



Volume estimation of the Bødalen delta, western Norway - a first outline

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A Gilbert-type delta at the mouth of the Bødalen valley, a major tributary to Lake Lovatnet, Western Norway, was constructed during and after the last major deglaciation of the area. During deglaciation the basin was part of a fjord arm and the lake was isolated during fall of relative sea level as caused by glacio-isostatic rebound of the crust. Lake isolation happened around 10.500 cal. yrs BP. The sea-level history helps to constrain the age of delta deposits that graded to lake level.

Volume estimation will be based primarily on geophysical data combined with a DEM. Refraction seismics is used for estimation of depth to bedrock while georadar (GPR) helps to outline the internal structure of the delta deposits. 2D resistivity profiling (ERT) gives some general information on material types. Advantages and limitations of the applied approach are discussed. Estimation of the volume of the delta deposits aims at constraining the long-term transport rate out of the Bødalen valley system.