

Three decapitated rivers along the Leonard Mound Fault

By Zade Viggers

The Leonard Mound Fault is an active fault situated in North Canterbury's Hurunui District, on the Amuri Plain.

Over time, repeated movement along the fault has created distinctive features, including scarps, subtle ridges, and most notably, decapitated river channels, which are marked prominently on this map.

Decapitated rivers can actually be streams or rivers that have been cut off or moved from their original course due to fault displacement.

In this case, these three rivers have all adapted by following the course of least resistance downhill, which has eventually let them to rejoin their original downstream sections with a distinctive lateral deviation, which is what the pink arrows on the map are pointing at.

Because this lateral deviation in the rivers is consistent across all three of them, we can use it to infer the direction and magnitude of the movement from the faulting event that created them.

