

# PLAN FOR THE DESIGN AND CONSTRUCTION OF CHURCHYARD GARDENS

*Research conducted by:*

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## **1. Background**

An important part of the St Peter's Environmental Policy, prepared in September 2006, was the objective to build natural and wild gardens in each of the three churchyards of the Parish; that is St Peter's, Christ Church and Stanley Pontlarge. A number of young people attending St Peter's volunteered to prepare the plans, undertake the necessary literature research and then, with assistance from additional church people, to build the six gardens.

The scope of the research which guided the young people is presented as an Action Plan in Appendix A.

The fundamental principles underlying the protection of fauna is to provide:

- food
- water
- shelter
- breeding places

In each churchyard will be a wild garden, that is an area that will be left untouched. The area will be marked out, the perimeter clearly delineated and identified as a part of the churchyard to be left to nature. These wild gardens will provide privacy for small creatures and food for caterpillars.

The second garden in each churchyard will be a designed garden containing plants that will attract and feed a wide variety of insects, birds and other wildlife. These gardens will also be labelled and identified, though it should not be necessary to delineate the edges of these three gardens. A plan of each churchyard, showing the gardens, is presented in Appendix B. The sites for each garden have been selected to ensure they receive sunshine for much of the day during summer. A hollow created somewhere in the garden will encourage a mud puddle during wet weather, which will provide butterflies with essential salts and minerals. The gardens will be relatively modest in size at this stage, but can be expanded later, if this is desired and is practical.

There are no immediate plans to formally tend the gardens on a regular basis. They have to look after themselves. This rules out "difficult" plants, the creation of a pond and other activities (such as a compost heap) and features that would often be found in a domestic garden designed to attract wildlife.

Pesticides and slug pellets will not be used in the natural gardens and plants naturally resistant to the attentions of slugs will be selected; the use of peat will be avoided. To avoid the need for watering, drought resistant plants should form a major part of the planting strategy. Some maintenance of the gardens will be necessary, but should be kept to a minimum, and weeds can be dug in to each natural garden and recycled.

In addition to the gardens, further steps will be taken to attract other wildlife, such as hedgehogs and small mammals, and to build bird nesting boxes. The outline scope of these activities is shown in the Action Plan in Appendix A and the research details presented below.

## 2. Research Findings

The following web sites were consulted for information:

The Wildflower Society:	<a href="http://www.thewildflowersociety.com">http://www.thewildflowersociety.com</a>
RSPB:	<a href="http://www.rspb.org.uk">http://www.rspb.org.uk</a>
British Trust for Ornithology:	<a href="http://www.bto.org">http://www.bto.org</a>
Butterfly Information:	<a href="http://www.butterflygarden.co.uk">http://www.butterflygarden.co.uk</a>
The Wildlife Trusts:	<a href="http://www.wildlifetrusts.org">http://www.wildlifetrusts.org</a>
Wildlife Advice:	<a href="http://www.wildlife-gardening.co.uk">http://www.wildlife-gardening.co.uk</a>
Barn Owl Trust:	<a href="http://www.barnowltrust.org.uk">http://www.barnowltrust.org.uk</a>
Bat Conservation Trust:	<a href="http://www.bats.org.uk">http://www.bats.org.uk</a>
British Hedgehog Preservation Society:	<a href="http://www.britishhedgehogs.org.uk">http://www.britishhedgehogs.org.uk</a>
Bumble Bee Information:	<a href="http://www.bumblebee.org">http://www.bumblebee.org</a>
English Nature:	<a href="http://www.english-nature.org.uk">http://www.english-nature.org.uk</a>

### 2.1 Selected Plants for Wildlife

A range of perennial plants have been identified that will attract a variety of insect life and will help to feed birds in winter time. It is hoped that many of these plants will be donated by interested residents in and around Winchcombe. Perennial plants should not be cut back in the autumn to allow seed heads and berries to carry over into the winter; and to provide winter foliage protection for hibernating insects. It is better to plant perennial species in groups, rather than as individual specimens, so that the colour and scent is easy to detect for insects.

Herbs are often attractive to a wide range of insects and many have the advantage of being drought resistant.

Wildflower seed packs can be used for sowing in part of the natural gardens, though this would have to wait till the Spring of 2008. The seed packs will probably include: bird's foot trefoil, vetch, hawkweed, wild white clover, bluebell, broom, wild cornflower, hound's tongue, common knapweed, lady's smock and wild marjoram. These are all native English species, which will grow well in the churchyard gardens and have the greatest potential for attracting local insects.

Ideally, it is important to select plants that flower at different times of the growing season so that food is available over considerable periods of time. The early Spring is an important time for many insects coming out of hibernation, so early flowering plants should be a high priority for the churchyard gardens. In reality, the planting strategy will depend on the plants available and this largely depends on the generosity of local residents.

Listed below are wildlife species that we would wish to see in the church gardens and the plants and other strategies that will attract them:

- **Butterflies:** The greater knapweed plant attracts a range of butterflies, including the Brimstone. Buddleia, also known as the butterfly bush, is very attractive to a range of butterflies and other pollinating insects. Other plants that are good for butterflies include lavender, hebe, lilac, sedum, valerian, zinnias and verbena; and a range of plants that flower at different times will attract a wider range of butterflies. Bramble flowers are attractive to Speckled Wood and Gatekeeper butterflies. All the "brown" butterflies, for example Meadow Brown, Gatekeeper, and Wall Brown require grass plants as food for their caterpillars. It is expected that the wild gardens will host nettles and these are a magnet for Red Admirals, Tortoiseshells and Peacock butterflies.

Caterpillars thrive by eating larval plants like milkweed, marigolds and violets.

- **Bees:** The plants that attract butterflies are good, also, for bees. Additionally, catmint and comfrey are successful at attracting a variety of pollinating bees. Many solitary bees nest in cavities in wood. These cavities can be recreated by drilling holes in timber logs, or by tying together a number of cut hollow-stemmed bamboo canes.
- **Birds:** Although winters are tending to become milder and less stressful for our resident birds, there is still a need to supplement their feeding during the coldest months of the winter. In churchyard gardens, this is best achieved by planting native bushes and other plants that develop berries and seeds through the winter. Some good examples of berry-carrying plants include: cotoneaster, pyracantha, chaenomeles and berberis; thistles and golden rod, sunflowers, scabious, honesty, teasel, yarrow and many other plant species provide seed heads for winter feeding.

Conventional bird feeders, using nuts, seeds etc, are not recommended, because of the need for continuous maintenance during the winter months; only if volunteers can be found to commit to “artificial” feeding methods, could the use of such feeders be considered. However, other ad-hoc methods could be considered on an occasional, informal basis; examples include hanging stale bread or old fruit on tree branches; Orioles love oranges!

Bird nesting boxes in the churchyards would be an important strategy for preserving our resident birdlife. Detailed plans and drawings for constructing small-hole and large-hole nesting boxes have been prepared and rules for siting the boxes noted. Peter Harris has agreed to construct the boxes. At this stage, two boxes per churchyard is recommended. It will be necessary to clean the boxes in late summer and arrangements will need to be made for this to be done. It should be noted that it would not be practical to consider owl nesting boxes, since an un-used building would be needed for siting; also some owls can be aggressive during the nesting season and may pose unacceptable risks.

## 2.2 Other Wildlife

Other species that are worthy of protection and support include the following:

- **Hedgehogs:** The creation of a small Wood Pile in a corner of the three wild gardens will encourage Hedgehogs to build a nest underneath. Ideally, some of the logs should be partially buried in the earth. If left undisturbed for some time, algae and mosses will cover it, attracting insects. Alternatively, garden rubbish, leaves, brushwood, etc. suitable for hedgehog nests can be used. Hedgehog homes can also be ready-built, by using a thick cardboard box, or a timber constructed habitat, with the entrance facing south; details are available on the hedgehog web site.
- **Small Mammals:** Examples include mice, shrews and voles. Both the common shrew and the smaller pygmy shrew like dense vegetation through which they make ‘runways’ at about ground level. Their nests are made of woven grass. Small mammals like unkempt areas of garden, with long, uncut grass, so the wild gardens planned for the churchyards should provide an ideal habitat. Plants that can be used as food by small mammals include bramble, hawthorn and other berry-carrying vegetation. By building some of the gardens against the churchyard dry stone walling and the natural nooks and crannies that exist there, greater opportunities are provided for small mammals and certain insects.
- **Bats:** There are 16 species of bat in the UK, some of which are very rare and all of which are protected by law because their numbers have decreased so dramatically. The law protects all bat nesting sites and these cannot normally be removed if bats take up residence in public buildings, including churches. For this reason it would be expedient not to attract bats to the Parish churchyards and no special protection actions are suggested for this project. However, the measures proposed to attract and conserve insect life will indirectly benefit bats, since insects of various types are their sole source of food.

## Appendix A

### Action Plan Scope

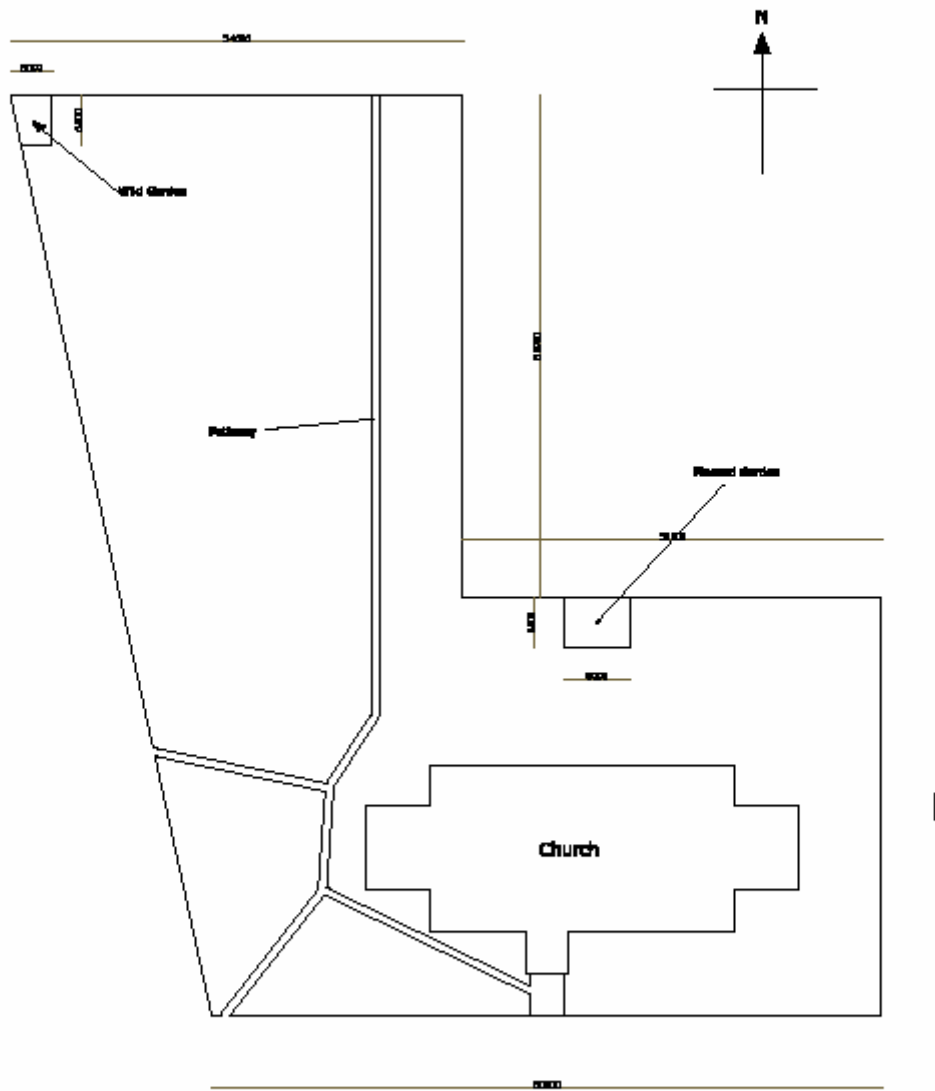
*The plan will cover the design and preparation of (i) a natural wild garden (ie a wild untouched space) and (ii) a planted wild garden with selected wild plants to attract a variety of flora and fauna in the three churchyards of the Parish (St Peter's, Christ Church, Gretton and Stanley Pontlarge).*

1. Draw up plans on A4 paper of all three churchyards showing shape, dimensions (1 long stride = 1 metre), and position (with dimensions) of the four churches within each space.
2. Show on each plan the positions, with dimensions, of the proposed areas of (i) the natural garden and (ii) the wild planted garden in each of the three locations. The locations and sizes of the garden areas will need to be selected with sensitivity for the main purpose of the space, that is a graveyard; take advice on this.
3. The aspect of the gardens will be important; deep shade will rule out the choice of many plants.
4. Conduct research on the design of the wild gardens to attract a range of flora and wild animals, including birds. This will be predominantly an internet research programme using appropriate web sites and utilising Google searches. Obvious web sites include the RSPB, the Bat Conservation Trust, British Hedgehog Preservation Society, Wildlife Trust, Wild Flower Society etc., though Google should throw up many more sites. Many charitable and conservation web sites offer e mail advice; if so, use them.
5. It is suggested that each participant in the Action Plan independently produces a series of bullet points on the key features of (i) a wild planted garden and (ii) a natural garden and the steps needed to attract birds, butterflies, hedgehogs, bats and other wild animals. Specifically, what plants would attract which species.
6. An important aspect of the design should be simplicity and the need for low maintenance. That is, the gardens, once built, should essentially look after themselves, with only minimal attention and no additional watering.
7. Specific advice and guidance will be needed on the advisability of encouraging bats to the churchyards; if they then take up residence in the church buildings, there are legal constraints on removing them.
8. The question of bird boxes should include information on design, size, shape and position (height and direction) in churchyards in order to attract particular bird species. Are some bird species resident in this part of the country more endangered than others and "deserve" special protection? This point should also be considered carefully in the case of butterflies.
9. Give some thought on options for showing the perimeters of each garden. Should these be natural, ie no marking so that each garden simply "flows" into the rest of the churchyard, or should there be some perimeter fencing to clearly show the extent of each garden. In this context, the churchyard of St Peter's is maintained by the local town authority and their workmen may need to see clearly where each garden is located.
10. On conclusion of the research study by each participant, a brainstorming session (or two) is recommended where all the bullet point ideas are considered and a master plan developed by a synthesis of the range of ideas. An "editor" could be appointed to bring this together.
11. The final plan for the development of gardens in the selected locations to be completed by May 2007. It is hoped that implementation can take place over the summer of 2007.

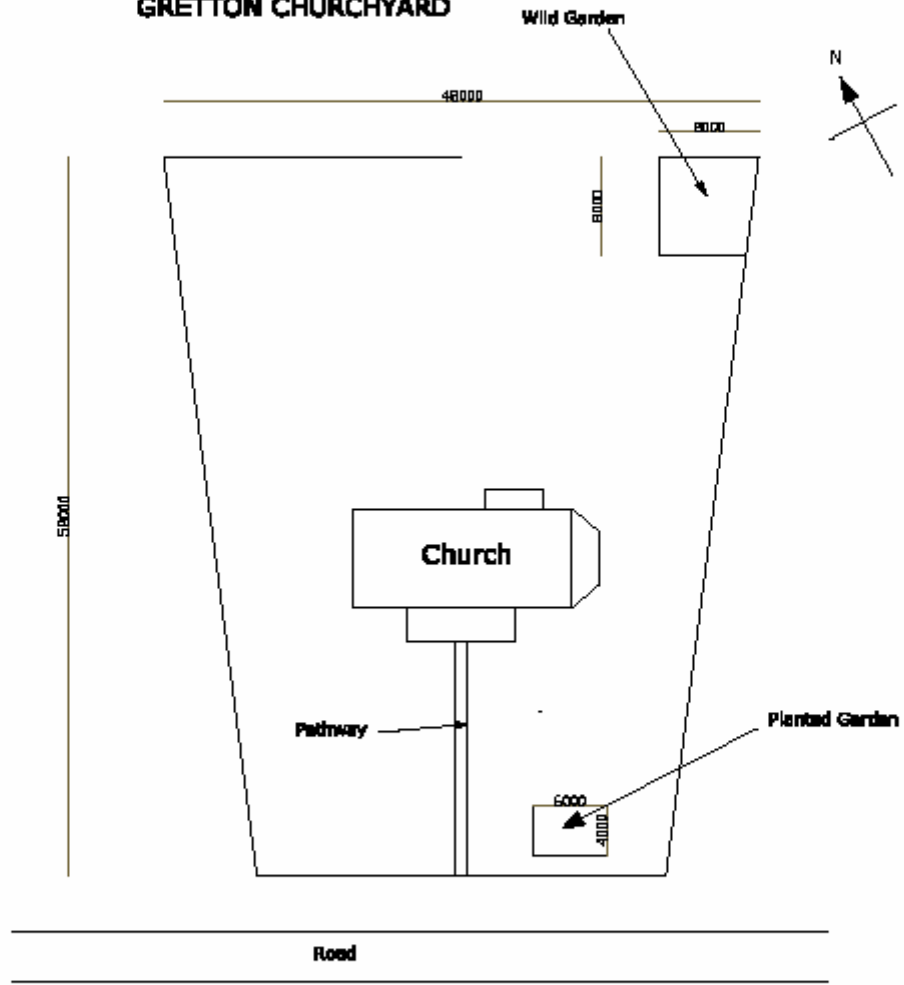
## **Appendix B**

### **Plans of the Three Churchyards**

**ST PETER'S CHURCHYARD, WINCHCOMBE**



# GRETTON CHURCHYARD



# STANLEY PONTLARGE CHURCHYARD

