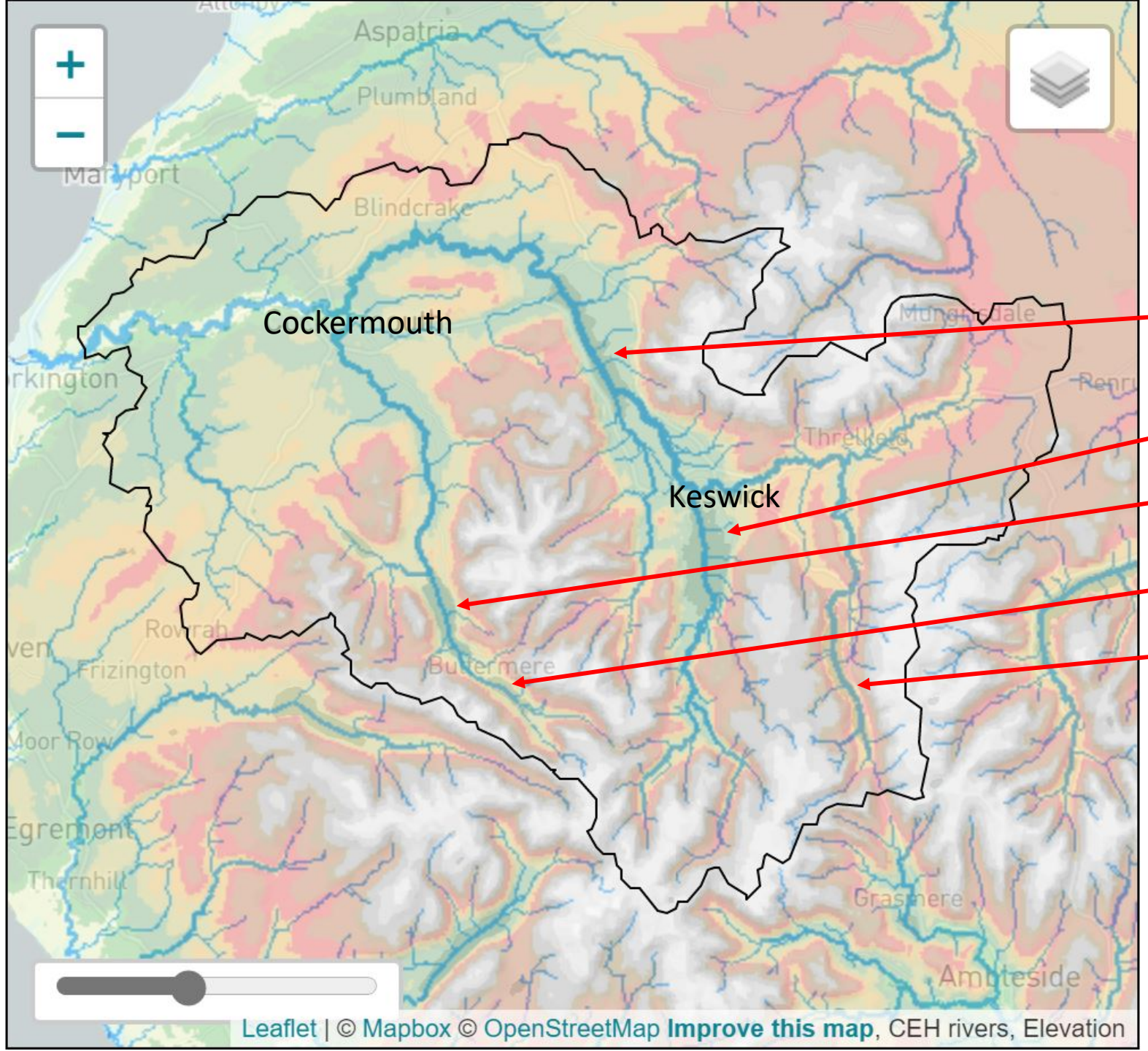


Rain event of 27th to 28th October 2021

Bassenthwaite

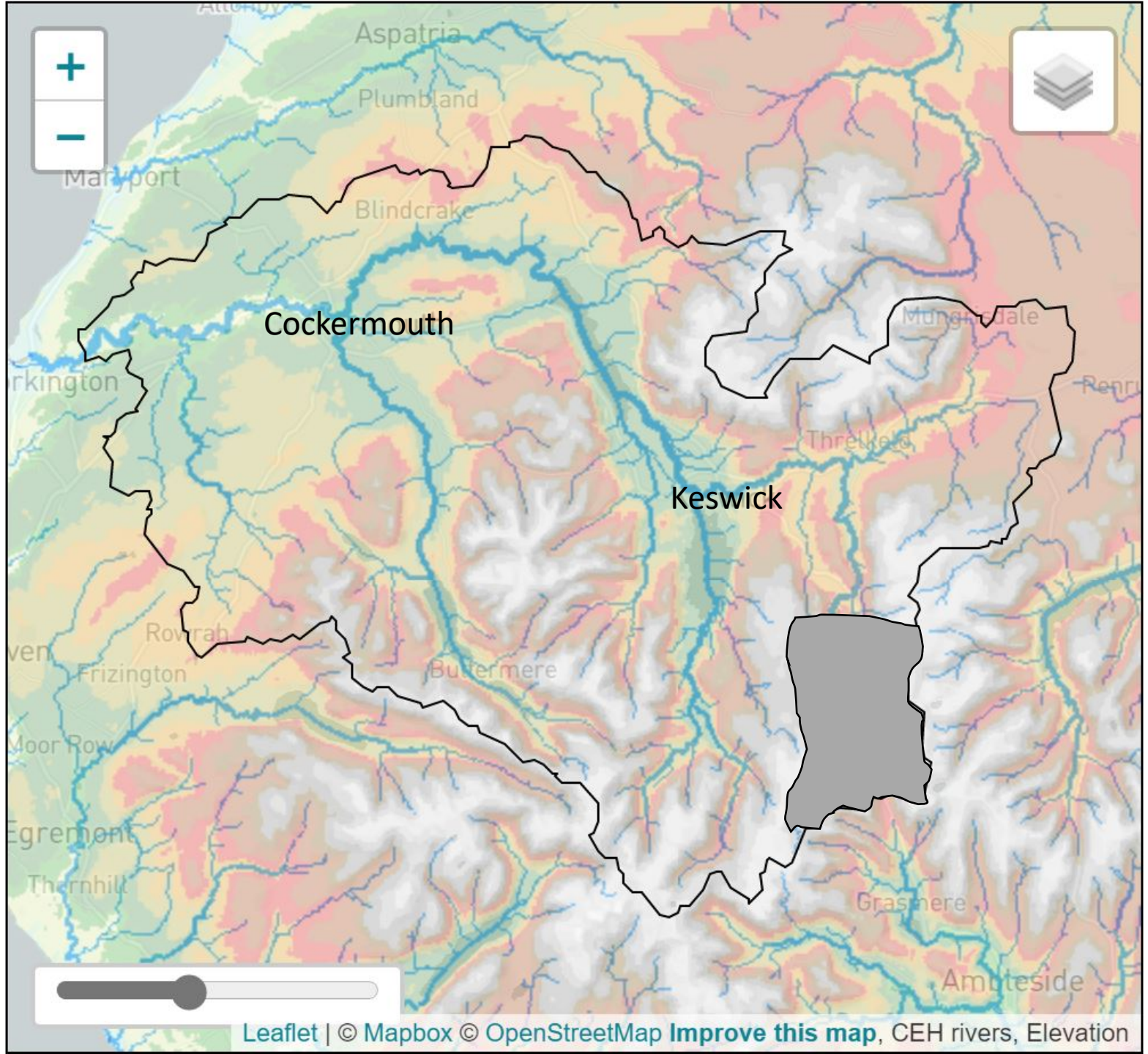
Derwentwater

Crummock

Buttermere

Thirlmere

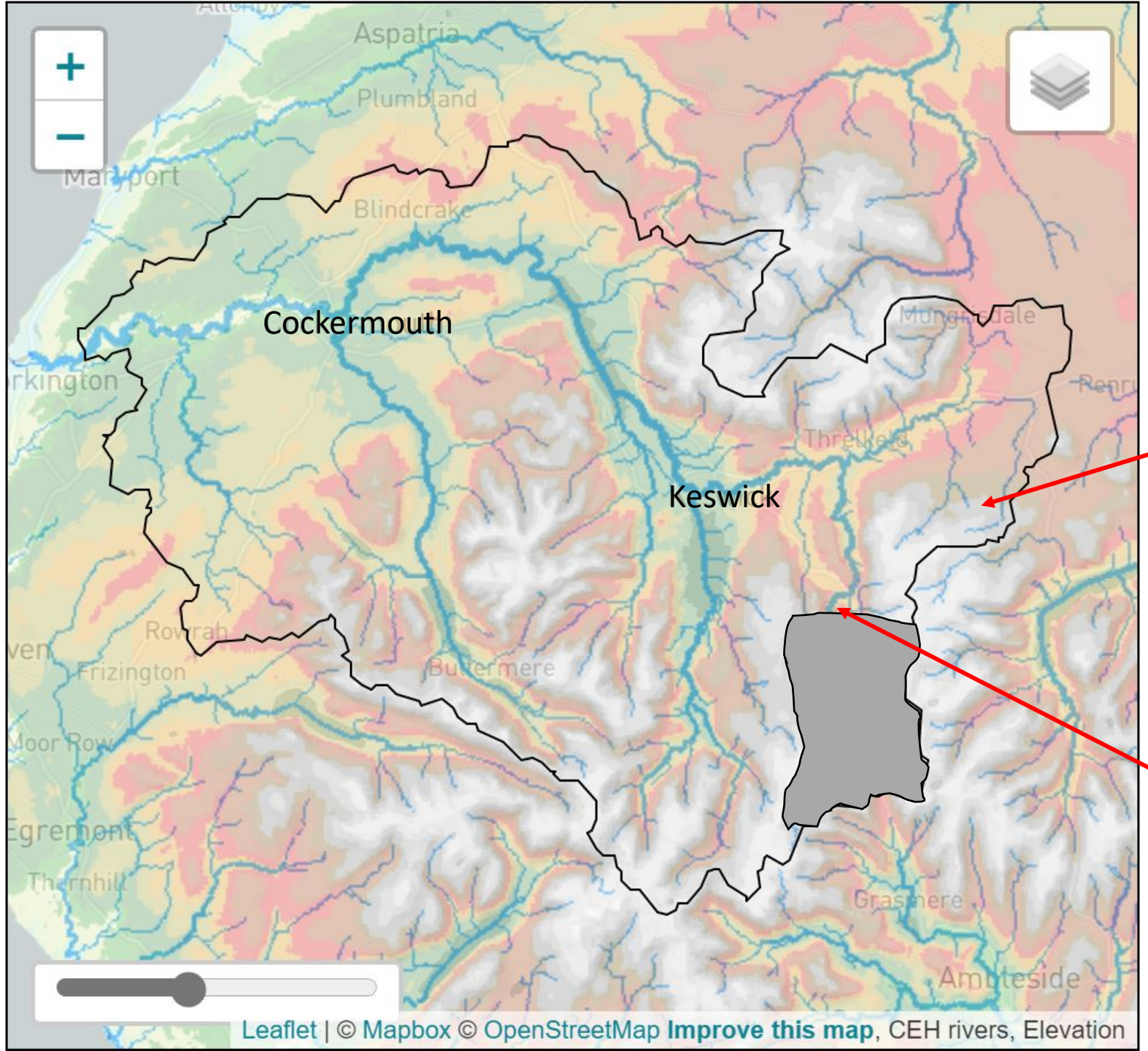
Map taken from the National River Flow Archive website
All data supplied by the Environment Agency



Rain event of 27th to 28th October 2021

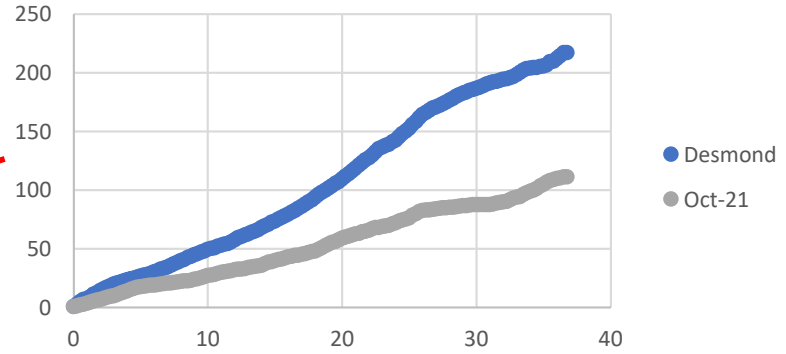
Thirlmere Level was well below overspill throughout event, so Thirlmere catchment rainfall played no part in the flows into Greta/Derwent.

Map taken from the National River Flow Archive website
All data supplied by the Environment Agency

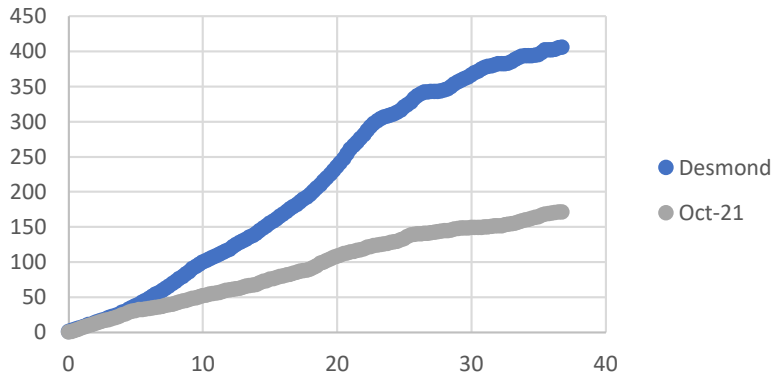


This rainfall event did not pose a flood risk to Keswick from the Greta

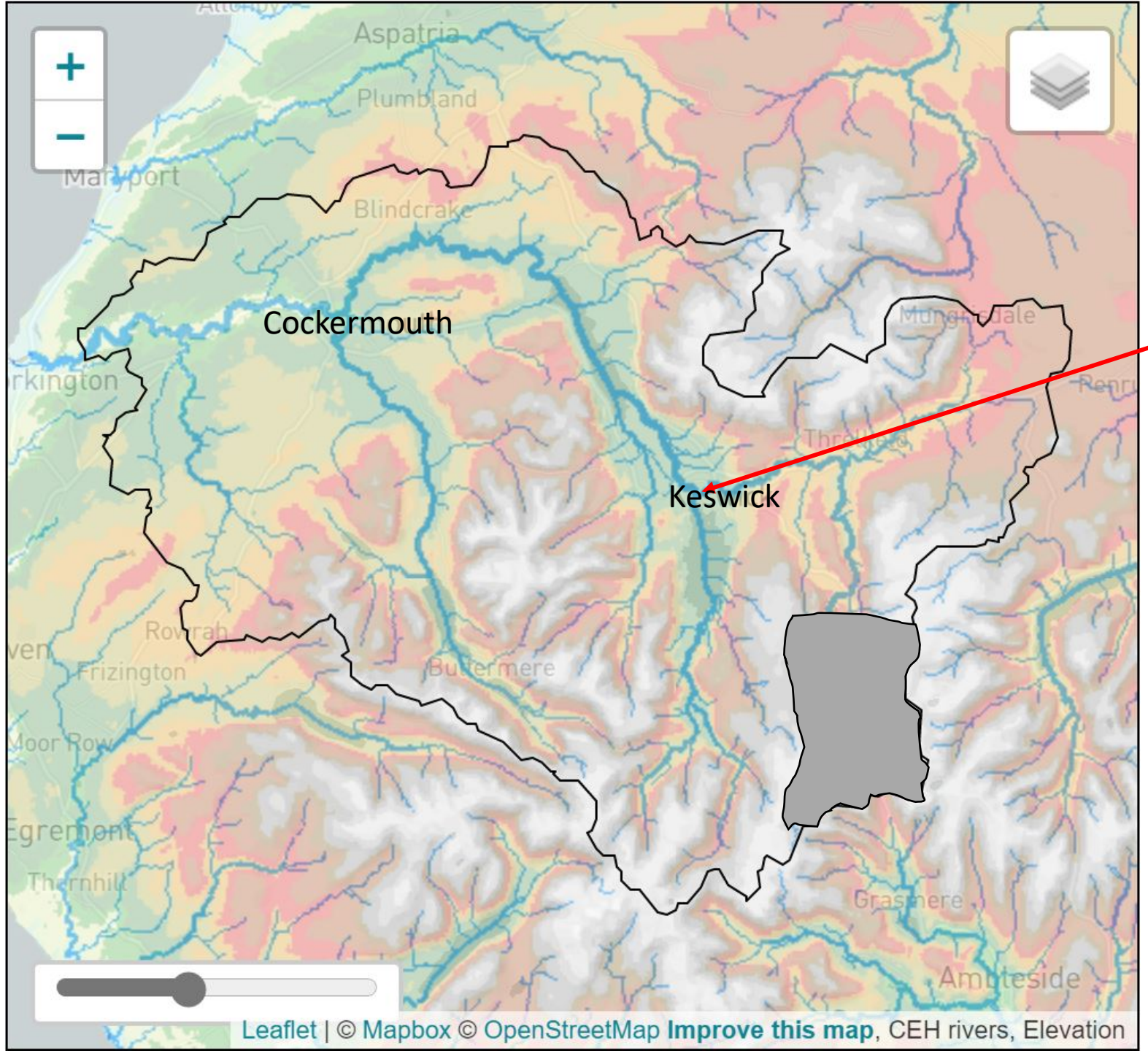
Matterdale Cumulative Rainfall - mm



St John's beck Cumulative Rainfall - mm



Map taken from the National River Flow Archive website
All data supplied by the Environment Agency



This rainfall event did not pose a flood risk to Keswick from the Greta

Peak level reached at Greta Bridge (GB) - 3.43m

Modelled peak level at GB if Thirlmere had been full – ~3.7M

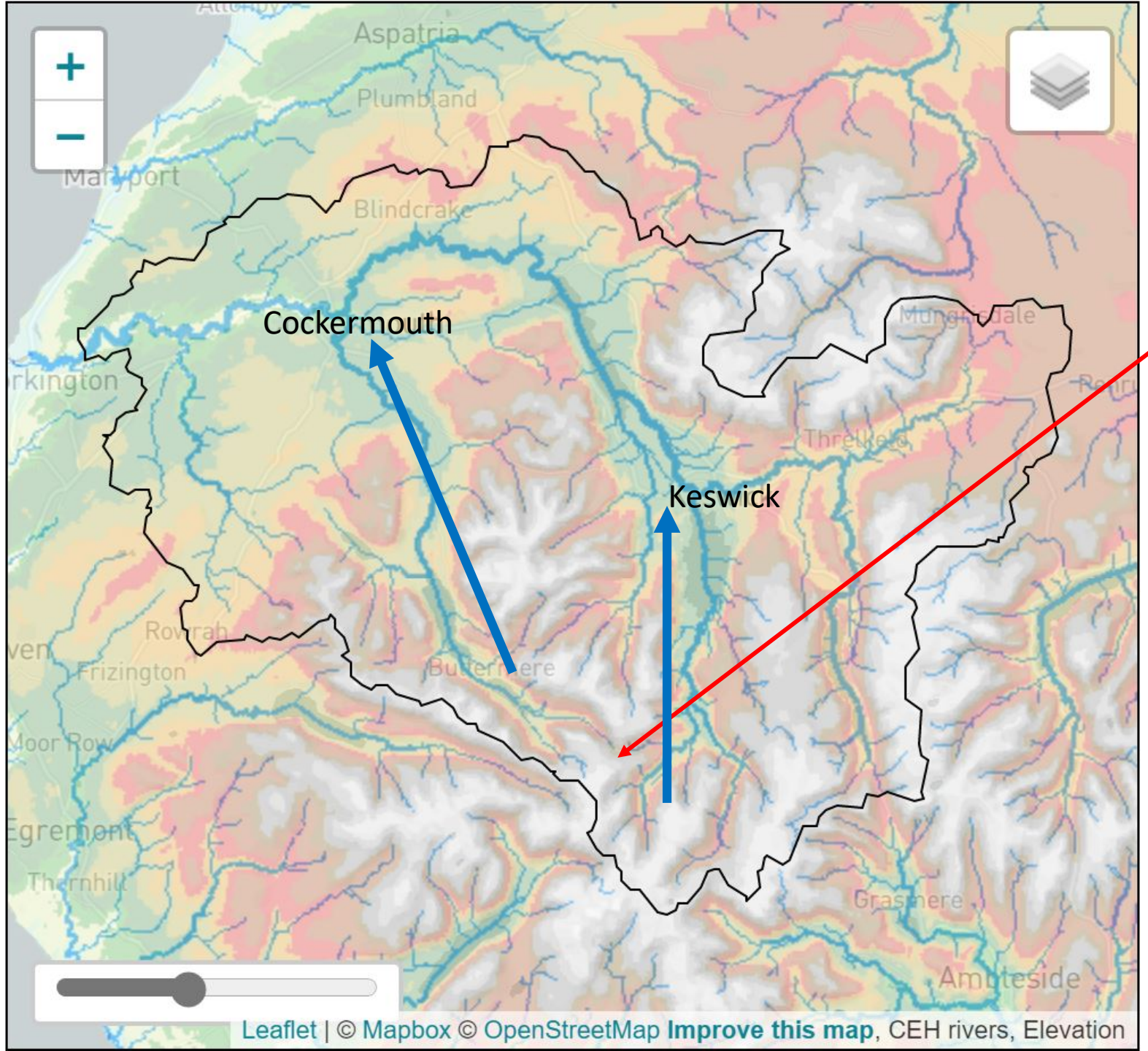
Level at which flood warnings may be issued - 3.5m

Flooding of Fitz Park – ~4m

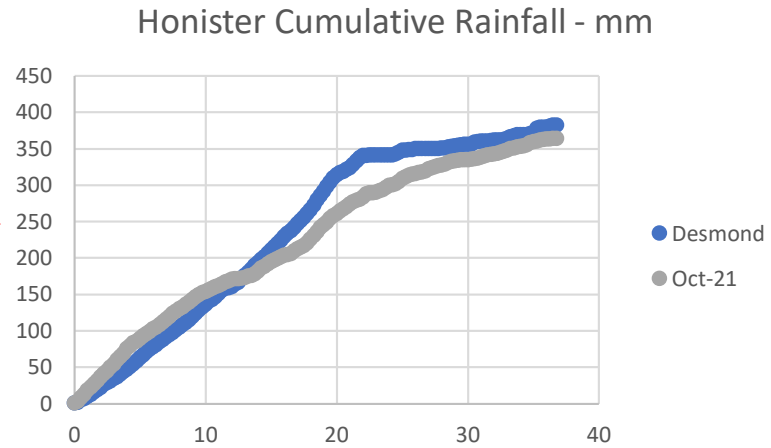
Over-topping of Keswick defenses - ~4.75m

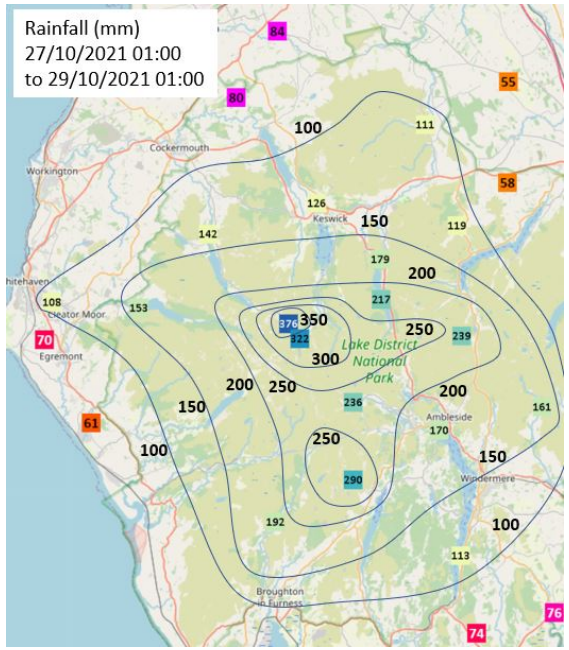
Highest recorded GB level (Desmond Dec 2015) – 5.35m

Map taken from the National River Flow Archive website
All data supplied by the Environment Agency

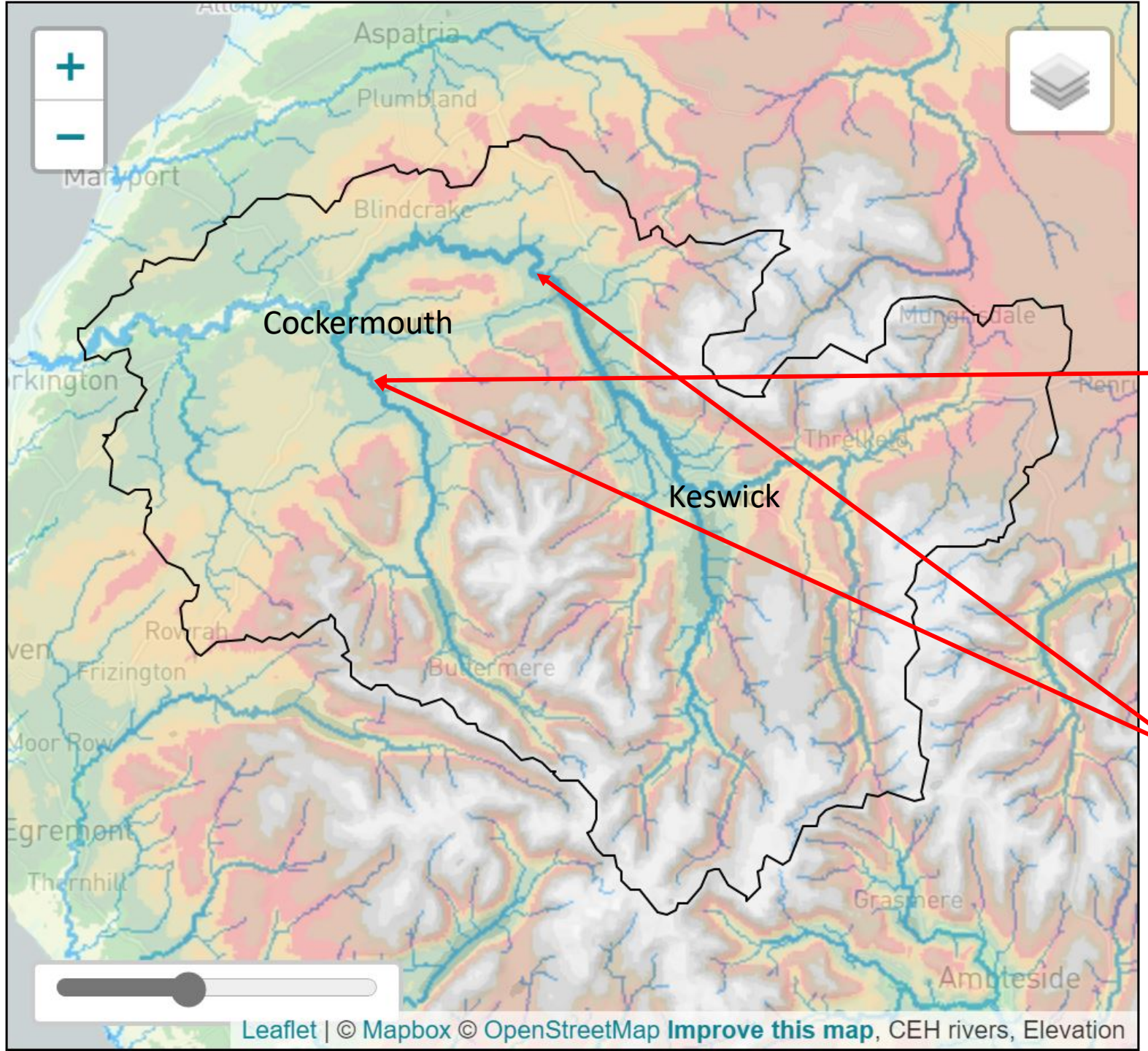


The picture for Cockermouth was quite different.

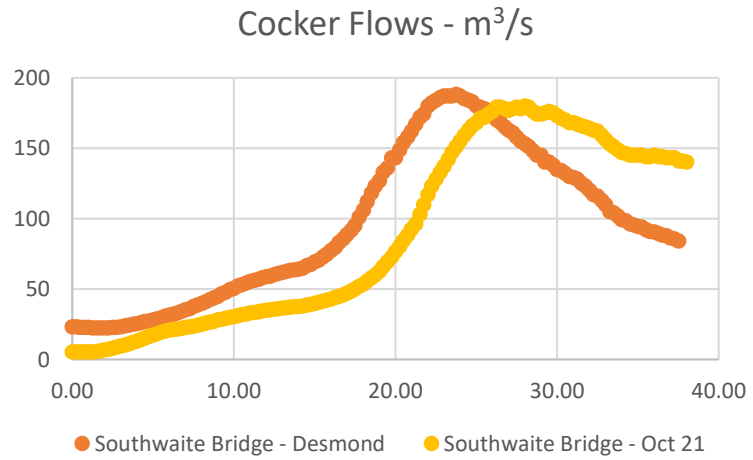


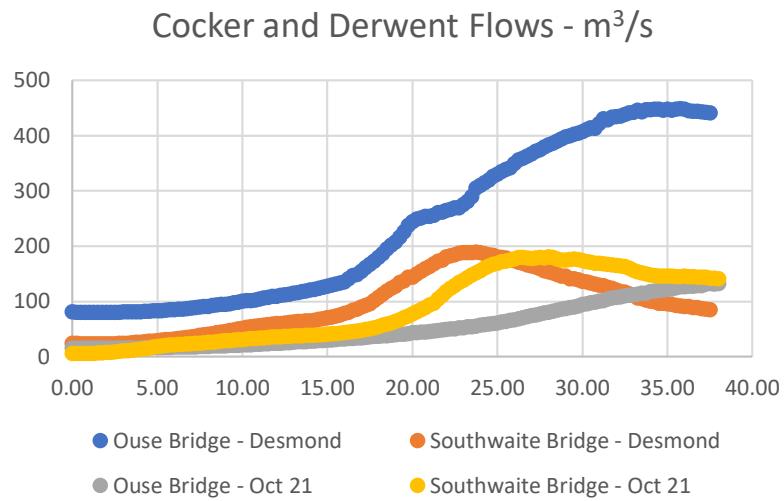


Map taken from the National River Flow Archive website
All data supplied by the Environment Agency

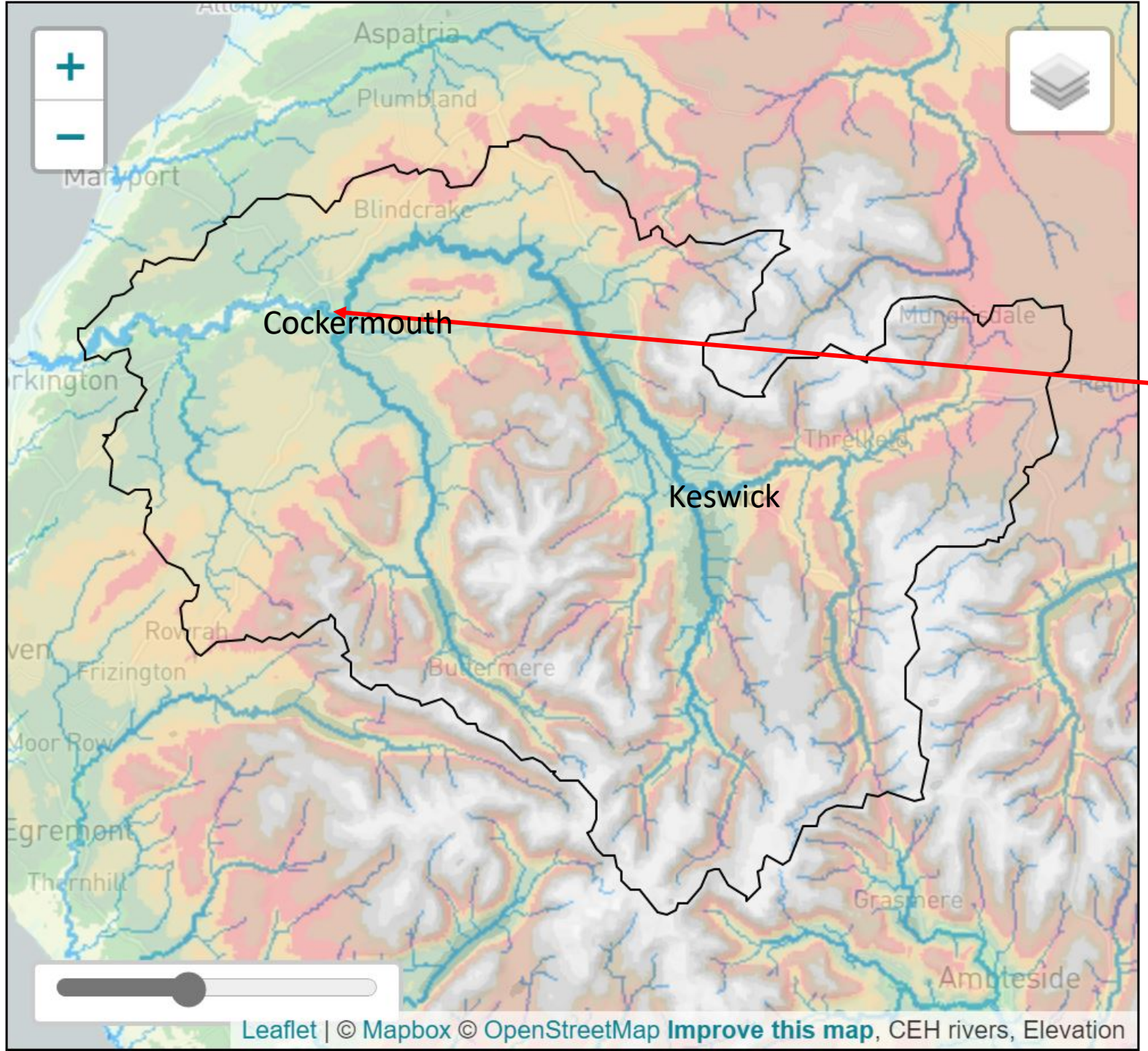


The picture for Cockermouth was quite different.





Map taken from the National River Flow Archive website
All data supplied by the Environment Agency



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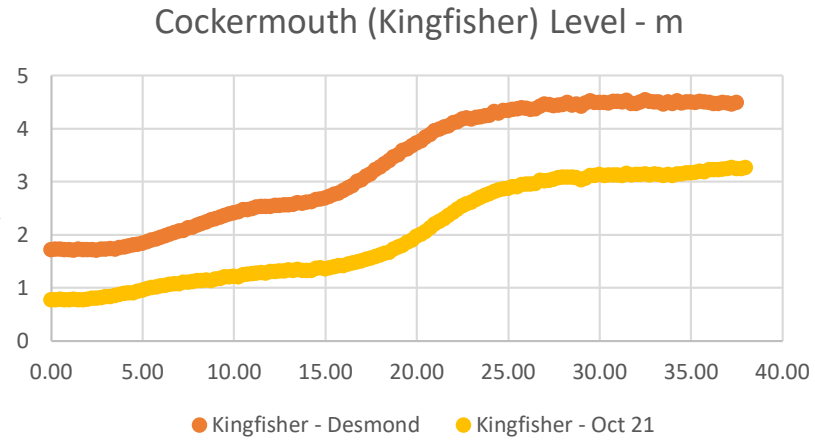

Peak level at Kingfisher - 3.268m

Property flooding is possible – 2.51m

Highest recorded level – 4.54m (Desmond Dec 2015)

Map taken from the National River Flow Archive website
All data supplied by the Environment Agency

Reports were that 6 properties in Cockermouth were flooded.

Damage to riverbanks and at least one building from high flows requires repair.

Had Thirlmere been full, an additional peak flow of ~50 m^3/s would have been added to the St John's beck flow (~15% of peak low at Cockermouth).

The effect of that extra flow on Cockermouth would have been flattened and delayed by Bassenthwaite.

BUT the flow and level at Cockermouth would have been higher, resulting in greater damage.

Space in Thirlmere plays a key role in reducing flows and damage throughout the catchment, even in lesser events