

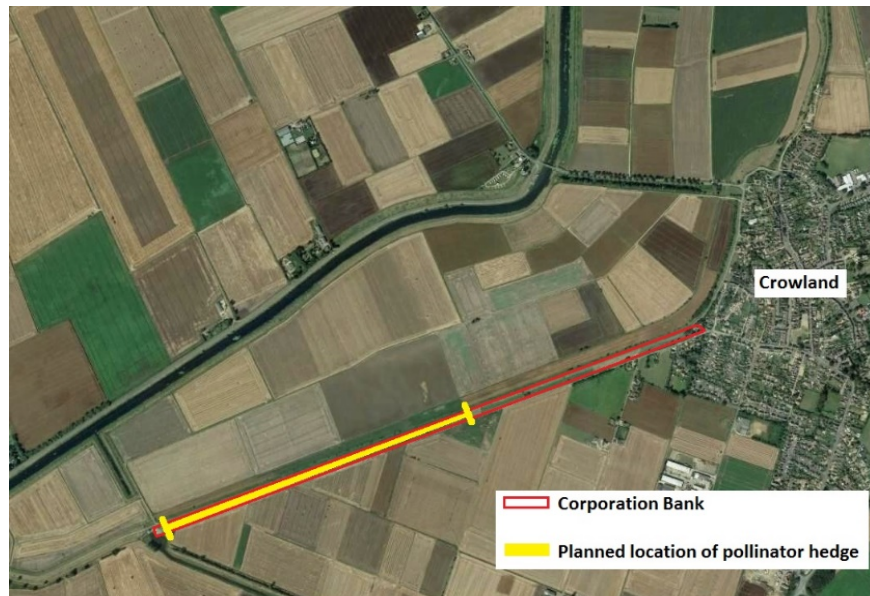
Creating a pollinator hedge

Pollinator projects in Lincs & Northants area

Project objective: To improve the variety and seasonal availability of nectar and pollen for a fenland grass flood bank within 10 years (starting in winter 2018/2019) by planting a native hedge with plug planting woodland flowers beneath.

Site: A 1.2km length of Corporation Bank, south-west of Crowland (OS grid reference TF21520923 - TF23521004).

Site location:



Work force marking out line of hedge and creating notch holes ready to receive whips (Jan. 2019)

Background: Corporation bank is a rough grass flood bank adjoining the Crowland washlands and is routinely managed by the Environment Agency. A section of this bank is already part of a pollinator trial investigating how reducing the number of mowing cuts and removing of mowings can improve flower-richness and number of associated pollinators. Currently, this section of Corporation bank is not flower-rich and is located within an area of open fenland with few existing hedges or trees. Planting an adjoining hedge with associated woodland flowers beneath will improve both variety and seasonal availability of nectar and pollen. Cherry Plum, Goat Willow and Buckthorn are important early flowering small trees for pollinators while Hawthorn flowers become especially important in early summer. Introduced woodland flowers provide a further nectar and pollen with species such as Sweet Violet flowering early in the year.

Hedge (specification):

- Type:** Double row planted hedge, 4 standard trees and field layer under plantings
- Number of whips:** 2 staggered rows (30cm apart) with 5 plants per square metre = 6,000 plants.
- Number of field layer plugs:** 1 plant per square metre = 1,200 plants.
- Plant type and method:** standard trees (90 – 120cm high) supported by single stake 90cm long, 45cm above ground level with single rubber tie with spacer, nailed close to top of stake, with spiral rabbit guard and mulch mats or bark chippings (minimum depth 10cm);
- whips - notch planted bare rooted plants supported by cane (inserted 25cm into the ground), spiral rabbit guards, mulch mats or bark chippings (minimum depth 10cm) - consider notch planting within pits as Corporation Bank is a very dry site in summer;
- field layer under plantings (plug plants planted within pits between staggered row of hedge) and protected by bark chippings (minimum depth 10cm).

All species must be of native provenance, disease free and from the specified planting list below. If a particular species cannot be supplied, substitute with others from the specified planting list below.

Timing for planting: Mid-autumn and late winter, normally after leaves have started to fall.

Hedge species composition

Standard trees

Goat Willow *Salix caprea* (x20 at regular intervals)

Small trees/ shrubs (number of whips)

Blackthorn	<i>Prunus spinosa</i>	x460
Buckthorn	<i>Rhamnus catharticum</i>	x460
Cherry Plum	<i>Prunus cerasifera</i>	x460
Dog Rose	<i>Rosa canina</i>	x460
Dogwood	<i>Cornus sanguinea</i>	x460
	<i>subsp. sanguinea</i>	x460
Field Maple	<i>Acer campestre</i>	x460
Grey Willow	<i>Salix cinerea</i>	x460
Guelder Rose	<i>Viburnum opulus</i>	x460
Hawthorn	<i>Crataegus monogyna</i>	x460
Hazel	<i>Corylus avellana</i>	x460
Spindle	<i>Euonymus europaeus</i>	x460
Wayfaring Tree	<i>Viburnum lantana</i>	x460
	<i>Ligustrum vulgare</i>	x460
Wild Privet		

Notes: Chosen species are appropriate and characteristic for fenland. Cherry Plum is not strictly native to UK but widely planted within fenland and one of the most important early flowering small trees for pollinators; non-natives *Cornus sanguinea subsp. australis* and *Viburnum trilobum* are sometimes supplied in error for native Dogwood and Guelder Rose

Field layer species to be plug planted later at base of hedge (these species are either uncommon within fenland or slow to establish naturally within new hedges)

		No. of plugs
Black Horehound	<i>Ballota nigra</i>	x 92
Dog Violet	<i>Viola riviniana</i>	x 92
False-brome	<i>Brachypodium sylvaticum</i>	x 92
Garlic Mustard	<i>Alliaria petiolata</i>	x 92
Herb Bennet	<i>Geum urbanum</i>	x 92
Lesser Celandine	<i>Ficaria verna</i>	x 92
Lords-and-Ladies	<i>Arum maculatum</i>	x 92
Primrose	<i>Primula vulgaris</i>	x 92
Red Campion	<i>Silene dioica</i>	x 92
Stone Parsley	<i>Sison amomum</i>	x 92
Sweet Violet	<i>Viola odorata</i>	x 92
Upright Hedge-parsley	<i>Torilis japonica</i>	x 92
Wild Strawberry	<i>Fragaria vesca</i>	x 92

Field layer species that are likely to establish naturally and quickly (often bird sown) within new fenland hedges

Bramble	<i>Rubus fruticosus agg.</i>
Elder	<i>Sambucus nigra</i>
Ground Ivy	<i>Glechoma hederacea</i>
Ivy	<i>Hedera helix</i>
Nippewort	<i>Lapsana communis</i>
Rough-leaved Meadow-grass	<i>Poa trivialis</i>
White Dead-nettle	<i>Lamium album</i>



Planting whips (Jan. 2019)



Tree guards added to complete hedge. Standard Goat Willow in foreground.

Project outcome: Phase 1 completed February 2019.