# A step on the journey to recovery: Yorkshire Water's investment in biodiversity





The State of Yorkshire's
Nature report published
by Yorkshire Wildlife
Trust in summer 2024
highlighted the urgent
need to halt species
and habitat decline and
restore biodiversity across
our beautiful county.

Yorkshire Water's Biodiversity Programme provides funding and support to deliver action on the ground for nature across Yorkshire. From the chalk streams of East Yorkshire to the uplands and hills of the Calder, Aire and Dales valleys.

Yorkshire Wildlife Trust is proud to be part of this programme whilst recognising that there is more work to be done and we look forward to the next round of the programme in 2025.

Martin Slater,
Deputy Chief Executive,
Yorkshire Wildlife Trust

A Step on the journey to Recovery: Yorkshire Waters investment in biodiversity.

Like most people, I believe I understand the role of water companies: they ensure we have a safe and reliable supply of drinking water and handle the removal of wastewater. What is not so obvious is their work to conserve and enhance biodiversity.

This report is an independent evaluation of Yorkshire Water's contribution to enhancing biodiversity, the approaches taken, and the outcomes achieved. It gives us an insight into its commitment to see improvements, and its future plans to continue enhancing biodiversity

in Yorkshire – both on its own land and by collaborating with others. Rivers can and must play an integral role in this.

Whilst there is clearly still a long road ahead to improve the condition of our waters and all that lives within and around them, this is a step in the right direction and what you learn from this report may surprise you as a reader. A commitment to raising the bar higher and achieving more for biodiversity is welcome and something that we can all support.

Marie Taylor, CEO, Yorkshire Dales Rivers Trust



# Investing in biodiversity

Biodiversity is 'the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.'

It is no secret that the UK is one of the most nature-depleted countries in the world. One in six species are at risk of being lost from Great Britain, and the species studied have, on average, declined by 19% in the UK since monitoring began in 1970.<sup>2</sup>

Yorkshire Water have a duty to conserve and enhance biodiversity.<sup>3</sup> They do this through delivery of the Water Industry Environment Programme (WINEP) and Biodiversity Objectives for supporting and increasing species abundance, preventing extinctions, and creating habitats.

One or two isolated activities won't increase biodiversity at scale; instead a carefully targeted and complex programme of localised interventions is needed. In turn, each of these contributes towards catchment- and landscapescale impact – and ultimately healthier, more resilient ecosystems supporting thriving nature.

In response to this, Yorkshire Water invests in a holistic package of works and supporting activities. This Biodiversity Enhancement Programme includes:

 Targeted biodiversity-enhancement projects ranging from pollinatorhabitat creation, and river and wetland restoration, to pollution mitigation, improved habitat management regimes and conservation grazing "It is fantastic to be able to support a range of amazing initiatives that are driven by making Yorkshire a more habitable area for wildlife and plants, as well as improving people's well-being and sustaining the ecosystems on which we rely for many of our services."

Ben Aston, Biodiversity Manager, Yorkshire Water

- Species-recovery projects, for example, for turtle doves, white-clawed crayfish, otters and the pearl mussel
- Data improvement projects, from mapping of fragile habitats to ecological surveys to both identify highest priorities for action and track change over time
- Tackling Invasive Non-Native Species
   through building a better understanding,
   for example, through eDNA sampling
   and trialling new measures to prevent
   their spread, raising awareness of the
   need for biosecurity, and active removal
   or treatment
- Increasing capacity for biodiversity action, for example, through funded posts, training, supporting landowners and others to act for nature, volunteering and effective networks.

As a water company, Yorkshire
Water recognises that they have a
disproportionate impact on rivers and
other aquatic habitats, and on water
quality, levels and flow. Whilst the
Biodiversity Enhancement Programme
funds work across landscapes and taxa,
it is has a particular emphasis on aquatic
and riparian habitats and species.

### Case study:

The Better Becks partnership (Aire Rivers Trust, Yorkshire Wildlife Trust, the Wild Trout Trust and Aire Catchment Network) identified that habitats in Loadpit Beck were being impacted by large amounts of sediment being washed into the river from footpaths and dogs.

The funded Aire Catchment Network Catchment Manager managed a project to create a gravel dog wading pad, add path drainage, silt traps, new steps and fencing to manage visitors.



### Ways in which we're making a difference:



Habitat management



Habitat restoration



Habitat creation



Core staff posts











Network support





River clean-ups

# Working with deliveryready partners

Through the Biodiversity Enhancement Programme, Yorkshire Water has contributed over £2.6m towards recovering nature across Yorkshire and in parts of Lincolnshire and Derbyshire.

An extensive network over 40 partners has delivered a targeted programme of works and activities to support biodiversity. These organisations are already operationally active on-the-ground and ready for delivery.

Furthermore, partners bring expertise, local networks of experts and suppliers, and volunteer teams which they can quickly mobilise to help deliver funded projects. The value this brings in terms of efficiencies should not be underestimated, compared to needing to procure such support, or build it from the ground-up.

Partners have not worked in isolation; instead they have collaborated on projects and programmes. This has happened through both formal networks, such as

day-to-day, operational level. This has again added value to each project and and enthusiasm.

This approach has been vital to delivering good value from the funding, and realising the maximum benefit for nature, the environment and communities.

"Partnership approach is fundamental to successful delivery, from local knowledge and in-kind support to funding investment." CEO of partner organisation

"We have a responsibility to work together with partners to prevent further loss and damage to sensitive and vital ecosystems."

Catchment Partnerships, and on a more enabled a pooling of expertise, resources

> invested in increasing biodiversity of habitat created, restored or better

> > managed4

"A key part of our corporate strategy is to protect the environment. Through working with others rather than going it alone, we ensure that there is a longterm sustainable legacy to the programme and that there is the right expertise on board to deliver the best possible results for nature and our customers."

Mark Tinsdeall, Environment Manager, Yorkshire Water













of river benefitting



Chair of partner organisation



44,126 hours of time and energy

# Ingredients for making an impact for nature

### Sector-responsive -

The Biodiversity Advisory Group is an external advisory group which comprises representatives of the Rivers Trusts, the Wildlife Trusts and CaBA Catchment Partnerships within Yorkshire Water's operational area. Input from this group, and extensive consultation with other stakeholders, such as lead Local Authorities for Nature Recovery Strategies, as to how the funding is structured has helped to ensure it is fit for purpose and efficient.

# Directed to where it's needed -

This funding is directed to the areas of biodiversity work which need it most. This includes areas where delivery-ready organisations have traditionally found it hard to secure funding, for example, supporting staff roles rather than funding new projects; building capacity and networks.

"The Yorkshire Water biodiversity funding stream is simple to apply for and the administrative burden is low, allowing us to get on and deliver the biodiversity enhancement work."

Partner

### Impact-focussed -

Prospective partners go through their own project planning processes to refine funding proposals. This includes aligning them to their own strategy, desk-based reviews of evidence, options appraisals, and baseline and feasibility studies. This helps to ensure value-for-money and a laser-sharp focus on impact for nature.

"We value the opportunity
to meet in person with
[] Yorkshire Water on
site [] to discuss and
review progress on the
project."

Partner

### Flexible funding -

Partners cite the flexibility of the funding as one of its key advantages. On-the-ground delivery partners are not bound by reams of restrictions, for example, which means the funding can be used across extended timescales (e.g. four to five years), allowing for longer-term planning and links to strategy. This contrasts with some shorter-term funding which can lead to a more 'hand-to-mouth' and reactive approach.

See 99 And 19 An

"Yorkshire Water gave funding recipients a high degree of freedom to propose how they felt the money was best spent and didn't impose prescriptive requirements at the offset. This was welcome as often charities have a good idea of what they need in order to grow their impact."

Partne

# Effective and efficient funder/partner relationships -

Partners reflected that current arrangements for communications and meetings with Yorkshire Water regarding the funding are efficient. This allows for building long-term relationships and understanding between the funder/partner which is more akin to a partnership than a purely transactional relationship. The reduced admin burden also allows partners more time to give to the project delivery, rather than servicing the funding agreement.

# Direct action for species

Biodiversity is a richness of species, and therefore supporting species recovery is fundamental to the Biodiversity Enhancement Programme.

Wetlands are disproportionately important for biodiversity: they make up only 3% of the UK but are home to at least 10% of our species. As well as the over 90% already being lost, more than 10% of our freshwater and wetland species are threatened with extinction.<sup>7</sup>

Moving a species along the Species Recovery Curve<sup>8</sup> requires a package of wellplanned and coordinated activity – building a solid understanding of each species' autoecology, distribution and prevalence, and trialling and implementing interventions. Funding has supported key aquatic and wetland species on this journey, such as Narrow-leaved Water Dropwort, Willow Tit, Tansy Beetle, White-clawed Crayfish and Water Vole.

The nationally rare Greater Water Parsnip is a prime example of where the project has funded a number of stages of species recovery across the Derwent Valley. This has included identifying and assessing extant populations, successful ex-situ propagation, undertaking translocations,

research into genetic distinctiveness of populations and seed viability, and knowledge exchange across the UK.

"...the introduction of Greater Water Parsnip onto Leven (arrs has been a significant success!

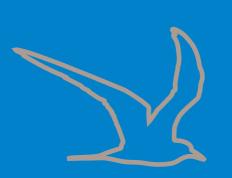
For a nationally rare species, which is generally not seen to be easy to grow, it has done exceptionally well."

Partne



### Case study:

Water quality and sedimentation have meant the Freshwater pearl mussel population is failing to recruit, with the youngest individual being 50 years old. Funding has supported new Conservation Agreements, habitat improvements, enhanced monitoring, captive breeding and release.



# Helping bird species thrive



Common Terns are scarce breeding birds in Yorkshire, with fewer than 100 known nesting pairs, whilst the local breeding Sand Martin population, although stable, is known to fluctuate greatly and relies on sandy banks and cliffs for nesting.

As part of wider landscape recovery plans, the Biodiversity Improvement Programme has funded a project to address the need for suitable nest sites for both species – key to ensuring resilient breeding populations.

Funding has bought 12 artificial nesting rafts dressed with waste cockle shells for the Common Terns, and six prefabricated banks for the Sand Martins, as well as vital equipment such as a small boat and trailer to undertake maintenance. These have been deployed across the River Hull Valley including at Watton Nature Reserve, Dumble Farm and Leven Carrs.

This is a great example of the collaborative effort needed to recover species; with land owners, Yorkshire Wildlife Trust, volunteers from Natural England and Yorkshire Water, and businesses such as Albanwise Environment Ltd. and Green Future Building, all working together.



se study photo with kind permission 3en Aston, Yorkshire Water

# Improving and making space for nature

Habitat loss and fragmentation are having a significant impact on biodiversity, for example, by pushing species into smaller and smaller areas, and by fragmenting and isolating fragile species populations.

As a general rule, diversifying the range of habitats or vegetation structures available at a site increases biodiversity. The Biodiversity Enhancement Programme has therefore funded works to improve the quality of existing habitat, diversify the range of niches within it, and also create new habitat.

This work with partners is key to improving habitat health and in driving positive biodiversity outcomes. "This kind of funding is something without which we would struggle to make nearly as much impact in the work we do, namely protecting and restoring chalk streams, which are an incredibly rare and valuable habitat."

## Case study:

Boltby Reservoir is a species-rich Priority Pond with an abundance of interesting invertebrates and wetland flora. Through Biodiversity Enhancement Programme funding, the Freshwater Habitats Trust, Yorkshire Dragonfly Group and Butterfly Conservation have collaborated to improve the habitat.



"(halk rivers are an incredibly rare habitat, but sadly often in poor condition. Funding from Yorkshire Water and our relationship with them in general has allowed us to undertake work to restore significant areas of chalk river."

# Case study: Restoring natural flow

▲ Work in progress to re-meander Driffield

In common with many watercourses, Driffield Trout Stream has been highly modified and negatively impacted by human activity.

Yorkshire Water helped to fund restoration of a more natural shape to a section of this river, originally straightened 150 years ago to feed the longdisappeared Poundsworth

A river restoration feasibility study discovered the original natural channel hidden under a dense tangle of trees. This Yorkshire Wildlife Trust managed project undertook ambitious work

to reconnect the channel to this original path, adding meanders back to the river.

Green engineering, such as coir matting, is reducing erosion and protecting the new banks whilst the plants re-grow. Contractor works were complemented by volunteers-tasks such as creating and installing bundles (faggots), made from local hazel coppicing waste, to further prevent erosion.

Re-meandering is highly beneficial, reducing flood risk by increasing the river system's water storage capacity and reducing water speed, contributing to improved water

Trout Stream, seen from the air.

quality and providing more complex, varied aquatic habitats and spawning grounds - thus creating more space for nature. This project has helped to deliver a long-term plan (Natural England, Environment Agency) to return this Site of Special Scientific Interest ('SSSI') to favourable condition.

# Photo with kind permission of Lower Ure Conservation

# Increasing capacity to act for biodiversity

**The Biodiversity Enhancement Programme** has supported scalingup of conservation efforts through capacity building.

This has included:

- Additional staff members - providing boots-on-the-ground to coordinate practical habitat improvement, and species recovery and monitoring
- Workforce capacity investment in specialist skills needed to drive forward biodiversity improvements is helping to address a key issue limiting practical delivery: the pipeline of suitably experienced, qualified staff

- Strengthened networks
- investing in Catchment Partnerships is increasing knowledge exchange and fostering collaboration amongst the 'ecology' of organisations acting for nature. This is supporting Catchment Based Approach delivery and key priorities, e.g. the Chalk Stream Strategy Implementation Plan
- Mobilising more to act - by resourcing expert advice and supporting Farmer Clusters, more land owners and managers are able to act for biodiversity and adapt land management
- Data availability Mapping and monitoring is helping to provide

regimes

sufficient up-to-date data with which to understand the pressures on, and health of, habitats and species. This can inform future intervention design, and track any change resulting from project activity.

"It is generally more difficult to find funding for staff posts compared with capital items such as equipment or materials, which makes the Yorkshire Water funding so important."

**Partner** 

"This post has allowed me to specialise within my sector...time to concentrate on acquiring a fishery management diploma, experience delivering habitat improvement project and allowed me to do training and delivery of electrofishing surveying techniques."

14

Funded postholder



"We have cultivated a number of rare plants from material of North Yorkshire origin in significant numbers." Partner

# Case study: Making habitat creation possible

This volunteer-run nursery can now meet the needs of organisations undertaking habitat restoration across the surrounding Lower Ure Valley, as well its own habitat creation trials.

It has also helped the Trust to trial innovative techniques, including dead-hedging to reduce wave wash, using sacks for safe and efficient planting in shallow water, 'headstarting' tussockforming sedges and growing deep-wateremergent plants such as Common Club-rush in immersion tanks.

The resulting new habitats are not only vital for nature's recovery, but also deliver other natural capital benefits such as carbon sequestration through the establishment of tussocky

fen and potentially peatforming plant communities.



The success of this project has helped to make the case for replicating the model with a new wetland nursery on Yorkshire Water's own nature reserve - Tophill Low in East Yorkshire. This has further built capacity and spread impact, for example, by donating rare plants to nature reserves such as RSPB Bempton Cliffs.

To address the biodiversity crisis, we need to make more space for nature, more quickly. There are a number of systems issues which prevent this, for example, the supply of locally-sourced plants to supply habitat restoration and creation projects.

Through Yorkshire Water's investment of just over £40k, Lower Ure Conservation Trust ('the Trust') increased capacity to create more priority wetland habitat.

The funding helped to expand the Trust's nursery, which propagates 80 plant species, including 25 key wetland species. It supported a highly skilled project officer, admin., and capital works such as installing more wet beds and an irrigation system.

15

wildlife habitat

# The 'ripple effect' of funding

The Biodiversity Enhancement
Programme is delivering excellent value
for money – giving an estimated return of
£16 benefit for every £1 invested.9

This is being achieved in a number of ways, including:

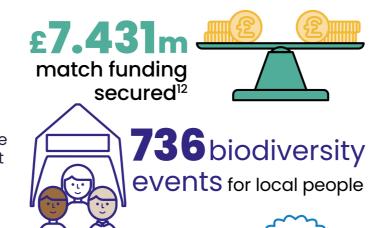
- Efficient and effective delivery delivery is around 11 times cheaper<sup>10</sup> via delivery-ready organisations who have reduced costs compared to Yorkshire Water contracting-out these works direct. The outputs of funded projects are around double compared to average National Lottery Heritage Fund nature-based projects<sup>11</sup>
- Leveraging additional investment for every £1 of grants awarded, partners secure at least another 70p to invest in the funded project
- Delivery of co-benefits the projects are providing significant additional benefits, including engagement of local people and volunteering opportunities
- Environmental impact the projects are not only delivering impact for nature, but also significant environmental benefits, such as increased carbon storage (e.g. through moorland restoration), reduced pollutants and sediment entering watercourses (e.g. through investing in Farmer Clusters), and reduced flood risk (e.g. through Natural Flood Management)
- Leaving a legacy the funded projects leave behind ongoing benefits, from a more skilled workforce, resilient organisations and strengthened networks, to improved habitats and recovering species, and evidence-based plans on which to base future action.

Many of these mechanisms would not be present in a model where works were contracted-out instead of delivered by not-for-profit conservation partners.

Through this funding model, Yorkshire Water creates and leaves a bigger 'footprint' of positive change in the landscape, in partner organisations, and in local communities.



via delivery-ready partners



At least £ 4.20 ® wellbeing benefit from every £1 invested in volunteering<sup>13</sup>

"None of this would have been possible without the resources funded by the Yorkshire Water Biodiversity Fund."

Partner





No single stretch of river in England is in good overall health.<sup>14</sup> It is therefore imperative that we continue to act to support our river system and the iconic wildlife it supports.

### To reverse this trend, we must all act.

As the second largest landowner in the county and as a utility provider, Yorkshire Water is in a unique position to help encourage wildlife across the region to thrive.

The Biodiversity
Enhancement Programme
provides clear, evidenced
outcomes for nature. This,
alongside work on Yorkshire
Water's own land holdings,
should continue to be part
of the solution to moving us
towards better ecological
health and richer habitats
teaming with wildlife on
the doorstep of every
customer.

We need to do more, and quicker to support the health of our rivers system, catchments and the amazing biodiversity they support.

The Biodiversity **Enhancement Programme** structure is a costeffective way to channel support into 'deliveryready' organisations, who have the expertise, track record and capability to act for Yorkshire's biodiversity. Investment in the Biodiversity **Enhancement Programme** is a proven route to 'fasttrack' action which matches the urgency of the issues concerned

Yorkshire Water not only has a responsibility to 'conserve and enhance' biodiversity, but as an organisation, it is committed to helping drive forward transformational change in Yorkshire's amazing catchments for nature, and for customers. The Biodiversity Enhancement Programme is a linchpin in this.

### **Recommendations for future model**

## Maintain a flexible funding package

The simple application, reporting and claims process allow for a strong focus on delivery. Similarly, flexibility when changes are required has helped keep delivered work fit for purpose when the context changes, or opportunities or challenges arise.

#### **Enhance evaluation**

The current reporting methods provide a flexible option for the partners and the information needed for the funder to manage risk on the investment and track the progress of individual projects. However, the nature and scale of investment means that there's potential to apply other evaluation tools and national frameworks at a programme level.

For example, the Returnon-Investment value of the Biodiversity Enhancement Programme is likely to be high. Employing techniques such as triple-bottom-line accounting and ripple-effect mapping would be useful to help get a closer figure on return-on-investment from the funding.

## Strategically align future investment

Whilst the current investment already contributes towards broader objectives in the county, there is an opportunity to more closely align investment with key plans, and where the link is already there, to make it more evident. In particular, the Biodiversity Enhancement programme can contribute towards Nature Recovery Plans<sup>15</sup> and Catchment Management Plans. This approach will ensure evidencebased investment to make the biggest difference for wildlife.

### Facilitate knowledge exchange

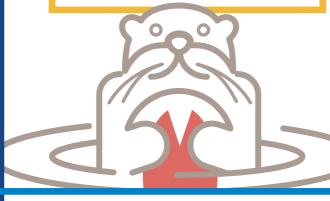
One of the features of the nature conservation sector is that it can be hard to find time to share lessons learnt and reflect together. Whilst the Catchment Partnership provides a platform for this kind of activity, it is all too often underresourced or still somewhat siloed.

Yorkshire Water is in a unique position as a funder across this portfolio of work to help bring people together to share and collaborate further. This will, in turn, make the delivery for biodiversity more effective and efficient.

#### Celebrate more

The Biodiversity Enhancement Programme is crammed full of good news stories about nature's recovery really happening in Yorkshire. We know that positive communications about nature are an important tool to inspire, entertain, motivate and empower individuals to take their own action.<sup>16</sup>

There is the potential to make more noise about the investment (especially at Programme level), which would be beneficial for Yorkshire Water in showing how their commitment to biodiversity is happening on the ground, for partners in profiling their work, and for the feel of a movement for nature's recovery across Yorkshire.



# **Biodiversity Enhancement** Programme 2025-2030

This evaluation has reviewed and reflected on Yorkshire Water's support for the first steps of the journey to nature's recovery. This has provided a wealth of lessons and 'proof of concept' of the Biodiversity Enhancement Programme as a cost-effective and impactful way of working – but it's only the start.

Yorkshire Water wants to be even more ambitious, so five-year targets for priority habitats restored and length of river restored have been doubled, and it will work with partners to invest:19



conservation





in river restoration

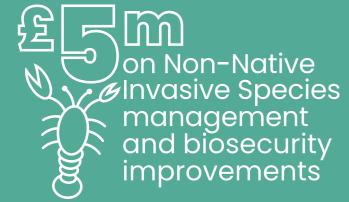
### Beyond this, Yorkshire Water is also committing to:

**Great Yorkshire Rivers** - investing over **£7m**, working with partners to remove barriers to fish passage across Yorkshire by 2042<sup>20</sup>

Establishing over 200 biodiversity units above and beyond any required for their construction programme<sup>21</sup>

£6.5m investment

in moorland Site of Special Scientific Interest restoration



## 'Nature first'

commitment - considering Nature-Based-Solutions first when delivering Yorkshire Water's **c.£2bn** investment programme

"Yorkshire Water wants to invest to help build the resilience of these systems in a way that achieves a net gain to biodiversity as well as supporting the resilience of the groups and Partnerships with similar agendas."

Emma Brown, Strategic Partnerships Manager, Yorkshire Water



<sup>1</sup>The Convention on Biological Diversity.

<sup>2</sup>The State of Nature Report (2023).

3As set out in the NERC Act 2006 as strengthened by the Environment Act 2021.

<sup>4</sup>All figures are for the **Biodiversity Enhancement** Programme funding only and are therefore only part of the impact of Yorkshire Water's overall biodiversity funding package.

5Full or part funding for full-time or part-time roles.

<sup>6</sup>Direct funding; however, a much larger number of organisations have benefitted from the funding.

<sup>7</sup>Source: Environment Agency River Basin Management Plan.

<sup>8</sup>A conceptualised illustration of a species' recovery journey over time as a result of conservation interventions, used to measure a species, progress through a sequence of steps.

9This is an initial estimate using Yorkshire Water's Six Capitals model for assessing impact. However, future investment programmes would benefit from further analysis as this is likely to be a low estimate.

<sup>10</sup>Calculated comparing a funded chalk stream restoration with restoration on a similar stretch using Yorkshire Water Tier 1 design partners and contractors.

"Estimate by National Lottery Heritage Fund RoSS expert advisor for natural heritage.

<sup>12</sup>Figure is for the Biodiversity **Enhancement Programme** funding only and therefore only part of the impact of Yorkshire Water's overall biodiversity funding package.

<sup>13</sup>Based on Bagnall, A. M., & Brymer, E. (2019). Social return on investment analysis of the health and wellbeing impacts of Wildlife Trust programmes.

<sup>14</sup>The Rivers Trusts (2024). State of our Rivers Report. Based on Environment Agency data as part of the Water Directive Framework which combines assessment of both chemical and ecological health.

England, has therefore charged local authorities with devising strategies that prioritise action for nature. Three of these Nature Recovery Strategies will cover Yorkshire. These plans identify locations in Yorkshire where collectively we can improve nature and provide other environmental benefits. such as carbon sequestration, flood regulation, and access to nature-rich spaces for health and wellbeing.

Toolkit (2022). Conservation Optimism. Available at conservationoptimism.org.

<sup>19</sup>Subject to approval by OFWAT

<sup>20</sup>Where feasible.

<sup>21</sup>As part of Yorkshire Water's OFWAT Biodiversity Performance Commitment.

<sup>15</sup>The Government, via Natural <sup>16</sup>The Positive Conservation





Verbatim quotes have been used throughout this document in order to include stakeholders' own voices. The spelling and grammar of these have not been corrected for, authenticity.

[ ] denotes a deletion. ... denotes a partial quote.

This report has been researched and written by expert evaluation consultants Heritage Insider Ltd. This has been the first independent review of the Biodiversity Enhancement Programme.

The evaluation process has been undertaken through a desk-based review of the investment portfolio, agreements with partners, grantee outputs and reports, and direct feedback from partners. Future evaluations have the opportunity to build upon this report and to consider additional data and tracking against national indicators and frameworks.

Thank you to all those who have fed into this evaluation process for your reflections and data.

To find out more about Yorkshire Water's work to support biodiversity visit:

yoʻrkshirewater.com/environment/biodiversity