

Science Project 2019

The impact of hydropower regulation on the Barsnesfjord



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In 2018, the “From Mountain to Fjord” science project investigated the shores, sediments and the water column of the Lake Hafslovatnet regarding the impact of hydropower regulation since 1983. The observed effects included distinct shore erosion in the western areas of the lake. The impact also included an enhanced supply of mineral matter and nutrients compared to the time prior to the regulation of the lake. The analyses indicated an increasing turbidity in the western part, and a beginning eutrophication in the eastern part of the lake. The “From Mountain to Fjord” students presented the overall negative effects at a public seminar in December 2018. An article in the regional newspaper Sogn Avis (in Norwegian) summarizes the results.

The “From Mountain to Fjord” science project of 2019 will continue this investigation along the watercourse via the Årøy River into the marine environment of the Barsnesfjord. Is the impact of the hydropower regulation also visible in the Barsnesfjord hydrography and deposits? Did the fjord environment change after the regulation started in 1983? The investigation will expectedly have consequences for the classification of the Barsnesfjord environmental condition with regard to the EU Water Framework Directive. It might also influence the premises for the revision of the hydropower concession, i.e. the permit to use hydropower in the region, which is due in 2022.