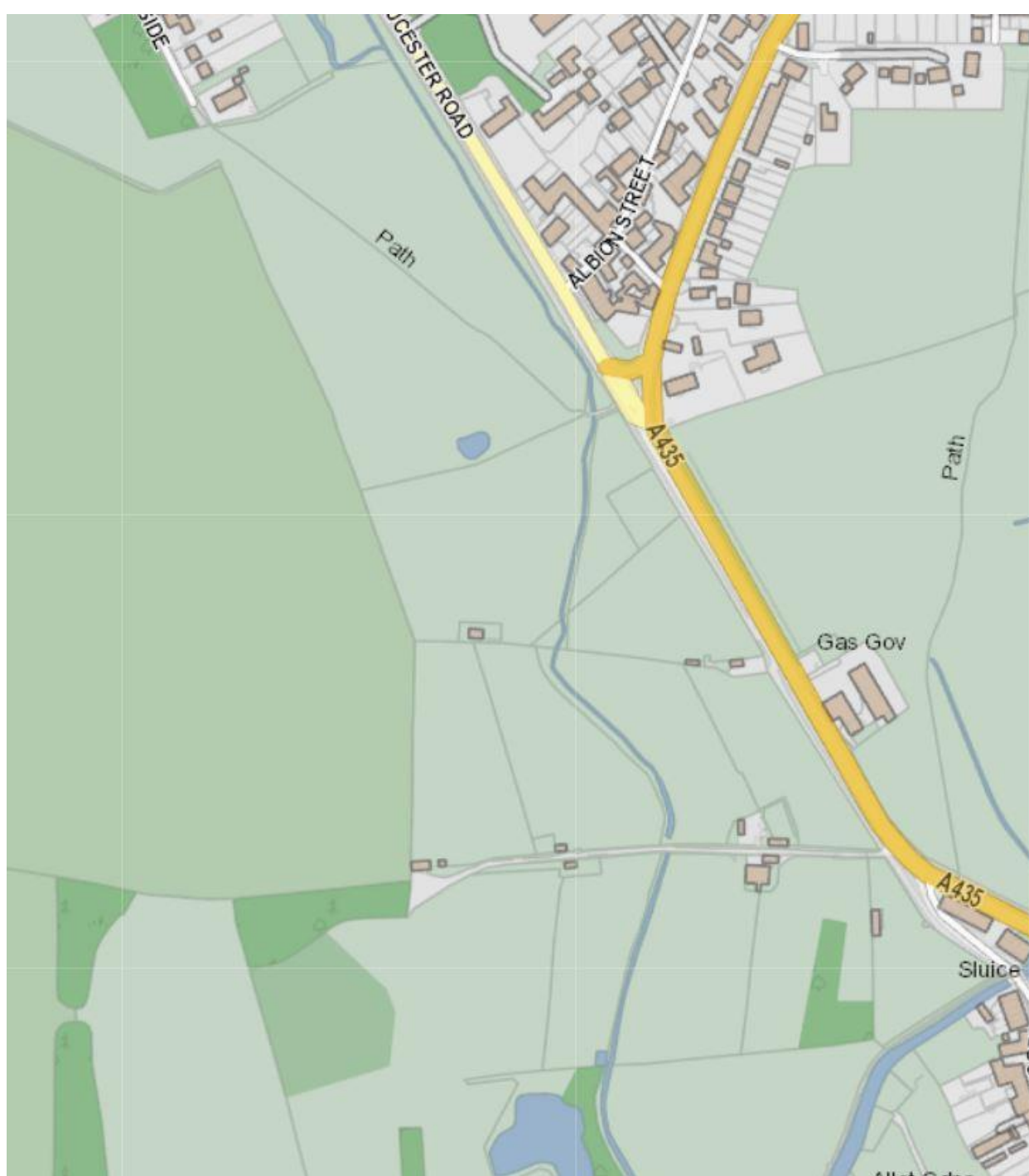


River Dan & Gumstool Brook Flood & Drought





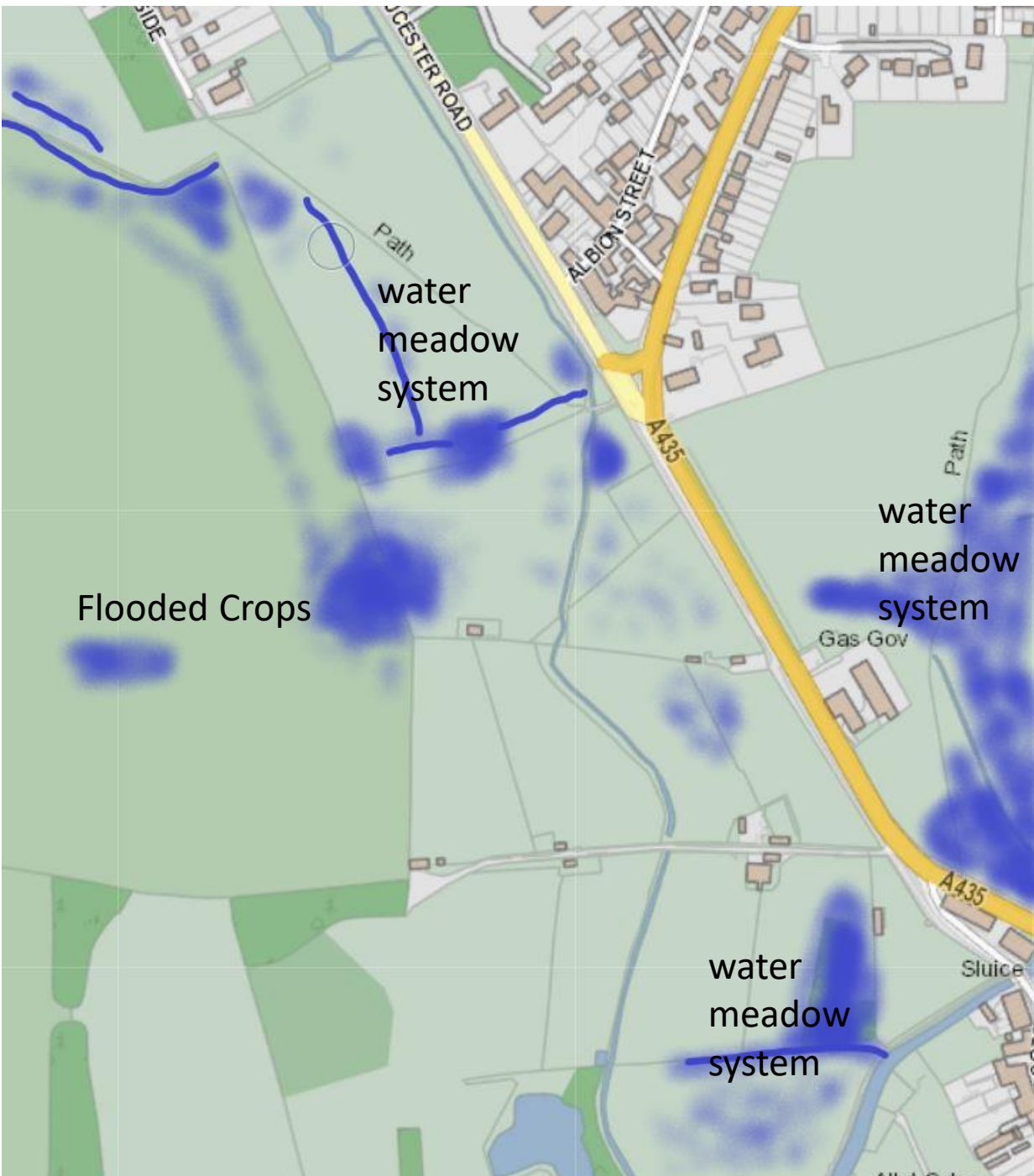
Current river course
from Dan (Daglingworth
Stream) & Churn into
Gumstool Brook

Stratton to Barton Mill

Current river course
from Dan
(Daglingworth
Stream) & Churn into
Gumstool Brook

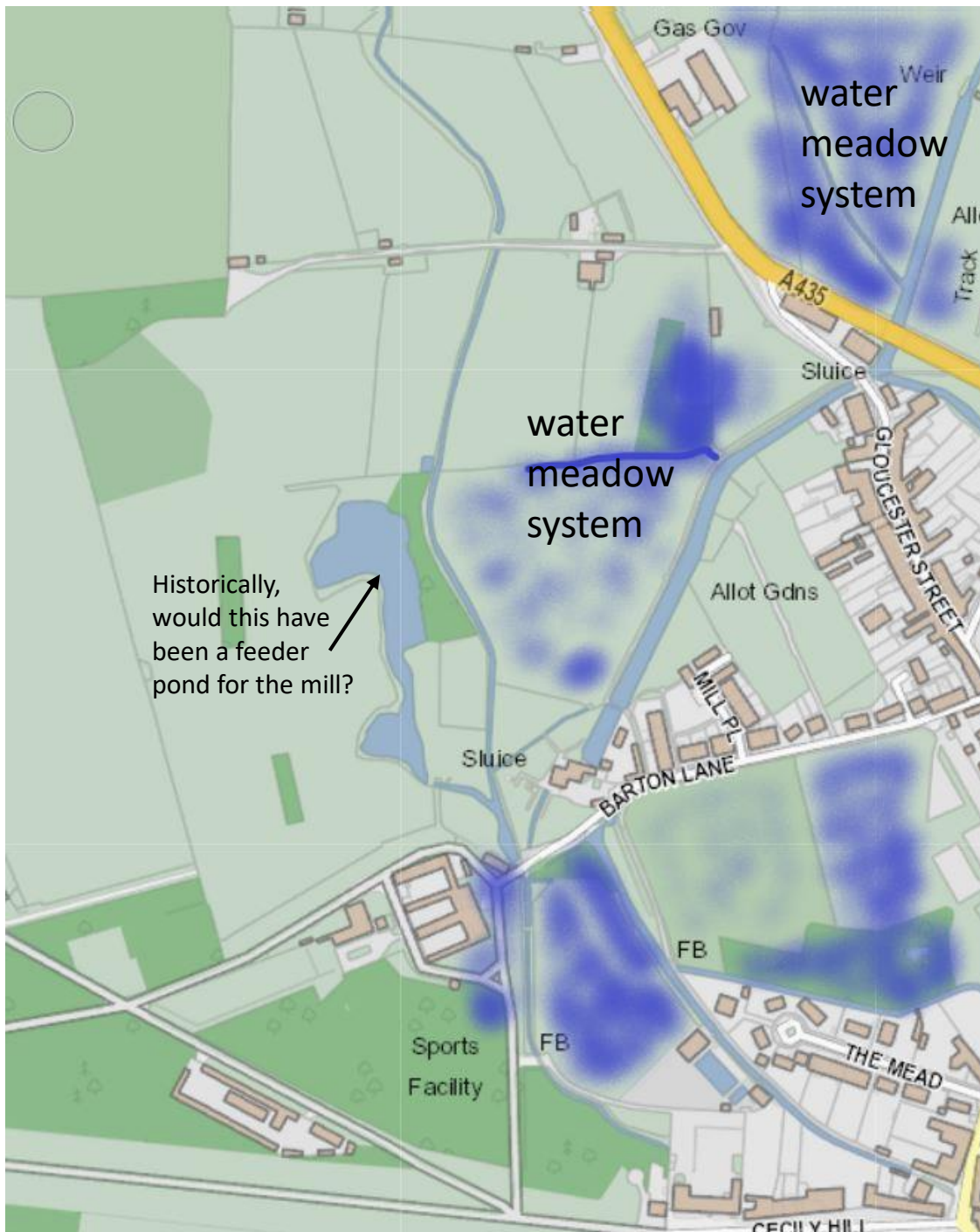
Barton Mill to Town





Flooded river course
from Dan (Daglingworth
Stream) & Churn into
Gumstool Brook

Stratton to Barton Mill

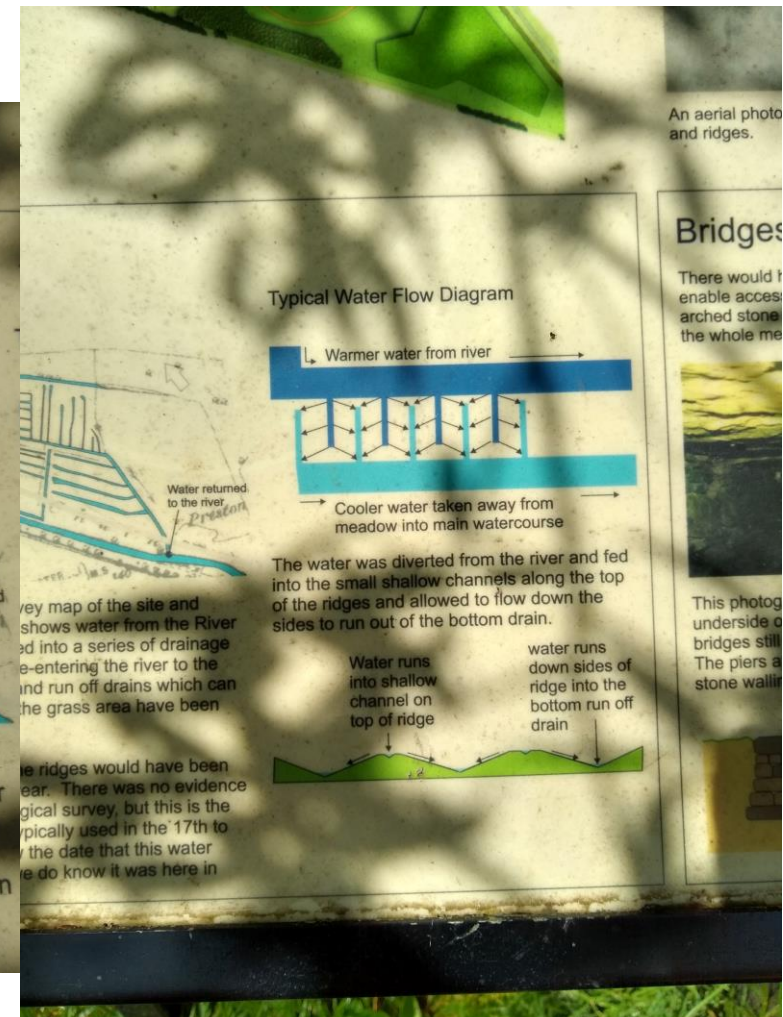
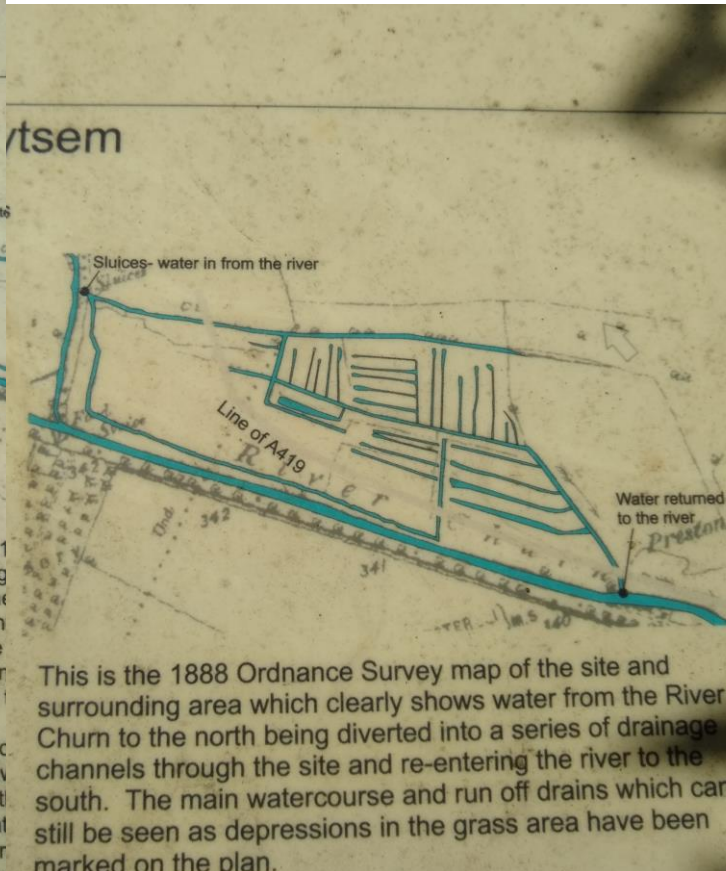
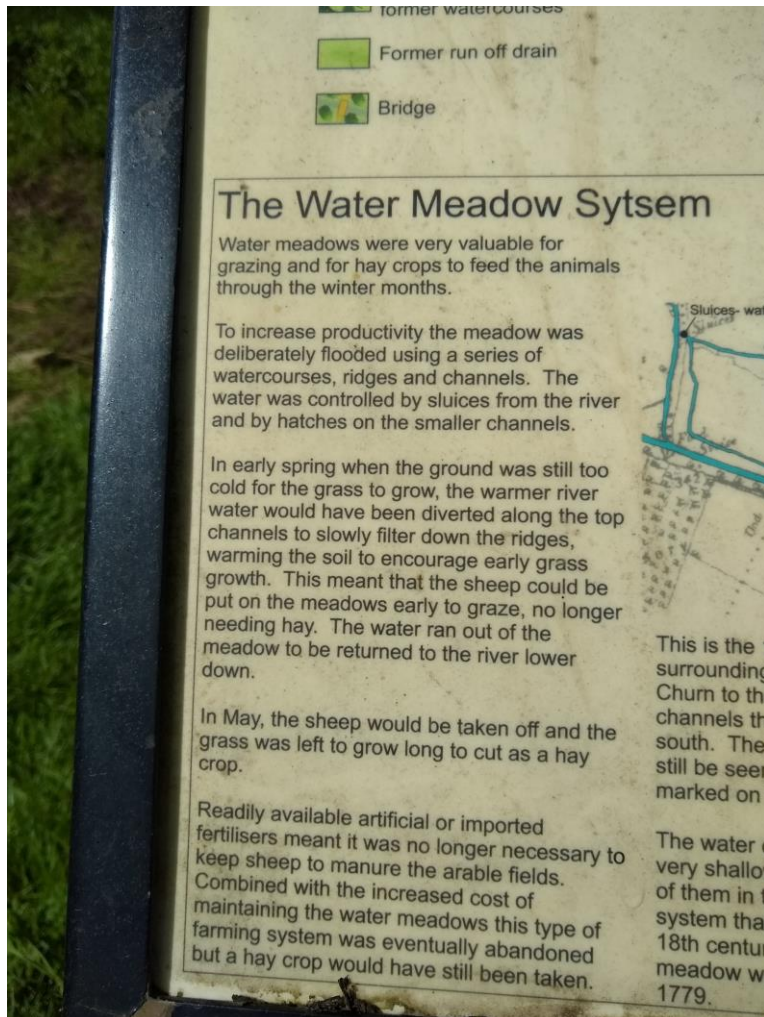


Flooded river course
from Dan
(Daglingworth
Stream) & Churn into
Gumstool Brook

Barton Mill to Town

Flood Mitigation:

Water Meadows work! plus: Leaky Dams; Brook ponds; hedging on farm-uplands, upstream in the Churn Catchment North of Stratton (DAN), Daglingworth (DAN), and North Cerney (Churn – Rendcomb, Colesbourne,...)



Funding for biodiversity enhancements & flood mitigation



 Department
for Environment
Food & Rural Affairs



Environment
Agency



Farming &
Wildlife
Advisory
Group



NATURE
CAPITAL



COTSWOLD
DISTRICT COUNCIL



cirencester
· town council ·



Gloucestershire
COUNTY COUNCIL

Promotional material

**The Environmental Land Management
scheme: public money for public goods**

Published 14 October 2020

Biodiversity Net Gain

What does it mean?

A standardised 'biodiversity unit' metric will be created to apply different values to habitats based on automated calculations. The more a development destroys biodiversity units, the greater the level of habitat creation needed as compensation. Any shortfall in biodiversity units measured against the net gain obligation would need to be compensated with a cash payment, or with biodiversity improvements off-site. This would come as a great cost to the developer, emphasising the importance of protecting our natural environment from an economic viewpoint.

CASH PAYMENTS

For those who cannot meet the net gain obligations, the estimated cost is between

**£9,000 and
£15,000**

per biodiversity unit.



OVERALL IMPROVEMENTS

The aim is to provide an overall increase of

10%

measured in biodiversity units.

SUSTAINING THE PLANET

Production of at least

1/3

of all the world's food depends on pollination carried out by insects, bats and birds whom are all affected by biodiversity decreases.

THREATS TO WILDLIFE

The amount of land protected for wildlife in the UK is only

8.5%

and of this only 40% is in good condition.



Information Sources:
DEFRA, Net Gain Consultation Proposals, Dec. 2018.
EMA, Biodiversity, 2019.

ethical partnership

But what about drought in the Gumstool?



Looking back into recent history, Mill Ponds controlled the regularity of flow for the Mills in the area. Taking low lying areas that currently flood anyway, and create deeper clay bottom lakes/ponds that can hold more water they catch in winter. Which can then be used to flow back into the streams in the spring/summer.

But.....

This is Bathurst Estate land.

Clearly, it would need their desire, approval, and commitment to the work.



- It would be about **increasing habitat & biodiversity**,
- helping to **alleviate flooding** for people in Cirencester.
- Create a **healthy continuous flow** into the Gumstool Brook **all year round for wildlife**,
- and **enhance** the surroundings for **residents** and **tourists** alike.

Could the 'Friends GSB' support finding funding & volunteer in any construction, operation and maintenance?

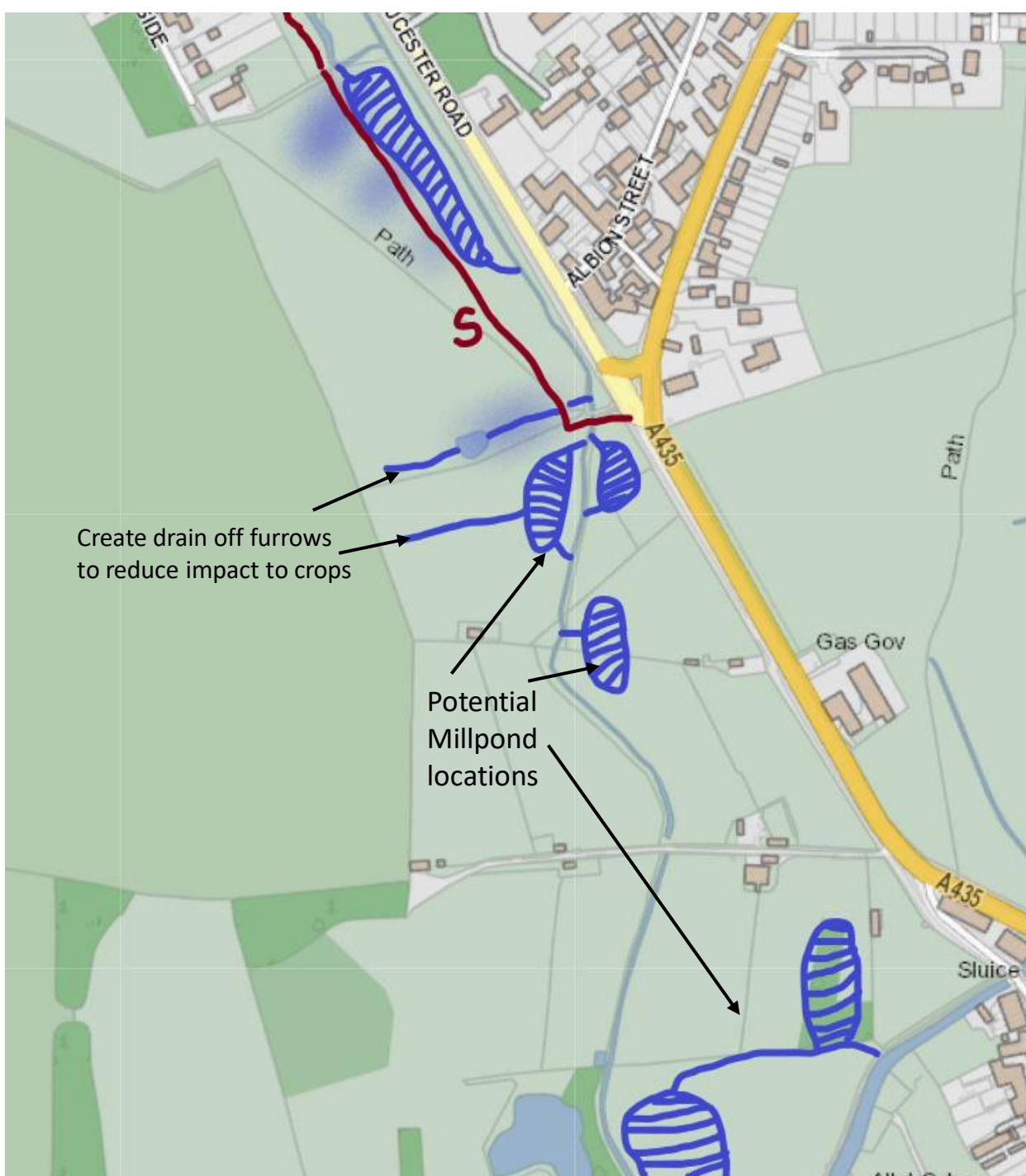
Mill Ponds in river
course from Dan
(Daglingworth Stream) &
Churn into Gumstool
Brook

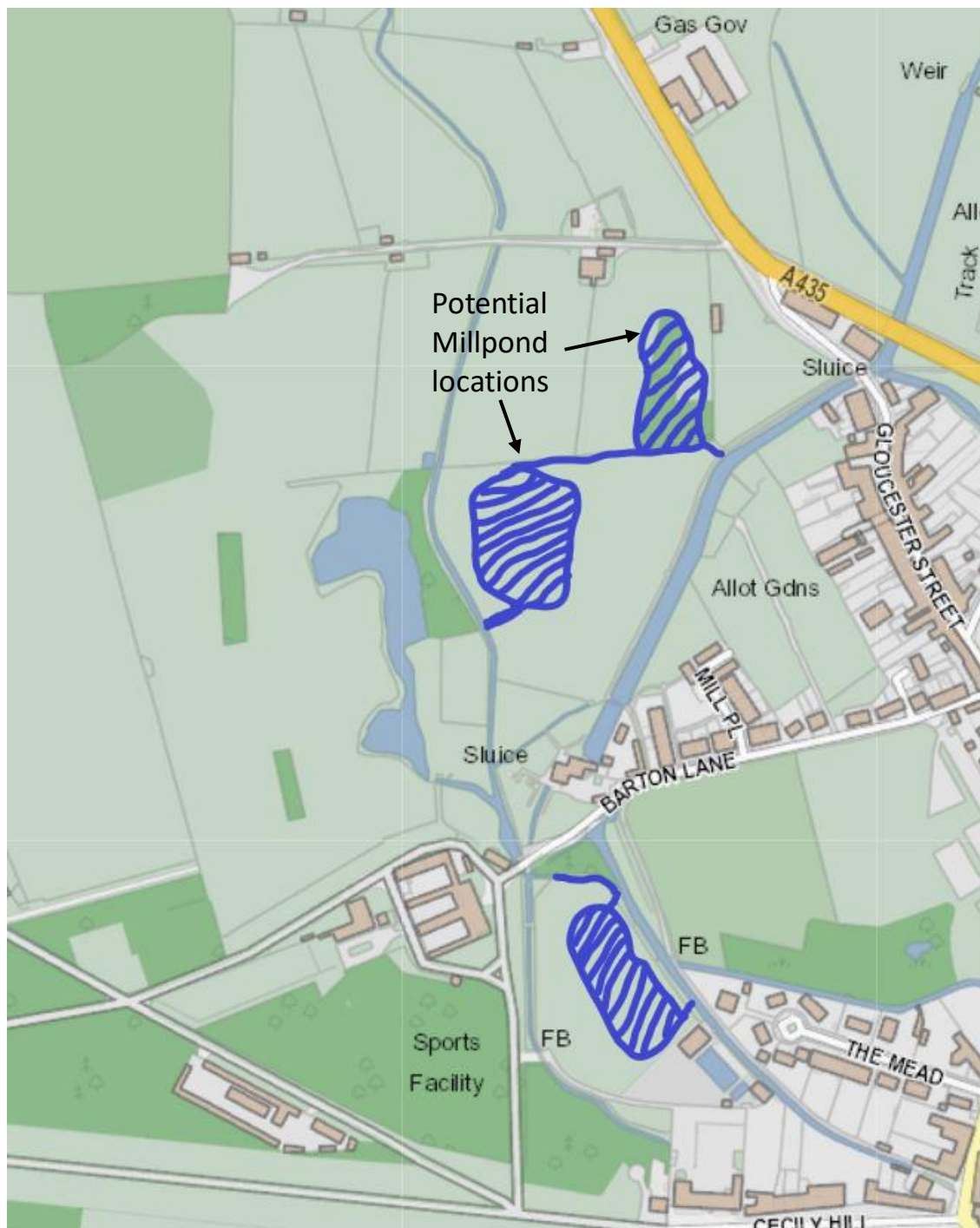
Stratton to Barton Mill

Create drain off furrows
to reduce impact to crops

Potential
Millpond
locations

(S – red line, denotes Sewer pipes)





Mill Ponds in river
course from Dan
(Daglingworth
Stream) & Churn into
Gumstool Brook

Barton Mill to Town

Is the clay from Smyths contract for bund construction
of sufficient quality for mill ponds?

Controlling Flow?

To control the flow into water meadows & mill ponds, a cutting is made from a stream at a height that means water only flows when the stream is at flood level. Once the stream levels recede, the mill pond is then cut off from the stream.

To move water from the millpond back to the stream in drought conditions, by using a Hydraulic Ram Pump, no power is needed. Just someone to charge the pump to get it going, it then runs under its own steam. For our application the pump runs from the millpond back into the stream.

