North Devon Focus Area Estuary Pollution Project Summary Document 2019 - 2020

Purpose of report

To review the North Devon Focus Area Estuary Pollution Project's third year, which seeks to reduce diffuse pollution arising from agricultural practices within the River Caen Catchment.

The project was commissioned by Devon County Council through the North Devon Biosphere Reserve Partnership and funded by the Environment Agency on behalf of the Water Environment Investment Fund, which supports the Taw Torridge Catchment Partnership.

The project delivery and reporting were overseen by the North Devon's UNESCO World Biosphere Reserve.

Report compiled by Sophia Craddock (SJC Consultancy) Estuary Project Manager with contributions and additions from other members involved in the project.

All photographs by Sophia Craddock or Phil Metcalfe unless otherwise stated.

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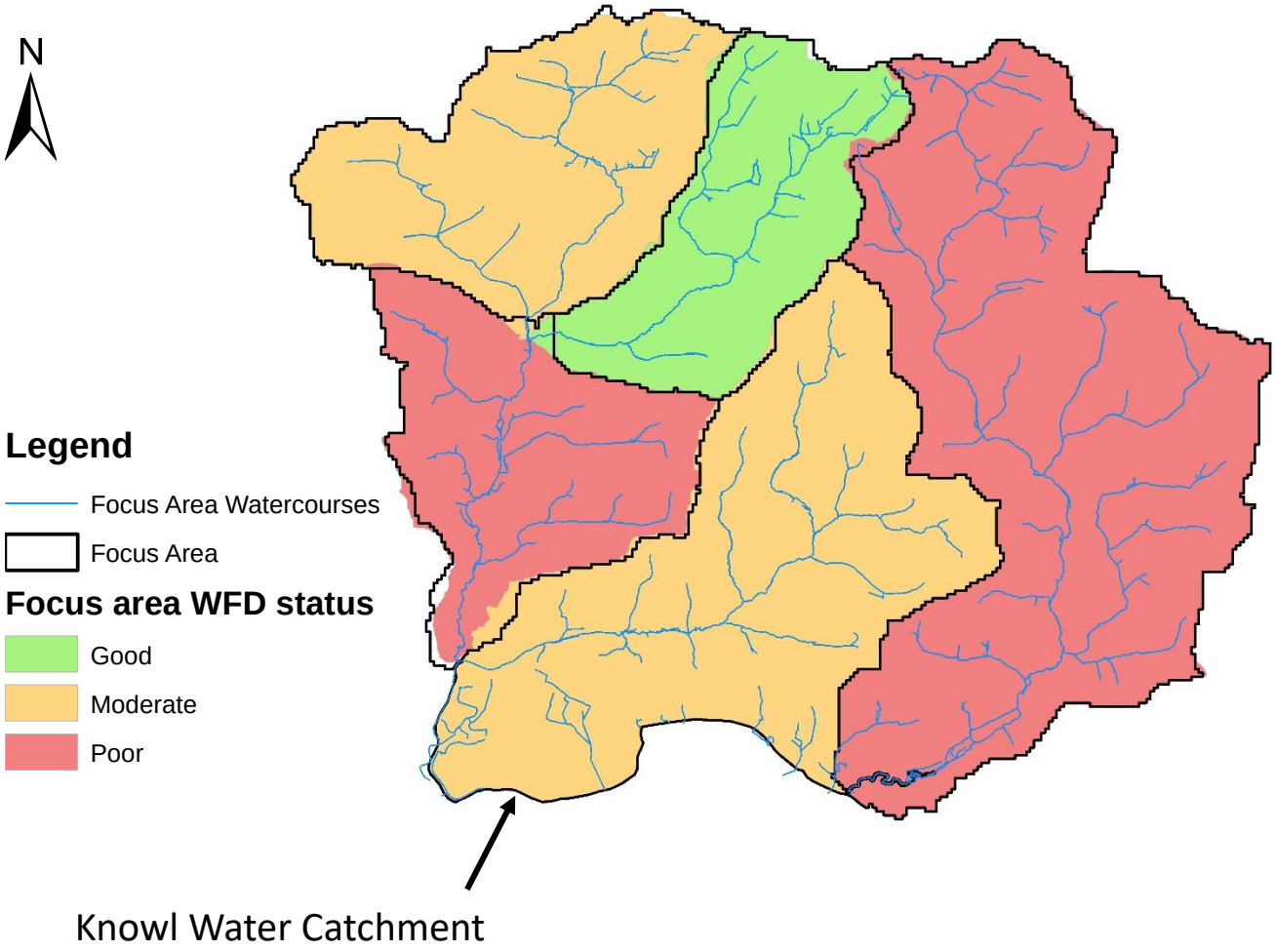
1. Introduction

The North Devon Focus Area Estuary Pollution Project's (NDFAEPP) primary aims are to improve water quality and reduce soil erosion from agricultural land. This is achieved by installing various yard and in-field interventions to separate clean and dirty waters and reduce both sediment and FIO input into the watercourse. The secondary aim for the project is to install natural flood management (NFM) measures such as log dams and attenuation features, where suitable, to reduce the impact of flooding to downstream communities. Additional benefits also include improvements to on farm biodiversity and habitat connectivity. The overarching aim of the project is to also support the Environment Agency's work to achieve a step change in water quality measurements for particular catchments that are failing with a 'poor' Water Framework Directive (WFD) status, such as the River Caen. In light of this, now in its second year, the project has identified its focus area as the River Caen, Knowle Water and Bradiford Water Catchments.

2. Project Area

The North Devon Focus Area Project's focus area, the Knowl Water, is shown below against the Water Framework Directive Status data.

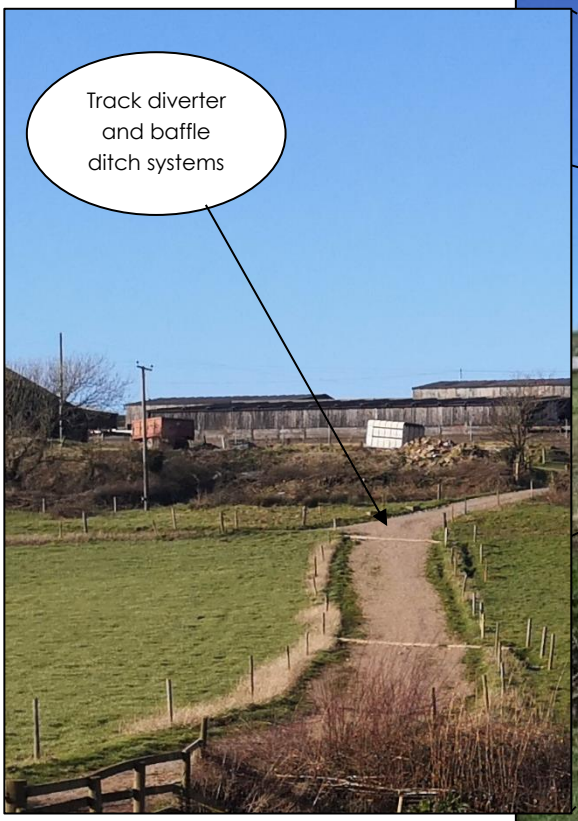


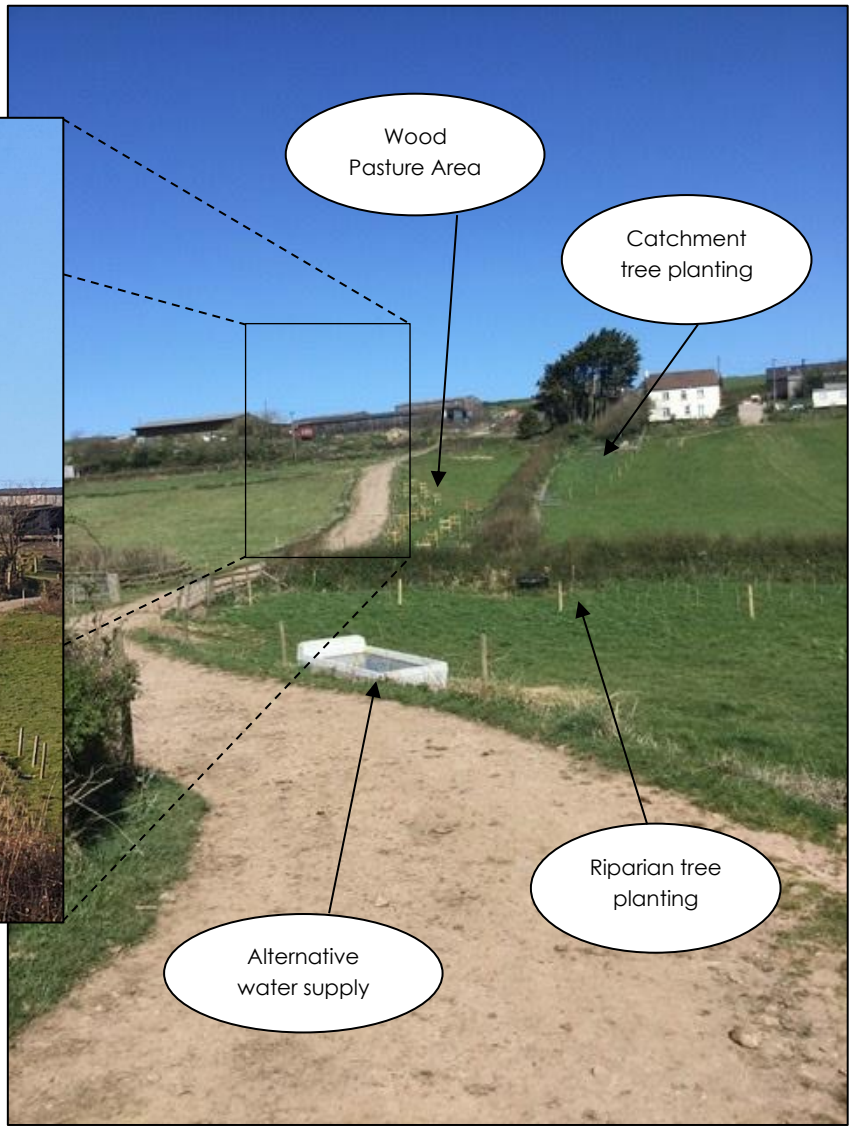
3. Interventions

Some of the interventions the project is able to support, and their associated benefits are depicted below.

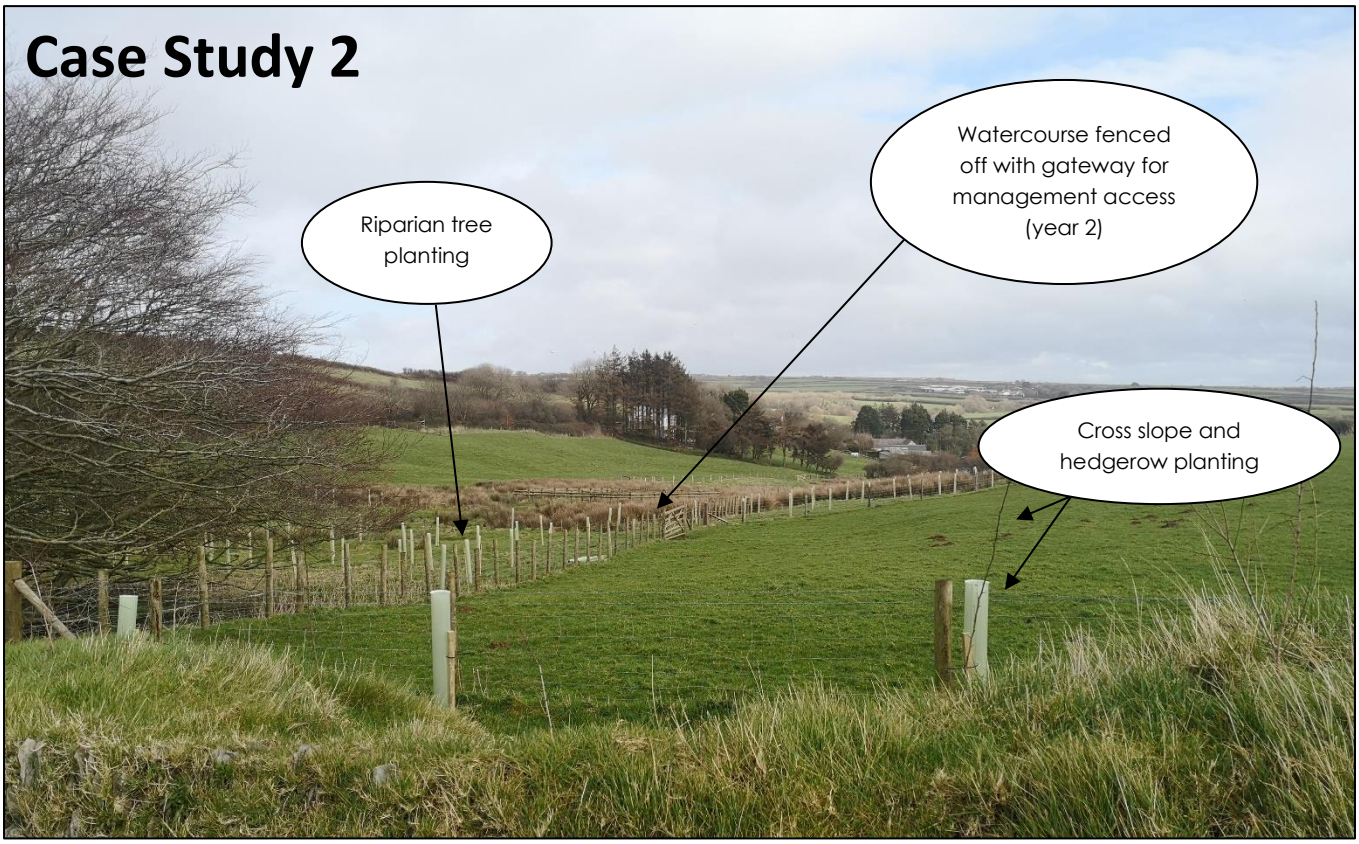
Please find two case study examples undertaken as part of this year's project shown below.

Case Study 1



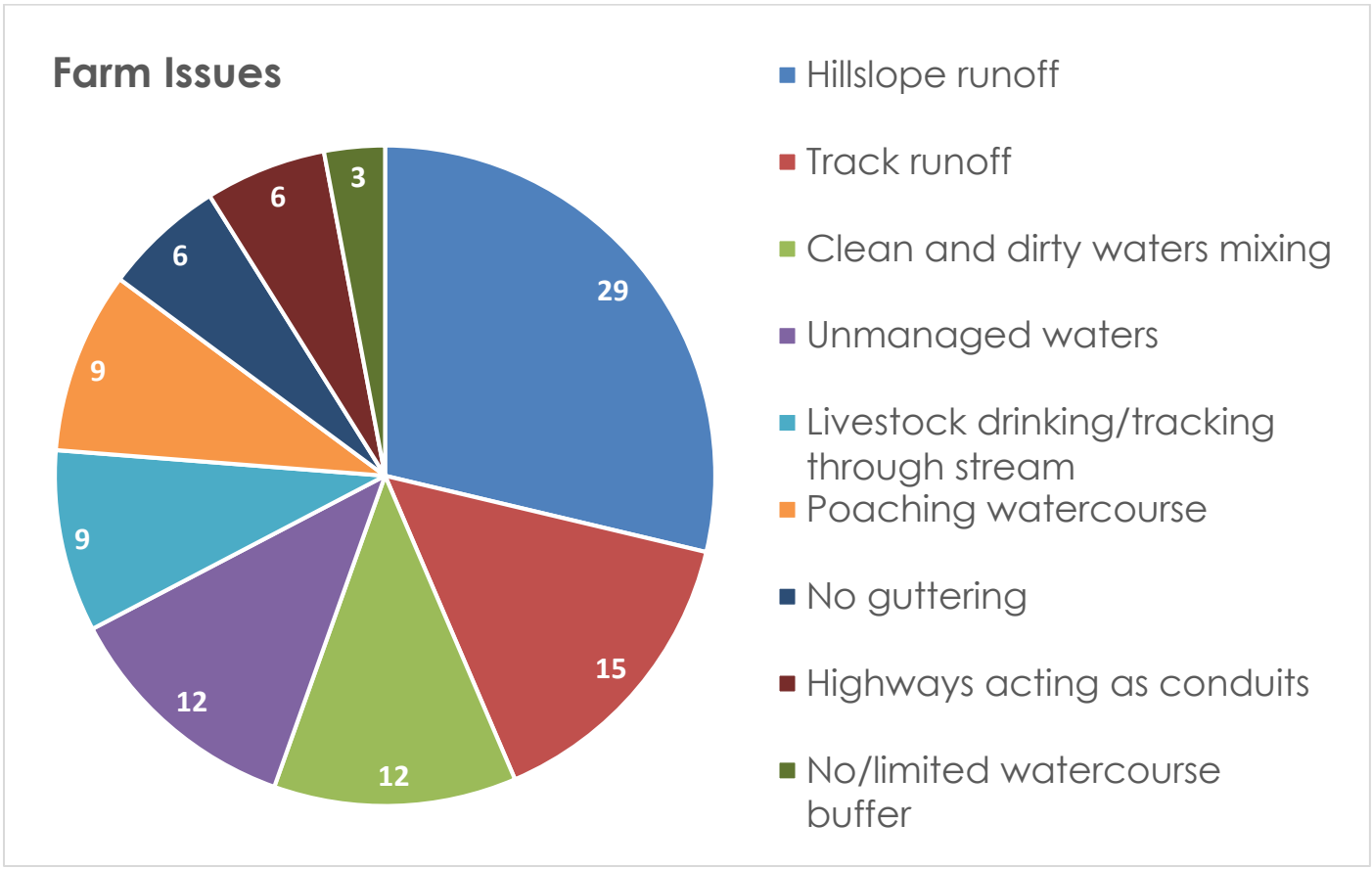


Case Study 2

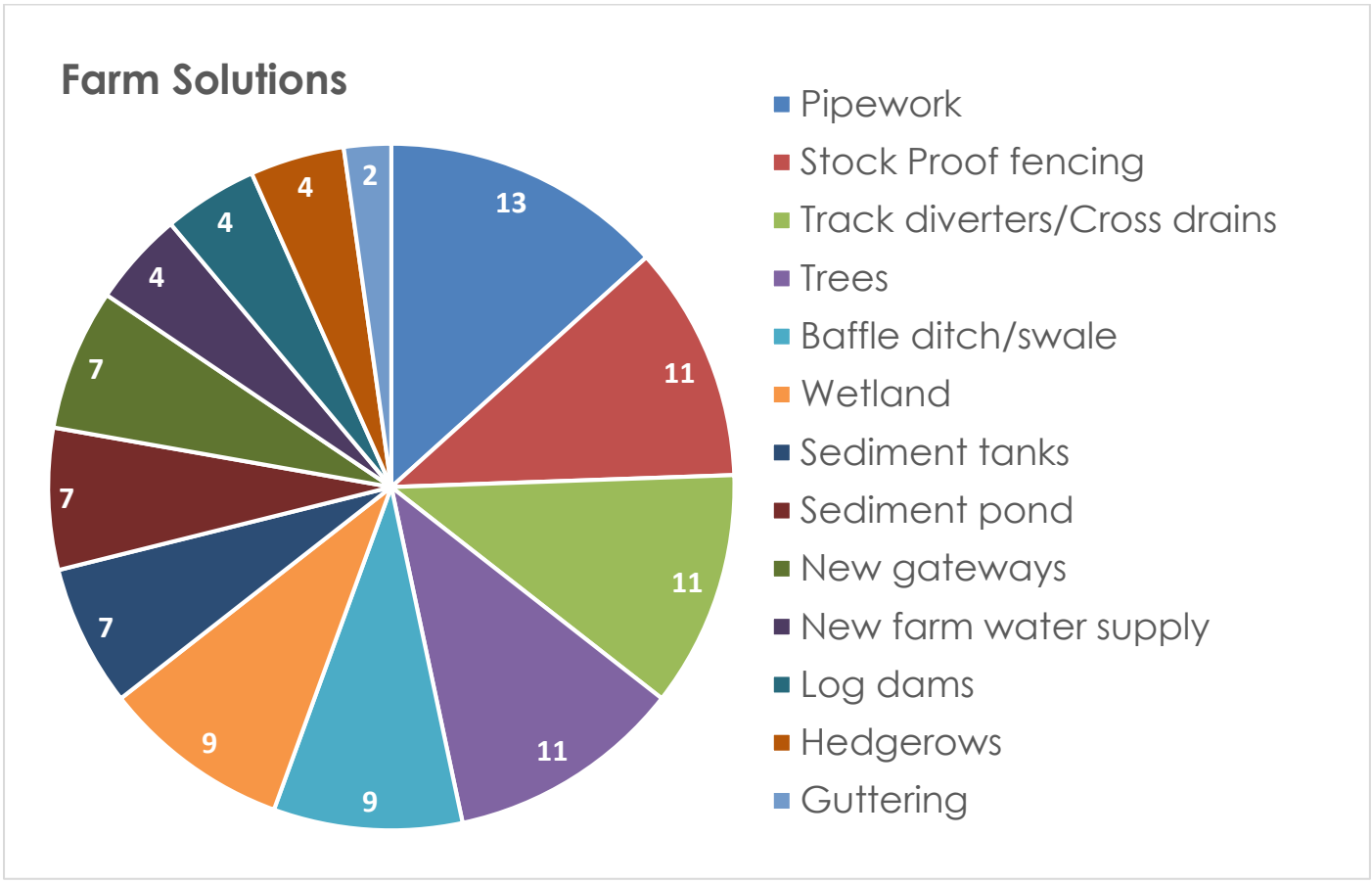


4. Project Summary

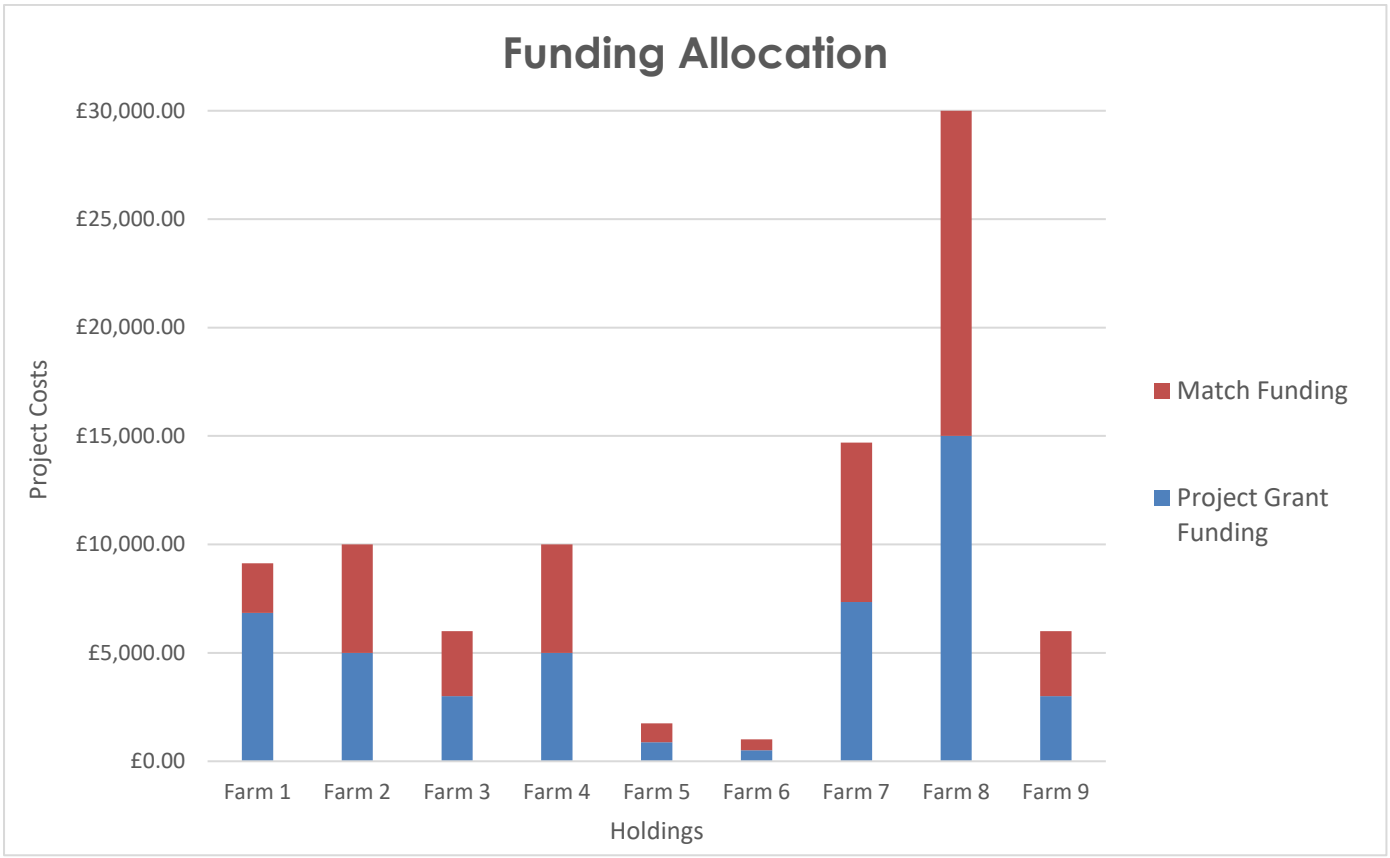
The issues found at the holdings visited by the project are shown below.

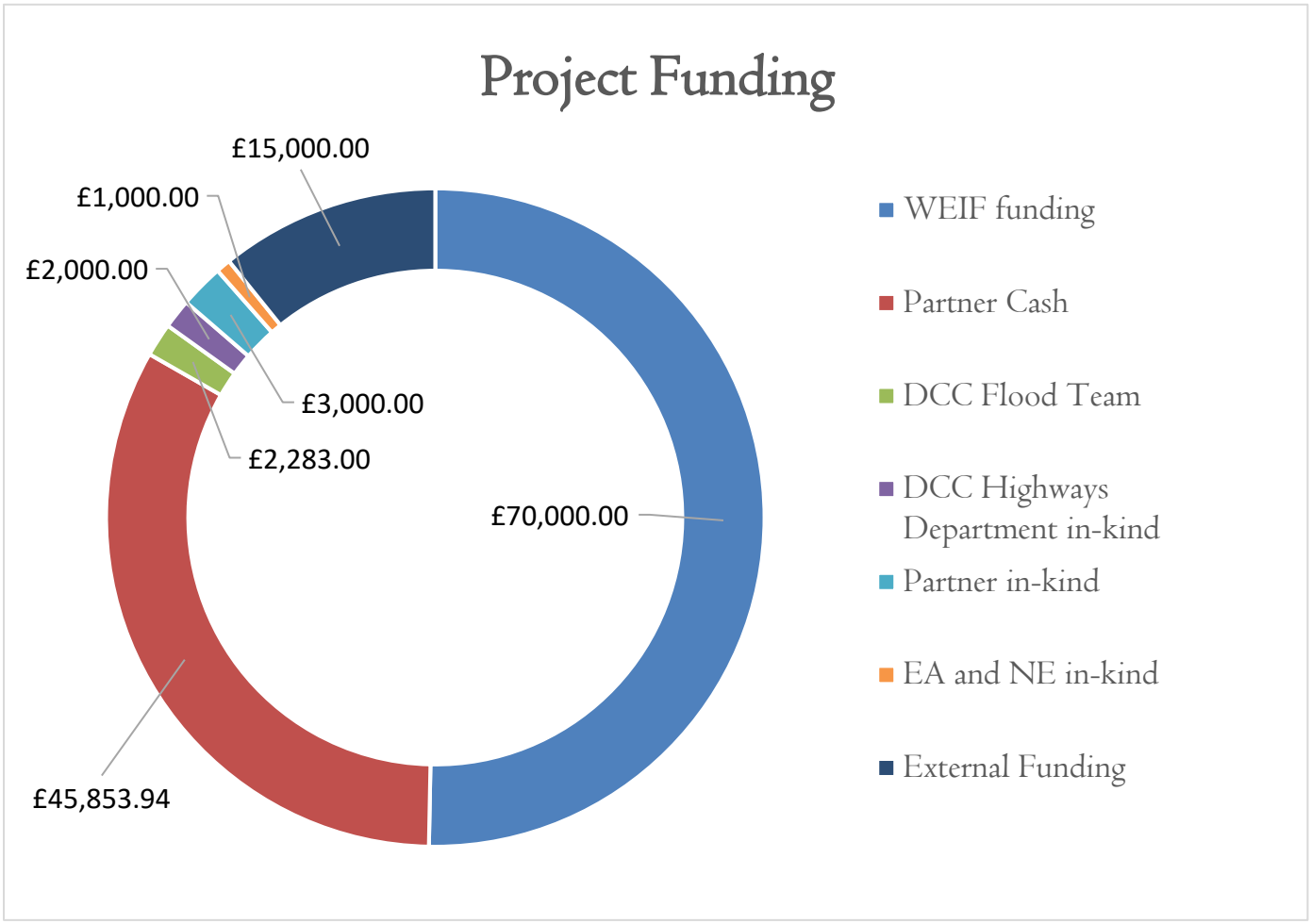


The number of holdings that adopted particular interventions can be found below.



The total amount of grant funding available to landowners this project year was £52,500 and, after a cost-benefit analysis of each holdings proposed scheme, funds were competitively allocated to the successful holdings. The graph below highlights the farms that were grant funded and separates grant and match funding is outlined below.





5. Focus Area Extension Preparatory Work

Preparatory work was also undertaken for a potential extension to the Focus Area project in the Rye and the Chelfham streams.

'Hot Spot' Highways Survey

The project also conducted a Highways runoff 'Hot Spot' survey which produced a separate documentation of its findings. This document outlines and depicts the present sediment loaded runoff issues within the Rye and Chelfham catchments and provides a baseline of which future work here can aim to rectify such issues. These issues may be rectified through a variety of means, such as, the adaptation of the interventions highlighted within this report and others suitable to this catchment and its soil types, geology etc.

The 'Hot Spot' Highways Survey document can be found attached with this report.

Catchment Scoping and Liaison

Letters were sent out to the Rye and Chelfham catchments to scope out initial project engagement in the area and aimed to get landowners and land managers within the catchments to start thinking more about issues on their farm, and how they may work with the project to solve these problems.

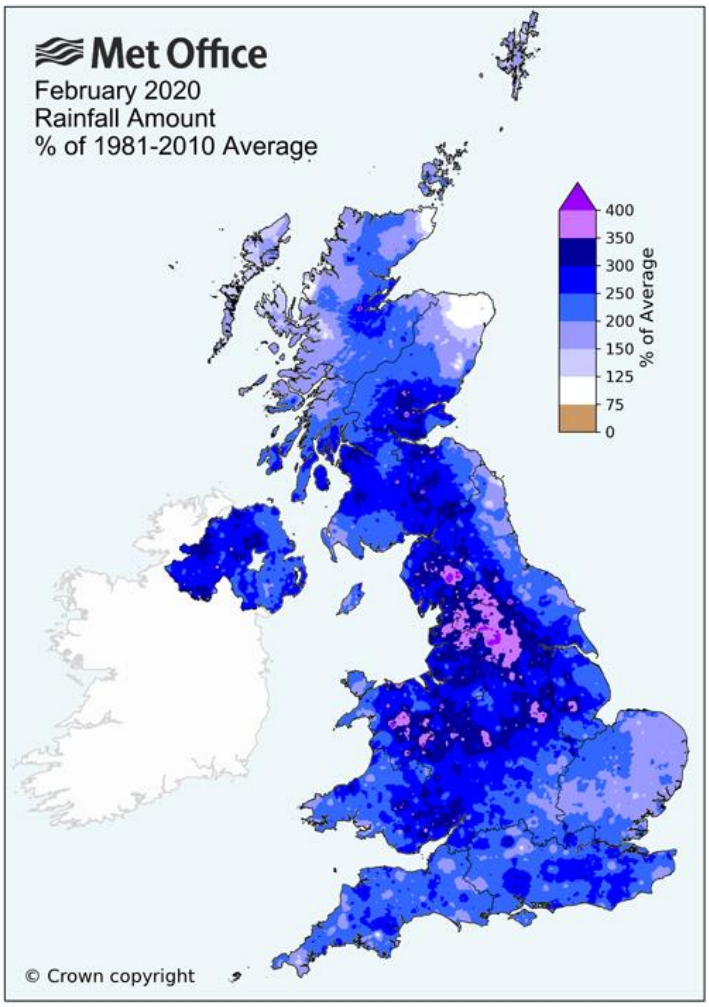
By using social media, the project was able to reach a wider audience and explain the aims of the project in a different and informal way to try and contact 'hard to reach' landowners within the catchment. We used the North Devon Biosphere's newsletter, Twitter and Instagram accounts for the maximum possible outreach.

6. Lessons Learnt and Next Steps

The lessons learnt from this year's project are outlined below:

1. For personal reasons, unfortunately two holdings were unable to go ahead with their proposed works as outlined within their report, resulting in one nullification of the grant agreement letter. It was determined that there was no project change or improvement that could prevent the same issue from occurring again, as this was outside of the projects control.
2. One of the above holdings and an additional holding were also as not able to go ahead with the majority, and in one case all, of the works due to the impact of TB on their business and supplier chain uncertainty. It was determined that there was no project change or improvement that could prevent the same issue from occurring again, as this was outside of the projects control.

3. Another holding was unable to go ahead with their proposed works due to conflict of interest between family members who both run the farm. It was determined that management should have made clear and originally been provided with the knowledge and opportunity to meet with all interested parties concerned.
4. Two further holdings also were unable to go ahead with the majority of their proposed works due to the unforeseen circumstances regarding unprecedented weather events. Please see (right) the rainfall amounts as depicted by the Met Office. It was determined that there was no project change or improvement within the year that could prevent the same issue from occurring again, as this was outside of the projects control. However, if the project was to increase the project timescale, to include the summer months, landowners would be able to undertake sensitive works by watercourses in a drier period and not cause undue damage to their land or soil mobilisation.



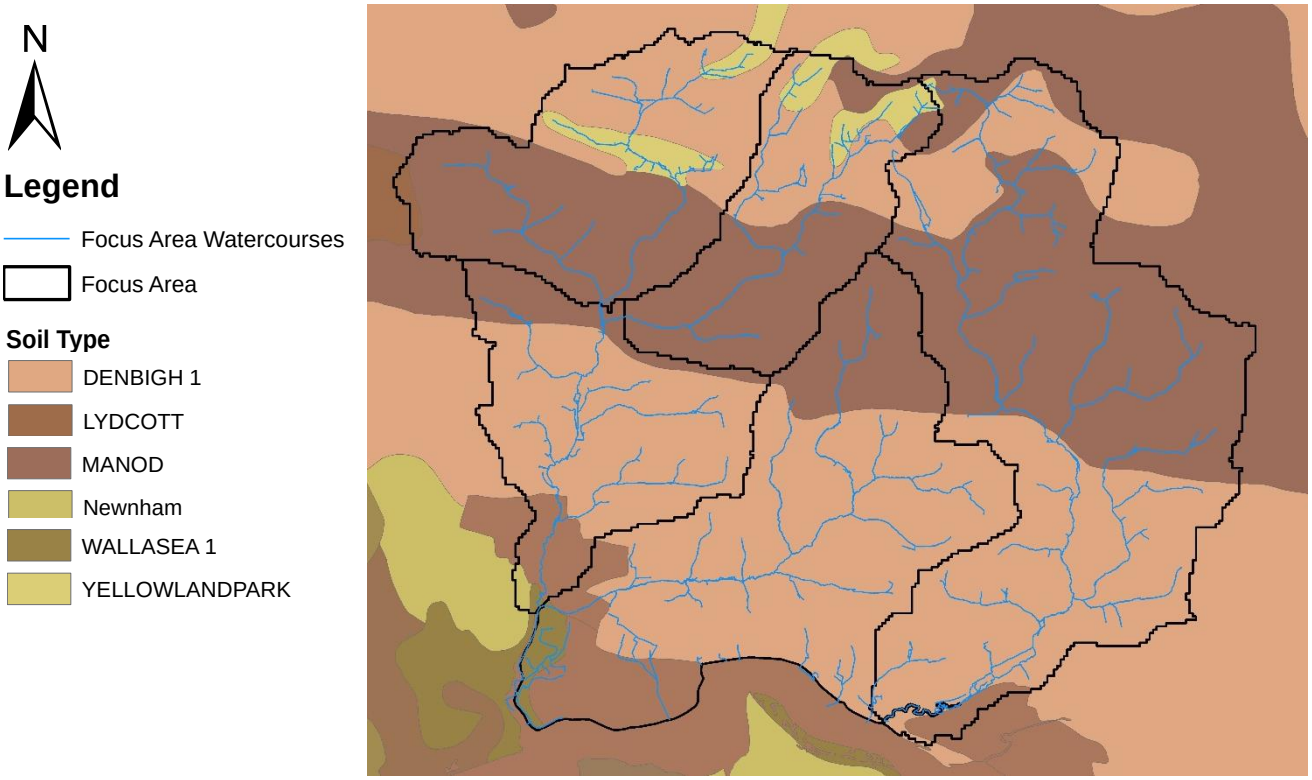
The next steps for the North Devon Focus Area Project are outlined below:

1. Based on the 'Hot Spot' Highways Survey and Report carried out, the project supports the evidence collated and supports the relocation of the focus area to the catchments of the Rye and Chelfham streams while trying to work with 'hard to reach' landowners throughout to projects wider area.
2. In light of the data collected through the 'Hot Spot' Highways Survey, it is supported by the project that there is also the opportunity for an in-depth assessment of the runoff, sedimentation and pollution risk within the Rye and Chelfham catchments.

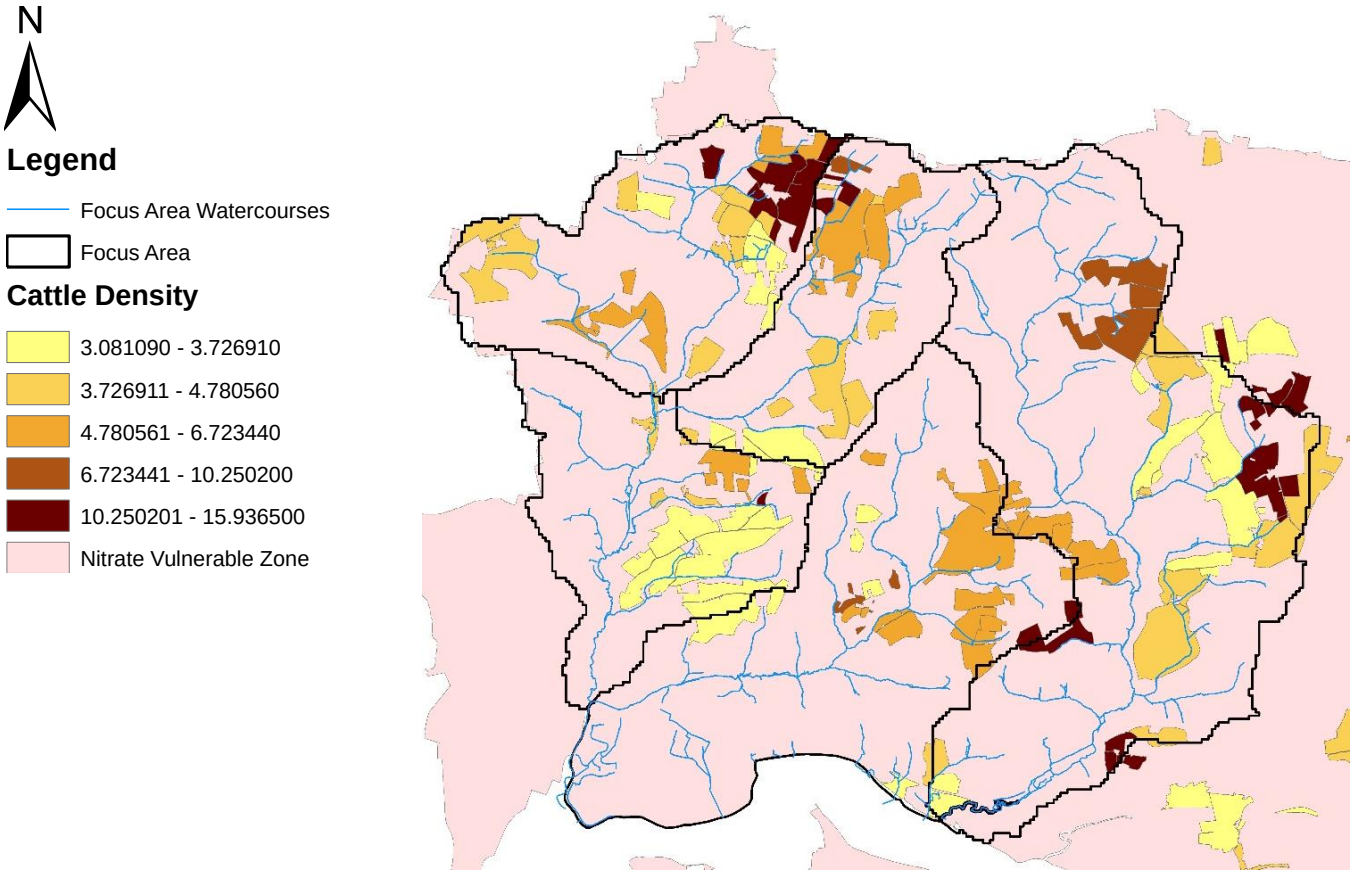
Therefore, this report concludes its summary of the implemented 45 interventions to improve water quality and reduce flood risk to downstream communities in the River Caen and Knowl Water focus catchments.

7. Appendix – Mapping

Focus Area and Soil Type



Focus Area Nitrate Vulnerable Zone and Cattle Density

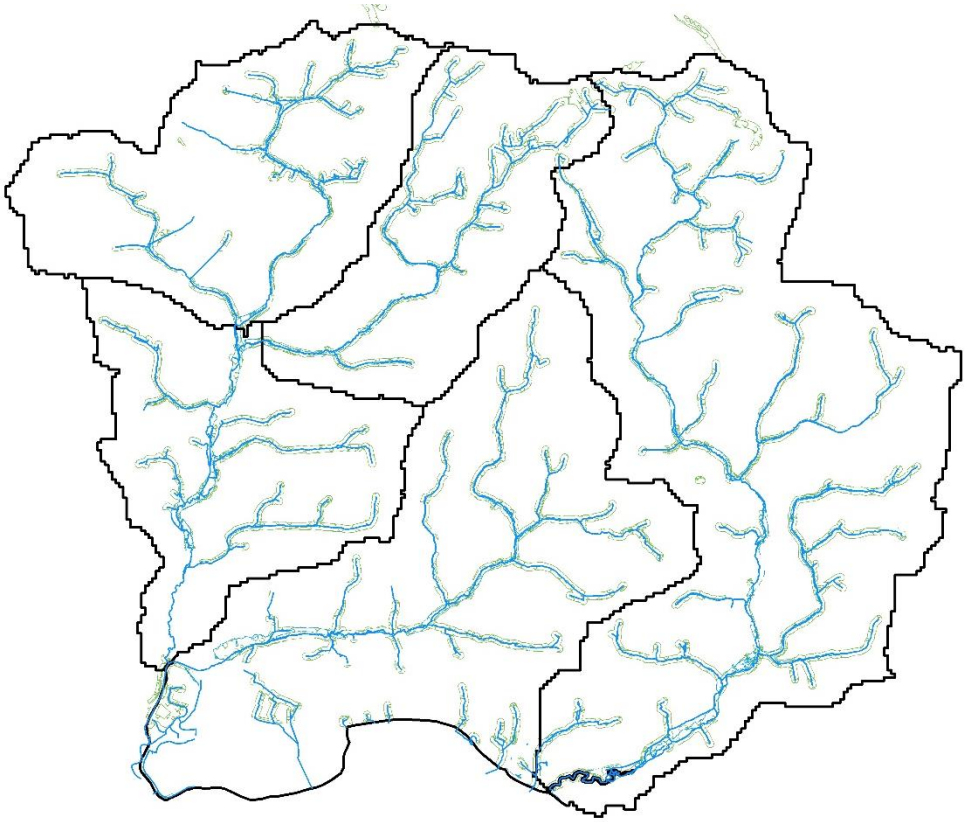


Focus Area WWNP Mapping

N

Legend

- Focus Area Watercourses
- Focus Area
- Tree Planting Floodplain
- Tree Planting Riparian



Focus Area Constraints Map: Present Important Ecological Features

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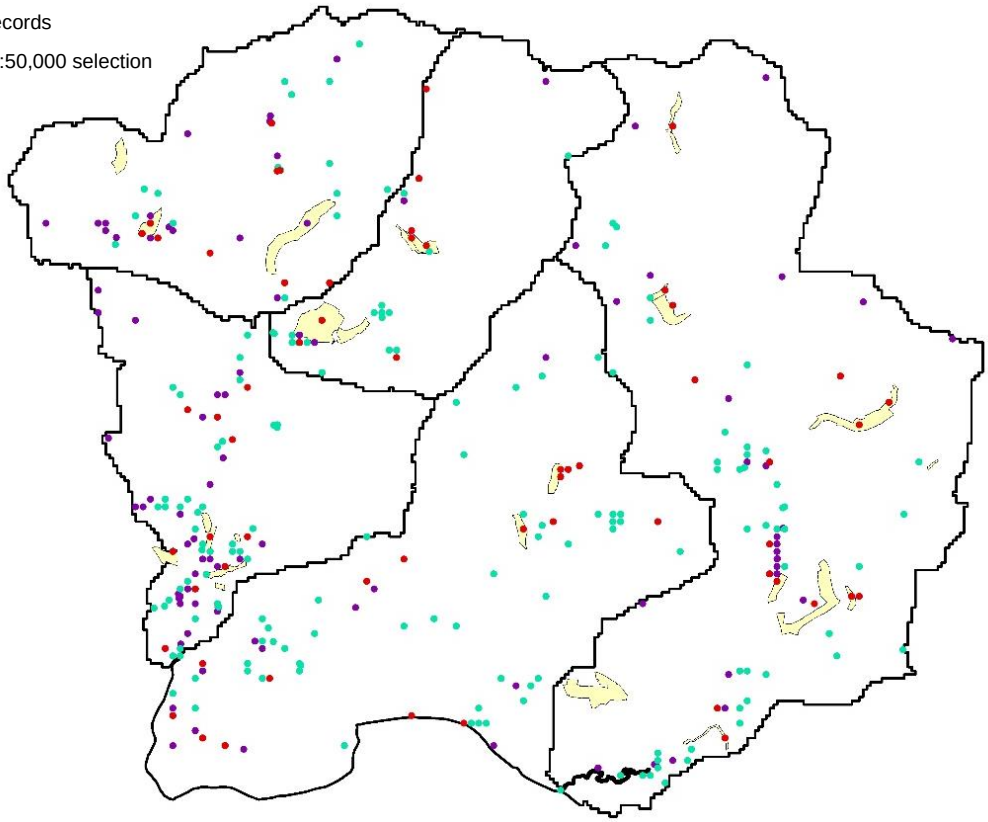
Legend

- Rare Terrestrial Species
- Terrestrial Planning Species Records
- Terrestrial Legally Protected Species Records
- County Wildlife Sites (CWS) polygon >1:50,000 selection
- Focus Area



Focus Area Constraints Map: Present Important Historical Features