

Water Matters Norway-trip

water
matters

13 - 16
september,
2023

Lillehammer-
Lom-
Lillehammer

Welcome!

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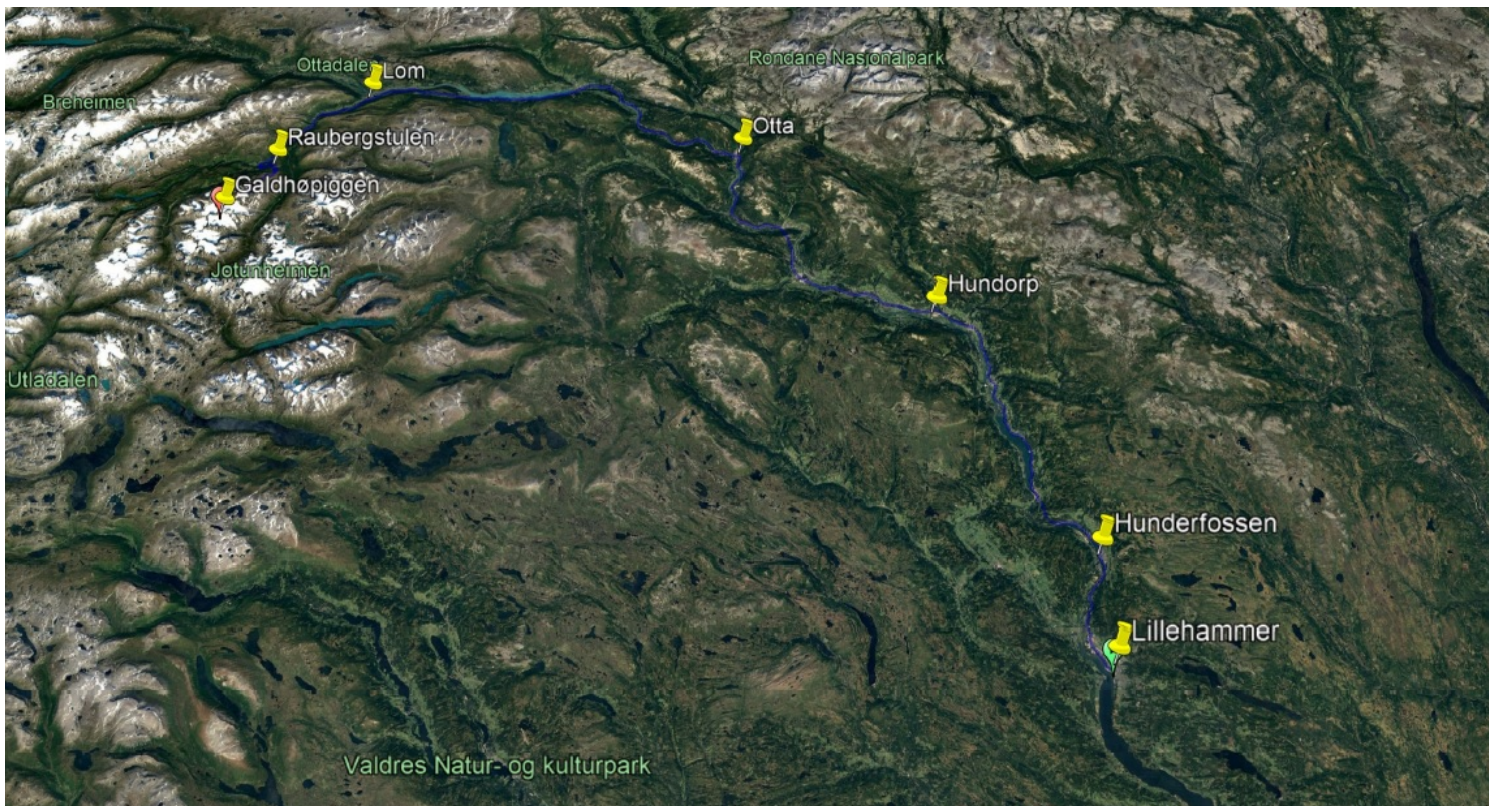
Background - program - important numbers

Background

From the lake lowlands along the watercourse to the water towers in the mountains

Addressing historical, contemporary, and future issues.

The study tours in our project “Water Matters” will follow the Gudbrandsdalslaagen water course with selected tributaries from Lake Mjøsa, through the valley of Gudbrandsdalen to the town of Otta, and from there the tributary of the river Otta all the way up through the mountain valleys to the municipality of Lom (appr. 170 km one way).



Gudbrandsdalslaagen have served several societal purposes through time, as a food resource, timber floating, recreational purposes, hydropower generation and as a source of both drinking water and irrigation for agricultural purposes.

Before we start our trip, there will be a presentation of lake management policies. Along the road we will make one or two stops to address water course topics, with an emphasis on hydro power production where the river throughout the 20th century have been developed as a running river system. We will also see damages done by the big flood one month ago.

Background

Arriving Lom, we begin our work with (1) discussing the historical use of the water resources with a focus on the artificial waterways ("bordvassvegene") developed from the glaciers to the valley floor, (2) the climate development and the change in the hydrological cycle, and (3) finally glacial archaeological finds that reveals about past use of the areas.



Example of part of the canal system, logs are often used for the last part of the irrigation system

"Bordvassvegen" is a canal system for irrigating fields, mainly for growing grain. Such systems with canals and gutters were common to farms in the municipality of Lom and Skjåk in the 17th and 19th centuries, and were a prerequisite for good grain crops. The annual rainfall in this region is as low as 300 mm. The waterways were built from the edge of the glaciers in the mountains to the fields. Small dams could also be built in front of the cliff edge.

The length the water was brought forward could vary. The shortest is only 300 meters, the longest is 20 km. 68 facilities of this type are registered in Lom.

The longest and last one was in use right up until 1986. Today, the path along some of the waterways are used as a hiking trail.

Program

Wednesday September 13th

- 10.45 CET Arrival Oslo Gardermoen airport
- 11.59- 13.40 CET Train to Lillehammer
- 13.40 We meet you at the trainstation - Leave luggage at hotel Stasjonen - Transfer to Inland University

- 14.00 Lunch meeting. Welcome with Head of Department, Doctor Tonje Lauritzen, Eastern Norway Research Institute at Inland Norway University of Applied Sciences.
 - 14.30 "Operational monitoring in Lake Mjøsa and its tributaries – past, present, and future! " by Senior Researcher and Regional Manager Asle Øksenrud from the Norwegian Research Institute for Water and the Environment (NIVA)
 - 15.00 Water management and its institutions - regional objectives, experiences and challenges" by Senior Advisor Water Management and Pollution Ola Hegge from County Governor of Inland Norway
 - 15.20 Discussion and wrap up (end 15.40)

- 15.45 Transfer to Ski jump area
- 16.00 Guided tour along Mesna river, The unique history of Lillehammer's most important river - from hunting/fishing to industrial development. Downhill hike. Good shoes since it can be slippery!
- 17.30 End guided tour, 5 to 10 minutes walk to hotel
- 19.20 Meet in lobby for joint walk to restaurant
- 19.30 Dinner at Lyng restaurant in Lillehammer centrum

Thursday September 14th

Today's theme: from running river regulations to the mountain water towers - historical developments. We follow one of Norway's main rivers to the north.

- 8.00 Departure from hotel to Lom
- Stops along the way to watch, inform and discuss visible developments of water management and climate change
- 12.00 Lunch at Bakery in Lom
- 12.45 Lom, the gateway to three different National parks, waterfalls, visit example of historical water ways at Lom open air museum.
- 14.00 Visit National Mountain museum, we will be meet by Mai Bakken, CEO of The Norwegian Mountain Center and Climate Park 2469
- 14.30 - 16.30 Water Matters workshop - See own program on page 6
- 16.30 – 17.00 Transfer to Raubergstulen mountain hotel
- 19.00 Dinner at Raubergstulen, check of equipment for tomorrow's field trip

Program

Friday September 15th

Today's theme: Water - climate stressed mountains, shrinking glaciers and how it matters for the water cycle.

- 7.30 breakfast and preparing lunch. Today we will have an outdoor lunch somewhere along the water ways. You can make your own lunch box at the hotel.
- 8.30 Transfer to starting point guided field trip
- 9.00 Visiting Climate Park 2469, tunnel in the glacier
- 11.30 Transfer to starting point hike down in Lom village.
- 12.00 Hike the Cultural path Bordvassvegen, following the old waterway to Aukrust gardens, lunch at start or somewhere nice
- 15.15 Departure via mountain road, through National park
- 16.15 Coffe and waffle-stop at Heidals Ysteri, cheese factory for traditional Norwegian brown cheese
- 17.00 Departure
- 18.30 Arrival Lillehammer, check in at Hammer Home Hotel
- 19.30 Evening meal at hotel (buffet, possible between 18.00-20.00)

Saturday September 16th

- 08.00-11.00 Breakfast at hotel
- Morning: Time off in Lillehammer. Shopping, Visit Maihaugen open air museum, the Olympic Museum, Lillehammer Art museum - everything is in walking distance
- 11.13 Train to Oslo airport Gardermoen, arrival 13.01
- 15.00 Flight to Athens



Wooden logs in water ways can look like this in autumn

Workshop program

Thursday September 14th

Water Matters workshop

- 14.30 'Frozen in time' by Mai Bakken, CEO of The Norwegian Mountain Center and Climate Park 2469
- 14.45 'Give us sun, our lord, and we will bring forth the water' by Sæbjørn Forberg, water way owner, philosopher and farmer
- 15.15 Coffee break
- 15.30 Comparing the incomparable- The Greek team leads discussion
- 16.00 Project group meeting about the way forward en deliveries.
- 16.25 Wrap up
- 16.30 End of workshop, group picture in front of waterfall/river

An article about the process and output will be published on project pages at inn.no



Bøvra river in the center of Lom

Phonenumbers

- Tor Arnesen: 0047-90922190
- Katrin Austnes: 0047- 92094960
- Windy Kester Moe: 0047-98856643
- Police: 112
- Fire departement: 110
- Ambulance: 113





Preparing for Norway's highest peak*

*or really any outdoor activity in Norwegian mountain areas in September

- Rain jacket (or goretex wind jacket)
- Hiking trousers (with good moisture transport, windbreaking, preferable waterproof)
- Long underwear in wool, pants and jersey or woolen sweater. If you have: bring change
- Socks with a lot of wool and a good fit + extra change
- Warm sweater, wool or fleece, to wear under wind jacket. If no wind jacket, bring a winter jacket
- Beanie and hat
- Thin(woolen) mittens that are warm even when wet
- Hiking boots, waterproof, preferably high model, not sneakers
- Small backpack, you have to carry extra clothes, water and food while hiking
- Waterproof bag (or a plastic shopping bag) to keep content of backpack dry
- Sunglasses and sunscreen (there can be strong sharp light at the glacier)
- Empty water bottle (to fill at any tap)

Weather forecast area Climate park:





[Snowy and very windy, check weatherconditions here: yr.no](http://yr.no)

Tid	Vær	Temp.	Nedbør mm	Vind m/s	Vindbeskrivelse
02-08		-1°	0-1,7	10 ↑	Frisk bris fra sør
08-14		-1°	0-0,8	10 ↑	Frisk bris fra sør
14-20		1°	0-1,1	13 ↗	Liten kuling fra sørvest
20-02		-1°	0-1,8	12 ↗	Liten kuling fra sørvest

Weather forecast area Water ways:

Fredag 15. september



Tid	Vær	Temp.	Nedbør mm	Vind m/s	Vindbeskrivelse
02-08		7°	0-1,4	3 ←	Svak vind fra øst
08-14		9°	0-0,5	3 ←	Svak vind fra øst
14-20		14°		3 ↗	Svak vind fra sør
20-02		11°	1,5	3 ↗	Svak vind fra sør

☀ Sol opp 06:50 ☀ Sol ned 19:49

Please tell us if you lack something, the hotel rents out some equipment