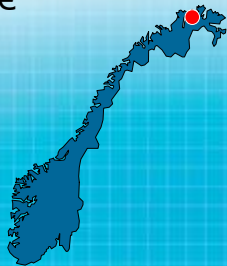


Environmental Status - River Alta

Last updated Ø ã Ì æ ^ 20F€



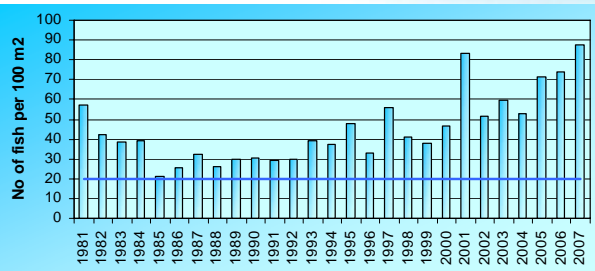
Foto: Arve Tvede



The Alta River close to the fjord

Length of river: 230 km
 Anadrome stretch: 47 km
 Catchment area: 7,389 km²
 Mean water discharge: 88 m³/s (annual average)
 Characterisation according to the Water Framework Directive: 20 km has been defined as Heavily Modified
 Power plants: Alta Power Plant, opened 1987
 Power production: 655 GWh, corresponds to the electricity consumption of approx. 32,750 households.
 Reservoir: Virdejavri

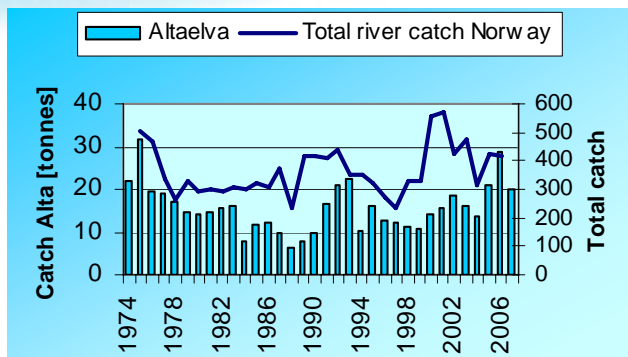
Density of juvenile salmon older than 1 year



Populations with densities above the red line are not considered to be threatened or vulnerable (directorate for nature management)

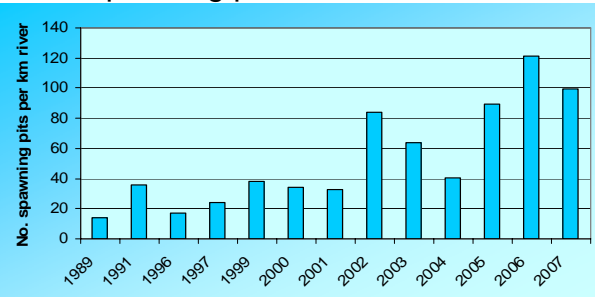
Source: Literature list pts. 4

Salmon catches



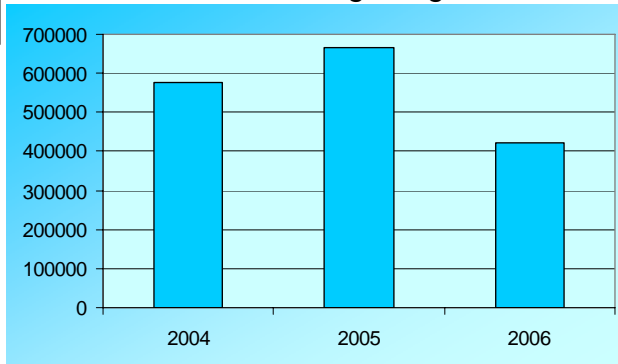
Source: Literature list pts. 4

No. of spawning pits



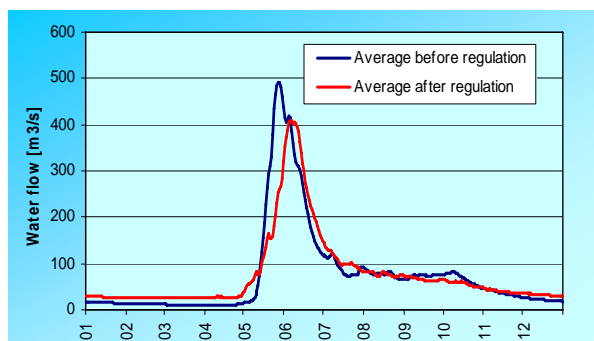
Spawning pits were counted by means of helicopter observations and diving, and are considered minimum estimates. The yellow light is due to the number in the Sautso area remaining rather low.

No. of salmonsmolt migrating to sea



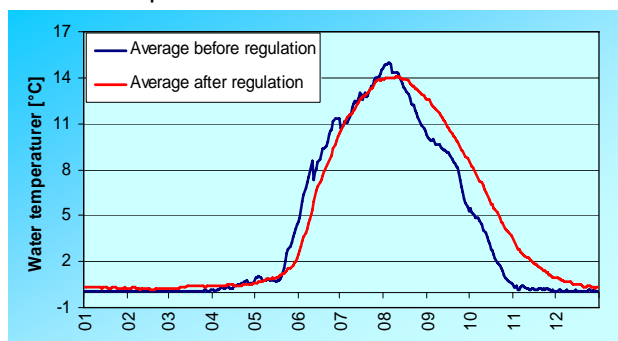
Source: Literature list pts. 4

Water flow at Kista



Regulation has led to higher winter water flow and reduced spring floods. The annual volume is unchanged.

Water temperature at Sautso



Regulation has led to a slight rise in winter temperatures, lower summer temperatures and higher autumn temperatures.

Data has been collected from the Norwegian Water Resources and Energy Directorate (NVE), Statistics Norway, the County Governor's Office, Alta Salmon Fishing Association and Statkraft. The assessments shown as 'traffic lights' have been carried out by SINTEF Energiforskning. The meaning of the traffic lights is as follows:

Good and stable status

Acceptable and/or variable status

Poor and unstable status



Virdnejavri reservoir seen from the south.



Map source: © Statens Kartverk/Permission 2001/553

History

The Norwegian Parliament gave concession for the Alta HPP in 1978.

Construction work started in 1982.

In May 1987 the power plant went into operation with a set of temporary manoeuvring rules that was extended with some modifications in 1996 and 2002. Permanent manoeuvring , ^i^

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Environmental surveys and measures

- Statkraft has conducted surveys of freshwater biology, birds of prey and hydrology since the 1970s, while the bird of prey surveys were terminated in 1999.
- The scale and focus of the surveys have varied somewhat, but during the entire period, the salmon's lifecycle and ice conditions in the river have been key issues.
- The salmon surveys have been scientific in nature, and a large number of scientific papers about the Alta salmon have been published.
- Catch and release was introduced in 1997, and has since become more widespread.
- The fish hatchery in Talvik was built by Statkraft to ensure that the Alta River can be restocked with Alta salmon smolt if the natural level of smolt production should fail. This has not been necessary, but trial restocking of smolt from the Talvik facility does take place.
- Statkraft has been ordered to set up a water management committee to operate during the winter period. The committee is made up of representatives from the Finnmark County Governor's Office, Statkraft, Alta Salmon Fishing Association (ALI) and an ice expert from the NVE. The committee is chaired by Statkraft.

Statkraft's own assessment :

In the allocation of traffic light symbols particular consideration was taken of Sautso, which is the area directly downstream of the power plant. The data for density of fish is the mean value from 6 locations. The density was low at Sautso during the 1990s, but has been increasing in recent years. The changes in water temperature at Sautso are noticeable during the summer. However, these changes have little or no direct impact on the salmon, since the Alta River is still a relatively warm river in the summer. The increase in water temperature in the winter has led to that the river was almost ice free at Sautso in the 1990s. An alteration in the intake strategy from the Virdnejavri reservoir since the autumn of 2001 has resulted in more ice in the river at Sautso.

Relevant literature:

1. Altalaksen. Kultur, kraftutbygging og livsmiljø. Contribution to the conference 'Alta River 10 years after' in 1997. Editor Tor F. Næsje (in norwegian)
2. Ny strategi for tapping av Altamagasinet om vinteren. Report by NVE, 2001. Randi Pytte Asvall and Ånund S. Kvambekk. (in norwegian)
3. Rovfugl i Alta før og etter kraftutbyggingen. Altaelvrapport nr 23, 2004. Per. J. Tømmeraas. (in norwegian)
4. Biological surveys in the River Alta. Annual reports by NINA. (in norwegian with a english summary)
5. EU's frame directive for water. Characterisation of the Alta river system. Report by Sweco Grøner, 2004.(in norwegian)

"Environment status reports for regulated river systems" are drawn up to give central and local government administrations, landowners and the public an updated overview of the river systems' environmental status, with particular emphasis on fish stocks.