

Scope of Work NDCT Erosion on river Liddel

Newcastleton Community Trust and Newcastleton Flood Group are experiencing serious erosion issues with the riverbanks on the Liddel Water. SBC have considered location, space and funding required and suggest these options as the best course of action to mitigate the risk going forward. Photos attached of effected areas.



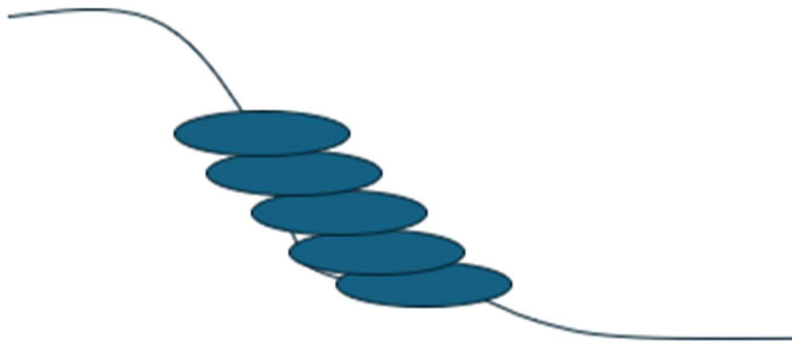
Area1 & Area 2 – coordinates 348668 587740

Badly damaged river banking (right bank) caused by excessive gravel and vegetation buildup on the left bank diverting river flow perpendicular across the river

Area 1 is approximately 96m long from the rip rap at the upstream end protecting the bridge abutment to a tree rooted in the banking at the downstream end. The banking appears to be made ground with various pieces of rubbish, excavated material making up the banking. The banking is now a meter or so from the public right of way with the Scottish Power HV cable already having been diverted. The banking is now eroding frequently with every spate of water and the trust need to address this before it takes out the road and starts to impact on the private ground on the other side of the road.

The banking is sitting on bedrock which is now exposed and can be clearly seen in normal river conditions. Given the space available and to limit the excavation required a rockbag solution is probably the best option here. Something like below finishing the upper section of the banking off with a new natural riverbank. NDCT is seeking some further design advice from the supplier but given the presence of bedrock these could be quite easily deployed onto the bedrock and laid accordingly thereafter to the desired height, something like below.

<https://rockbags.com/civil-engineering/>



For Area 2 they would look to do some dry gravel removal across a length of about 70m above normal water level.

Area 3 coordinates 348764 587925

NDCT would like to take some action on this immediately. The banking is eroding again undercutting the core path and a risk of bank collapse. The proposal is to move the core path further into the field and regrade the top of the banking to a more suitable gradient, there is no proposal to do anything with the toe as it appears to be river gravels and large boulders. Basically just make the banking safe and reduce the erosion risk to the upper part. SBC propose they cover the banking with biodegradable matting seed and replant with willows etc.

Funding Required

SEPA licences and Permits **£2129**

Area 1 – 96 m length of rock bags on the right bank would come under a permit level of authorisation for bank works <https://beta.sepa.scot/regulation/authorisations-and-compliance/easr-authorisations/water-activities/engineering/bank-works/bank-works-more-than-50-metres-and-all-other-bank-works-not-otherwise-described/> .

Area 2 – dry gravel removal. The sediment removal registration allows for a 30 m length of sediment removal from each sediment deposit but allows for removal of dry sediment from different exposed gravels. <https://beta.sepa.scot/regulation/authorisations-and-compliance/easr-authorisations/water-activities/engineering/sediment-management/removal-of-sediment-from-individual-exposed-sediment-deposits-within-no-more-than-1-kilometre-of-channel/> . The permit level would allow for a longer length from one exposed sediment deposit.

Area 3 – reprofiling up to 50 m length of bank would be a registration level <https://beta.sepa.scot/regulation/authorisations-and-compliance/easr-authorisations/water-activities/engineering/bank-works/bank-works-less-than-or-equal-to-50-metres/> . If there is an opportunity to include some planting as well, then this would be beneficial.

The registration application fee is still £190 and the permit application fee is £1,749.

Area 3:

Fencing £540

Path divert £2480