

## FACT SHEET: Førde fjord – a dumping ground for Norway's mining industry?

### Plans for mining on Engebø Mountain and mineral waste dumping in Førde fjord

On the 17<sup>th</sup> of April 2015, mining company *Nordic Mining* was given approval from the Norwegian Government (Ministry of Climate & Environment and the Municipality and Modernisations Ministry) to exploit the mineral *rutile* from the top of Engebø Mountain, situated in the county of Sogn og Fjordane, using mountain top removal techniques. Nordic Mining was been given permission to deposit large parts of the mining tailings in a submarine disposal in the nearby Førde fjord. The local authorities in both Askvoll and Naustdal have given their consent to Nordic Mining's application.



There is a strong environmental opposition to the project, and both the environmental movement and the local government in Førde are taking the case to the court of the EFTA (European Free Trade Association – an association of Norway, Iceland, Switzerland and Lichtenstein, set up in parallel with – and linked to – the European Union), who allege that the approval breaches the EU Water Framework Directive (to which Norway is signatory).

The company Nordic Mining has been granted approval to extract rutile ore from Engebø mountain top. The approval was given after advice from the Environmental Directorate. Nordic Mining has had the right to mineral exploitation from Mountain since 2007. The company claims the mine will provide between 100 and 150 jobs.

Nordic Mining has been granted permission to deposit 4 million tons mining waste at the bottom of the Førde fjord every year, over a period of 50 years. In total almost 250 million tons will be deposited in the fjord.

Rutile is a mineral composed primarily of titanium dioxide ( $\text{TiO}_2$ ), used to manufacture pure titan dioxide. Its most common use is white colour pigmentation, used in plastic and paint; and it can also be used to manufacture titanium and alloy metals. Engebø Mountain has Norway's largest known deposits of rutile, with over 15 million tons of pure rutile. The rutile occurrence is widely spread in the area in eclogite (metamorphic) rock, but only 2-7 % of the rock is rutile.

Nordic Mining has not yet specified which chemicals they wish to use during the disposal. This has caused concerns from amongst others the Marine Research Institute. They fear Nordic Mining will use toxic and damaging chemicals. Nevertheless the waste dumped in the fjord could include sulphuric acid, sodium, phosphoric acid, carbonic acid and acrylamide as well as other acids, solvents and heavy metals including copper, nickel, lead, zinc and mercury.



## Førde fjord

The Førde fjord is one of the Norwegian West Coast's cleanest and richest fjords – with good living conditions on the bottom of the fjord lined with corals and sponge, and the living and breeding area for many red listed fish species in danger of extinction.

The fjord has important spawning areas and nursery areas for a number of species such as halibut and herring. There are also endangered deep-water fish such as redfish, blue ling and dogfish that will lose their living areas if disposal starts. Skirting the disposal area is one of the most important spawning and living sites of the Norwegian Coastal Cod – a species that is already under threat: the Marine Research Institute recommends that no more Coastal Cod be taken before the population is stable again. Eel and River Clam have also been registered – species that have had a massive decrease in numbers in Norway the past hundred years.

The Førde fjord has a status as National Salmon Fjord, which means that the fjord is very important for the Atlantic salmon, which Norway has a special responsibility to protect. The limit of the salmon fjord goes further into the fjord than where the disposal area is planned, but the salmon has to travel through the whole length of the fjord to get to and from the salmon rivers to breed. The status as national salmon fjord should give it extra protection. Fjords are in themselves an endangered type of habitat in Norway, due to a diverse set of negative impacts from industry, pollution, overfishing etc.

There is massive disagreement between Norwegian Institute for Aqua Research (NIVA) and the Marine Research Institute (HI) around the consequences for life in the fjord. NIVA claims that the nature consequences are small, as opposed to HI's concerns. The Marine Research Institute claims the modelling and testing of currents executed poorly by NIVA, and fear the tailings will destroy life in the area. The HI has communicated strongly that the disposal will leave the fjord dead for decades after, and that the tailings will spread widely in the fjord.

In November 2014, the Norwegian Environment Agency supported opposition against the project sent by the fishery authorities, and gave their disapproval to sub-marine tailings disposal in the Førde fjord. This was based on the fear of consequences for the endangered coastal cod and eel. In March, they made a surprising change of opinion, and recommended that the environmental minister approve the project. That was after they were asked to also take economic considerations into account. They now claim the project has small chances of long-term negative effects.

## Status

Following recommendation from the Minister of Climate & Environment, the Municipality and Modernisations Minister granted Nordic Mining approval to start mining the Engebø Mountain. The company has stated they will begin extractions from the mine two to four years, and they have already started test drilling.

Natur og Ungdom (Young Friends of the Earth Norway), together with Naturvernforbundet (Friends of the Earth Norway) and several other environmental, outdoor life and fisheries organizations have complained to the



EFTA court, based on Norway breaching the EU Water Framework Directive. Friends of the Earth Europe is also supporting this complaint. Natur og Ungdom, Naturvernforbundet and the local Vevring and Førdefjorden environmental group have also filed a national complaint that is awaiting consideration – in it, they show how approval has been granted based on reports commissioned by Nordic Mining, even whilst independent marine researchers have questioned the findings of those reports and argued that the mining tailings will in fact spread much further and cause much greater harm.

**Natur og Ungdom / Young Friends of the Earth Norway** has now started civil disobedience actions – something that Natur og Ungdom rarely does. Since 2<sup>nd</sup> February, activists have been chaining themselves to the machines on top of the Engebø Mountain, slowing down the test drilling being carried out by the mining company.

