South Cumbria Catchment Management Group & Project Working Group: Evidence & Decision Document

Community: Hawkshead

Version: May 2019

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Summary

Flood events are mainly all 1 in 100-year events and currently the evidence doesn't support funding for Natural Flood Management options above this.

Flood Risk & Drought

Evidence Checklist

Evidence Checklist	Who	Comments	Last updated
Community Matrix	CMG Host	Ranked 10 out of 45 communities, with a score of 23. Has flooded 2 times in the past 20 years (2009 and 2015). 1 property was flooded in 2015. It is not included o the communities at risk list based on NaFRA classifications. No businesses were recorded as flooding in 2015. Relatively small sub-catchment area. WFD status = poor (2016)	Feb. 2019
Surface Water Plan (2012)	CCC	Not mentioned in SwMP.	Feb 2019.
Section 19 Report	CCC	4 Flood Investigation Reports: No's. 330, 519, 327 & 305 330: Red Lion: Multiple drainage issues 519: Colthouse, flood 10/2017. Ordinary watercourse. 2009,2012 & 2015 significant events. 327: 5th Dec 2015: No info. 305: Low Wray: No info. Beck alongside Vicarage Lane is culverted under Hawkhead. Believe it is exceeding capacity and flooding the town.	Feb 2019.
Flood Risk Layers/ Models	EA	See catchment maps.	Feb 2019.
Modelling (e.g. NFM Models)	All	Not available.	Feb 2019.
Making Space for Water Hotspots	CCC	3 hotspots: 25 (high priority), 447 and 429 (medium priority). 25: High priority: Red Lion yard and Flag Street. 3 residential, 12 shops and doctors surgery. SW water trapped in lower area. EA new grid installed. Flood action group set up to obtain resistance and resilience measures. A couple of extra culverts to take flow across the road or scheme upstream to divert the flow would help. 447: Colthouse: 3 properties at risk. Culverted watercourse is constrained under properties. There is a blocked up 'relief' culvert which needs investigating. 429: Low Wray: 2 properties. Windermere level rose causing backwater on already high Blelham Beck. UU installed a non-return value on sewer. District council looked at PLP (March 2017).	February 2019.

Catchment area & Communities at risk (upstream or downstream)	CMG Host	See catchment maps. The Hawkshead catchment feeds into Windermere and may link/ influence lake levels. Communities downstream include Newby Bridge and Backbarrow.	Feb 2019
GIS Layers: e.g. Historic flood outline Risk of flooding (depth)	CMG Host	See catchment maps	Feb 2019
EA Asset Maintenance Programme	EA		April 2019
Wastewater flooding issues	UU	Confidential information. Will be discussed at PWG (May 2019).	
Local Knowledge	Community Reps/ Parish Councils	Hawkshead Flood Action Group	

Existing Projects or Interventions for Flood Risk

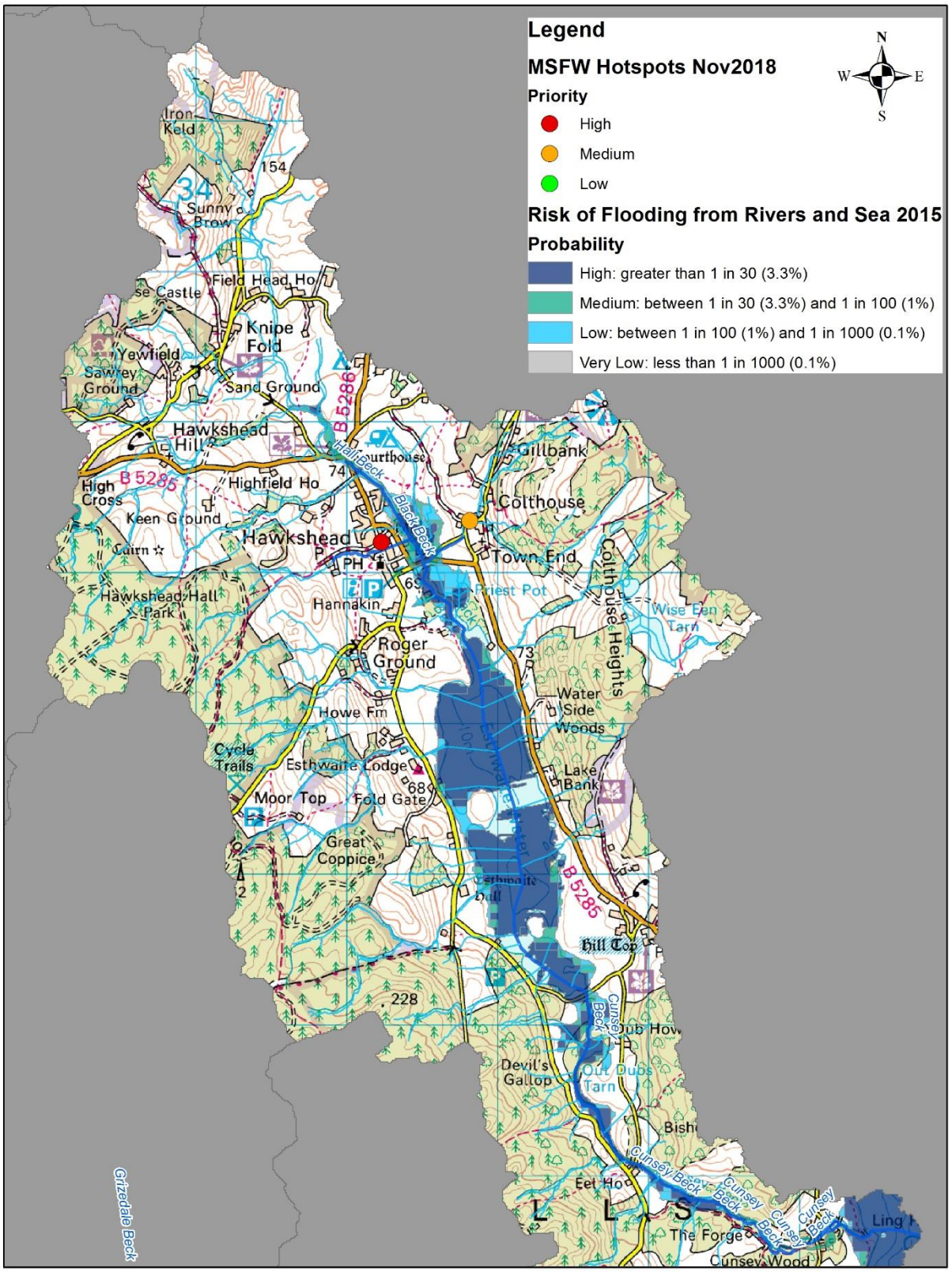
EA FCRM Scheme? Yes/No

There are currently no projects on the Phase I list for Hawkshead

Project Lead	**Project Description**	**Completion Date**

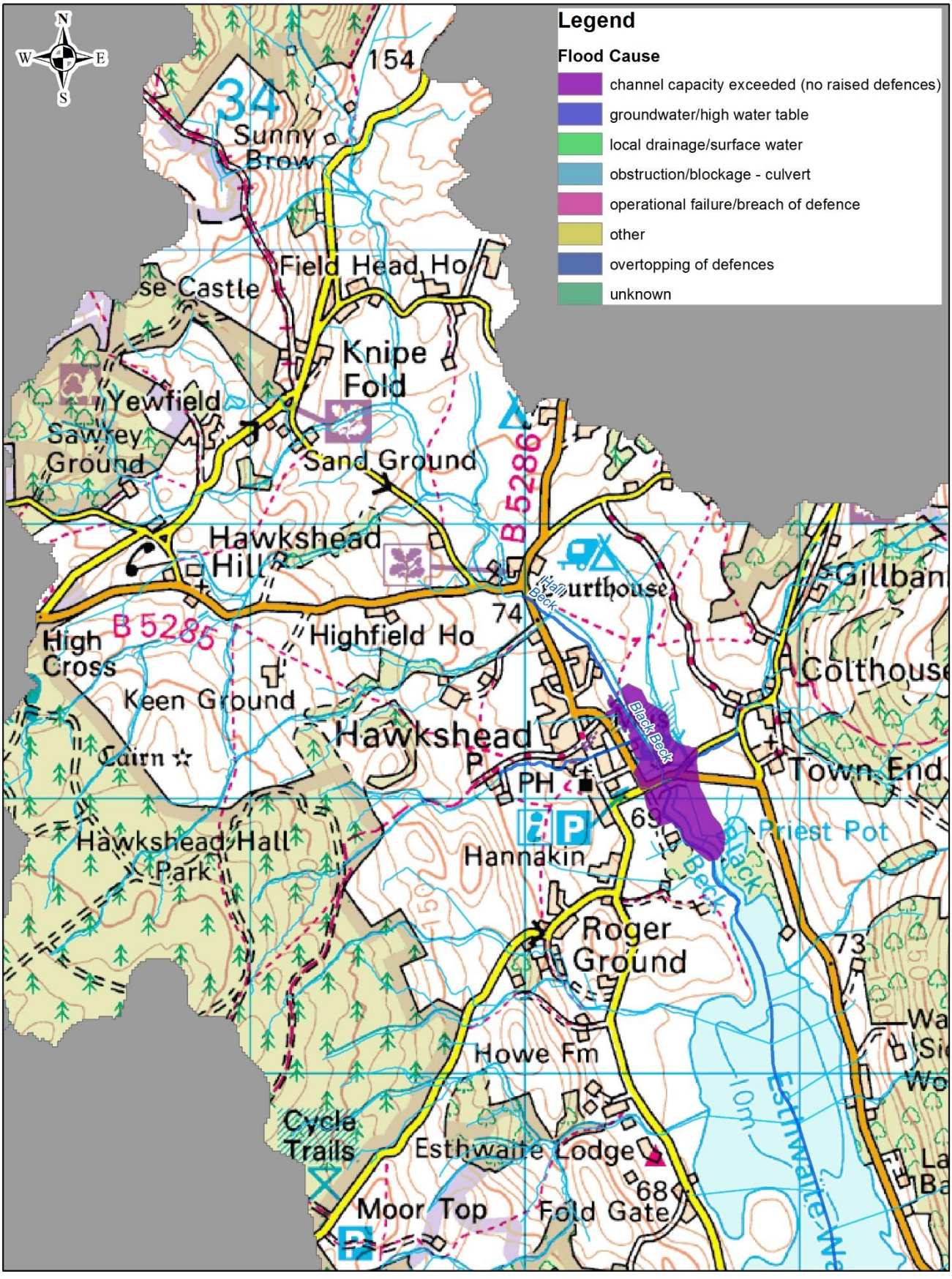
Catchment Maps:

Hawkshead - Catchment Map



Map produced by Jayne Wilkinson: SCRT.Feb 2019

Hawkshead - Recorded Flood Outline



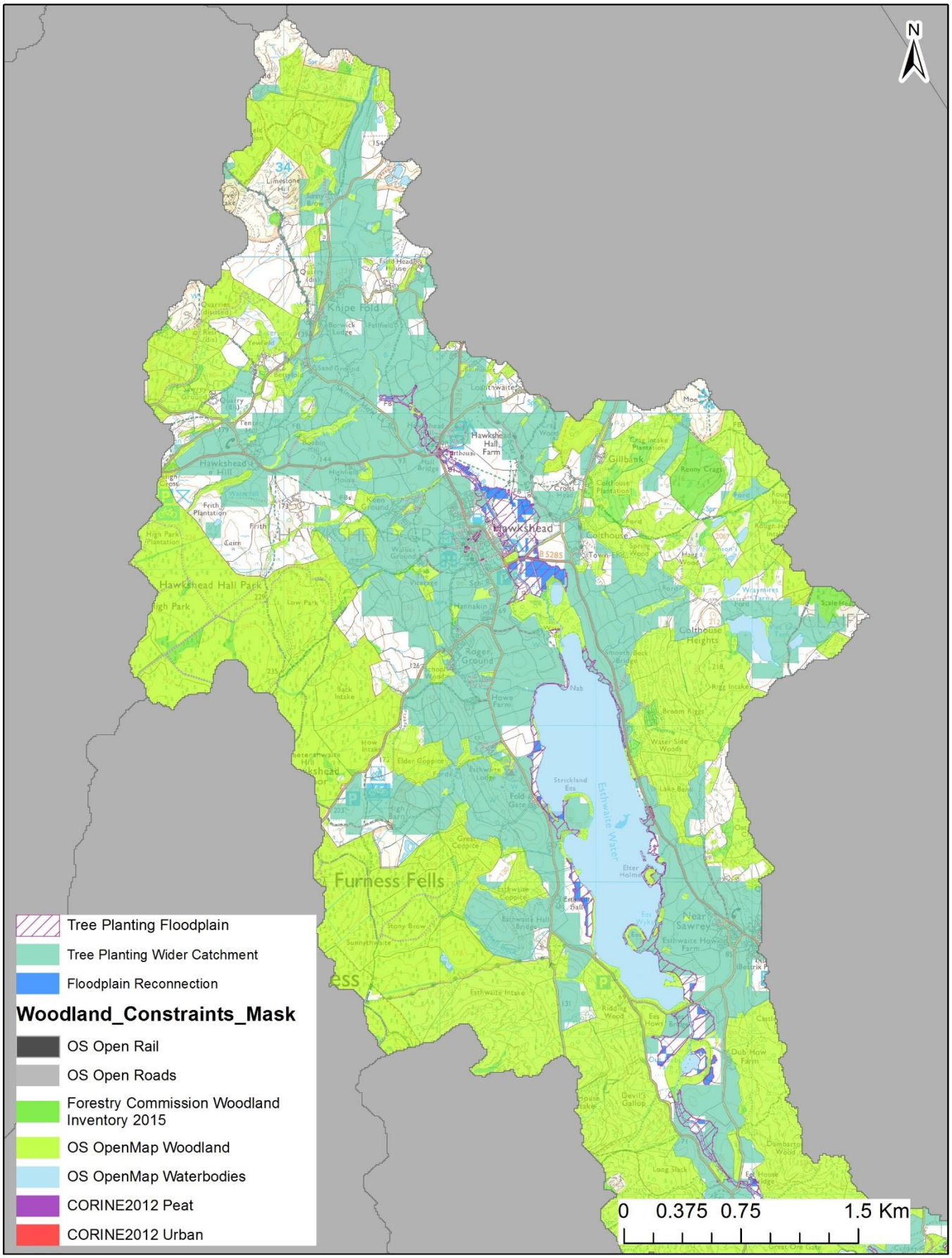
0 0.325 0.65 1.3 Kilometers

Map produced by Jayne Wilkinson: SCRT.Feb 2019

South Cumbria Rivers Trust

Working With Natural Processes
Hawkshead

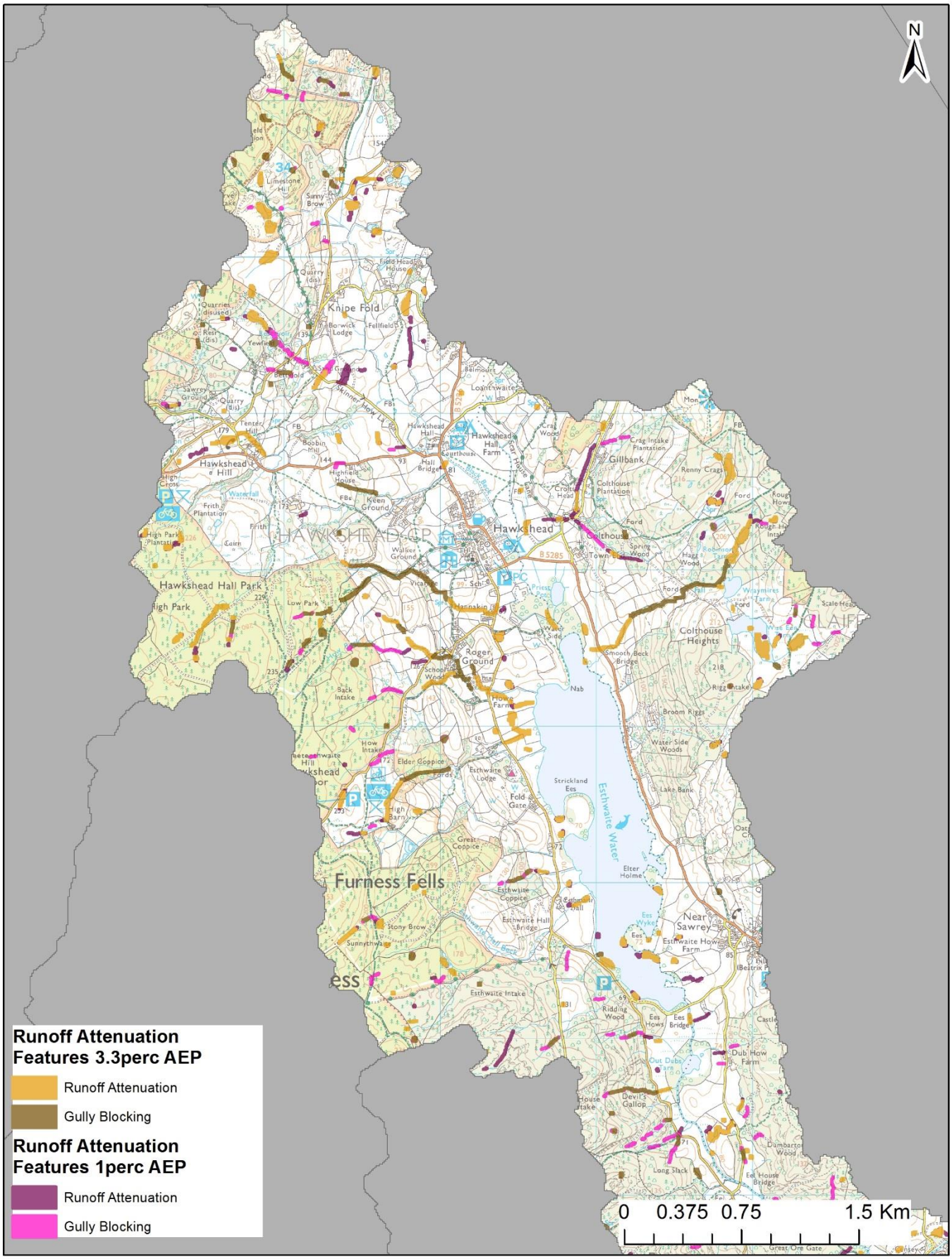
Catchment Based Approach
Partnerships for Action



South Cumbria Rivers Trust

Working With Natural Processes
Run-off Attenuation Features

Catchment Based Approach
Partnerships for Action



Working With Natural Processes Mapping (Environment Agency)

The following text is taken from the guidance associated with the map layers.

WWNP Wider Catchment Woodland Potential is our best estimate of locations where there are slowly permeable soils, where scrub and tree planting may be most effective to increase infiltration and hydrological losses. The dataset is designed to support signposting of areas not already wooded. The dataset is based upon the 1:50k BGS geology survey, and relies upon identifying drift and bedrock geologies that are characteristic of slowly permeable soils. A set of open access constraints data was used to erase areas which contained existing woodland, watercourses, peat, roads, rail and urban locations.

WWNP Floodplain Reconnection Potential is our best estimate of locations where it may be possible to establish reconnection between a watercourse and its natural floodplain, especially during high flows. The dataset is designed to support signposting of areas where there is currently poor connectivity such that flood waters are constrained to the channel and flood waves may therefore propagate downstream rapidly. The dataset is based upon the Risk of Flooding from Rivers and Sea probability maps, and identifies areas of low and very low probability that are close to a watercourse, but which do not contain residential property or key services. The areas may contain non-residential property so it is important to consider this and recent buildings or defences when considering floodplain reconnection. Locations identified may have more recent building or land use than available data indicates. It is important to note that land ownership and change to flood risk have not been considered, and it may be necessary to model the impacts of significant reconnection.

WWNP Floodplain Woodland Planting Potential is our best estimate of locations where tree planting on the floodplain may be possible, and effective to attenuate flooding. The dataset is designed to support signposting of areas of floodplain not already wooded. The dataset is based upon fluvial Flood Zone 2 of the Flood Map for Planning. A set of open access constraints data was used to erase areas which contained existing woodland, watercourses, peat, roads, rail and urban locations. The information provided is largely based on modelled data and open constraints data, and is therefore indicative rather than specific. Locations identified may have more recent building or land use than available data indicates. It is important to note that land ownership and change to flood risk have not been considered, and it may be necessary to model the impacts of significant planting.

Runoff Attenuation Features Potential is our best estimate of locations of high flow accumulation across the land surface or in smaller channels, where it may be possible to temporarily store water and attenuate flooding during high flows. The dataset is designed to support signposting of areas where to target enhanced storage. It is based upon the Risk of Flooding from Surface Water datasets and identifies areas of high flow accumulations for the 1% Annual Exceedance Probability surface water maps. The areas of ponding or accumulation are between 100 and 5000 metres squared, and have been tagged where they fall on an area of slope steeper than 6% as gully blocking opportunities. All the potential areas have been constrained so that they are not in urban areas or on roads, rails or canals.

CMG Phase II Projects

No projects are currently proposed in this area.

No.	Project Name	Project Lead	Project Description	Project Type	Partners	Additional Benefits	Cost Estimate	Funding Status	Landowner permissions	Timescale	Comments/ Blockers

CaBA Projects

ID	Project Name	Lead Organisation	Description	Status	Duration	Theme 1	Theme 2	Delivers for NFM?	Cost	Funding Source	Partners
37	Esthwaite Catchment Improvement Project	South Cumbria Rivers Trust	This project aims to protect reedbeds by installing fencing to prevent cattle access, reducing shading from overgrown trees, reducing diffuse pollution. Installation of large woody debris on Cunsey Beck to improve fish and invertebrate habitat and flow diversity.	Current	2 years	Habitat & Species	Water Quality		65,000	United Utilities	United Utilities, Natural England, Environment Agency, Lake District National Park Authority, National Trust

Water Quality

Waterbody: Cunsey Beck/ Black Beck

Cycle 2 classifications

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Classification Item	2013	2014	2015	2016
Overall Water Body	Bad	Bad	Poor	Poor
Ecological	Bad	Bad	Poor	Poor
Chemical	Good	Good	Good	Good

Reasons for not achieving good status and reasons for deterioration

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Reason Type	SWMI	Activity	Category	More	Classification Element
RNAG	Physical modification	Barriers - ecological discontinuity	Agriculture and rural land management	Details	Fish

Potential Actions & Opportunities

Other Projects/ Opportunities

Organisation in brackets are those who suggested the project/ opportunity

- Opportunities at Sawrey Ground for NFM post clearance r.e. phytophera (National Trust)
- NFM scoping on becks around Hawkshead (Penrose, Thurs Gill, Parks Gill, Limestone park and Hawkshead Hall Park) (South Cumbria Rivers Trust & Cumbria County Council)
- 1 property floods around Hannakin – the land behind is steep and flooding is likely from surface water.
- Fencing/ tree planting opportunity on the west site of Esthwaite (South Cumbria Rivers Trust).

- Culvert along vicarage lane and under Hawkshead is exceeding capacity and flooding the village. Potential to survey for current condition, may then be options to scope slowing the flow upstream. (Cumbria County Council)

Landowner Information

National Trust own land in the area particularly on the western side of the catchment.

Blockers	Action

Resources/ Stakeholders
- CCC has some hotspots in this area alongside which resource could be accessed. - SCRT are currently working on a project around Esthwaite and in the Windermere catchment. Resource for scoping is limited.

Action Plan:

Action	**Lead Partner**	**Due Date**	**Resource**	**Completed?** *Please date when completed*
NFM opportunity scoping above hotspots	South Cumbria Rivers Trust/ Cumbria County Council		1-day scoping	