



## River Rhee Sampling and Testing for E-Coli

# Friends of the Rhee

Zoom call 8pm Tuesday 3<sup>rd</sup> December 2024

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Questions / Discussion

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Questions / Discussion

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# Introductions

- Name
- What is your interest in the project?

Then pass it on to someone else of the call.

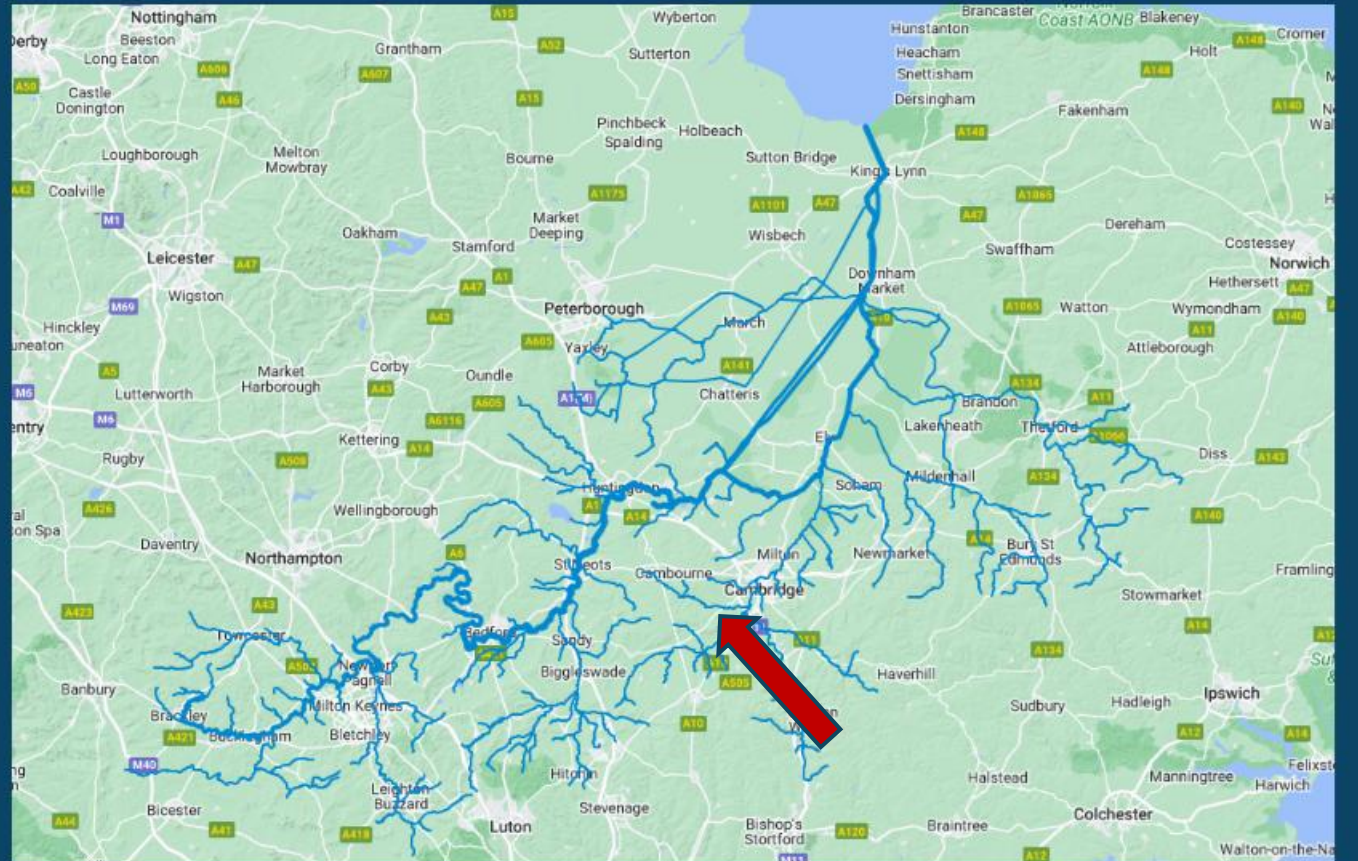
Please keep it brief! One or two sentences.

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# The Rhee is part of the Great Ouse Catchment

The Great Ouse, the fifth longest river in the UK, together with its tributaries sustains people and nature across a catchment of 8,500 km<sup>2</sup> stretching from Northamptonshire to the Wash.

While it is mainly rural, it's one of the fastest growing areas in the country with approximately 1.7 million people living in the catchment already. Its significant tributaries include the rivers Tove, Ouzel, Cam, Ivel, Lark, Little Ouse, Wissey and Nar.

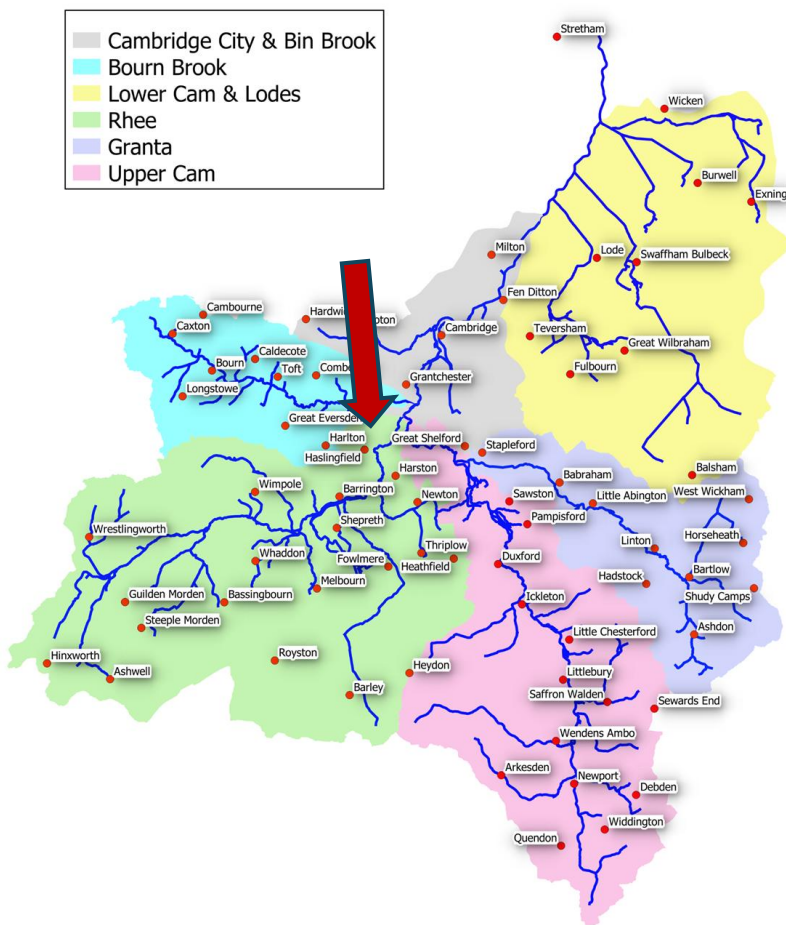


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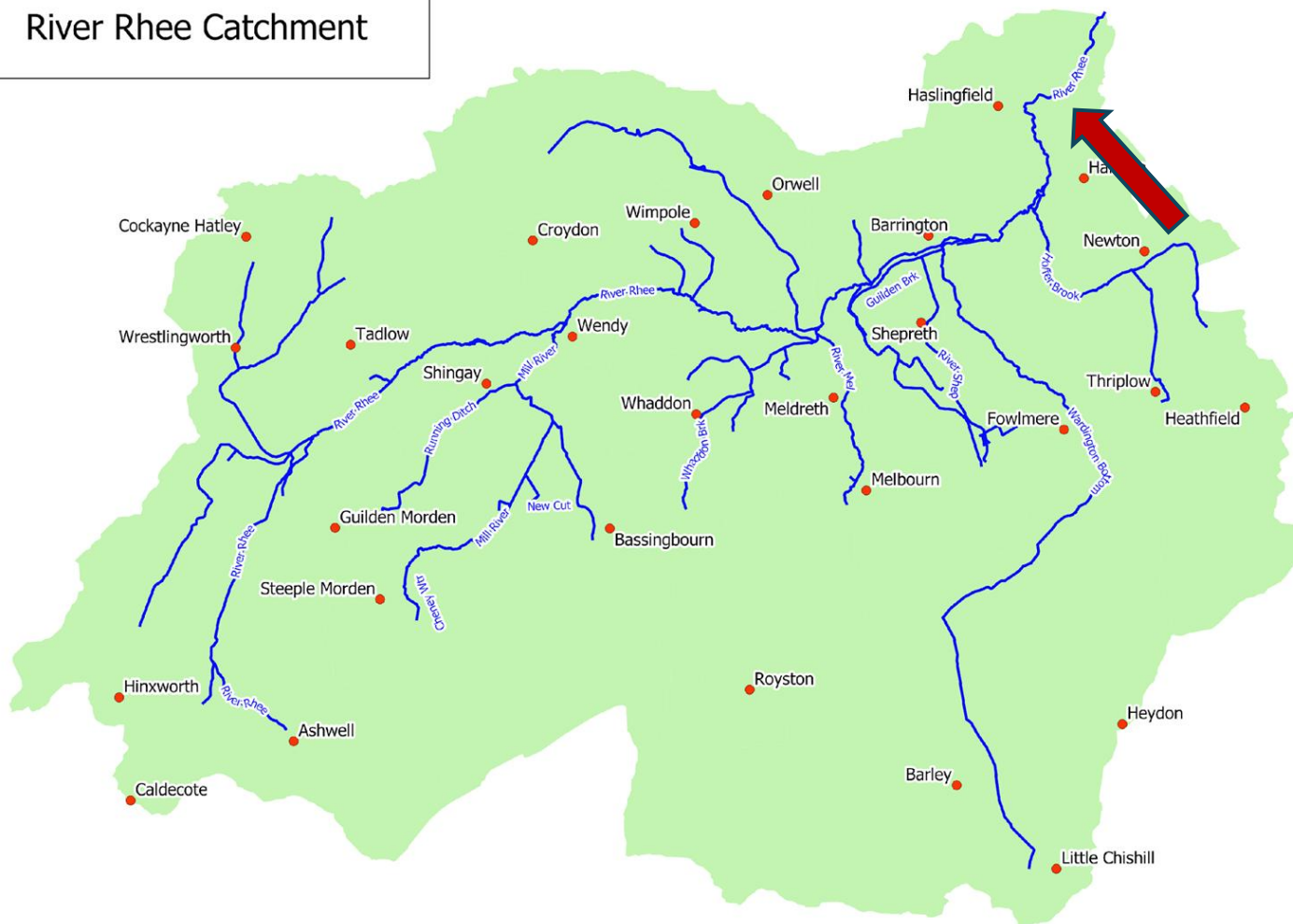


# The Rhee is part of the Great Ouse Catchment

## Map of the Cam Catchment Partnership



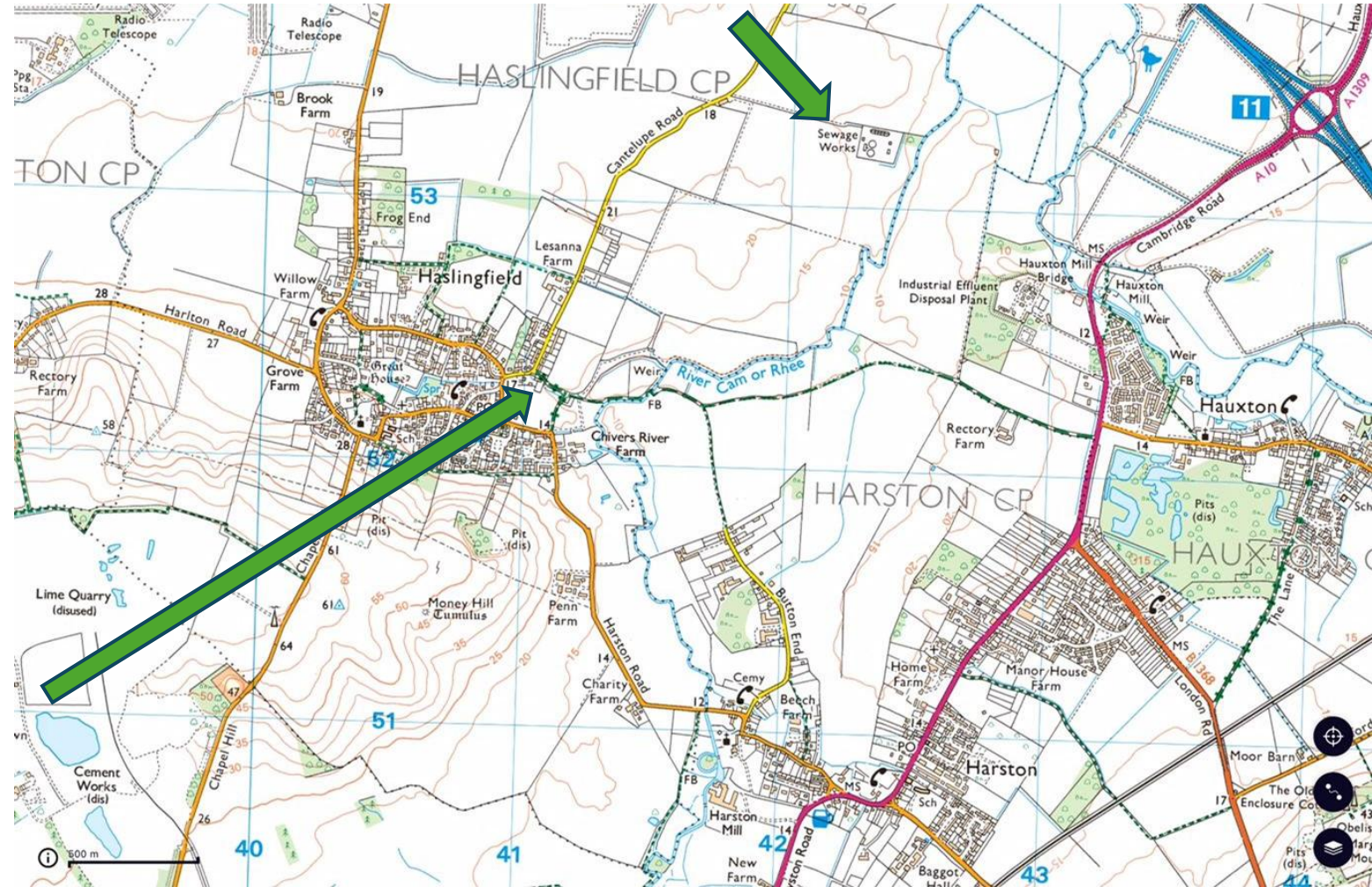
## River Rhee Catchment



# The Rhee near Haslingfield and Harston

## Haslingfield Waste Water Recycling Centre (Sewage Treatment Works)

Porkers Lane  
pumping  
station



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# Friends of the Rhee

17:12   

< River Rhee Survey Form

## River Rhee Survey Form

Friends of The Rhee

Name

First Name

Last Name

Date

DD-MM-YYYY



HH:MM

Date

Hour Minutes

Which monitoring point are you surveying? Please survey as far as you can see from the monitoring point. \*



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# Partners and Supporters



**Haslingfield & Harlton Eco Group**



**Haslingfield Parish Council**



**Harston  
Parish Council**



**Cam Valley Forum**

Protecting and enhancing the  
environment of the river Cam  
and its tributaries



**CamEO**  
CAM & ELY OUSE CATCHMENT PARTNERSHIP



love every drop  
**anglianwater**



**Bedfordshire  
Cambridgeshire  
Northamptonshire**

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# Haslingfield and Harlton Eco Group

## Biodiversity Projects

[hheco.co.uk](http://hheco.co.uk)



- HPC Biodiversity Action Plan – input welcome
- Exploring Grant Funding for Biodiversity Improvements including to river and ponds, swift boxes on Village Hall – [Donations Welcome!](#)
- Neighbourhood Plan – [Biodiversity, Resilience and Energy](#)
- Let it Grow WhatsApp
- Wellhouse Meadow Project/Community Orchard
- [Scything Workgroup](#)
- Tree trail
- South Cambs Climate and Nature Group
- Cambridge Nature Festival – Orchid Walk/Bioblitz
- [Newsletter](#), [Facebook](#), WhatsApp
- Email: [hheco@gmail.com](mailto:hheco@gmail.com)
- Website: [hheco.co.uk](http://hheco.co.uk)

## Dasgupta Review

*Commissioned 2019 by HM*

*Treasury, final report published 2021*



**“The Economics of Biodiversity” by Professor Sir Partha Dasgupta (University of Cambridge).**

Key points:

- Our economy is embedded within nature, not external to it. We are dependent on nature.
- Nature is an asset to be accounted for and invested in. Failing to account for the true value of nature has led to overconsumption of natural assets
- We are demanding more goods and services than nature is able to supply sustainably
- Addressing this imbalance means difficult decisions: what and how we consume, how we manage our waste, family planning and reproductive health
- Engaging sustainably with nature requires urgent action globally. Action now would be significantly less costly than delay

# Cam Catchment Partnership

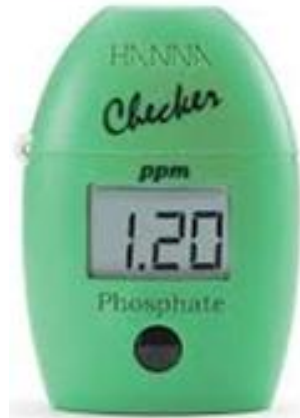


- Many organisations trying to care for our rivers
  - Nationally – Rivers Trusts, Catchment Partnerships, Surfers Against Sewage, Wildlife Trusts
  - Locally – Cam Valley Forum, Friends of the River Cam
  - Fellow river groups – Melbourn, Shepreth, Toft, CURAT, Wilbraham
- You are not alone! But .....
- Lots of pressures facing the River Cam – Growth, Poorly performing STWs, Invasive species, agriculture
- CCP is a newly organisation “Bringing together people and projects to improve water quantity and quality in the Cam Valley” ([www.rivercam.org.uk](http://www.rivercam.org.uk))

# Cam Valley Forum



- The Cam Valley Forum is a voluntary group, established in 2001.
  - We work with our extensive network of partners to protect and improve the environment of the River Cam and its tributaries. ([www.camvalleyforum.uk](http://www.camvalleyforum.uk))
- Current activities: Abstraction, Water Quality testing (eg Sheep's Green Bathing, Vicar's Brook), invasive species
- Knowledge and expertise in citizen science WQ testing
- Phosphate
- Turbidity
- Ammonia
- E. coli





# Questions and Comments

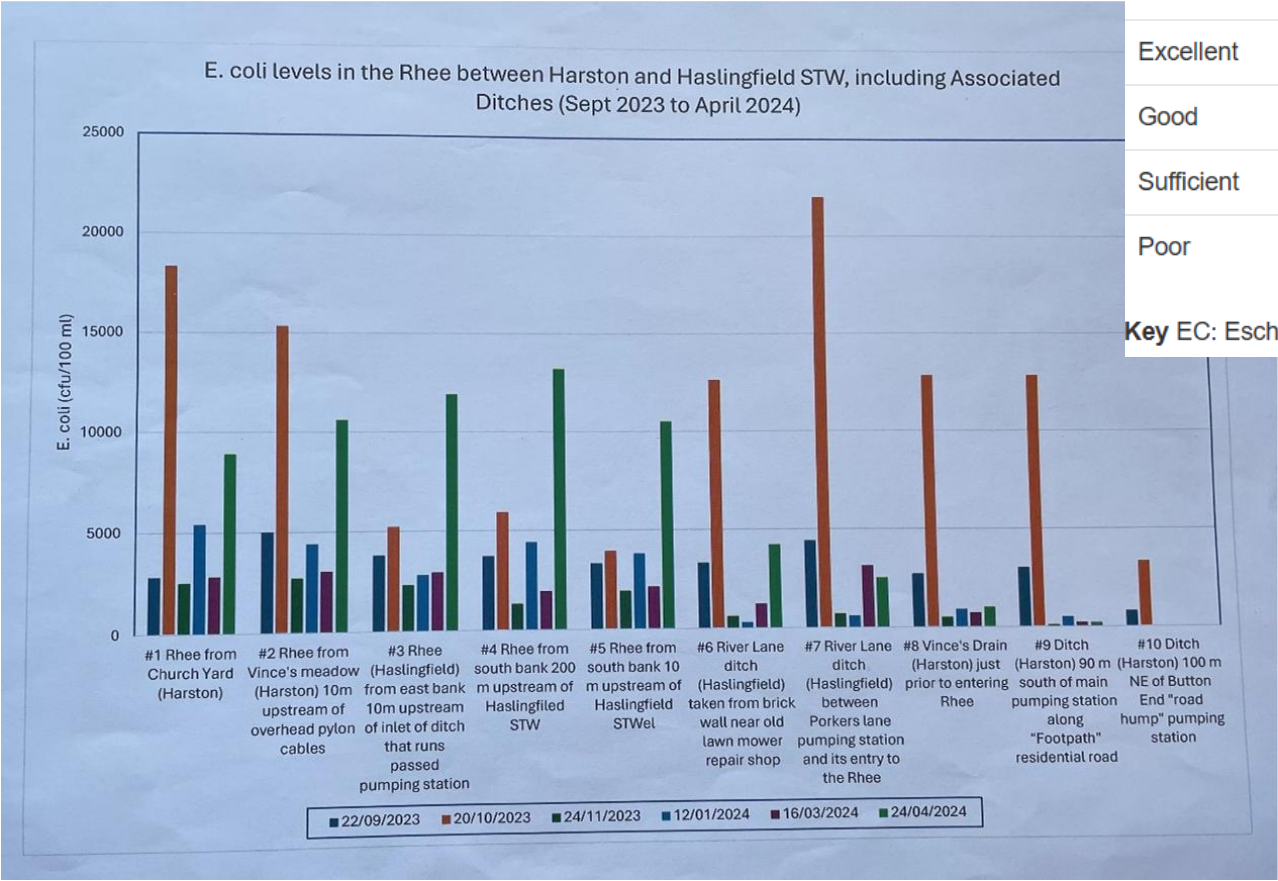
# The Project - background

River Rhee, Harston Mill to Hauxton Junction – rapid assessment of biodiversity and community value		
Watercourse length 4.3km		
River assessment feature	Comment	Red/amber/green
Species of biodiversity importance	Water vole and otter present, plus a variety of emergent vegetation including arrowhead. Brown trout and a range of coarse fish (although considered depleted). Mayfly present.	Green
Brown trout presence	Known population	Green
Community group present	No, but potential interest from staff at Harston Mill.	Red
Public access	Limited to footpath crossing at Burnt Mill, Haslingfield.	Red
Nature reserve / designated site	CWS	Green
Connectivity / fish barriers	Fish easement installed at Haslingfield gauging station by EA. Weir at Harston Mill has been removed by EA providing complete passage to upper Rhee.	Amber
Invasive species present	Water fern ( <i>Azolla</i> ) and signal crayfish present. Crayfish are believed to be a major source of the river's high turbidity as they constantly mobilise bed sediment.	Red
Presence of gravel / natural geomorphic features / mature trees with roots	Channel is over-deep, over-wide and silty, impounded by bur reed and the gauging station. General lack of gravel and bedform variation. Good number of veteran pollard willows.	Amber
Flow regime	Constant flow, suffers from turbidity, known to flood over agricultural land.	Amber
Effluent / run-off inputs	Sewage treatment works (Foxton and Haslingfield). It is assumed that phosphate levels will be high leading to excessive plant growth.	Amber
Watercourse receives management	Occasional management by EA.	Green
Habitat enhancement potential	Tree hinging, bed raising, LWM fixing, channel reprofiling, backwater creation. Reedbed for STW outflow (no Anglian Water driver). Levee removal downstream of STW. Silt traps / in-ditch wetlands on arable drains to improve quality of water entering river. Allowing more floodwater onto land at Hauxton Junction in combination with wetland creation.	Green
Supportive landowner(s)?	Multiple landowners, some potentially supportive	Amber



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# The Project - background



## Inland Bathing Waters

Excellent	EC: ≤500 cfu/100ml ; IE: ≤200 cfu/100ml (95th percentile)
Good	EC: ≤1000 cfu/100ml ; IE: ≤400 cfu/100ml (95th percentile)
Sufficient	EC: ≤900 cfu/100ml ; IE: ≤330 cfu/100ml (90th percentile)
Poor	means that the values are worse than the sufficient

Key EC: Escherichia coli, IE: Intestinal enterococci, cfu: [Colony Forming Units](#)

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# The Project - objectives

The immediate and longer term objectives of this project are

- i. Assess water quality: Conduct regular sampling of local stretch of river Rhee to monitor E. coli levels.
- ii. Promote stewardship of local environment: Engage the community in pollution monitoring of the local river and empower individuals to take action.
- iii. Protect public health: Provide data to inform local stakeholders regarding use of river.
- iv. Raise awareness: Inform the community about the importance of water quality and the risks associated with contamination.

The first two objectives are within the direct scope of this proposal. The second two objectives would develop from the first two in consultation with the Parish Council and other stakeholders.

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# The Project - sampling



Water sampling from the River Rhee and surrounding ditches will be conducted at eight sampling sites

Samples will be taken monthly and at times after high or low rainfall or other reported events e.g. Porkers Lane pumping station overflowing into the adjacent ditch.

The sampling will take place over a period of 3 months initially to establish protocols and ways of working, with the possibility of extending for a full year.

Samples will be collected and tested as indicated in the standard operating procedures as used by the River Deben Water Testing Program

1	Pond / stream to the west of the Porkers Lane Pumping Station
2	Stream to the east of the Porkers Lane Pumping Station
3	River Rhee, upstream of the Porkers Lane ditch outfall
4	River Rhee, downstream of the Porkers Lane ditch outfall
5	River Rhee, downstream of the footbridge
6	River Rhee, downstream of the Wier
7	River Rhee, upstream of Penn Farm outlet
8	River Rhee, downstream of Penn Farm outlet

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# The Project - testing



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# The Project – values and ethos

- **Respect** – Fostering a courteous, compassionate environment for diverse views. Kindness. Assume that everyone is doing their best.
- **Teamwork** – Collaborating to achieve shared goals and creative unity.
- **Integrity** – Committing to honest, transparent communication at all times.
- **Inclusivity** – Celebrating diverse voices, backgrounds, and experiences.
- **Learning** – Building knowledge and understanding through open-mindedness.

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# The Project – Roles and Responsibilities

Volunteers will be needed as follows

- **Lead Coordinator**, recruiting and training volunteers, ensuring protocols are in place, communication with PC and CVF
- **Sampling Coordinator**, manages the sampling equipment, ensure that sampling is carried out at the agreed times and locations
- **Sampling volunteers**, takes the samples to the agreed protocol and to the risk assessments
- **Testing / Analysis** and recording data volunteer(s) , manages the testing equipment, carries out analysis, records the data
- **Health and Safety coordinator** (may be the Lead coordinator)

Cam Valley Forum have supplied data from their recent monitoring and continue to provide support on methods.

Haslingfield Parish Council will use the data to inform people who use the river.

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# Questions and Comments



# Next Steps

- a. Make your skills known and volunteer for roles
- b. Finalise locations for sampling – Lara and volunteer(s)
- c. Set up lab – Lisa and volunteer(s)
- d. Training and river walk
- e. Risk Assessment and Health and Safety

What have we missed?

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# Questions and Comments

Never doubt that a small group of thoughtful, committed **citizens** can **change** the **world**; indeed, it's the only thing that ever has.

— *Margaret Mead*

AZ QUOTES

