**INVITATION TO QUOTE.**

**Nor Beck habitat improvement works.**

**Deadline for submission of quote 30th Dec 2022**

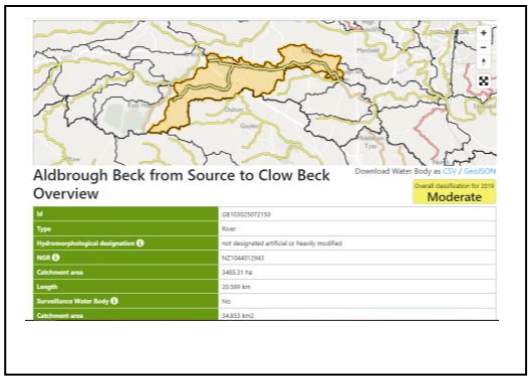

Contacts:

Judy Power.
Tel:
Email:
judy@teesriverstrust.org.

Richard Holmes
Tel: 07879648354
Email:
richard.holmes@teesriverstrust.org

**Introduction**.

The Tees Rivers Trust, seek a contractor to deliver in-stream habitat improvements to Nor Beck,(the upper reaches of Aldbrough beck) as part of the wider Green recovery challenge fund Fish for Tees project which encompasses the whole of the catchment with the aim of improving fish passage and habitat diversity throughout.
Nor Beck rises on the moorlands of Barningham Estate and flows North-East before turning East. The landscape is composed of fringe grouse moor, becoming upland pasture and meadow and ultimately predominantly arable land as the beck moves towards the confluence with the River Tees. In comparison to other landholdings of North Yorkshire and County Durham Barningham Estate has a high proportion of mixed woodland, wet meadows and ponds and the estate is managed to complement nature alongside economic activities.
Nor Beck is a small gravel-bed stream holding good numbers of brown trout and bullheads along with smaller populations of eels and brook lamprey. The bed gravel size is towards the larger end of brown trout spawning requirements but there are clear signs of spawning activity. The adjacent land management of the riparian zone ranges from open grouse moor, broadleaf and coniferous woodland through extensive pasture to more intensive in-bye land.
Overall, the Nor Beck catchment is classified as in Moderate condition in the Water Framework Directive (last assessed 2019, see below). Through the Barningham Estate there are locations where improvements could be made to the environmental quality of the stream.





The Beck does suffer from inputs from fine sediments from eroding bank areas and livestock access which has led to the degradation of potential spawning sites for not only Brown trout and brook lamprey, but the bull heads and other fish species present.
Eroding bank areas and a paucity of in river habitat features such as large woody debris were noted during fishery surveys of the beck and also through walkover surveys. Woody debris can reduce issues of density dependent mortality during the post-emergence phase of the trout life cycle by adding structure, increasing refugia and improving prey abundance. It can also enhance flow structure of the beck and the improve habitat heterogeneity. The use of either willow spilling or brash bundling to provide protection to eroding bank areas will help to reduce fine sediment inputs.

**Context and outline of works required**

The project will aim to improve the in stream habitats available over a 3km section of the Beck, from above Barningham Village at NGR:NZ 07541 to D/s NZ 09587 11121 ( see map in appendix).

- The proposed work will work both in-stream and on the bank side working closely with local land owners and farmers to ensure that they are involved with the location and design of measures to be used, understanding the final aim of each feature.
- Proposed works are also to engage with local volunteers.

Measures may include but are not limited to :

- Installation of timber flow deflectors, made from suitable section of timber available on site and anchored in place to the riverbed. These deflect and help concentrate flow to be able to loosen and clean gravel areas.
- Installation of woody debris features(various sizes).In-stream woody debris is one of the best methods for maintaining clean spawning beds which would then help to enhance the whole spawning potential along the beck.
- Use of brash bundles or willow to protect areas of eroding banks to reduce fine sediment inputs into the water course.

**Deliverables**

Over the stretch to be worked upon it is envisaged a minimum of 50 features will be installed to achieve the project aims.
Outline plan and detailed method statements to be agreed with TERT and land owners prior to any commencement.
Achieve 15 days local volunteer participation time.

**Those submitting a tender should respond with the following:**

- Relevant experience and qualifications including brief CV of key people leading and working on the project including those able to perform the appropriate role of principal designer for CDM purposes.
- Proposed approach to carrying out the work, including methodology , work programmes and reporting arrangements to cover the in stream works. This should include a detailed plan of work showing numbers and types of interventions and locations.
- An environmental risk assessment /plan outlining likely risks and impacts with appropriate mitigation measures listed for each.
- Proposed fee basis.
- Analysis of fee into number of days work and daily rate ,materials expenses and other costs, VAT if applicable.

**Appendix.**

Location map.