

Analysing future flood risk for Menstrie Village in Clackmannanshire

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Summary

Following the creation of large-scale woodland, Caitlin is monitoring large woody debris and sediment runoff as part of an overall aim to analyse the potential flood risk to residents of Menstrie village, Clackmannanshire.

Background

The project will:

- Monitor sediment runoff from different cultivation techniques.
- Establish a relationship between sediment volume and runoff flow volume to identify flows where a large volume of sediment may be transported.
- Monitor large woody debris movement over a four-month period and analyse the change in movement through use of Geographic Information System.
- Establish a relationship between flow volume and woody debris movement.

Challenges

Uncertainties relating to data collection are challenging as the catchment location is steep which may affect GPS locations for woody debris surveys. However, this will be accounted for at the analysis stage.



Benefits

This project will demonstrate whether there is an increased risk of flooding for Menstrie village which is downstream of the burn and provide recommendations of potential future actions to reduce the risk of flood damage to the village.

“CSIC's support has enabled me to complete my MSc and specialise in analyzing flood risk. In turn, this has led to me securing a graduate job with Jacobs consultancy as a Flood Risk Engineer.”

Caitlin McKellar, Student