Title	**Environmental Innovation Projects: Verification of Evidence Reports**
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For the attention of:	Affinity Water

1. Introduction

Environmental Innovation Projects (EIP) is the name for Affinity Water's bespoke Performance Commitment for AMP7, as detailed within the PR19 Final Determination (PR19 AFW_W-B2: Environmental innovation – delivery of community projects). The purpose of this Commitment is to incentivise the Company to complete environmentally focused pilot projects within its communities, working with environmental groups, charity organisations and other stakeholders to trial the delivery of eight innovative projects, linked to different environmental themes and water use behaviours. By undertaking these multi-party projects, the Company aim is to deliver greater benefits to the environment than could be delivered alone, with the knowledge that trialling of new approaches will not always work, and that lessons learned will be incorporated into future strategies and investment planning.

A total of eight projects were put forward within the PR19 Final Determination with each, once completed and verified, delivering a set number of units (14 units in total). These projects and associated units are detailed in Section 2. The Company will use the units to claim against the bespoke Performance Commitment, which has a financial incentive rate (reward) of £0.143m per unit, with achievement of all 14 units resulting in £2m reward in line with Ofwat's Final Determination.

For each project or work package, the delivery mechanism is governed by a gated process based on three Gates:

1) Delivery of project scope
2) Presentation of a business case
3) Completion of the project with sign-off of benefits created

As part of Gate 3, a project is considered complete when a report has been compiled from an independent party, which has examined and verified the benefits from the work undertaken. This report comprises an independent assessment of the benefits from the work delivered in Year 5, consisting of two projects and totalling two units. It has been determined by Ofwat that delivery of each of these work packages equates to one unit.

The projects delivered in previous years are discussed in detail in previous years' evidence reports.

2. Projects

The eight projects put forward within the PR19 Final Determination are listed below, along with the associated number of units.

Project Name	Number of units	Delivered
Affordable housing (Colne)	1	Year 2
Targeted campaign (Wey)	1	Year 3
Education methods (Misbourne)	1	Year 2
New Developments (Stort)	1	Year 2
Targeted campaign (Brett)	1	Year 3
Faith Groups	0	Discontinued in Year 4
Education smart meters (Dour)	0	Discontinued in Year 4
Lee catchment project (six work packages detailed further below)	7	Years 3 to 5

The Lee catchment project consisted of six work packages, with a total of seven units, as follows:

Lee catchment projects/work packages (WP)	Number of units	Delivered
WP 1: Chalk stream health assessment	1	Year 4
WP 2: Catchment opportunity mapping to protect water resources	1	Year 3
WP 3: Catchment systems thinking cooperative (CaST Co.)	1	Year 5
WP 4: Catchment trading of ecosystem services & nature-based solutions	2	Year 3
WP 5: Natural Capital evaluation of investments in nature-based solutions in a targeted sub-catchment	1	Year 3
WP 6: Rooting for Wildlife environment fund pilot	1	Year 5

This assessment, of the two projects reported in this year (Year 5), has been made by examining evidence provided by Affinity Water, and included a virtual audit with key personnel from the Company as part of the assurance process.

2.1. Lea catchment: Work Package 3 – Catchment Systems Thinking Cooperative (CaST Co.): 1 project unit

Overview and approach

This work package is connected to citizen science, with the aim to connect local communities to their local river and exploring the opportunities associated with open data, stimulating innovation and collaboration. This work package was co-funded by Affinity Water to develop a structured and standardised national framework for a catchment monitoring cooperative which could be used as a 'demo' catchment for chalk streams, in partnership with the Lea Catchment Partnership.

A volunteer coordinator role was funded through the Herts and Middlesex Wildlife Trust to develop the volunteer and monitoring plan for the River Beane, with aim that monitoring was mostly undertaken by citizen scientists.

The volunteers were trained in a number of skills, including Riverfly monitoring (a UK wide citizen science monitoring programme hosted by the Freshwater Biological Association) and sampling for environmental DNA (also referred to as eDNA). Other programmes of survey undertaken by the volunteers included the Mudspotter initiative (survey to monitor sediment entering rivers following rainfall events), water quality sampling (testing for nitrates, phosphates and turbidity) and Redd spotting (looking for tell-tale depressions in the riverbed substrates, indicative of salmonid species of fish).

Outcomes

The Company has developed a StoryMap which details the work undertaken by the volunteers, under the supervision of the volunteer coordinator. Highlights of the volunteer surveys include:

- Over 40 trained Mudspotters have undertaken more than 50 surveys across the rivers Beane, Rib, Mimram and Lea (all within the Lea catchment).
    - Surveys have provided the ability to identify the source of sedimentation within the catchment, including overland flow, disturbed bank faces and pipes and culverts entering the watercourses with 'repeat offenders' being identified.
- Riverfly monitoring, undertaken by volunteers over a two-year period.
    - Surveying of eight key pollution-sensitive aquatic macroinvertebrate species enabled trained volunteers to assess water quality
- A total of 90 eDNA samples were taken across 10 sites within the catchment.
    - Allows for the identification of potentially protected aquatic macroinvertebrates, fish and mammals such as water voles.
- Water quality sampling was undertaken at 187 monitoring points, by 31 citizen scientists.
    - Monitoring of nitrates and phosphate allows identification of sources which can in turn provide opportunities for landowner/stakeholder engagement to resolve issues.

Findings

From the evidence we have verified, we can confirm that the catchment systems thinking cooperative work package has delivered significant benefits to customers and local communities in terms of:

- A benefits evaluation 'StoryMap' has been developed which details the different survey methods undertaken by volunteers and how it is being used.
- This approach has already been extended to several other rivers with plans to incorporate the whole River Lea catchment.
- Citizen science monitoring has identified several pollution sources and is helping build a robust dataset of evidence of key issues impacting the river.
- An initial 14 volunteers were recruited in November 2023, with over 40 volunteers engaged in the 16 months of this work package.
- A survey carried out of the benefits identified benefits for volunteers including:
    - being outside more
    - meeting new people
    - feeling valued and as part of a team
    - making a difference
    - improved mental health

2.2. Lea catchment: Work Package 6 – Rooting for Wildlife Environment Fund Pilot: 1 project unit

Objective
The aim of this work package was to develop and pilot a community-focused funding/investment programme to enable and empower local groups, communities and NGOs to develop and deliver innovative projects to protect, improve and enhance chalk streams and the wider environment.

This work package was first initiated through a requirement from the Water Industry National Environment Programme (WINEP) and has been subsequently tailored for the Company by the Environment Agency.

The Rooting for Wildlife work package asked for applications which would fulfil one or all of the following criteria:

- Enhance and protect biodiversity, particularly priority species and habitats within the Lea Catchment.
- Support river or riparian habitat, including supporting key species of concern, in environmentally designated sites.
- Alignment with relevant Local Nature Recovery Strategies and with the potential to link to wider environmental projects.
- Contributing towards achieving Water Framework Directive objectives.
- Utilising the Affinity Water volunteer network.
- Looking to achieve long-term success, with methods to support the project's evolving progress.

The application process was open for a month (over April and May 2024), with the Company receiving 48 applications. The Company used a standardised scoring matrix for all applications, with a total of 17 applications being successful.

Outcomes
The 17 successful applications was made up of projects related to:

- pond creation and enhancement works
- river restoration
- protected species re-introduction
- wetland rewilding
- woodland management
- school outreach and education

Findings
From the evidence we have verified, we can confirm that the Rooting for Wildlife work package has delivered significant benefits to customers and local communities.

- The pilot received a high response rate and resulted in nearly 1 in 3 being awarded funding
- There is clear evidence that the funded projects succeeded in working in partnership with the community to deliver benefits to the environment, habitats, species and the wider community.
- Significant lessons learned by Affinity Water through this pilot which have been documented in the StoryBook.

- Sustainability as Rooting for Wildlife will now be funded as an AMP8 scheme (2025 – 2030) as part of the WINEP programme and will be expanded to cover the Company's whole supply area.
- Lessons learned will enable the WINEP scheme to 'hit the ground running' in Year One of the five year programme.

3. Conclusion

We have been able to validate the evidence that has been collected for the two projects that Affinity Water is claiming as delivered in Year 5. We concluded that the evidence demonstrates that they have generated significant benefits that could not have been delivered alone. A business as usual approach would not have delivered the organisational knowledge and experience, ecological data, environmental enhancement and information to inform future catchment investment planning compared with what has been delivered through these projects.