

Environmental improvement across a whole catchment: Esk Valley

Farmers across the catchment are working together to implement solutions to improve the water quality in the Esk Valley. The river contains salmon and trout and efforts are underway to boost the freshwater pearl mussels and migratory fish through tackling problems with sediment and pollutants.



Summary

The network covers the whole catchment and 30% of the land area is farmed by Countryside Stewardship Facilitation Fund (CSFF) network members. A key focus is what can be done to improve water quality across the catchment, especially as it is a salmon and trout river and sediment in the water is a major factor in the lack of recruitment of juvenile migratory fish. Water quality is generally good across the catchment and of Good Ecological Status according to the Water Framework Directive. Many other additional environmental improvements have been added; sedimentation, nitrate and phosphate pollution due to the agricultural and farming activities in the area, and complement the main focus. For example wading birds benefit from the network tackling issues of water quality.

Objectives

- Support for the Pearl Mussel and Salmon Recovery Project.
- Improvements to water quality across the whole catchment by tackling sediment and pollution issues.
- Maintenance and support for historic and traditional National Park landscapes and features.
- Address disconnect between maintenance of the iconic traditional landscapes in the catchment and the systems designed to reward this
- Improving skills and understanding of issues and the measures to tackle them



Credit: F. Hugill



Credit: Creative Commons

Problem description

There is a long history of action in the River Esk catchment seeking to improve its ecological status so that an iconic species previously found in the river such as the Freshwater Pearl Mussel and species such as salmon and migratory trout do not ultimately go extinct. As a salmon and trout river that has supported recreational fishing, previous action and funding has often focused at the economic level.

The CSFF is focused on the environmental and ecological aspects of the catchment, specifically from the perspective of those farming and managing the land. The CSFF aims to support efforts by the Esk Pearl Mussel and Salmon Recovery Project to re-introduce the Pearl Mussel to bolster the remnants of the existing population, through improving the water quality in the river. For this iconic species 'good' is not good enough, pristine conditions are required. This needs collective action from farmers in both upper and lower reaches of the catchment to reduce pollution and sedimentation problems.

COLLECTIVE



PUBLIC GOODS



Water quality



Pearl mussel; Migratory fish species' juvenile recruitment to the river



Cultural heritage



Landscape and scenery



Soil quality (and health)



Rural viability and vitality

Data and Facts - Contract

Participation: 59 farms are involved in the contract solution at the current time. The area of implementation is the Esk Valley catchment, including both upper and lower reaches. The total land area encompassed by the network is 10,514 hectares.

Involved parties: Three major types of partners are involved in the CSFF group; farmers, network facilitator and funding body. The facilitator of the group is employed to bring the group together, organise meetings and invite key stakeholders and experts to provide training as well as bring new members into the scheme. They also oversee the expenses of participants and will apply for funding renewal as appropriate. Natural England provides funding, oversees the functioning of the group and provides crucial information on pressing environmental needs in the region and the actions of other CSFF groups in the area.

Indirect effects: Riparian birds benefit from the actions taken, despite these not being a key focus of the actions.

Management requirements for farmers: The maximum available annual grant is £50k. While there is no set requirement for numbers of meeting between the members, progress reports are required every quarter along with expenses claims.

Controls/monitoring: Results are not monitored yet, but monitoring and evaluation is conducted through the claim expenses of the CSFF facilitators. Natural England determines whether farmers and the CSFF is offering good value for money.

Conditions of participation: The minimum number of farmers needed for a CSFF to be set up and be eligible for funding is 4 and the network should have no more than 80 members. The land covered by all members' farms must exceed 2,000 hectares; land cannot be included if it belongs to a public body. The farmer's/land manager's land should be part of a catchment area to be included.

Context features

Landscape and climate: The area encompassed by the Esk Valley CSFF is the whole Esk Catchment which extends from the source of the Esk all the way to the sea at Whitby: it is inside the National Park. This catchment includes a range of land types from heather moorland to arable fields, and includes SSSI, SPA and SAC-designated land as well as highly intensive farmland. There is little

woodland in the region, with less than 13% of the total region designated as woodland; what there is tends to be in linear strips. In the 1950/60s the Esk Valley was noted for its haymeadows; there are few left now.

As much of the farming is very intensive, low numbers of farmers have joined the Countryside Stewardship payment scheme. The activities carried out by those who have joined are limited in the payments they attract and are mainly related to physical features such as walls that are iconic of the wider region. The majority of the river is under Good Ecological Status according to the Water Framework Directive while the grassland soil pH is 6.0 for more than 68% in the Esk Valley in comparison to the 53% average for the whole of the UK.

Farm structure: Along the entire length of the catchment the types of farms vary according to the land and immediate microclimate. In the upper reaches there are moorland flocks of sheep and herds of beef cattle. Lower down in the valley dairy farms are seen; over time there has been a shift to a smaller number of larger dairy farms of which there are 8 in the group. There are some small pockets of arable land in the valley as well. The farms tend to be small compared to the average size of farms in the Yorkshire Dales, with an average farm size of about 100 hectares. The farms are a mixture of owner-occupied and tenanted and this is seen across the whole catchment. Land farmed by group members covers approximately 1/3 of the whole Esk catchment. Large numbers of the farmers are reliant upon farm payments to stay in operation, and many of the farmers also have second jobs to bring in additional income.



Credit: F. Hugill



Recreational access / improvements to physical and mental health

Quality and security of products

CONTRACT

Government (with EU-funding)
public – private

Contract conclusion:
Written agreement



Payment mechanism:
incentive payments



Funding/Payments:
Government funding, up to £500 per year, per farmer in the CSFF group

Length of contract: 3 years

length of participation: 3 years so far



Start of the program: 2017

End: 2020

LOCATION

UNITED KINGDOM



North Yorkshire UKE2



ASSESSMENT OF CONTRACT SOLUTION



There are a mixture of different contract solutions being operated by CSFF members and an overall assessment of their success is not possible at this time. The Esk Valley CSFF group of farmers benefits from the proximity with other CSFFs that allow for positive spill-overs and common meetings between the groups. The expected target of water quality improvements cannot be evaluated but attendance has been solid and several meetings have taken place. Group participation and numbers have facilitated the uptake of funding to conduct capital works of £300k value.

SWOT analysis

Main Strengths

1. Group identity: led to securing additional income for environmental management, stewardship and training
2. At least 30% of the land in the catchment area is farmed by members of the CSFF (large enough to influence environmental conditions)
3. More members in the upper part of the catchment results in better delivery of environmental benefits

Main Weaknesses

1. Lack of more farmers signing up to the group as they are uncertain of the benefits
2. Lack of consensus between group farmers on changing/improving farming practices; not all see a personal benefit from ushering changes

Main Opportunities

1. Good knowledge basis due to free soil testing allows for a good start to the network and solid goals to be set
2. Farmers taking ownership of stewardship by embracing the environmental objectives set by governmental organisations

Main Threats

1. Some concerns about stewardship in post-Brexit agriculture
2. A focus on iconic fish species requires excellent water quality; current water quality is not good enough so investing may not yield benefits as high as they might be