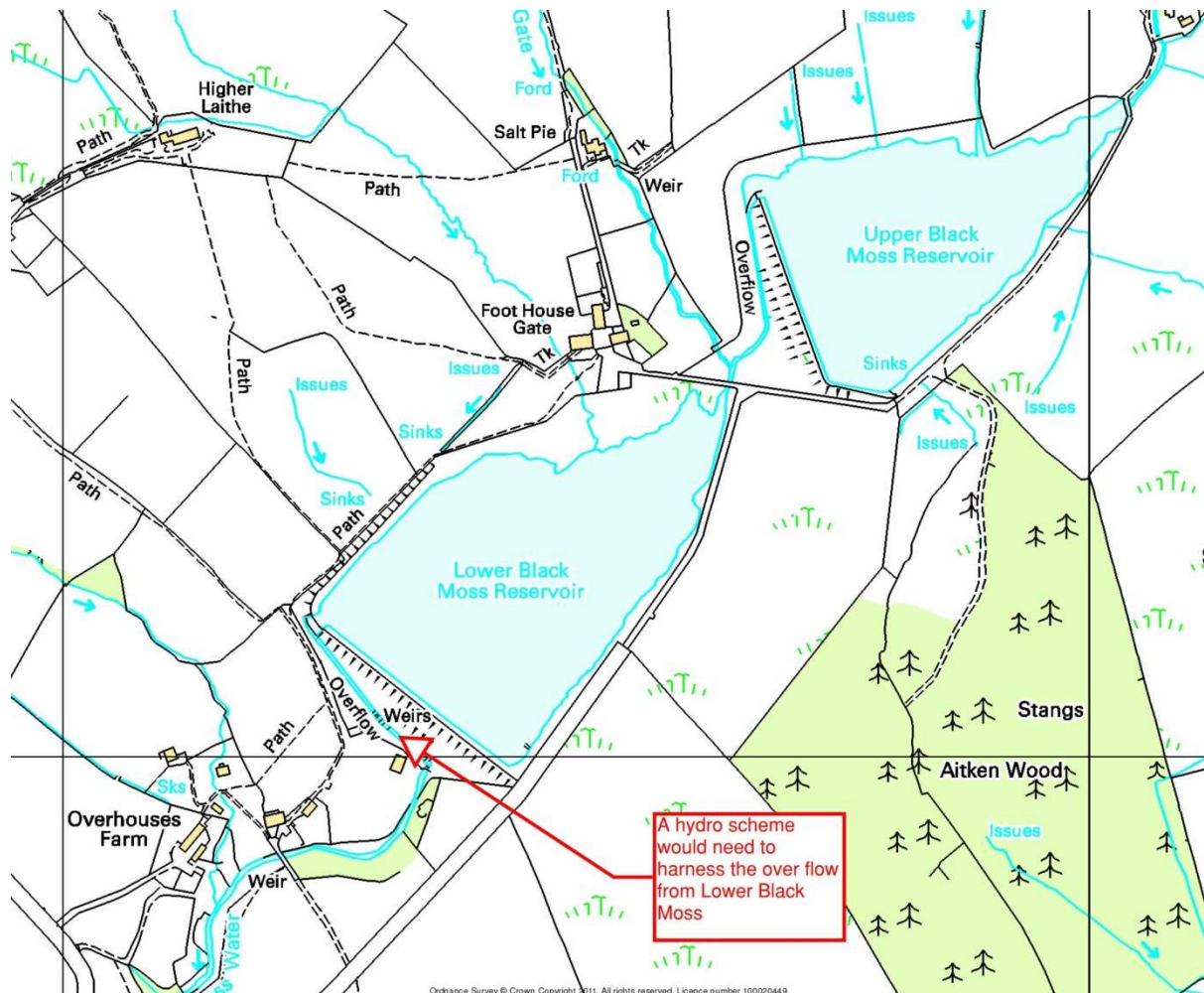


Site 27: Black Moss Reservoir, Barley

Site Assessment

Figure 1 Map showing general layout



Upper and Lower Black Moss reservoirs are owned by United Utilities. The abstraction licenses are active. The flow released from Lower Black Moss is a measured flow of $0.03 \text{ m}^3/\text{s}$ (or 30 l/s), through a compensation pipe. There are extra flows down the spillway in wet weather when the reservoir is overtopping, but these flows are not monitored. The dam height is 13.5 metres. There is no compensation flow from Upper Black Moss.

There is a spillway on both reservoirs, which are in series. The Lower Black Moss Reservoir has a salmon ladder spill way. It is probably not possible to harness the water and fall from Lower Black Moss Reservoir, as there is not sufficient water to maintain both a hydro scheme and the fish pass. In addition, making a reasonable prediction of the flows here over a year is difficult, and without this data, getting an idea of the potential of this site is not possible.



Figure 2 The outflow from the upper to the lower reservoir



Figure 4 Water flowing from Black Moss lower reservoir



Figure 3 The weir on Black Moss lower reservoir

Conclusions

Despite the existing infrastructure and access, as well as the head available, the flow information provided by United Utilities suggests that there is insufficient water at this site to warrant the development of a hydro scheme. If the compensation flow were used for a scheme then the maximum power generated would be 2.5 kW. However, this compensation flow is required for environmental reasons, so it is unlikely that this is a viable option. It is unlikely that there is sufficient overflow from the reservoir to provide the compensation flow and flow for energy generation.

Further Information

This site report is produced by Inter Hydro Technology on behalf of Forest of Bowland AONB, and funded by a partnership including Lancashire County Council, Lancaster & District Local Strategic Partnership, Pendle Borough Council and Ribble Valley Local Strategic Partnership.

This site report should be read in conjunction with the rest of the Forest of Bowland AONB Hydro Feasibility Study which can be downloaded at <http://www.forestofbowland.com/climatechange#hydro>