

SCRT - Project Ideas

1 Introduction

The purpose of this document is to record all the ideas that anyone interested in the rivers of South Cumbria may have for improving them. Please feel free to forward to anyone who may be interested.

In the first instance it will operate this in "brainstorming mode" - i.e. any ideas will be recorded, even if they sound impractical, ineffective or very expensive. Later we will run a process to filter out the real and practical possibilities for further investigation.

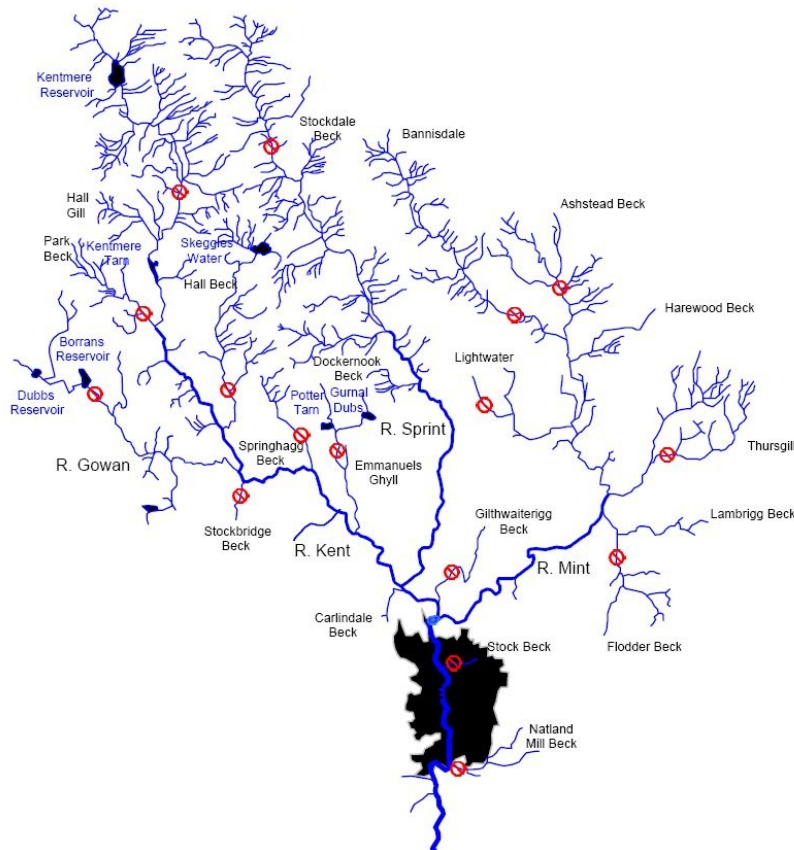
Please do not hesitate to let me have your ideas, e-mail to john@scrt.co.uk and I will add them to the list. The latest version of the document will always be available from the [SCRT](#) website, Projects section.

2 Kent

2.1 Identification and removal of man made barriers

The removal of man made barriers to migration is one of the easiest ways of improving runs of migratory fish, as spawning and juvenile habitat areas are opened up again after many years of not being used. Rod catch records for the Kent showed a significant improvement between '85 and '95 (Ref [Kent Salmon Action Plan](#) page 16) " *The increases around this time may have been partly due to the opening up of nursery areas in the upper Kent catchment following improvements to fish passage. This would have the potential to dramatically increase freshwater production and consequently rod catches*"

Experience from other River Trusts indicates that the removal of man made barriers is one of the most effective things that can be done. The map below indicates the barriers to migration as documented in the Kent SAP.



We need to understand

- If these barriers are plotted correctly?
- Are there any others?
- which of these are natural (which we can do nothing about)
- Which are man made (which should be removed, or have an effective fish pass installed).

Experience from Eden Rivers Trust is that until someone actually follows up all the becks and looks for obstructions the real situation will remain unknown.

If there are any man made barriers that are blocking access to worthwhile spawning and juvenile habitat we should progress with a project proposal to remove or fish-pass them.

2.2 Fencing projects

Various project ideas for the Kent have been developed by Brian Fereday and KRIG. Brian is continuing to work on these proposals and secure the necessary consents. Once these have been secured SCRT will progress with funding and delivery.

3 Leven

The problems on the Leven catchment are many and varied with the water quality on Windermere being the main issue. The Still Waters Partnership which has been doing excellent work on Bassenthwaite will be starting to address the issues of Windermere in 2007. Thus any issues associated with the Lake we should probably leave to them.

As ever our attention should be centered on small becks and headwaters.

3.1 Troutbeck Survey

Having a survey methodology and skills in surveying our rivers and becks, and an ability to identify the need for expert skills, is a core need area for SCRT. We aim to be in a position where volunteers can do some effective work, and to be able to call on experts where necessary. SCRT will be working with ART and the FBA to develop the skills and methodology needed.

Once the method and skills have been developed we need to apply them to a suitable location, as a managed and funded project. It has been suggested that for a number of reasons Troutbeck would be an excellent location for an initial full-scale survey for the following reasons

- 1) The catchment is large enough to design an attractive project yet small enough to be manageable as a first venture. It would give SCRT an opportunity to fairly quickly build a project that could include some element of employed staffing cost.
- 2) In a small area the river encompasses most of the problems we face and includes most land use types from open fell to sheep grazed upland to agricultural land. It is a pocket version of larger rivers in the area. There are natural sections, canalised stretches, degraded areas - just about everything. In essence it can serve as a test bed for later larger schemes.
- 3) Most of the catchment is easily accessible, on public view, ideal to demonstrate work in progress to sponsors, partners etc. Tributary streams are small and limited in number. Local to population centres, easily reached by volunteers.
- 4) The river is crucially important for all three salmonid species.
- 5) There is a potential link to any future catchment work that the Stillwater Partnership might undertake and the catchment would be of interest to other SCRT partners.

- 6) There is no great fishing interest and perhaps some opportunity for the EA to extend some special protection measures to the catchment without too much backlash.
- 7) Riparian ownership is relatively limited in numbers, I think the NT own much of the upper catchment, Mrs Hedley from Calgarth I think has a fair section of the lower reaches.
- 8) Gains from increased recruitment may well benefit Windermere (lake) and thereby a national gain rather than any specific local river interest. Some political appeal in this locally and nice to start without being seen to favour any one group.
- 9) We have some existing data from the smolt trap and from monitoring sites.

4 Duddon

4.1 Liming in the upper catchment

Following the acid rain events of the recent past (less of a problem now it seems) it is known that watercourses in naturally acidic upland areas have a hard time recovering to their previous and natural levels of productivity.

The upper Duddon and feeder becks are known to have very low productivity. There is an assumption that pH is a factor in this,

We gather that the Wye and Usk Foundation have had considerable success in the headwaters of the Wye dealing with the aftermath of acid rain by direct liming.

We need to assess what they have done, the successes achieved, and whether this may be applicable to the Duddon (and possibly elsewhere locally?)

4.2 Black Beck obstruction

A man made weir on Black Beck at The Green blocks the migration of sea trout over half of the catchment

4.3 Fish Counter

Install a fish counter on the Duddon

5 Crake

5.1 Reinstate In stream habitat and cover

Electro fishing surveys on the main stem of the river Crake below Coniston has always shown poor levels of juvenile salmonids. Efforts have been made to address the issue of poor conversion rate of redds to fry below the lake. However there are certainly other factors.

There is an immense amount of anecdotal evidence about the huge productivity of the River prior to UDN. Those fish had to come from somewhere and given the catchment area the main river stem must have played a much more significant role in parr and smolt production than it does at present.

In the mid '60s it is known that a lot of in river work was done below the lake to 'improve' river flow and drainage. Various pools, features, a lot of gravel, and many rocks were removed. After the work was completed anglers complained that various good pools had been destroyed. As a result some efforts were made to reinstate the pools. This work took place shortly before UDN, and may be a contributory reason why the river has never recovered to anything like it's previous productivity.

Also Yewdale beck above the lake received similar treatment, many walled banks were built and dredging took place up to about 10 years ago to reduce flooding of farmland.

It seems possible that this work:

1. Reduced the quality of the spawning gravel as the substrate is now widely cemented and choked with finings, leading to difficulty in cutting redds and the suffocation of the eggs when they are laid.
2. Reduced the quality of the juvenile habitat. The previous variability of the river with greater riffle and in-stream cover in the form of large cobbles and boulders reduced the conversion of fry, to parr, to smolt, due to reduced cover, less food and greater predation.

The only way to test this theory is to do a controlled restoration of the river for a section or two.

- Do juvenile surveys to establish baseline data
- Restore river features to give provide enhanced variability in river habitat
- Monitor results. I.e. changes in substrate plus fry and parr production in the new environment.

5.2 Fencing of Becks below the lake

In '99 the EA produced a report for the Crake Catchment Improvement Association identifying various sites where fencing to exclude livestock from the becks and riparian zone would improve the habitat. Some work was completed on Smithy Beck, but most was not due to difficulties in securing landowner consent.

All these becks should be re-visited and re-assessed and dialogue with the landowners resumed.

5.3 Fish counter

Install a fish counter on the Crake

6 Bela

Various projects have been initiated along the Bela by Peter Moreton. Some have already been completed, others are in various stages of development.

6.1 Fencing projects

Stainton Beck fencing. The EA approved a grant to fence several hundred metres of fencing and they have recently confirmed that the money is now available. Work should start in the spring.

Further River Bela fencing. The 1700 metres which went in two years ago has been very successful and we will be looking at trying to achieve the same success by fencing other sections of the main river. Funding sources have yet to be established, but any progress the Trust is able to make in this area would be of relevance.

6.2 Tree Planting

Last year we planted over 100 trees and this included willow cuttings from native willows growing on the river. We plan to add to this over the next few years to try and improve the bank side over head cover where trees are thin on the ground.

6.3 *Fish Refuges*

The EA helped us install half log fish refuges last year. The introduction of this type of sub-surface woody cover is of interest to improve stretches of the river where too much tidying up has been done in the past. We will be monitoring the success of what went in and looking at whether other material could be introduced.

6.4 *Himalayan Balsam control*

We have embarked on a limited amount of this to trial a few approaches with a view to trying to make inroads into the infestation. Fencing does exacerbate the problem. This will be on going over the next year or two with the possibility we make look for financial help to blitz the main problem.

6.5 *Weed management*

We are fortunate in having healthy ranunculus growth in most years and we have an ongoing yearly management activity to learn how to manage it for fish cover and fly life. Understanding the factors which affect growth and seasonal survival is not easy and the 'project' is as much about acquiring experience and wisdom as much as anything else.

6.6 *Owl box sites*

To compliment the habitat diversification work we are looking at pure none fish related wild life improvements. One such activity is to install owl boxes for barn owls in structures near the river in the hope that this may encourage barn owls to become resident. We were fortunate in having a pair successfully nest near the river three years ago. Fishing the river with barn owls hunting the river bank is pure magic !