

Flowering for Life Project Delivery Plan



Contents

| | |
|---|-----------|
| Brue Valley: Importance for Wildlife | 1 |
| Flowering for Life Project | |
| Objectives | 2 |
| Targets | 3 |
| Target Species | 4 |
| Evaluation & Monitoring | 5 |
| Communications Strategy | 6 |
| Project Partners | 7 |
| Ongoing Work and Investment | 8 |
| Project Area | 9 |
| Timelines and Milestones | 10 |

The Brue Valley

Importance for Wildlife

- Located within the Somerset Levels and Moors - the largest area of lowland wet grassland and associated wetland habitats in England.
- Designated under the Ramsar Convention as a wetland of international importance.
- Designated as a Special Protection Area due to its international importance for wintering waterfowl.
- Incorporates three NNRs and five SSSIs.
- Hosts internationally important populations of aquatic invertebrates and wintering birds and nationally important populations of plants, terrestrial invertebrates, breeding waders and other birds.



Flowering for Life Project



Objectives

- Increase the diversity and abundance of flowering plants and insects within the Catcott-Shapwick complex of reserves.
- Improve the quality of grazing and abundance of pollinators for the benefit of local farmers and graziers.
- Re-establish a viable population of greater water parsnip – a BAP priority species.
- Augment the local population of devil's bit scabious to allow for possible future recolonisation by marsh fritillary.
- Work with disadvantaged youngsters to instil a sense of pride and ownership in the countryside.
- Create a strong ongoing partnership between the project partners which leads to future projects in Brue Valley.
- Monitor increases in the abundance and diversity of floral and invertebrate populations.

Flowering for Life Project

Targets



- Improve the hydrology within 50 hectares of fen meadow by reinstating 1200 m of field gutters which allow more reactive management to changing water levels and promote flowering plant diversity.
- Clear 13 hectares of scrub from fen, fen meadow and purple moor grass & rush pasture habitats.
- Clear 1000 m of trees and scrub from ditch banks and create a mosaic of successional stages within the ditch network.
- Reprofile 2000 m of ditch banks to increase niche space for ditchside plants and invertebrates.
- Decrease cover of soft rush in six affected fields.
- Introduce 200 specially-grown greater water parsnip plants to ditch and fen habitats within the project area.
- Introduce 500 devil's bit scabious plants to fen meadow and purple moor grass & rush pasture habitats within the project area.
- Add green hay to two fields totalling ~11 hectares.
- Involve a minimum of 25 volunteers in practical conservation and survey work.
- Train a minimum of 5 volunteers in floral and invertebrate survey techniques.
- Train a minimum of 10 school pupils from disadvantaged backgrounds in practical conservation, survey and horticulture work.
- Implement long-term floral and invertebrate monitoring protocols.

Flowering for Life Project



Target Species

The project aims to provide benefits for a range of threatened species including:

| Species | Status | Benefit from project |
|--|-------------------------------|---|
| Greater water parsnip | BAP priority, locally extinct | Reintroduced into former range. |
| Devil's bit scabious | Locally rare | Populations augmented. |
| Tubular water dropwort | BAP priority | Instatement of field gutters coupled with habitat restoration through ditch reprofiling and scrub control allows existing populations to grow and spread within project area. |
| Marsh stitchwort | BAP priority | |
| Milk parsley | Nationally rare | |
| Marsh pea | Nationally rare | Instatement of field gutters coupled with green hay techniques allow existing population to spread. |
| Shining rams horn snail | BAP priority | Sensitive ditch clearance allows existing population to grow and spread within the project area. |
| Moss carder bee and shrill carder bee | BAP priority | An increased density of flowering plants throughout spring and summer and the restoration of greater water parsnip provides a greater abundance of forage for pollinators. |
| Narrow-bordered bee hawk-moth | BAP priority | |
| Also amongst the species likely to benefit are southern marsh orchid, great- and lesser silver water beetle, hairy dragonfly and variable damselfly. | | |

Flowering for Life Project



Evaluation

Habitat recovery is a long-term process and significant species and habitat gains are unlikely to be seen over the course of the project. Therefore the evaluation of the project will be based in the short-term on whether milestones are met. Progress towards the project's milestones will be reported quarterly to the Biffaward team as well as to the Somerset Wildlife Trust's Board of Trustees and project partners.

Monitoring

The ongoing results of the project will be monitored in the following ways:

- A reserves evaluation protocol will be implemented to rapidly assess the diversity and composition of grazing swards each year. This will monitor the presence or absence of key species in twenty samples within each field.
- Persistence and growth of the great water parsnip population will be monitored annually by the Somerset Rare Plants Group.
- Persistence and growth of devil's bit scabious populations will be monitored annually by volunteer surveyed from the Somerset Wildlife Trust.
- Ongoing invertebrate monitoring will be incorporated into a large future European-funding bid for landscape-scale invertebrate conservation.

Results of these surveys will be reported annually to the project partners and the Somerset Levels and Moors Biodiversity Monitoring Group.

All survey results will be forward to the Somerset Environmental Records Centre.

Project Partners



Somerset Wildlife Trust

SWT is Somerset's largest conservation organisation with over 20,000 members. Through its Brue Valley Living Landscape Project it has made a long term commitment to conservation within the Somerset Levels and Moors. The Trust owns and manages 100 ha of land within the project area.

Bristol Conservation and Science Foundation

Hosted and run by Bristol Zoo Gardens - one of the UK's oldest zoological parks – the Bristol Conservation and Science Foundation plays a leading role in conservation projects around the globe. They have previously been involved in many UK floral and invertebrate conservation projects including greater water parsnip re-introductions.

Inaura School

Partly located within the project area, Inaura School provides education for teenage boys and girls who have behavioural, emotional and social difficulties. The school has shown a strong interest in restoring floral and butterfly communities within the Somerset Levels and Moors and will provide support and manpower for management tasks designed to benefit marsh fritillaries and other pollinator species.

Natural England

Natural England is an independent public body whose purpose is to protect and improve England's natural environment and encourage people to enjoy and get involved in their surroundings. They own and manage 144 ha of land within the project area, parts of which will form part of the plant reintroduction program.

Hawk and Owl Trust

The Hawk and Owl Trust is a national charity dedicated to conserving owls and other birds of prey in the wild. They own and manage 56 ha of land within the project area, parts of which will form part of the plant reintroduction program.

Somerset Rare Plants Group

The Rare Plants Group was formed with the aim of surveying and monitoring the rarer plants of Somerset, while taking an active part in conserving vascular plants. They will monitor the success of the greater water parsnip reintroduction.

Ongoing Investment

Future Management and New Projects



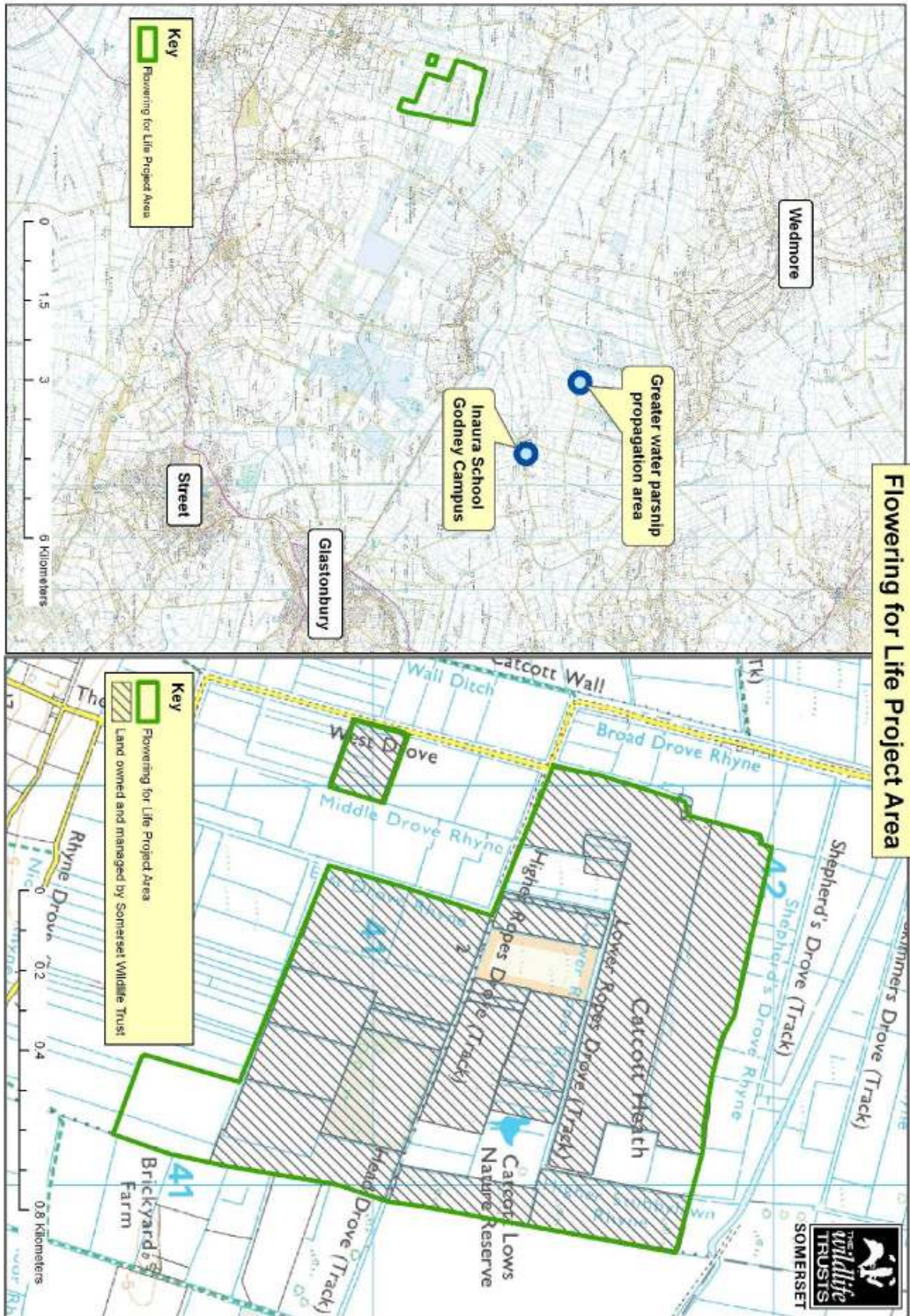
This project is designed as the first in an ongoing program of refining management practices within vicinity of the Somerset Wildlife Trust's Catcott reserves to develop an economically and environmentally sustainable farming system which can act as a demonstration site for landowners and conservationists alike.

The results will feed directly into future management decisions aimed at maintaining and increasing floral and invertebrate diversity across all of the Wildlife Trust's land in the Brue Valley (~600 hectares), which will have further knock-on benefits for mammalian and avian communities as well.

One of the most important ongoing benefits from the Flowering for Life project stems from the formation of the project partnership, all of whom are committed to a long term engagement in floral and invertebrate conservation in the Brue Valley. By combining expertise from across the conservation, education and voluntary sectors we will be able to ensure that innovative and exciting projects produce long-term tangible benefits for biodiversity and local communities alike. This project will enable the partnership to form a very strong future bid for substantial European funding which will to extend and expand the invertebrate conservation work across a wider area to allow viable metapopulations of rare species to return to - and persist within - the landscape.

In addition to further practical conservation projects, the Somerset Wildlife Trust has recently submitted a PhD proposal in collaboration with the University of Bristol. The proposed project would study the ecological benefits of restoring umbellifer species (greater water parsnip, tubular water dropwort and milk parsley) within wetland ecosystems. The study would also consist of intensive floral and invertebrate survey which would also chart the progress of the benefits accrues during the Flowering for Life project as well as providing a better understanding of the ecological links within ditches and fen meadows.

Project Area



Timelines & Milestones

| | 2011 | | | 2012 | | | | 2013 |
|---|------|----|----|------|----|----|----|------|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 |
| Tasks | | | | | | | | |
| Volunteers engaged | ■ | ■ | | | | | | |
| Floral survey | | | | ■ | ■ | ■ | | |
| Baseline invertebrate survey | ■ | | | | | | | |
| Scrub clearance | | | ■ | ■ | | | ■ | ■ |
| Ditch maintenance & reprofiling | | ■ | | | | ■ | | |
| Installing field gutters | | ■ | | | | ■ | | |
| Green hay-ing of two fields | | | | | | ■ | | |
| GWP seed collection | | ■ | | | | | | |
| GWP propagation | | | | ■ | ■ | ■ | ■ | |
| GWP planting | | | | | | | | ■ |
| DBS seed collection | | ■ | | | | | | |
| DBS propagation | | | | ■ | ■ | ■ | ■ | |
| DBS planting | | | | | | | | ■ |
| Communications | | | | | | | | |
| Press releases circulated | ■ | | | | ■ | | | ■ |
| Articles published in Trust magazine and landowner newsletter | | ■ | | | | | | |
| Dedicated webpage created | ■ | | | | | | | |
| Talks to interest groups | | | ■ | | | | ■ | |
| End of project thank you event | | | | | | | | ■ |
| Milestones | | | | | | | | |
| Floral survey complete and digitised | | | ■ | | | | ■ | |
| Invertebrate survey complete and digitised | | | ■ | | | | | ■ |
| 500 m of ditch banks cleared of scrub | | | | ■ | | | | ■ |
| 1000 m of ditch banks reprofiled | | | | ■ | | | | ■ |
| 6.5 ha scrub cleared | | | | ■ | | | | ■ |
| 600 m of field gutters installed | | ■ | | | | ■ | | |
| Two fields receive green hay | | | | | | ■ | | |
| GWP and DBS seeds collected | | ■ | | | | | | |
| GWP and DBS plants transferred to Inaura | | | | | | | ■ | |
| 180 GWP and 460 DBS planted out | | | | | | | | ■ |

*GWP = greater water parsnip DBS = devil's bit scabious

