



River Marden Restoration Project Proposal

Prepared for Calne Without Parish Council

Version 1.0

January 2022



Version history

Revision	Date	Description	Author(s)	Reviewer(s)	Approval
1.0	26/01/22	ISSUE	SH	SH	SH

Wednesday 26th January 2022

Sue Deedigan

Calne Without Parish Council

Subject – River Marden, Sprays Farm Project Proposal

Dear Calne Without Parish Council,

Further to the discussions along the River Marden in Calne on Thursday 13th January 2022, I have put together a grant proposal on behalf of Bristol Avon Rivers Trust (BART) to progress the planning and delivery of in-stream river restoration to generate more varied flow conditions to support a diversity of aquatic wildlife throughout the section of the River Marden flowing through Sprays Farm, Calstone.

There has been a number of opportunities identified by BART at Sprays Farm, which have been listed in the attached Sprays Farm Opportunities spreadsheet. BART recommends that all options included in the Opportunities spreadsheet are considered alongside the delivery of a Farm Cluster Group (details included within a separate proposal). This proposal includes the delivery of “quick wins” to provide a demonstration site for future landowner engagement.

Fencing and bufferstrip creation will help protect the watercourse from land-use and livestock ingress, therefore we strongly recommend that these options are delivered alongside the restoration schemes, to protect the measures installed from livestock trampling. Please note this has not been included for in this proposal as we have suggested that the landowner explores an alternative funding source via Catchment Sensitive Farming.

Further details regarding the various elements of the initial work have been included within this proposal. We envisage two stages to the initial work package, and these are detailed here:

Stage 1 – Planning & consenting for river restoration works (2 locations – Options 4 & 15 in Opportunities list)

Stage 1 would comprise the following tasks:-

- Site visit to collect information required to progress with planning.
- Desktop research to pull together existing data, working up of a plan, submission of FRAP permit to Environment Agency (main river) including liaison with officers in order to obtain necessary permits.
- Asset / line search
- RAMS documentation

Stage 2 – Delivery (2 locations – Options 4 & 15 in Opportunities list)

Stage 2 includes:

- Supply of all materials & equipment to deliver the works.
- Delivery and oversight of all tree and river restoration works at both sites.
- Coordination of volunteers.

BART aim to address the lack of flow diversity and instream habitat by working with the Town Council on a programme of practical habitat improvements to improve the biodiversity of throughout a section of the headwaters of the River Marden, flowing through Spray's Farm.

To increase flow variation, we will install woody debris flow deflectors in the channel which will create pinch points, which will encourage bed scour creating pools, and sorting of riverbed gravels to provide a variety of habitat niches for aquatic invertebrates. Woody deflectors will help create a more diverse river cross-section as well as provide refuge for juvenile fish. The bed material that is scoured in the areas where the flow is quick will then naturally deposit downstream to create shallow riffles. This material will form valuable habitat for marginal plants to colonise. The enhanced flow diversity will also improve the river's ability to deal with low-flow conditions, helping improve resilience to climate change by regulating temperature and water level.

“Create diverse flow conditions, improve sediment transport, sorting of riverbed gravels and encourage aquatic vegetation growth”

The flow deflectors will be designed to overtop in high flow conditions, and they will fill with suspended sediment. The structures create pinch points in the channel and provide feeding habitat and refuge from predation for juvenile fish. BART will harvest material for the flow deflectors from bankside trees which will also address the issue of over shading in the river. By sensitively removing tree limbs and branches we will have a ready supply of brushwood for the flow deflectors and more light will penetrate through the canopy and onto the watercourse. This will help to maintain a recommended 40:60 light and shade ratio, which will encourage macrophyte (aquatic weeds) growth and invertebrate colonisation.



Figure 1. An example of a flow deflector installed by BART on the Little Avon. Notice how the straight channel now re-meanders, creating habitat diversity and improved flow conditions. The woody structures also provide habitat for invertebrates and juvenile fish.

Grant Proposal

As requested, the cost breakdown for the above stages, is as follows:-

Project Stage	Cost
Stage 1	£1,512
Stage 2	£6,548
Travel & subsistence	£200
Total Cost	£8,260 (no VAT)

The above costs relate to fees associated with BART staff inputs, including any expenses.

Clarification on Fees

The fee proposal does not include the following:-

- Purchase of any data other than what is freely available from the Environment Agency or client.
- The cost of undertaking any topographic survey.
- The cost of any additional site visits other than those included within the scope.
- Modelling of any options.
- Purchase of topographic survey, LiDAR data or OS MasterMap™ data.

Thank you for the opportunity to provide a grant proposal. If you have any queries, please don't hesitate to contact me at simon@bristolavonriverstrust.org. I look forward to the opportunity to work together on this exciting and inspirational project.

Yours sincerely,



Simon Hunter

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