vFinal

The story of the upper Ivel river

Ian Hall –The RevIvel Association

Water Water Everywhere Conference

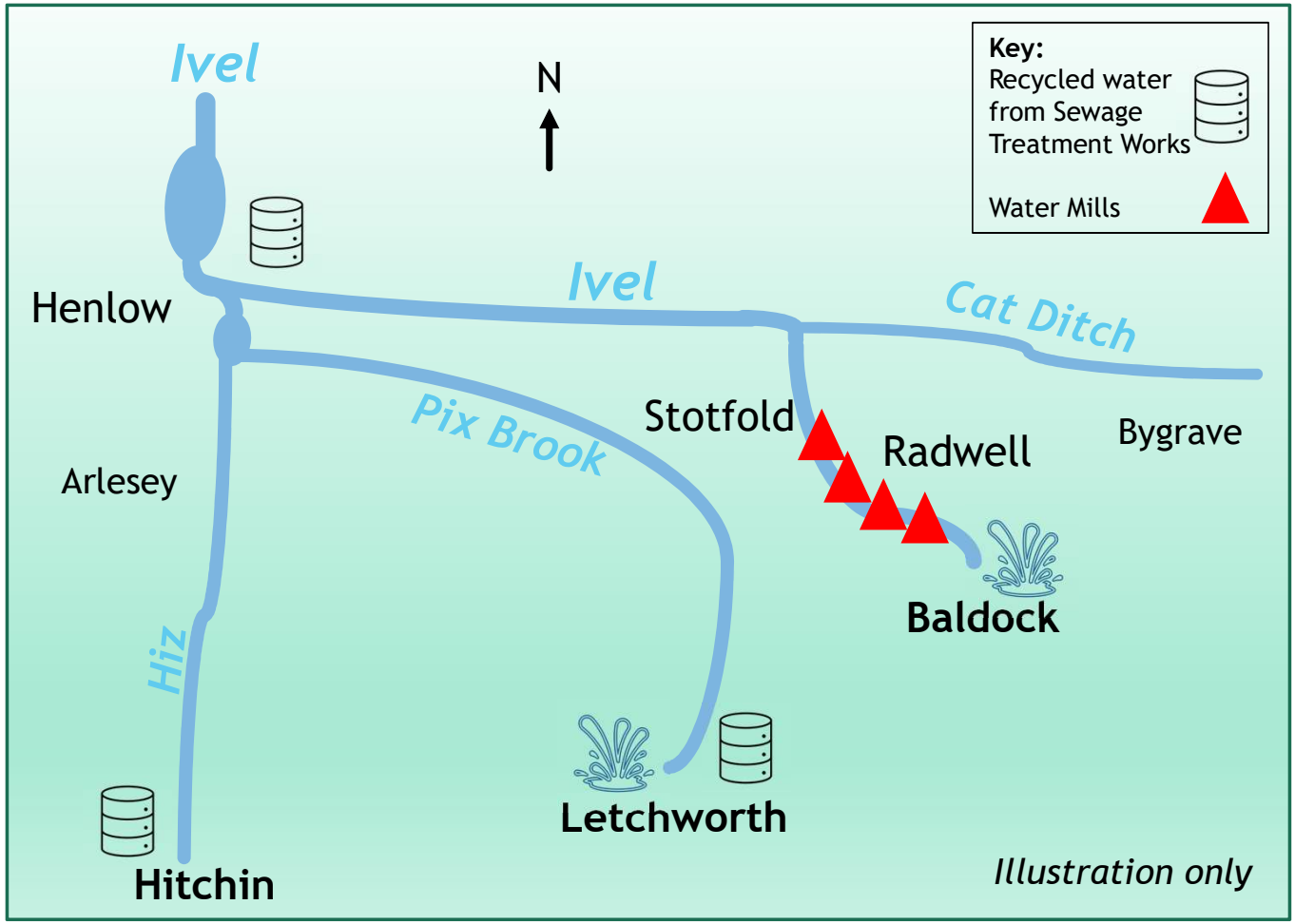
12th July 2023

The RevIvel Association

BRIDGE AT RADWELL

- Formed in 2019 when, for the first time ever, the upper river Ivel dried up completely between Baldock (source) and Radwell Mill, a distance of 3km.

We are a Great Ouse chalk stream!



-Hiz/Purwell
-Ivel
-Oughton
-Cat Ditch

Cinderella Chalk Stream

- A small cluster of North Herts chalk streams flowing north to the Great Ouse.
  - Not part of a larger group such as Chilterns, Lea or Cam.
  - Affinity Water put us in their “Lea” supply area for convenience.
- No flow monitoring points in the upper catchment.
- WFD designation point moved in 2019 to below the confluence with the Pix Brook (receiving 10Ml/d treated effluent from Letchworth STW!)

Engagement with Affinity Water and Environment Agency

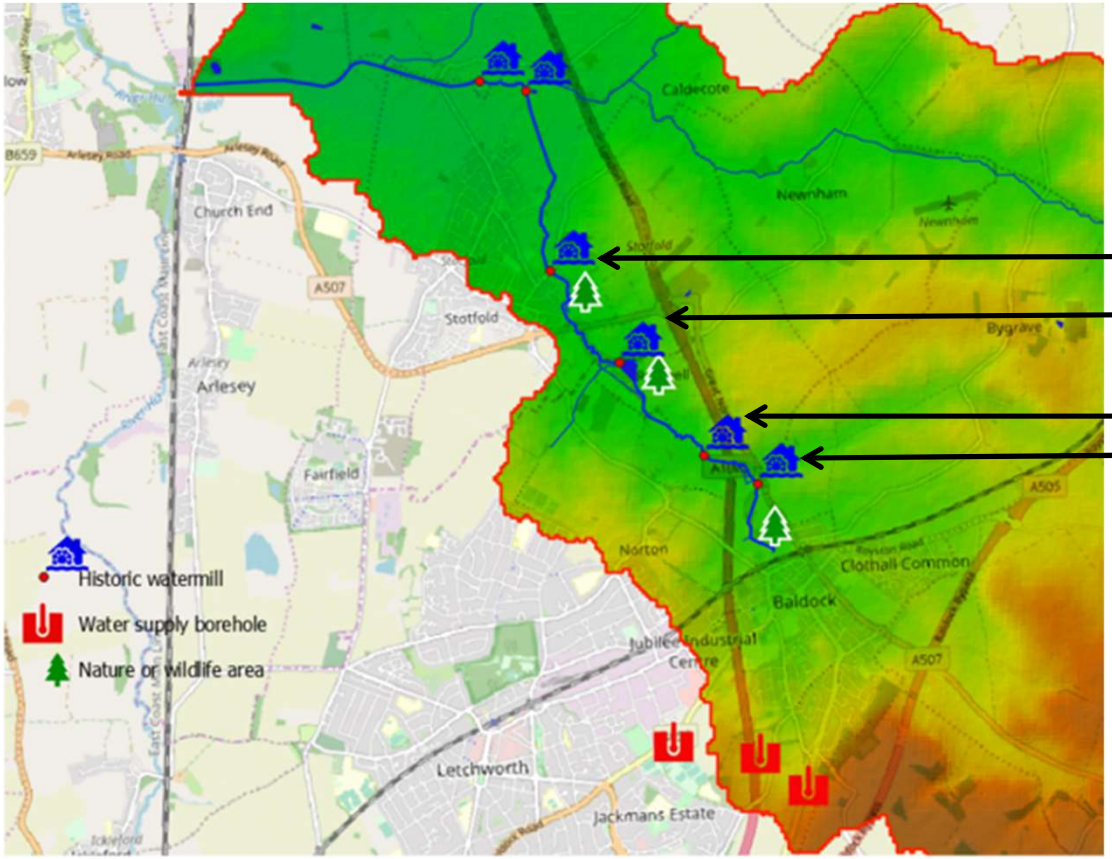
- After formation RevIvel started to talk to Affinity Water and the Environment Agency.
- Issues had already been identified and an augmentation scheme had been agreed. (AMP 7)
  - Licence capped ..... to prevent ”further deterioration”
  - Augmentation 0.54M/d when all flow ceases at source.
- RevIvel argues the scheme is inadequate and does not reflect historic flow levels.
- Our arguments have been ignored and there were even suggestions that the upper Ivel would historically have been a winterbourne!
- On-line WRSE event in 2021 suggested that the next time the Ivel would be “looked at” would be AMP 11+ (2044!)

Evidence for historic flow rates and perennial flow.

- 3 water mills in first 3km of river
- Watercress beds in Baldock
- Trout hatchery and fishery in Norton
- Photographic record/anecdotal

Water Mills

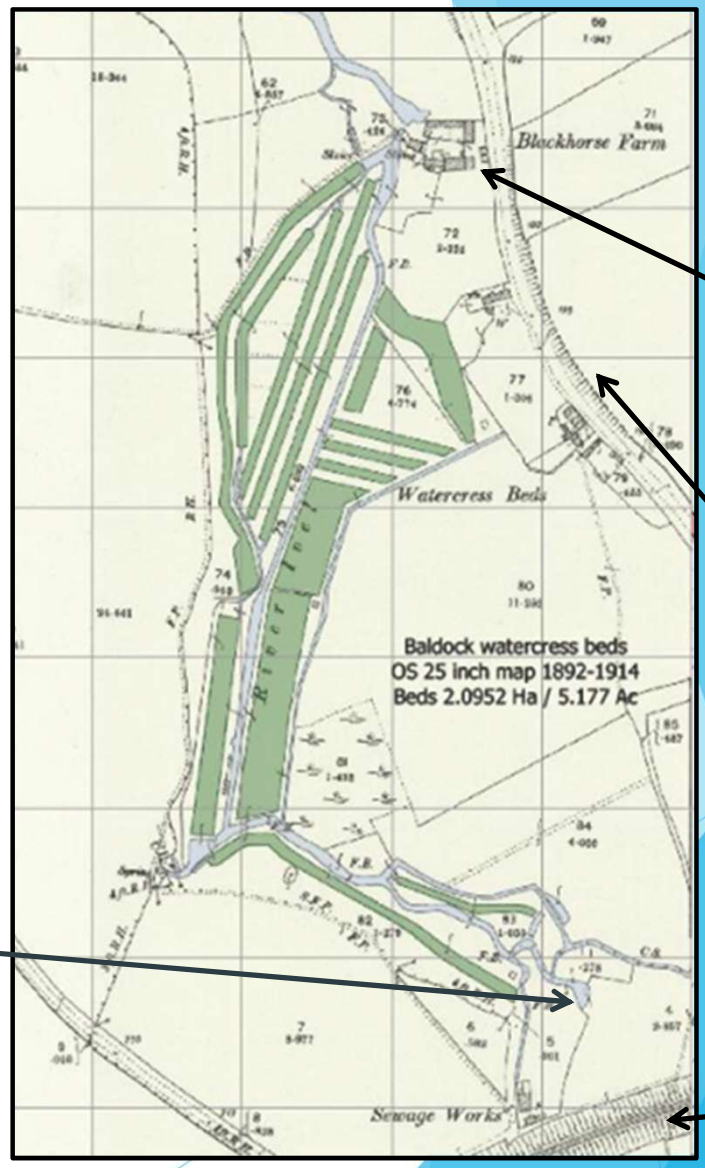
Mills on the upper Ivel for 1,000 years
Relied on a constant flow of water to make flour from local grain all year round.
Blackhorse Mill, the uppermost, is only 0.55km from the head spring.



Note 1 https://maps.nls.uk/geo/explore/side-by-side/swipe/#zoom=17&lat=52.00739&lon=- 0.20475&layers=10&right=BingHyb

1880s Watercress beds

- Watercress known as ‘the poor man’s bread’. It has a justified reputation as a healthy food
- Late 19th century maps show extensive watercress beds immediately north of Ivel Springs
- Watercress was transported daily by train to London markets
- The average flow required for this size of beds was about 5 million litres a day



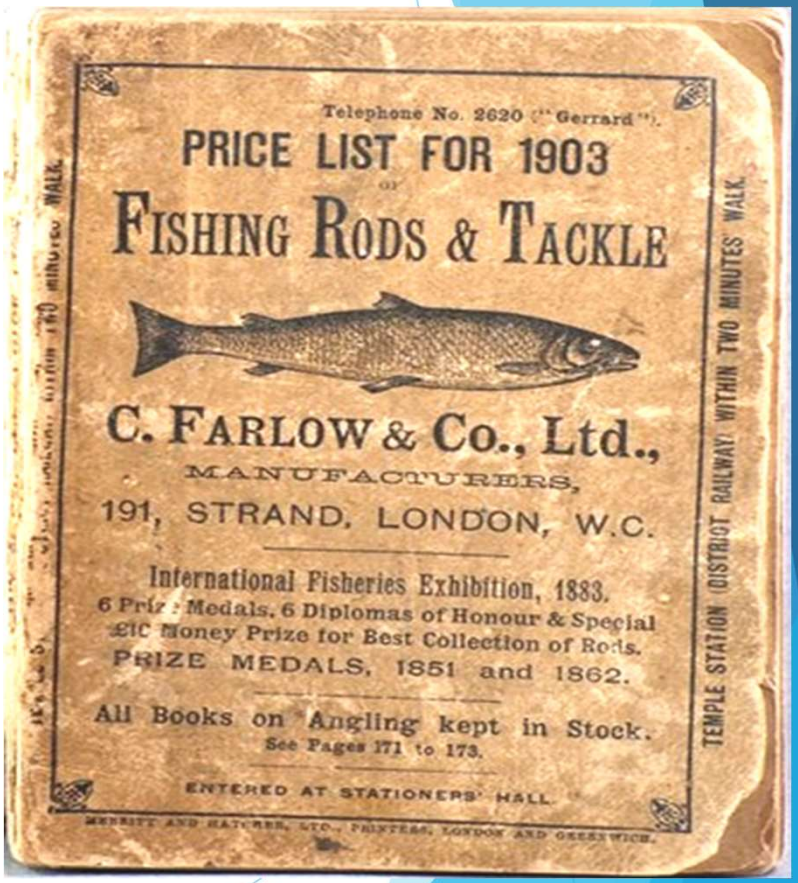
Notes:
2 Garden city Heritage collection: http://www.gardencitycollection.com/object-plan919
3 National Library of Scotland https://maps.nls.uk/geo/explore/side-by-side/swipe/#zoom=17&lat=51.99672&lon=-0.18893&layers=168&right=BingHyb
4 http://www.missfoodwise.com/2013/06/british-watercress-and-poor-mans-bread.html

Fisheries

- The Letchworth Garden City Prospectus of 1903 says:

  > “ At Norton mill there is an establishment for fishculture, where all kinds of trout are hatched and reared, and where advice may be obtained as to stocking of lakes, rivers Etc.

- The extensive trout fisheries at Radwell built around 1903 are still shown on maps today
- Both needed continuous flow of clean water
- similar in quantity to what the mills had
- minimum 5 million litres a day



Iron bridge (Radwell Meadows) 2019

Iron Bridge (Radwell Meadows) 1985

(credit Christine James)

Downstream Iron Bridge (Radwell Meadows) March 1985

(credit Christine James)

- Look at that flow!

Ivel at Radwell

Dry riverbed at Radwell August **2019**

River in summer **1907**, with bridge & boathouse

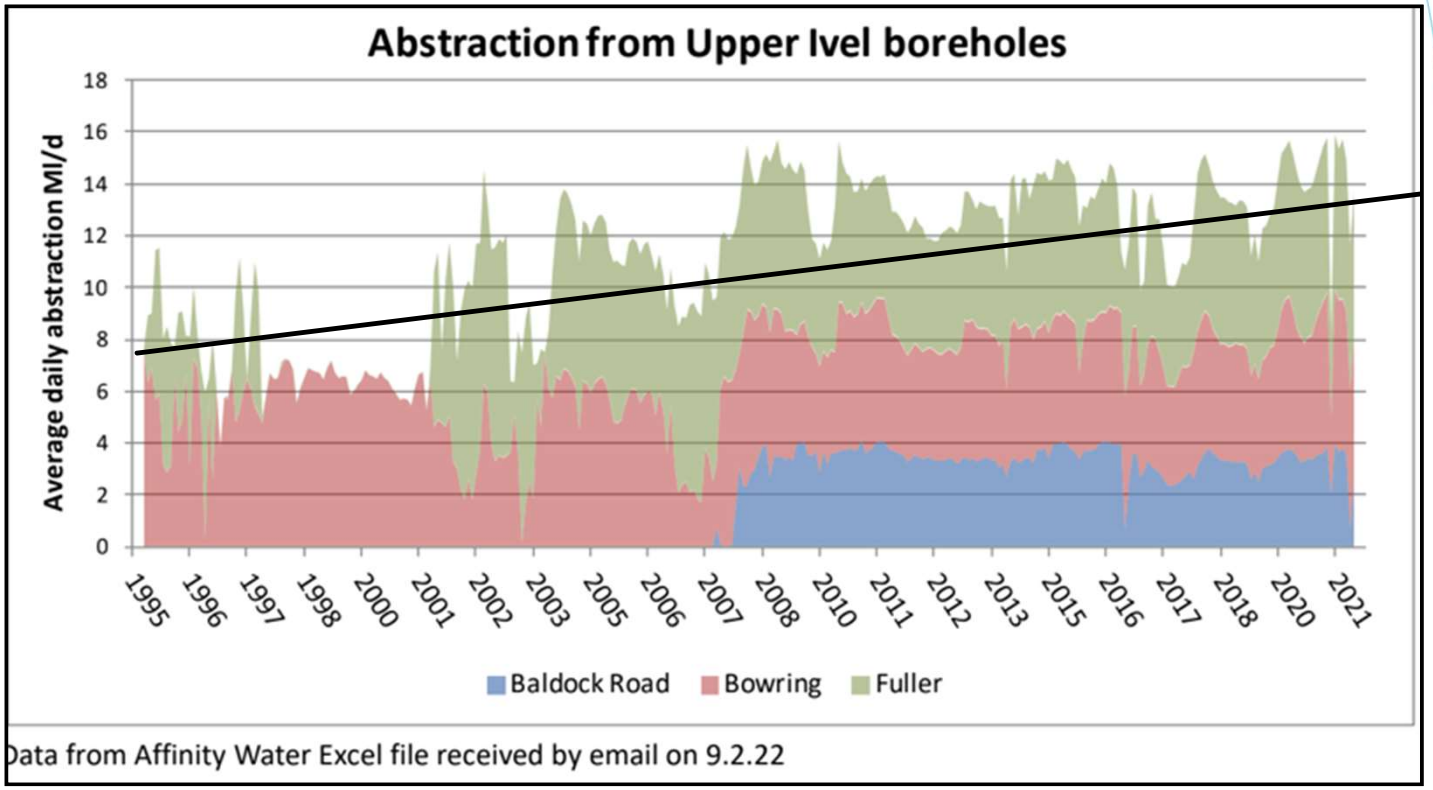
Natural flow

- Overriding problem is lack of water
- No heavy industry, breweries or large scale agricultural irrigation
- Only significant abstractor is Affinity Water
  - On average ~13 million litres per day
- This is approx 50% of all the “effective” rainfall that falls within the Ivel catchment each year

Affinity Water

Your local supply, on tap

Affinity Water abstraction in Baldock



Dates	Abstraction/yr (x1000m3)	% licence	Average /day (Ml)
1996-2001	2604	48%	7.13Ml/day
2002-2007	3868	72%	10.6Ml/day
2008-2020	4849	90%	13.28Ml/day

Film

https://www.youtube.com/@river_ivel_revivel

Restoring the Upper Ivel

What next?

- Update EA groundwater model.
- Further update planned later in 2023 to incorporate 2021-2023 data.
  - EA have made this a priority so thanks to them.
- 2023 Project to focus on Feasibility of adopting “John Lawson” proposal
- Data collection - Riverflies and chemical monitoring program.
- Address known water quality issues with Anglian Water and National Highways.

A further threat to the upper Ivel

Some 3,300 homes all with showers, kettles, washing machines and toilets will be built north of Baldock

People need homes:

where will the water come from?

where will the sewage go?

Thank you for listening!

Please keep in touch or join us:

- Contact: info@revivel.org
- Website: www.revivel.org
- Facebook: Revivel Radwell
- Twitter: Revivel@Ivelrev
- Instagram: revivel_association