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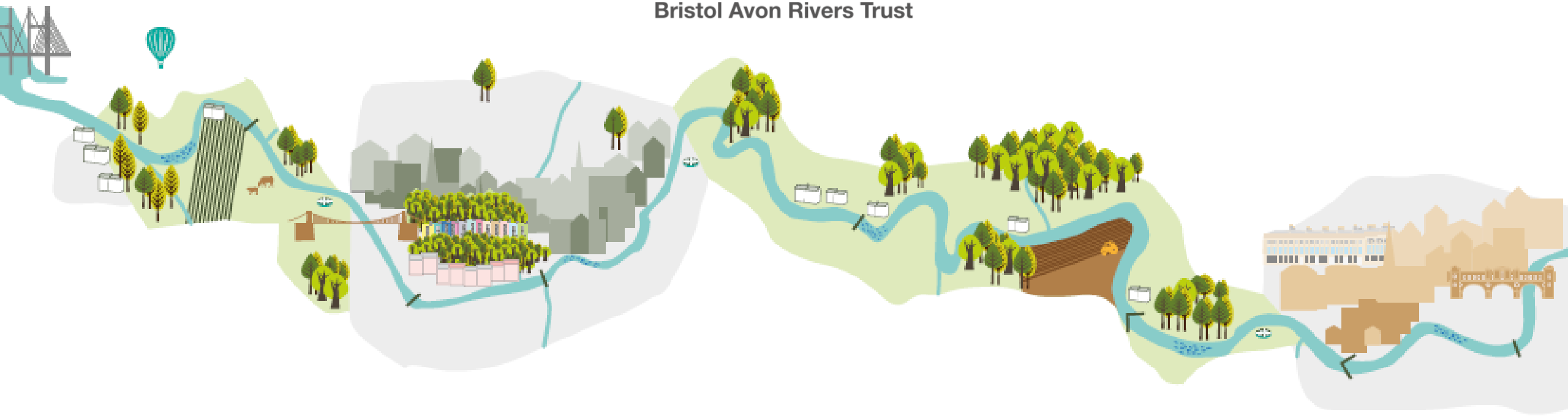


River Chew Update

Speaker: Simon Hunter, Chief Executive Officer, Bristol Avon Rivers Trust (BART).

Email: simon@bristolavonriverstrust.org

Status of freshwater ecosystems…

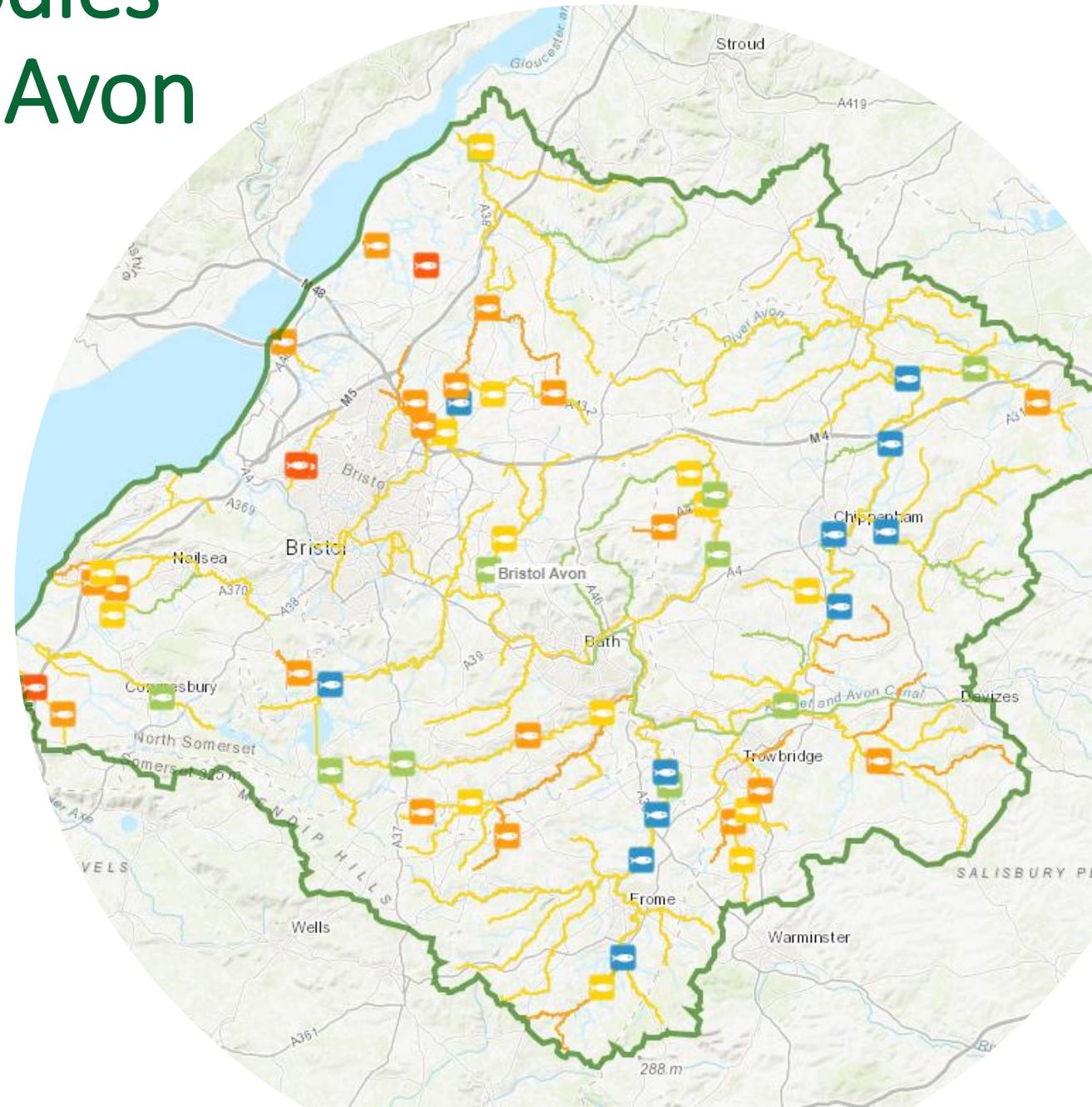
- Freshwater ecosystems is under threat, with its species declining faster than those on land and in the oceans. *IUCN*
- 1/3rd of all freshwater species are threatened with extinction. *WWF*
- A 93% collapse of migratory fish species in Europe between 1970-2016. *WWF*
- Salmon stock numbers are currently among the lowest on record and are below sustainable levels in many rivers. *Environment Agency*

Status of waterbodies across the Bristol Avon

Any waterbody that does not meet ‘good ecological status’ is failing under the European Union’s Water Framework Directive.

The UK Government aims to ensure all waterbodies meet Good Ecological Status (GES) by 2027 (now 2063…).

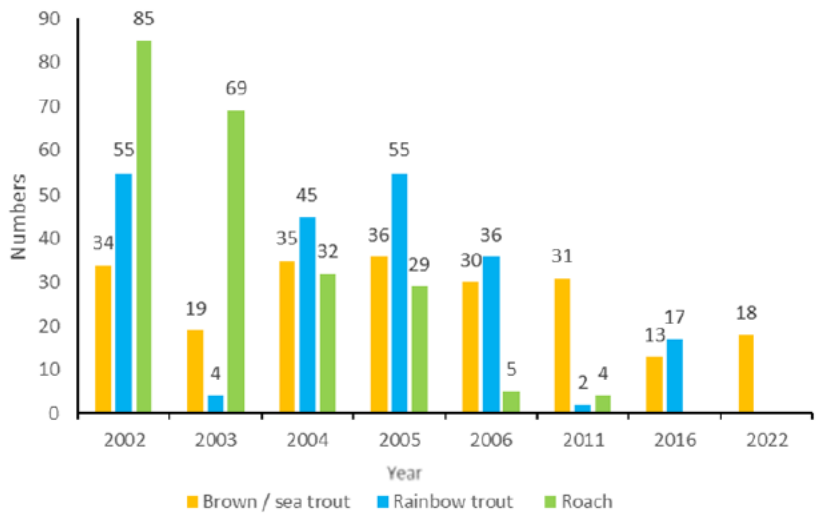
At 14% GES nationally, we are a long way from reaching this target…



River Chew, a priority for fish recovery…

The River Chew has been identified by the **Bristol Avon Catchment Partnership** and **Chew Valley Reconnected Partnership** as a priority catchment for fish recovery, due to the small populations of migratory fish (Atlantic salmon, sea trout, lamprey and eel) and potential good quality habitat upstream.

BART has led work on a **River Chew Fish Recovery Action Plan**, which provides a centrally prioritised plan for improving the health of the River Chew to support greater biodiversity and natural capital.



Chew Valley Fish Recovery Action Plan

The River Chew Fish Recovery Action Plan will support the Chew Valley Partnership by providing a priority list of measures to aid improvements to freshwater biodiversity and in particular support recruitment of wild fish into and throughout the river catchment.

The River Chew has been identified as a priority river catchment for protecting and supporting the recovery of fish populations due to its suitable habitat for salmonids and coarse fish as well as evidence through Environment Agency and water industry monitoring of providing habitat to a number UK Biodiversity Action Plan species, including Atlantic salmon, critically endangered European eel and brook lamprey as well as a diversity of coarse fish such as roach and dace and minor species including bullhead. Restoring the river to benefit these species will improve the river for other species. We should protect the existing habitat, but then work strategically to unlock and improve wider tributary habitat which could support spawning.

Key aims:

1. Provide strategic action plan to support improved access to spawning habitat for Atlantic salmon, Brown trout, Lamprey and bullhead (and consequently many more aquatic species)
2. Produce a shared plan for partners to use and work towards delivering
3. Provide a blueprint that could be developed for other priority Bristol Avon catchments

BRISTOL AVON FISH RECOVERY STRATEGY

Bristol Avon Catchment Partnership

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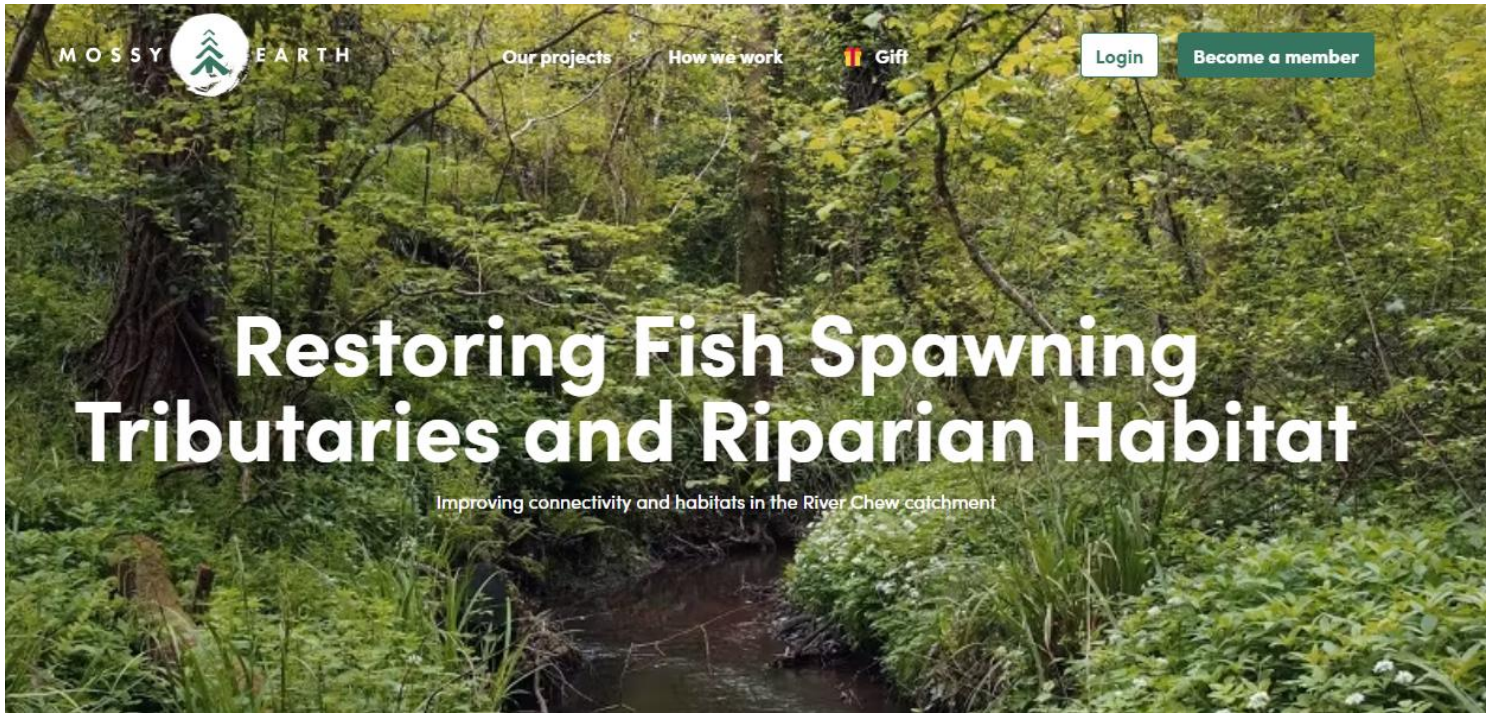

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- **Livestock management**: such as livestock fencing and creating buffer strips to reduce encroachment along the brooks.
- **Installation of woody debris into the watercourse**: to improve the diversity of waterflow, with the potential to create new wetland areas, in addition to providing habitats and spawning sites for wild migratory fish.
- **Riparian tree management:** designed to achieve more optimal light conditions (targeting a 60:40 ratio) by thinning wooded canopy. A reduction in shading can facilitate macrophyte growth and help create clean riverbed gravels ideal for fish spawning.
- **Riparian tree planting:** to increase shade where the brooks are overexposed to natural light, helping to regulate water temperatures. Additionally, tree planting can eventually help stabilise banks and input woody materials into the watercourse, needed for the development of invertebrate populations.

Fish Recovery Action Plan in motion: Keynsham Memorial Park weir

<u>Keynsham Memorial Park weir</u> **:** Owned by BANES, has been identified in the River Chew Fish Recovery Action Plan as one of the largest and most downstream barriers preventing fish passage to Atlantic salmon, sea trout, critically endangered European eel, lamprey as well as movement of resident coarse fish and invertebrates which support birds and bats.

BART, BANES, and the Environment Agency are investigating possibilities for the weir to promote biodiversity and amenity throughout the park.

For instance, the removal of the weir is likely to provide uninterrupted movement of fish, enhanced habitat upstream, and a safer, more resilient environment for people to enjoy. It may also help to reduce flooding in a car park and neighboring land.

This investigative work has been funded via Water Environment Improvement Fund and CIL funding secured by the council.

Case Study 1: Nature Based Solutions on farmland

- **Location**: Headwaters of a salmonid spawning tributary in the Chew Valley
- **Issues:** High sediment & nutrient runoff, highway flooding, high-maintenance clearing ditch network, impacting downstream habitat
- **Aims:** Reduce sediment & nutrient loading, improve health of soil, contribute towards reducing highway flooding, create linking habitat between two historic woodlands, improve quality of harvest
- **Solution:** 3D buffer strip & land management

Nature Based Solutions in Chelwood…

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Before (Jan 2021)

After (Nov 2023)

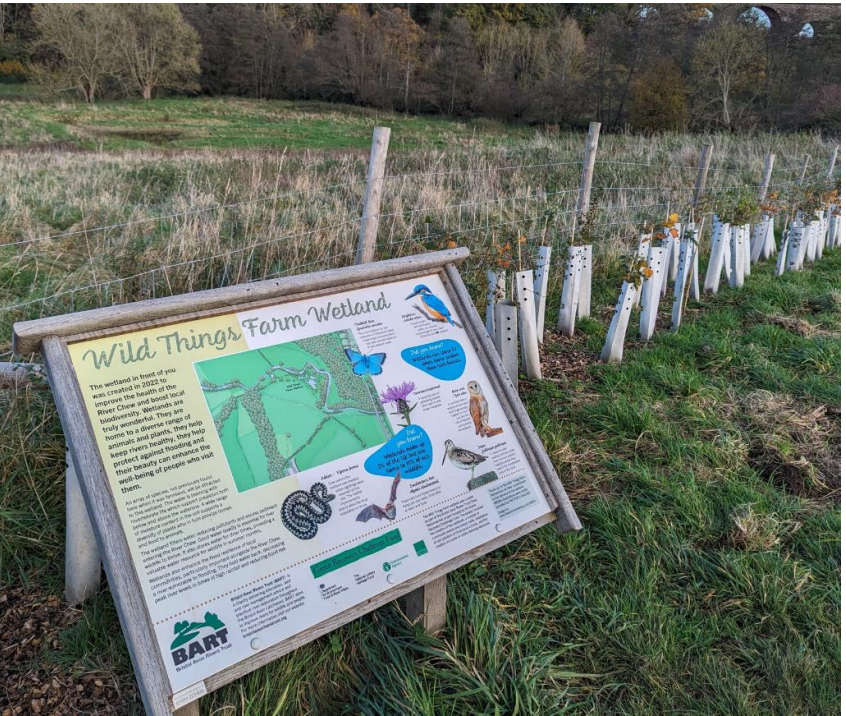
Measures implemented: 400m of native hedgerow planting, 10-15metre 3D-buffer strip created, 5 bunded scrapes, installation of sediment trap, subsoiling as opposed ploughing & plating an over wintering crop.

Buffer Strips

Case Study 2: wetland creation

- **Location**: River Chew floodplain, Pensford
- **Issues:** High intensity floodplain grazing. Compact clay soils & low biodiversity value floodplain habitat (rye grass). Communities downstream at risk of flooding.
- **Aims:** Improve floodplain biodiversity, “slow the flow” of surface water from steep sided floodplain & reduce sediment / nutrient loading to the river.
- **Solution:** Creation of a semi-permanent wetland & planting of hedgerow

Wetland creation, Pensford



Farm Cluster's – mechanism to support landowners

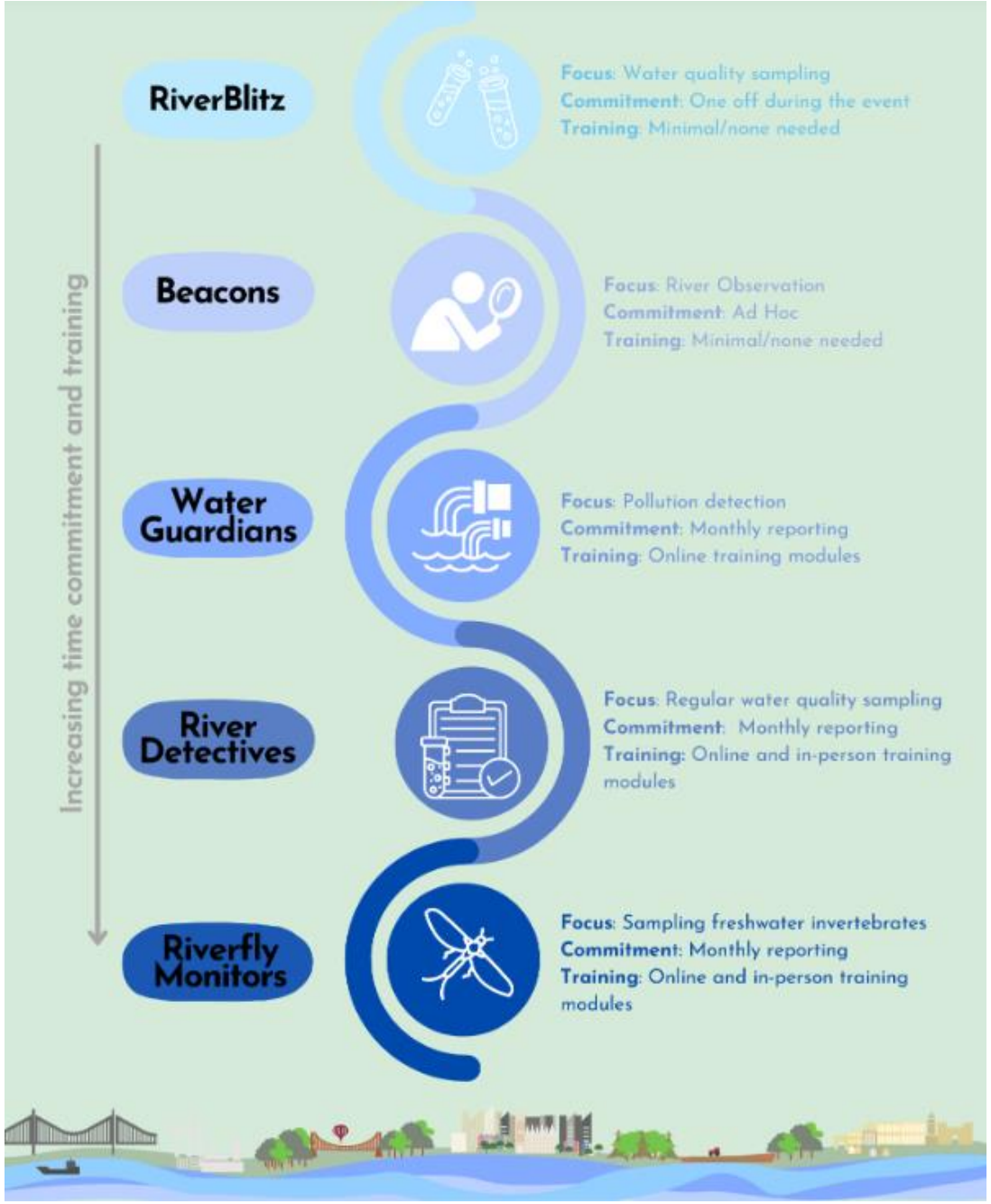
AIM:
To establish and facilitate farm cluster groups in both the Chew Valley and Cam and Wellow catchments.

These groups will be farmer-led, with coordination and support by BART and relevant partners, to provide a formalised mechanism that will enable partners to engage, communicate and work with the farmers and landowners at a catchment scale.

OUTCOMES:
Members of the Farm Clusters Groups will be supported by advisors to develop plans, signpost investment and deliver the right interventions in the right place for nature and people, enabling more resilient and interconnected habitats to be delivered that help to build ecological resilience and enable wildlife movement across the landscape.

Want to take action?

Why not Volunteer!



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THANK YOU FOR LISTENING

For further information about BART please visit
www.bristolavonriverstrust.org

A Clear Future for our River