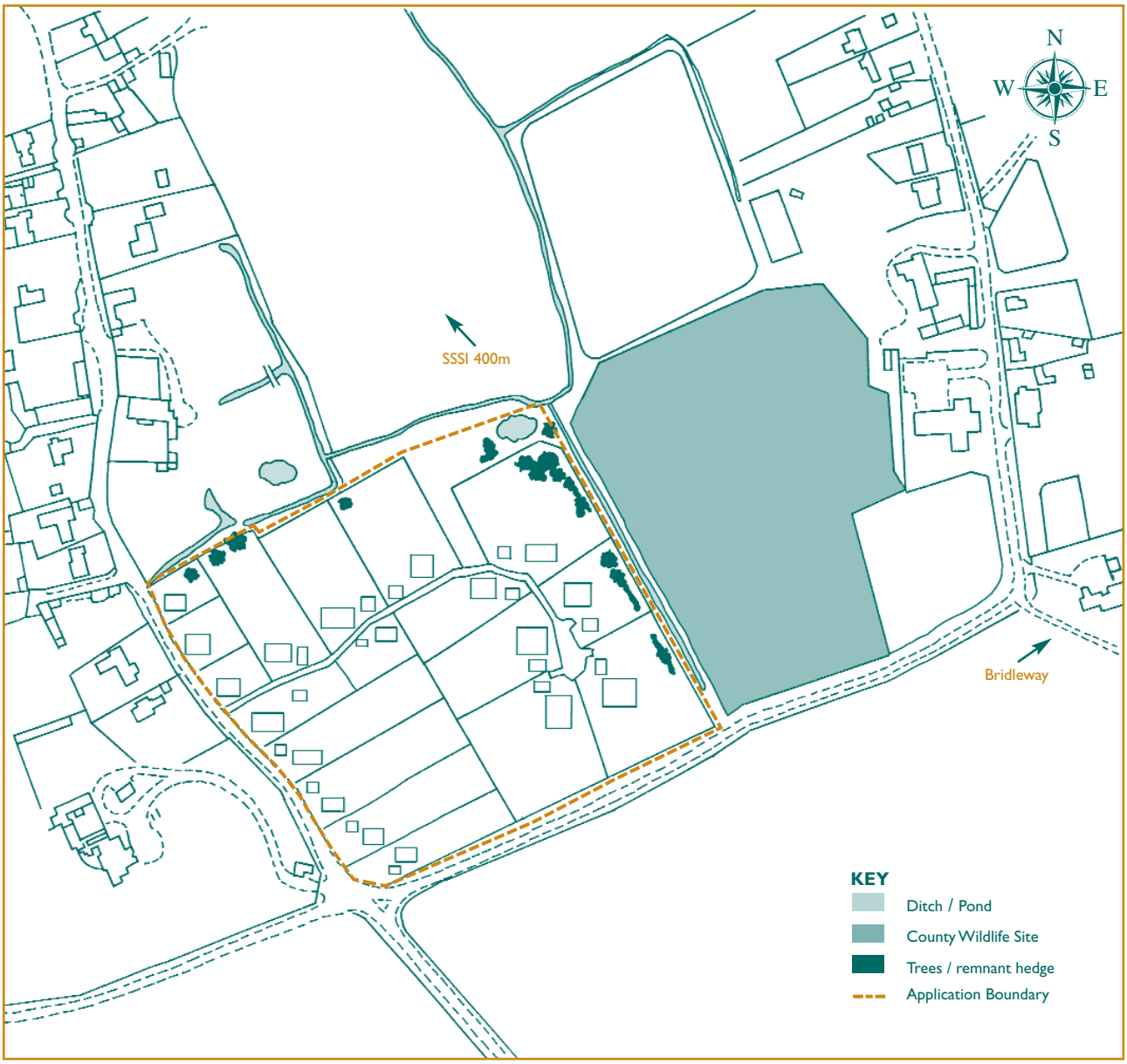
Case Study 1:
Small residential development

ANNEX TWO



SCHEME

South Cambridgeshire village edge development comprising eighteen 3 / 4 bedrooms houses, with garages. The development area covers 3 ha and lies within the development envelope for the village.

SITE DESCRIPTION

The existing land is semi-improved rough chalk grassland with scrub along the main road to the south. The boundary to the east runs along a ditch parallel to a County Wildlife Site (CWS), recognised for its chalk grassland habitat and wet flushes near the ditch. The CWS has been drying out in recent years leading to a loss of some species e.g. marsh orchids.

A few old agricultural buildings will need to be demolished to allow the development to go ahead. Locals report seeing barn owls in the field occasionally. There is a pond in the north-eastern corner, along with some scattered trees and old hedge remnants along the ditch. The boundary to north also contains some hedge remnants. Grass snakes are known to be present on site.

SURROUNDING ENVIRONMENT

400m to the north-west is a Site of Special Scientific Interest for wet grassland, downstream along the ditches. Great-crested newts have been found in a pond in the adjacent field to the north-west.

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BACKGROUND INFORMATION

Initial plans from the developer are to fill in the areas between the houses with amenity grassland, with an area of public open space in the north-eastern corner. The pond, which is somewhat overgrown, would be filled in as it is thought to be a safety hazard for young children.

1) What are the key biodiversity issues to be covered by the Environmental Statement?
2) What conditions or S106 agreements should be attached to any permission to protect and enhance wildlife?

Good Practice:

1. KEY ISSUES

- Always the first question must be, should the development go ahead on this site? If so, then the following points must be taken into account.
  - Detailed **surveys** to be carried out to investigate the use of the site by any protected or rare species and to highlight semi-natural habitats of importance on the site. Surveys must be carried out at the appropriate time of year (e.g. spring / summer for plants).
  - **Species** to focus on include great crested newts, barn owls, grass snakes, possibly marsh orchids in wet areas, and any other plants or invertebrates. Bats may be found in the old trees. Also check for nesting birds e.g. skylarks in grassland and songbirds in scrub.

- **Habitats** include:
  Semi-improved rough chalk grassland - loss of some of this BAP habitat (although not high quality) will occur if development goes ahead so look for compensation. It is still important for botanical and invertebrate interest. Long grass provides important habitat for grass snakes and great-crested newts, as well as small mammals eaten by barn owls, so minimise loss.

  Scrub - along the main road will be used by songbirds, such as the song thrush, and the understorey again by newts, grass snakes and small mammals as shelter. Minimise loss.
  Pond - great-crested newt and aquatic plant and invertebrate habitat. Retain.
  Hedgerows / scattered trees - used by a variety of birds as nesting and foraging habitat, as well as providing wildlife corridors for species mentioned above. There is the possibility of bats roosting in old trees. Enhance.
  Ditches - provide aquatic habitat and damage could have knock-on effect to SSSI downstream. Protect.
- **Consult** with relevant organisation at an early stage, particularly the Wildlife Trust and the Environment Agency regarding the CWS and the pond, respectively.

2. PERMISSION GRANTED SUBJECT TO

a) **PROTECT**

- The **grassland** is semi-improved and therefore of less nature conservation concern, and it does lie within the development envelope BUT conditions can still limit the effects of development on species and habitats (see point c).

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- **Pond** - don't fill in the pond as great-crested newts are known to migrate up to 500m (only 150m to nearby pond), so it could be suitable habitat if not occupied already. Ensure developer provides suitable safety fence for children.
- Attach condition to consent to ensure flow in the **ditches** is not severely impeded, as this would affect the SSSI downstream.

b) MITIGATE

- Minimise loss of **scrub** to retain habitat for birds, newts, snakes etc. Ensure any scrub clearance takes place outside the breeding season, which extends between late February and early August.
- Ensure **long grass** is kept along boundaries to link with ditch at the back of the development to act as wildlife corridors for the species which use it (see also new benefits).

c) COMPENSATE

- Set up new **barn owl boxes** in tall trees in the north-eastern corner to replace roosts lost in farm buildings. Note that it is an offence to damage any wild bird nests while in use during the breeding season.
- Compensation for the loss of grassland is difficult but an alternative is to contribute to enhancement of the adjacent CWS (see next point).
- Adequate terrestrial area has to be provided for the great crested newts, although this can include gardens. The recommended minimum standard is 100 newts / acre (250 / hectare).

d) NEW BENEFITS

- Use the opportunity to enhance the **scrub** area alongside the main road to south. Plant suitable trees of local provenance (use Cambridgeshire Landscape Guidelines). As well as providing habitat for BAP species (and others), this will give a screen between the road and the housing.
- Fill in the remnant **hedges** along the north and eastern boundaries, keeping rough grass at the hedgerow base. However avoid planting adjacent to CWS if drying out is a concern.
- Design the 'Show Home' **garden** as a wildlife garden using native species to promote biodiversity.
- Use the opportunity to link up **public access** through the CWS to the existing footpath in the south-east (along dotted line on map).
- Create **wetland buffer** alongside CWS using grey water and surface run-off.
- Set up a **management agreement** with the Wildlife Trust to manage the public open space as a nature area alongside the County Wildlife Site (CWS).
- Encourage **enhancement** for the CWS, through a financial contribution from the developer secured in planning obligations for lining the ditch on one side and putting in a weir by the trees to flood the CWS in winter, thereby creating improved habitats for marsh orchids and other species.

e) MONITOR

- Developer to pay for **long-term monitoring** of the site both during and after development to check success of planning conditions and wildlife benefits. An S106 agreement with the developer to produce an annual report based on the management plan would aid the local authority with monitoring.

NOTE:

Similar elements of best practice can be applied to minor developments, including barn conversions and single houses.

When renovating / removing old buildings check for bat roosts and bird nests in the roof.

Incorporate swift and house martin nest boxes into new building design - very simple and effective even on a single house.

Apply usual care when considering works on hedgerows and trees.

Use native trees and plants in landscaping schemes.