



Examples and experience from restorations along Tana river on the norwegian side

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Mapping of migration barriers 1998-2000

- Interreg project
 - Better understanding of natural processes in the river
 - Identify problems caused by human activity
 - Restoration – pilot projects
- Migration barriers in some creeks and smaller tributaries by road crossings
 - Mapped all creeks and tributaries along the norwegian-finnish borderline
- At that time, no existing methods/experience in Norway or Finland. Developed our own characterization and method
- First results were not good
 - Not describing the situation below and upstream the road. This was though taken care of before the final report.

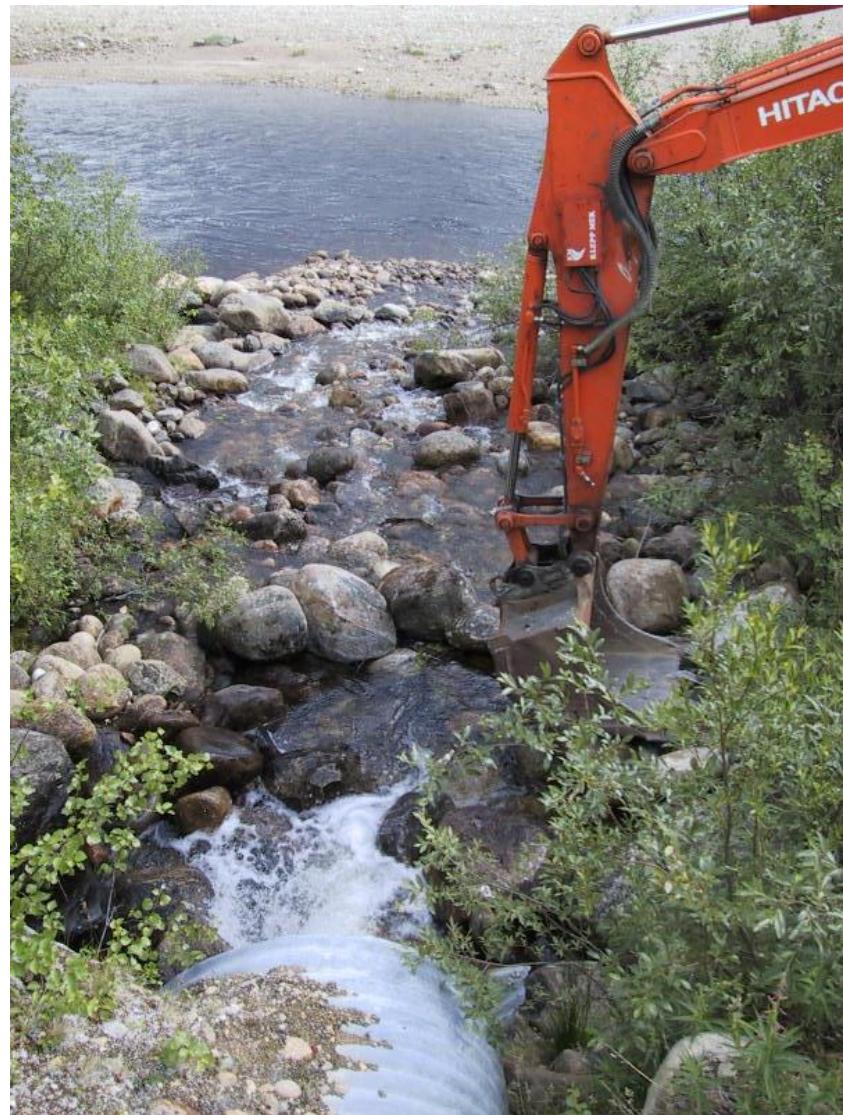


Results from the mapping 1998- 2000

- Number of creeks and tributaries 141
 - Norway 64 and Finland 77
- Recommended restoration projects among these
 - Highest priority, Norway 3 and Finland 2
 - Mid priority Norway 3 and Finland 5
 - Low priority Norway 2 and Finland 1
- Barrier by culverts and road drums but no or low potential for fish
 - Norway 23 and Finland 21
- No problems in larger tributaries, by bridges or where the tributaries meet the main river.



Pilot project - Jovnitjohka



Norges vassdrags- og energidirektorat

Pilot project – Bajit Hoassirjohka

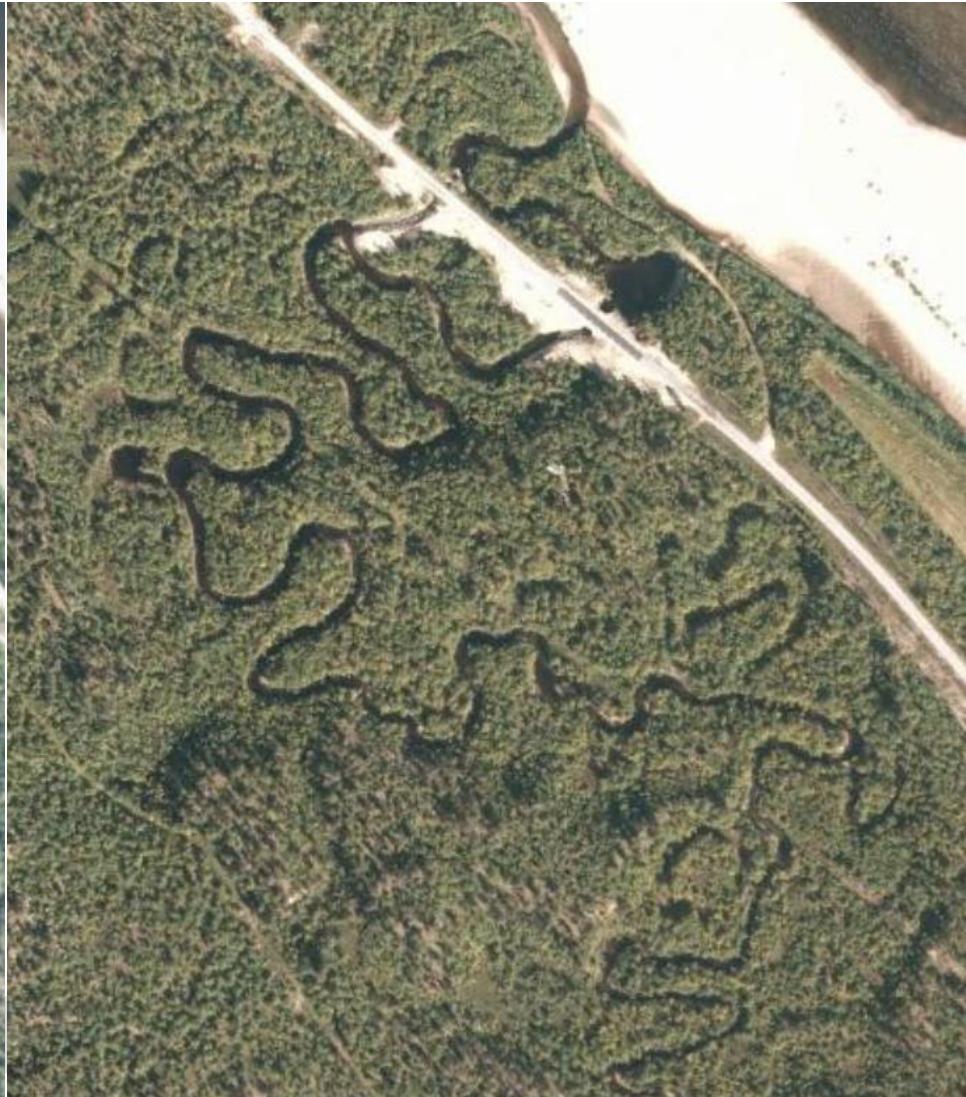


Savkaddasjohka

Before restoration 2005



After restoration 2011



Savkaddasjohka before restoration



Savkaddasjohka after restoration



Next mapping 2002 - 2003

- Tana river from Polmak to the outlet
- Karasjohka and Iesjohka rivers
- Utsjoki river
- Mapping carried out by biological (fish) consultant



Rapport 2004-01

Vandringshindre for fisk i Tanaelva's sideelver og -bekker, konsekvenser av veibygging

Bevaring av Tana som en lakseelv i naturtilstand (II)



Nordnorske ferskvannsbiologer
Sortland



Norges vassdrags- og energidirektorat

Results from the mapping 2002- 2003

- Number of creeks and tributaries 72
 - Norway 58 and Finland 14
 - Recommended restoration projects among these
 - Highest priority, Norway 2 and Finland 0
 - Mid priority Norway 2 and Finland 0
 - Low priority Norway 0 and Finland 0



10 Alletjohka, high priority located 4 km downstream Polmak river

- Situasjon:
 - Bredde elv ca 5m og 500 m elv ndf vei, ovnf vei ca 250 m
 - Tetthet laksunger er 16/100 m² ndf vei
 - Tidligere fisk ovnf vei
- Utbedring:
 - Terskler, heve undervann ca 1m
 - Litt opprydding ovnf vei



Restoration by Statens vegvesen

26 Bannegallajohka, mid priority located 5 km upstream Rustefjelbma

- Situasjon:
 - Bredde elv ca 5 m og 500 m elv ndf vei, ovnf vei ca 4 km
 - Tetthet laksunger er liten ndf vei
 - Sannsynlig oppgang på gunstig vannføring
 - Vandr.hinder ved gamle brufundamenter
- Utbedring:
 - Skade på vei – ny bru og utbedring i 2004 (Vegvesen)



26, Vandringshinder ved Bannegallajohka/Gulbojok

Restoration by Statens vegvesen

21 Lismajohka, high priority located 6 km upstream Tana Bru

- Situasjon:
 - Bredde elv ca 4m og 200 m elv ndf vei, ovnf vei ca 4 km
 - Tetthet laksunger er 16/100 m² ndf vei
 - Veibru lenger opp OK
 - Tidligere fisk ovnf usikkert
- Utbedring:
 - Terskler, heve undervann ca 0,7m

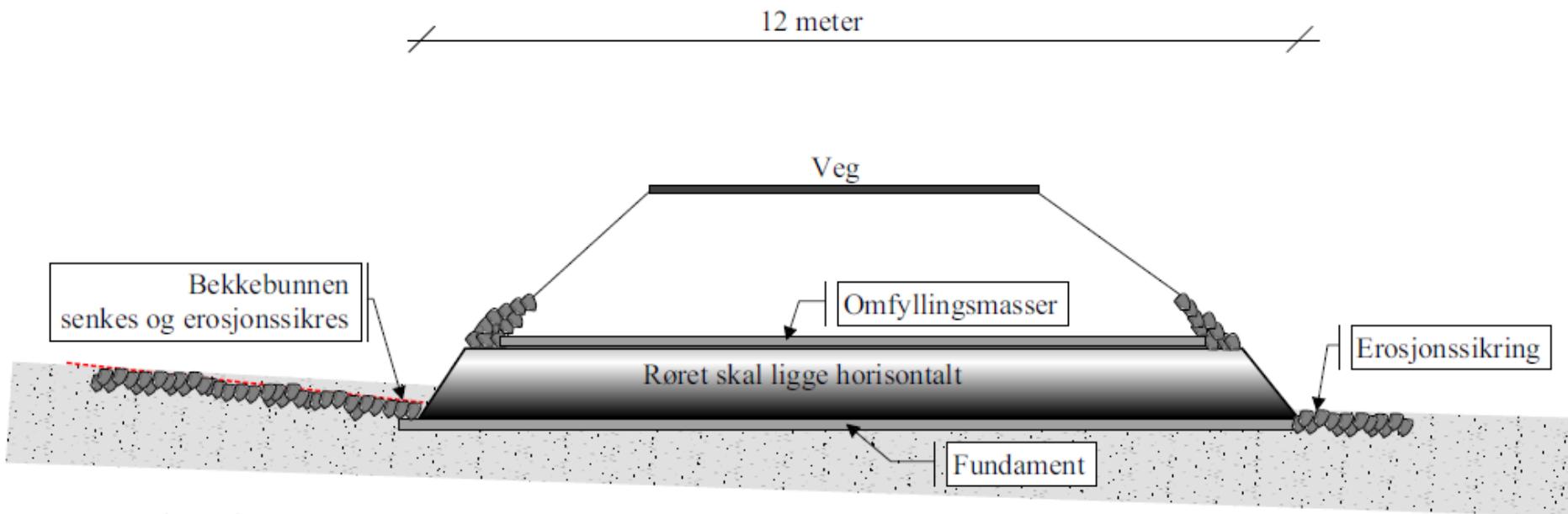


21, Kulverter i Lismajohka

Given priority in this project



Lismajok. -Utskifting av kulvert- lengdeprofil



Lismajok

- Det skal ta utgangspunkt i høyden på elvebunnen i nedstrøms ende av røret.
- Røret legges horisontalt, elvebunnen i oppstrøms ende må da senkes og erosjonssikres.
- Legging av røret og omfylling gjøres etter beskrivelser fra leverandør.
- Inn- og utløpet erosjonssikres med samfengt sprengt stein.
- Vegfyllingen bygges opp med stedlige masser
- Det legges veggrus som topplag.

11 Vuohppejohka, mid priority located just downstream Polmak river

- Situasjon:
 - Bredde elv 2-3 m og 500 m elv ndf vei, ovnf vei ca 2,5 km
 - Tetthet laksunger er liten ndf vei
 - Begrenset potensiale ovnf vei
- Utbedring:
 - Terskler, heve undervann ca 0,8m
 - Noe opprydding ndf vei



11, Bunnsenkning ved kulvert i Vuohppejohka

Given priority in this project

Vuohppejohka, restoration

- Migration barrier by both private road and main road
- Measures has to be decided and planned in more detail as part of this project. NVE will take care of this planning
 - Most probably construct weir constructions to rise the water level below both roads