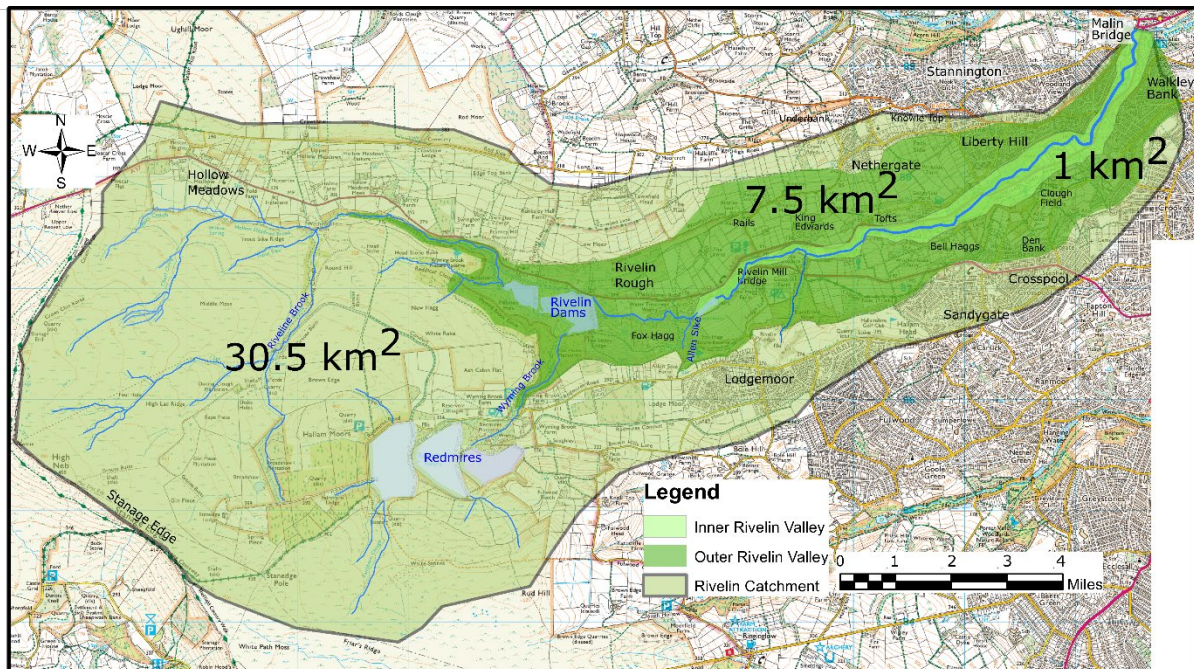


The Rivelin Catchment and Valley

Why do most of the streams feeding into the Rivelin come from the south side of the catchment? The answer to this question comes from the underlying geology of the Rivelin which is mostly faulted carboniferous sandstone (Gritstones) with thin mudstone, coal seams and marine bands dating to about 315 million years ago. West of around the old King Edwards hospital most of the rocks are dipping down towards the north or northeast. This means rainwater trickling down through them when it meets less porous rocks (like the mudstone seams) moves northwards. As the valley has cut down deeply through these rocks, so water driven northwards can come to the surface as springs which flow down slope to the Rivelin. Allen Sike which flows from a spring near Allen Sike Farm on Redmires road down to by the waterworks is a good example of this. In contrast on the north side of the valley the rocks are still dipping northward making it much harder for rainwater moving down through the rocks to flow southward towards the valley. Also the valley sides on the northern side of the valley are more gentler with less outcrops (natural or man made) of rocks. One of the few exceptions to this is the small stream (so small not mapped) emanating from around Stannington Church which flows down to Toft lane. This follows the line of a geological fault which allows water to buck the general trend of the tilted bedding.

The other reason for more streams coming from the south side of the valley is the Hallam Moors area to the Southwest of the river. This large amphibole like high area is able to capture more of Sheffield's famous rain and feed it to the Rivelin. It has no counter-part on the northern side of the river. Although clearly very modified by the Sheffield Water Works and the building of the Redmires Reservoirs, streams like Wyming and Rivelin Brook drain large areas and contribute considerably to the water flowing down the Rivelin.



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