



# River Restoration

Introducing the team and project

# Agenda

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- Introductions
- River Restoration at Affinity Water
- Projects on the River Beane
- Walkern Road Project
- Next steps
- Questions



New river channel (pinch point), River Beane

# Introductions

## Affinity Water

David Watts – Programme Manager

Alex Sage – Assistant Project Manager



David Watts *IEng MCIWEM C.WEM*  
Affinity Water, Environmental Enhancement,  
Programme Delivery Manager



Alexandra Sage BSc(Hons)  
Affinity Water, Environmental  
Enhancement  
Asset Scientist

## Jacobs

Sarah McKendrick – Project Manager

Anne Robinson – Senior Stakeholder Engagement Professional

Katy Kemble – Principal Geomorphologist



Sarah McKendrick,  
Project Manager



Anne Robinson, BSc(Hons),  
PGDip, MCIPR, MBACP  
Senior Stakeholder Engagement  
Professional



Katy Kemble,  
C.WEM, CSci, CEnv,  
MSc, BSc  
Principal Geomorphologist

# Why we are doing the works

## Our Commitments



Making sure our customers have enough water, whilst leaving more water in the environment



Providing a value for money service



Supplying high quality water you can trust



Minimising disruption to you and your community

# Revitalising Chalk Rivers

## Objectives

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*To see the chalk rivers within our supply areas flourishing and revitalised with life as we move towards 2025. By enhancing these internationally important and rare chalk rivers, our aim is to create beautiful and sustainable habitats to be enjoyed and understood by the local communities we are proud to be a part of*

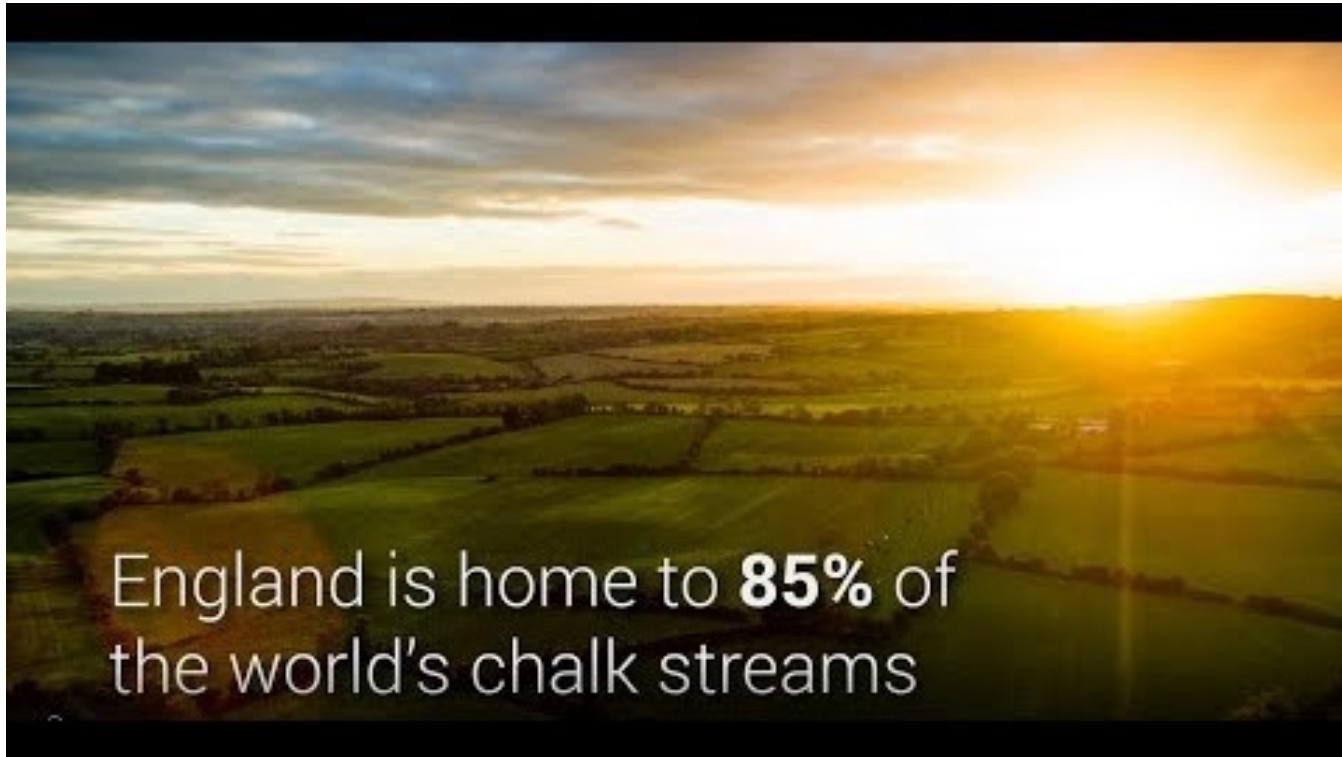


**Revitalising  
Chalk Rivers**

<http://www.revitalisingchalkrivers.org.uk>

# The importance of chalk streams

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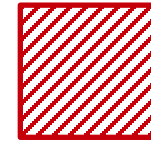
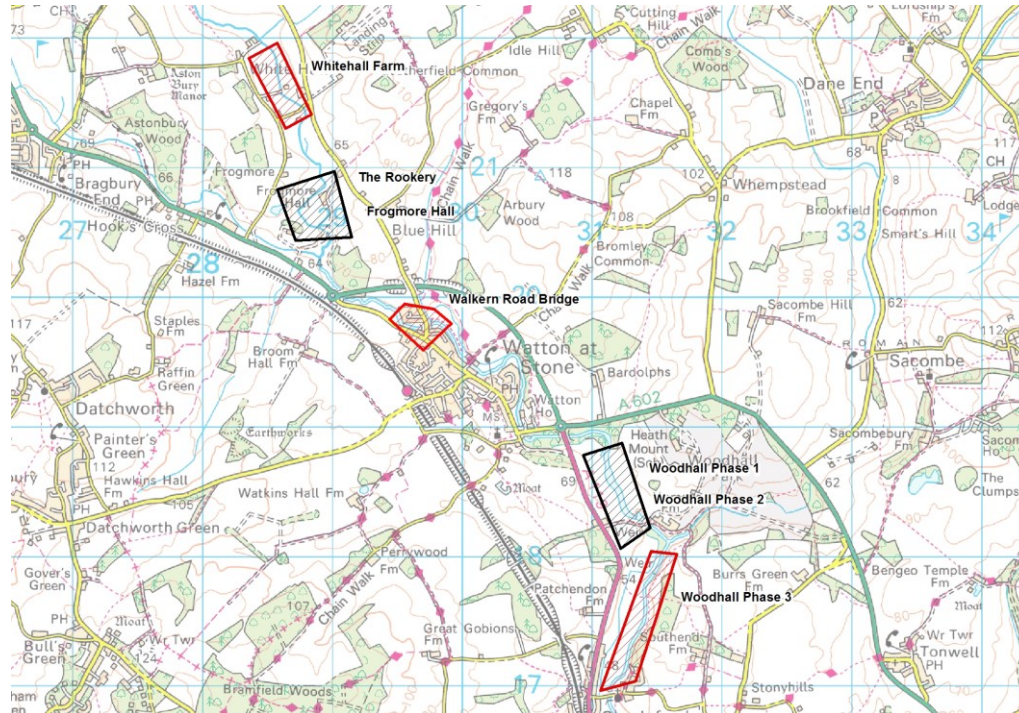
# Affinity Water River Restoration Programme

Where are we working?

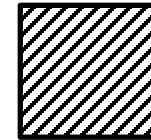


- Predominantly focused across Chiltern Chalk streams
- 56 projects across 14 different rivers
- Four projects completed on the Beane:
  - Woodhall Phase 1
  - Woodhall Phase 2
  - The Rookery
  - Frogmore Hall
- Three projects underway in the next few years:
  - Whitehall Farm
  - Walkern Road Bridge
  - Woodhall Phase 3

# River Restoration Projects on the River Beane



Upcoming projects



Completed projects



# River Beane – WFD Status

Beane (from confluence with Stevenage Brook to Lee)

- Water Framework Directive assessment of the River Beane
- Overall Water Body classification is Poor
- Ecological Status is poor
  - Invertebrate status has been good from 2013-2019
  - Fish status has been poor from 2013-2019
  - Macrophytes and phytobenthos status has been moderate from 2014-2019



Photo: Freshwater shrimp (by G. Bradley)

	2014	2015	2016	2019
Hydromorphological Supporting Elements	Support	Support	Support	Support
Hydrological Regime	Does Not S	Does Not S	Does Not S	Does Not S
Physico-chemical quality elements	Good	Good	Good	Moderate
Specific pollutants	Moderate	Moderate	Moderate	High
Chemical	Good	Good	Good	Good



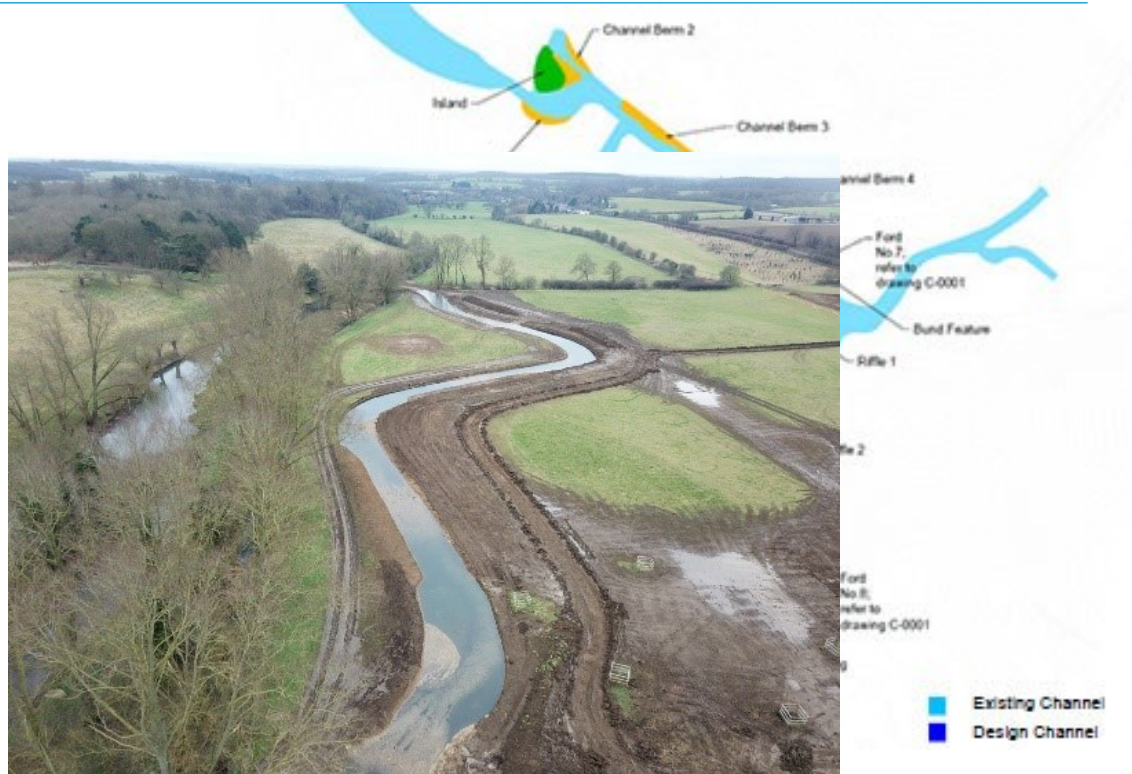
	2014	2015	2016	2019
Invertebrates	Poor	Poor	Poor	Poor
Fish	Poor	Poor	Poor	Poor
Macrophytes	Poor	Poor	Poor	Poor
Phytobenthos	Moderate	Moderate	Moderate	Moderate
Fish	Poor	Poor	Poor	Poor
Chemical	Good	Good	Good	Good



# Woodhall Phase 1

Status – Completed in December 2017

- In the first phase at Woodhall Park we bypassed a ‘horseshoe weir’ and created 400m of new river channel to help fish move up and down the river.
- It allows the fish to gain access to areas of better habitat, for spawning, feeding or seeking cover.
- Steep banks were also included in the design along part of the new channel, to provide a suitable habitat for water voles
- This work was completed in December 2017.



# Woodhall Phase 2

Status – Completed in 2019

- Phase 2 created 900m of new chalk stream by bypassing the Broadwater and Tumbling Bay weir.
- A small splitter weir was constructed upstream of the Broadwater to allow management of flow between the lake and new channel.
- The Woodhall Estate removed and treated 25000m<sup>3</sup> of silt from the Broadwater, created spawning shelves, and carried out repairs to make the weir sluice operational again.
- Now that Phase 1 and 2 are complete, 6.6km of chalk stream are now free of obstruction for fish movement.

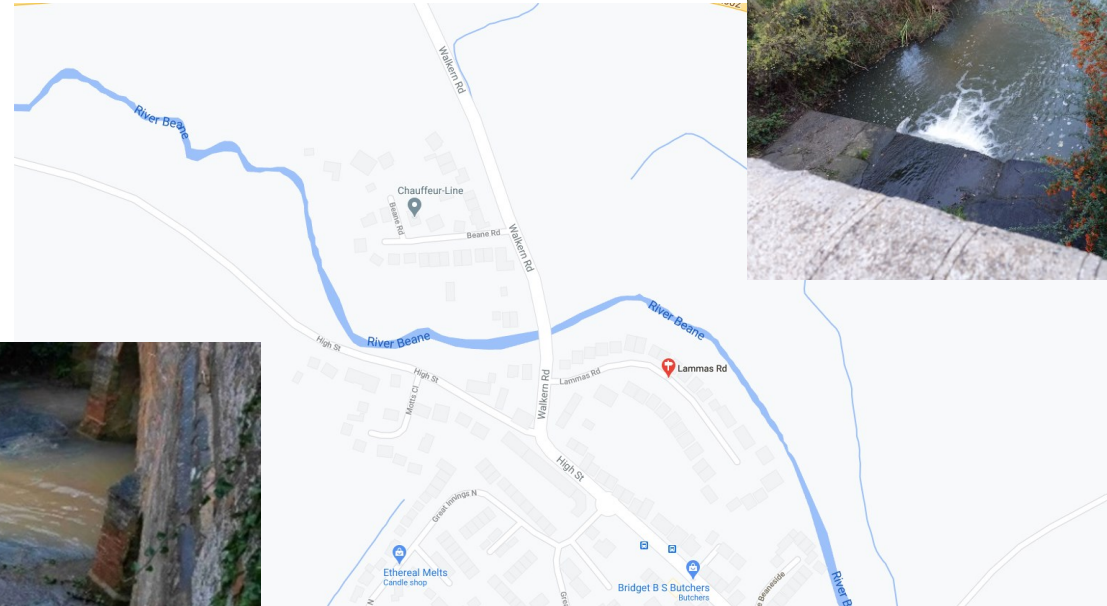


# Walkern Road Bridge

Status – Under Consultation

## Walkern Road Bridge

- Watton-at-stone on River Beane
- Grade II Listed structure
- Concrete lip is an obstruction to fish passage during low to normal flows.



# Walkern Road Bridge

## Objectives

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### Objectives:

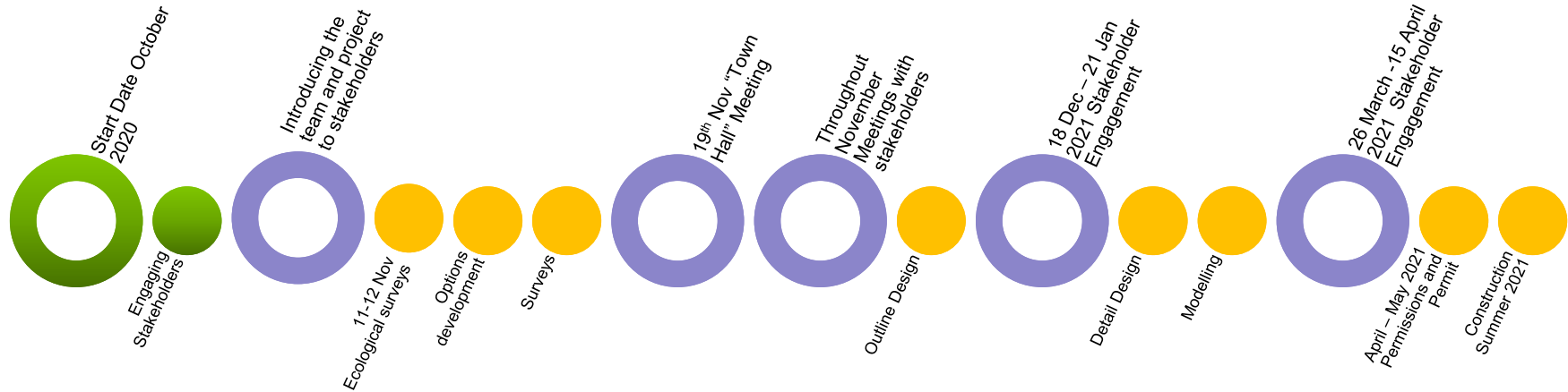
- Improve fish passage
  - Brown trout
  - Grayling
- Geomorphological processes
  - Clear gravel bed
  - Pools
  - Riffles
  - Silting
- Localised bank repairs
- Scope any additional benefits both upstream and downstream



# Walkern Road Bridge

## Timeline

This timeline will be on our website where progress, presentations and drawings will be kept up to date and accessible to all



Timeline dated: 09/11/2020 and is subject to change

# Thank you

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Any Questions?

Please feel free to email us at:

[Walkernroad.riverrestoration@affinitywater.co.uk](mailto:Walkernroad.riverrestoration@affinitywater.co.uk)

