ⑪ 3 x small flowering trees
- ⑫ 3 x small trees

Hedges

- ⑬ Native hedge
- ⑭ Existing protected native hedge
- ⑮ War memorial



1. Un-mown hump (diversity strip)

Outline

On the field side (north side) of Tynning Lane is a slightly raised mound, running along the line of where a livestock fence used to be. This has been left un-mown and has been shown to host the highest plant diversity in the Tynning field. The aim is to build upon this existing diversity of plants which provide nectar, pollen and seeds for wildlife through widening the un-mown hump on the field side by 1m and planting with native wildflower seeds and bulbs including native daffodils and lesser celandine. Wildflower seeds can be planted in spring & autumn. Environmental consultants Habitat Aid suggest cutting tussocky grass every 2 or 3 years.

A summary of wildflower areas can be seen on Map C (page 16) and Map B (page 14) illustrates bulb planting.

Ensuring Access

In order for pedestrians to access the Tynning field from the lane, they may need to step over the mound and so by creating cuttings at regular intervals, pedestrian access would be made easier, as well as ensuring that the mound doesn't get trampled along its whole length.

See Map A, yellow arrows.

Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Humps	Wildflower seeds & native plugs TBC	TBC	Plants sown Spring 2021 and Autumn 2021 by FOF	FOF	Cut 1 x every 2 or 3 years.	No change to current maintenance plan / no additional costs.	
Pedestrian access gaps	x 7 as marked on Map A	None	Cuttings made March 2021 by FOF	FOF	TBC	FPC. Mown gaps 1m width.	

2. Living bollard trees & felled tree trunks

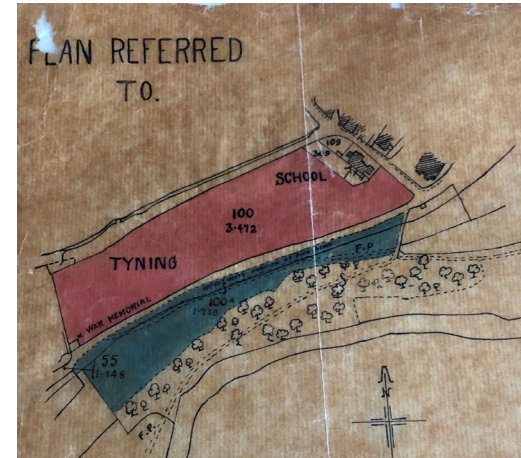
Outline

On the south side of Tynning Lane is a row of wooden bollards, positioned to protect the grass from cars. Replacing these bollards with 18 x native, flowering trees would in effect create living bollards and a wealth of food and habitat for wildlife as well as being visually beautiful. Tree species and varieties have been chosen specifically for their wildlife benefit, visual attraction in terms of flower and berry and autumn leaf colour, upright - so they don't spread onto the road, hardy and tolerant of the north facing, often windy position. Between the bollard trees, sections of felled tree trunks (sourced from ash dieback around the village) positioned along the side of the road, would offer further protection from cars as well as shelter for flora and fauna. In woodlands, fallen wood occurs naturally and many species have adapted to use this habitat, such as mosses, lichens and fungi, as well as many insects. Wildflower seeds and plugs would be planted around the sections of felled trunks.

See Map C, page 16 for all wildflower locations.

Passing places for cars

The single track lane serves pedestrians, cyclists, mobility scooters, cars and horses. There is one passing place for cars half way along the lane as well as at either end but cars still sometimes drive over the grass which in wet weather churns up the mud and erodes the banks. A second passing place may help to address this issue (this would be for the PC to initiate).



Map of water pipe to the Old Manor

Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Bollard trees	4 x Crataegus monogyna stricta (upright hawthorn). 5 x Sorbus 'Eastern Promise'. 4 x Malus 'Evereste'. 5 x Malus 'John Downie'.	TBC	Trees planted by end of March 2021	FOF		FPC	Position of water pipe could mean trees cannot be planted.
sections of felled trunks	Approx x 20	None	Added as they are sourced	FPC	None. Replaced over the years as they rot down.	FPC	
Installation of additional passing place	x 1 (see map A for location)	£2,144.75 +VAT (cost of existing)	TBC	FPC	Mow as per short grass	FPC	FPC budget

3. NW corner coppice

Outline

The north west corner of The Tying is shady, lacking visual interest and largely underused. It was planted with native bluebells and snowdrops in November 2020, and bulb planting will be extended in Autumn 2021 (more details of bulb planting on page 14 & 15). The aim is to plant a native coppice, extending the woodland habitat along the cemetery border and provide further habitat and food for insects, birds and small mammals. There is a large ash on the cemetery boundary which is showing signs of ash die-back. The FPC needs to determine its fate. Once felled or pollarded the large branches/trunk can be laid on the grass to decompose naturally, providing food and habitat for insects and for children to climb on.

A walnut tree is also proposed for this area (see 5. Heritage trees page 8).

Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Trees	10x small to medium native trees (spindle, hawthorn, malus sylvestris, guelder rose)	TBC	Planted by March 2021	FOF	No maintenance to trees required. No mowing.	FPC	
Felled trunk of large ash	Large ash once felled to be laid on the grass to decompose.	None	As felling determined	FPC	None	FPC	FPC to get health check on large ash on cemetery boundary

4. 5. & 6. Heritage Trees

Outline

The celebratory planting of three major trees on the Tynning area would mark our commitment to nature, particularly in light of the significant losses of ash trees that are expected in the near future. These include:

- 1 x Juglans Regia (walnut) in the NW copse (5. on Map A)
- 1 x Quercus Robur (native oak) on the slope (4. on Map A)
- 1 x Tilia Cordata (small leafed lime or Linden) on the southern wooded slope (6. on Map A).

It is hoped that over the next centuries that these specimens will grow into large veteran trees supporting vast numbers of wildlife as well as being majestic landmarks. A single mature oak tree can support over 280 species of insect alone, which in turn provide food for many birds and predators. The oak in the centre of the Tynning will specifically provide a stepping stone of habitat for birds and bats and this planting will be mirrored by plans by Gitte & Stephen Dawson to plant 3 x specimen oaks and a circle of field maple in the Galleries field during winter 2020.



Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Trees	1 x native oak 1 x walnut 1 x small leaf lime	TBC	Planted by March 2021	FOF	No maintenance to trees required unless risk of falling branches. Trees should be left to grow unpruned. Grass under the oak should be kept short until it gets large enough for its crown to shade out the light.	FPC	

7. Community Orchard

Outline

The community orchard would sit on the lower part of Tying Field on the bank just below the mown grass path that runs between the field gate and the school (see Map A). There is space for a minimum of 14 trees at 5 metre spacings.

The planned mix of fruit trees would be on M26 root stock which grow to an approx. height of 3m/10 feet. Importantly this root stock is vigorous enough to thrive when grown organically without chemical treatments. The orchard would include a traditional mix of varieties with historic local connections being preferred. Initially F of F would fund this initiative, but local residents and interest groups could be invited to sponsor a tree, however, the fruits would be available for any local residents to harvest. An orchard work group to plant, weed, water and maintain the trees will be organised by F of F in conjunction with the school.

90% of traditional orchards have disappeared in the UK over the 20th century. These trees would provide much needed pollen and nectar for bees early in the spring, and fruit for wild birds and the community to harvest throughout the summer and autumn. The planting and care of the trees could be a community project, involvement of the school children would be welcomed, and the harvesting of the fruit each autumn would naturally coincide with the annual village Apple Day.



<http://www.commoncause.org.uk/ringmer-community-orchard>



<https://www.kentdowns.org.uk/our-projects/orchards-for-everyone/>

Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Trees	10 x heritage & local variety apple trees. 1 x morello cherry 1 x damson 1 x golden cherry plum 1 x purple pershore All on M26 rootstock	TBC	Planted by March 2021 by FOF. 5 metre spacing in an informal zig zag formation.	FOF	Organic (no pesticides or chemical fertilizers). Year 1&2 Cut grass after spring bulbs flowered, and keep short through autumn. Year 3 and after, cut grass once after spring bulbs and again after fruiting. Trees can be pruned as required.	FOF to manage orchard work in year one, then FPC	

8. Wildlife pond, 9. Wetland tolerant trees & 10. Stream (daylighting the culvert)

Outline

Ponds instantly increase biodiversity because they can support two-thirds of all of the UK's freshwater species including frogs, toads, newts, water beetles, damselflies, dragonflies and an abundance of other invertebrates. Freshwater ecosystems only cover about 0.8% of the earth's surface but over 10% of all life is dependent on them and they are home to 35% of all extant invertebrates. We have destroyed 90% of our freshwater habitats since the industrial revolution. Over 10% of species that rely on these habitats are now threatened with extinction. Research over the last 20 years by the Freshwater Habitats Trust and the European Pond Conservation Network has revealed that ponds have significantly more diversity than rivers or streams and are home to many specialist species. Ponds are also great carbon sinks, each square meter of pond could bury an approximate average of 142 grams of carbon each year. This rate is much higher than for woodlands and grasslands (woodlands at 13% and grasslands at 36%). Suitable planting around the pond would include Salicaceae Salix (Pussy Willow) which would stabilise the bank of the pond as well as having the remedial effect of soaking up excess water when the ground is sodden. The addition of one alder and one willow (coppiced annually) would create an ideal wildlife matrix. Tree planting too close to the proposed pond would be avoided to prevent decomposing leaves falling into the water and causing nutrient build up and excessive algae growth.



The proposed pond would be shallow (max. depth 1 metre) and gently sloping ensuring safe passage for wildlife and children should they fall in and established in the wetter, lower, NE corner of Tynning Field. FoF are happy to work in conjunction with Freshford school on this project so that all aspects of health and safety can be addressed and the educational potential for the pond maximised.

A current culverted stream runs under the pavement along Freshford Lane. There is a movement to open up culverted streams, to restore the integrity of the landscape and for its manifold wildlife benefits. (see Map A, p4). This is a potential initiative for future consideration and whilst not part of this proposal it has been taken into account in order to future-proof any planting plans.

Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Trees	1 x Salicaceae Salix 1 x Willow 1 x Alder	TBC	Planted by FOF date TBC	FOF	Annual coppice of willow in spring by FOF	FPC	
Pond	TBC	TBC	Pond dug by FOF date TBC	FOF	Annual gentle pond clearance in late autumn by FOF	FOF to maintain. Responsibility FPC	Safety.

11. Freshford Cemetery & 12. Triangle opposite cemetery

Outline

Cemeteries can be biodiversity hotspots if managed sensitively – creating beautiful spaces rich with wildlife. Plans include the removal of ash saplings from old graves; allowing the grass to grow and observing the existing diversity; mowing wide flowing paths for access amongst the longer grass and wildflowers. Three blossoming small to medium trees (see Map A, page 4) will add visual attraction and provide food and habitat.

In the future we can add to the wild flowers by sowing bee-friendly annual seeds, bulbs (see Map B, page 14) and native perennials.

The green triangle (position 12. Map A), above the cemetery could be enhanced by flowering and berry rich hedgerow planting (between the wall and the path on the west boundary) and three blossoming trees.



Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Maintenance of grass	Leave to grow with mown paths. Cut ash saplings.		Commence spring 2021	FPC	Mow all grass once in spring, then leave grass long with mown paths throughout until single cut in autumn.	FPC	
Trees	2 x crab apple 1 x Amelanchier 1 x flowering cherry 1 x hawthorn 1 x rowan	TBC	Spring 2021	FOF	Minimal pruning as required.	FPC	
Hedge	Elder (sambucus Niger), Dog rose (elder canina), hawthorn	TBC	Spring 2021	FOF	Sensitive annual hedge cut in winter.	FPC	

13. New native hedge & 14. Existing hedge

Outline

Native hedges are important wildlife habitats. The existing hedge along Freshford Lane is protected under the Hedgerow Regulations Act 1997 and was assessed in an ecological appraisal in July 2015. To support wildlife habitat and to encourage a thicker hedge, cutting by not flailing and 'laying' every 3 years is strongly recommended. There is a group of people in the village who took part in the Cotswold Warden led hedge laying a few years ago who would be able to share their skills. Friends of Freshford hold a cache of suitable tools for the job. The old hedge will also be infilled where it is thin or patchy. <http://hedgelink.org.uk/index.php?page=23>

The proposed new hedge (see 13. Map A, page 4) borders the High Street, following the wire fence is approx. 30 mts long. It will ensure safety from the road and enhance wildlife. The quantity of plants purchased is sufficient to also infill the existing hedge along Freshford lane and to provide in fill trees for the proposed NE Corner Copse. In the first year the hedge will need to be kept watered to allow it to establish. A group of volunteers to undertake this would be organised by Friends of Freshford.



Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
New hedge	30 meters of hedge = 250 x 40-60cm plants hedgenursery.co.uk. 50% hawthorn, 10% each of blackthorn, hazel, spindle, field maple and crab apple.	£264	Planted by March 2021. Staggered row (5-7 plants per metre).	FOF	Yr 1 keep watered (volunteers / FOF). 1 cut in winter to encourage structure. Lay every X years (volunteers / FOF)	FPC	Review enclosure laws & consider impacts of roots on the wall.
Existing hedge	In fill from plant stock from new hedge.		Infilling March 2021	FOF	Cut annually - no flailing. Lay every X years (FOF to organise).	FPC Hedge cutting costs last year 4/19-3/20 = £875	Cutting regime was not followed and got out of hand. Last year it was cut by hand. Last laid 4 years ago. Flailing is much cheaper.

15. War Memorial

Outline

The war memorial is short cut grass backed by a clipped hedge. It is the wish of the British Legion for the grass to be cut short and the area neat.

Spring bulbs planted under the hedge line and then mown once blossomed has been approved by the British Legion but they wish to know what species.

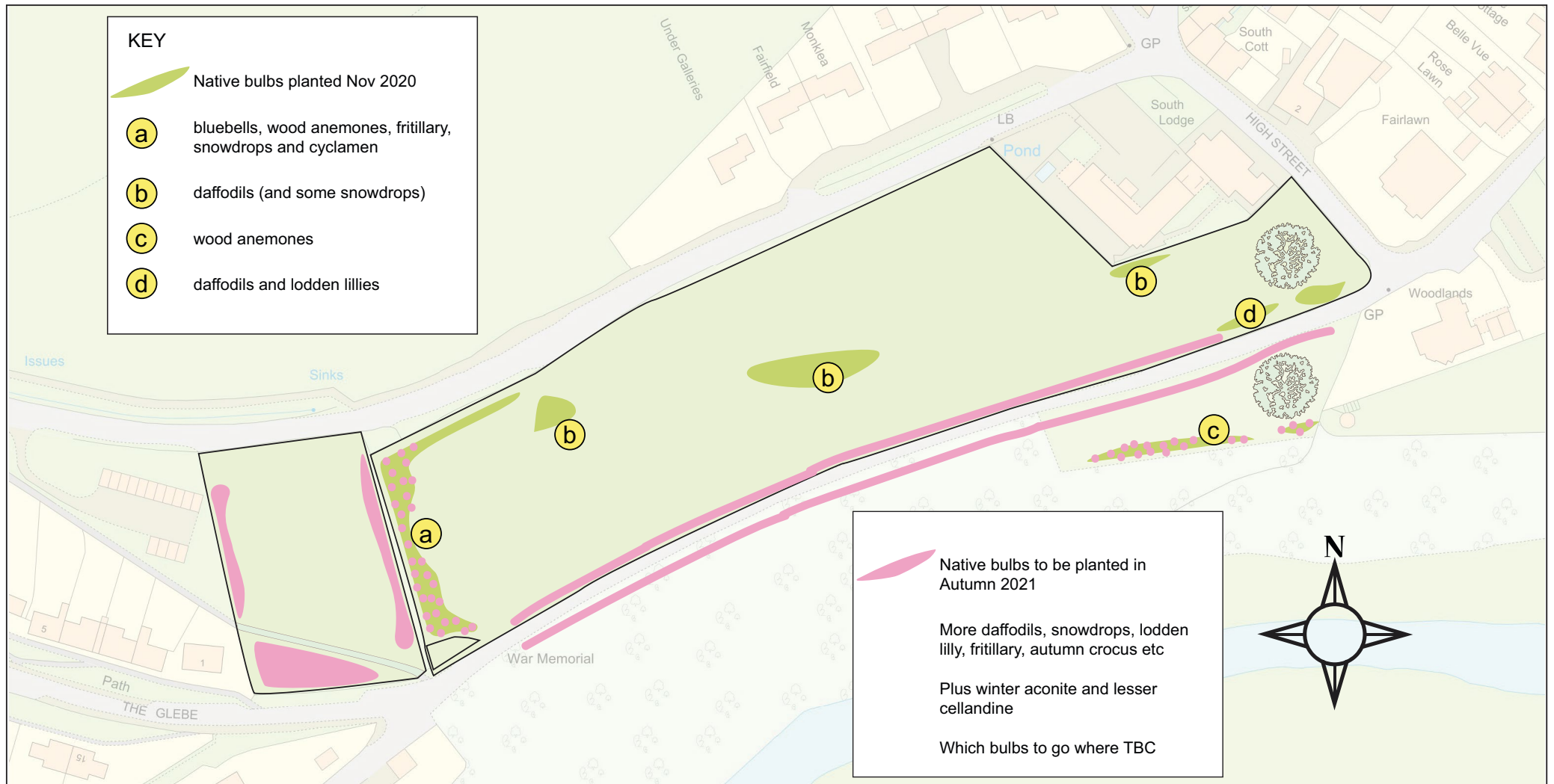
It is proposed that 150 native autumn crocus, blooming September - November would thrive under the hedge and provide forage for insect life later in the season. This idea needs to be discussed with the British Legion.



Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
New hedge	150 x Colchium Autumnale	Jparker.com £23.96	Sept-Dec 2021	FOF	Mow except Sept - Dec TBC allowing crocus to bloom.	FPC	Discuss idea with the British Legion

Map C: Native bulbs & tubers



Native bulbs & tubers

Outline

Map B (page 14) shows the positioning of varieties of native bulbs and tubers. Spring bulbs offer essential food and nectar for insects and autumn crocus extends the forage season. This is particularly important due to impacts of climate change on bees.

On the 1st November 2020, 5000 x native bulbs and tubers were planted on the Tynning by more than 30 volunteers arranged by Friends of Freshford.

The aim is to plant more in autumn 2021.

Plants can be mown back after flowering if required.



Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Bulbs & tubers	Bluebells x 1000 Daffodils x 800 Snowdrops x 800 Lodden lily x 100 Fritillary x 250 Wood anemones x 1000 Cyclamen x 250		Nov 2021	FOF	Mow after spring flowering as required. Please see 'Grass Maintenance' (page 18).	FPC	
	Autumn crocus Winter acconite Lesser celandine Daffodils	TBC	Sept - Dec 2021				

Map B: Wildflower areas



Wildflower areas

Outline

The main Tynning field is not suitable as a traditional meadow due to it being enriched and north facing (see Chalkhill Environmental Assessment July 2015). However, by leaving areas of longer grass between paths and keeping paths mown, biodiversity can be encouraged and enhanced with yellow rattle and small areas of wildflower and diverse grasses. Map C (page 16) shows the positioning of native wildflower areas.

Seeds and plugs would be used on:

- The humps along Tynning Lane (see 1. Un-mown humps, page 5)
- Under the orchard trees (see 7. Community Orchard, page 9)
- In the cemetery (see 11. Freshford cemetery, page 11)

Costings & details

	Details & quantity	Purchase cost	Implementation details & timing	Purchase & implementation budget	Maintenance regime	Maintenance responsibility & budget	Issues
Wildflower seeds & plugs	TBC	TBC	TBC	FOF	Maintenance for each area is already defined. Also see 'Grass maintenance' page 18.	FPC	

Grass Maintenance

Outline

The aim of adjusting the mowing regime is to enhance wildlife and whilst ensuring useability and access of both the Tynning and Cemetery.

TYNING

The aim is continue with the existing pattern of wide shortly mown paths and flat areas (see Map A, page 4), leaving longer grass, on the slopes to grow and flower in summer. Chalkhill Environmental appraisal July 2015 suggests mowing long grass twice a year (September/October and March), removing cuttings. And also leaving tussocky grass at a range of heights.

CEMETERY

Proposed regime will have mown paths through longer flower-rich grass. Leaving the grass to grow for year one to see what species are there and then enhancing with suitable native wildflowers as required. Mown paths will ensure access to graves.

Costings & details

	Maintenance regime	Maintenance responsibility & budget	Issues
Grass cutting	<p>TYNING</p> <p>Mow long grass areas once in March and once in September/October and remove grass cuttings. Mow paths and flat areas as required.</p> <p>CEMETERY</p> <p>Mow all grass once in spring, then leave grass long with mown paths throughout until single cut in autumn. (See 11. & 12. for more details page 10)</p>	<p>FPC</p> <p>Costs 4/19–3/20 = £3360 combined for cemetery and Tynning: Alan Duck x 16 cuts. Alan & James x 9 cuts. HL Mills x 2 cuts (£300 per cut). Usually only 1 x cut per annum.</p>	

References

Chalkhill Report 2015

<https://drive.google.com/file/d/1-zhANb8FoJCL1iJm7LpvzITBXReAW0XB/view?usp=sharing>

Lowland Chalk and Limestone Grassland

<https://drive.google.com/file/d/1Ys-YxA7YkoSefBrdaQ9oKm53F1Hd4-Y2/view?usp=sharing>

<https://drive.google.com/file/d/1YrsHZ7Gtny8313WAr7V2L0pDdxGmlQSN/view?usp=sharing>

Hedgerows

<http://hedgeline.org.uk/index.php?page=23>

http://hedgeline.org.uk/cms/cms_content/files/78_hedgeline_a5_12pp_leaflet_7.pdf

Hedge laying grant

<https://www.gov.uk/countryside-stewardship-grants/hedgerow-laying-bn5>

Other Useful Links

<https://www.wildlifetrusts.org/wildlife/managing-land-wildlife/how-manage-road-verge-wildlife>

<https://www.plantlife.org.uk/uk>

<https://www.woodlandtrust.org.uk/plant-trees/schools-and-communities/>