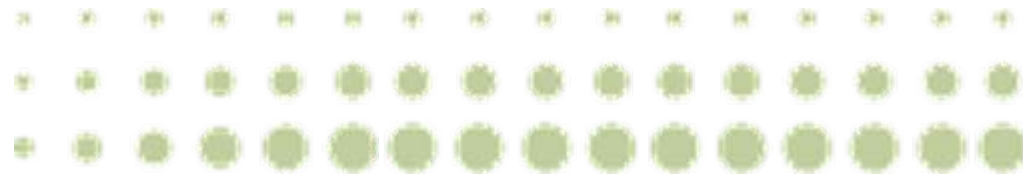


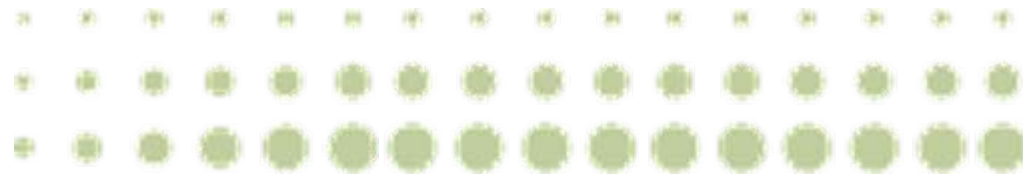


- Reference condition is a key concept in WFD
- Determine the environmental objectives
- We have to define Reference condition for all water types
- Monitoring the long-term change of Reference conditions



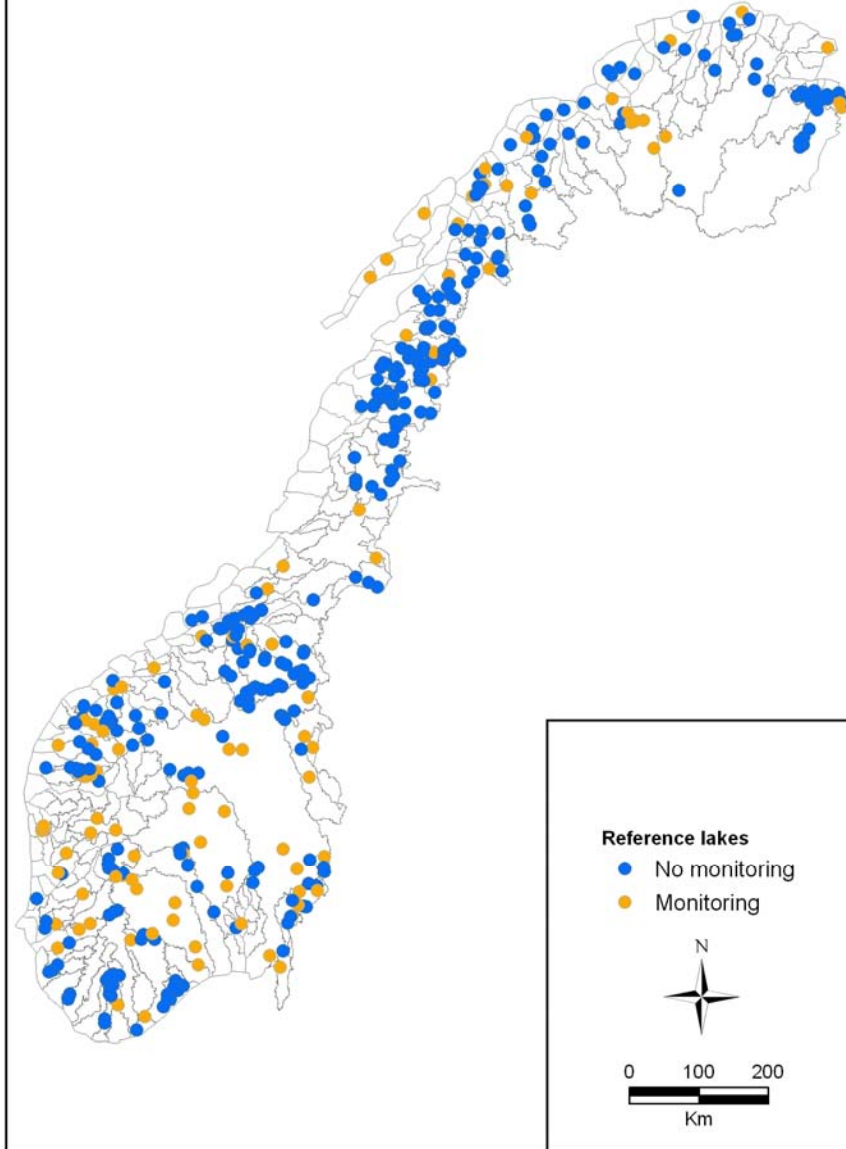


- As we have several common water types in the Nordic countries we should have a common reference network of lakes and rivers
- Cooperate on definition of and monitoring Reference condition





Alle referanse innsjøer
All reference lakes

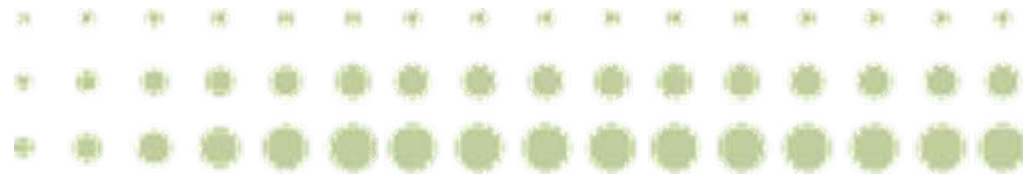


Norwegian reference lakes



Nordic reference network

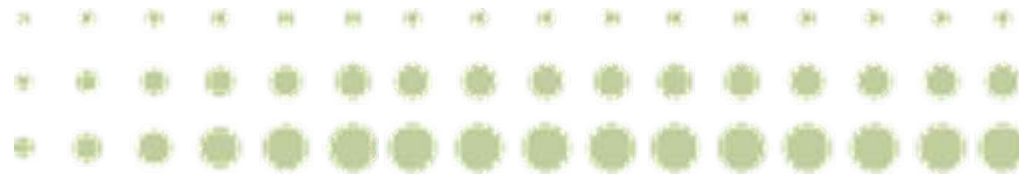
- We can build on an earlier NMD-projects which have discussed
 - Reference criteria
 - Criteria for selecting sites
 - Common methods



Norwegian lakes for a common Nordic network

Number of Norwegian reference lakes per IC type and Ecoregion suitable for integration in a Nordic reference network (Eastern Norway, Central Norway and Northern Norway inland). *: more sites would be present if L-N8 and the boreal type with equivalent water chemistry (Norwegian Lake type 15) are combined. L-N4 and L-N7 are excluded as IC-types but are included here for information.

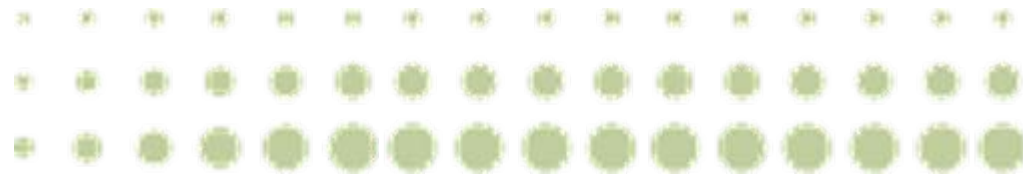
Altitude	IC type	Ecoregion			Total
		Eastern	Central	Northern inland	
Lowland	L-N1		3	2	5
	L-N2	10	9	2	21
	L-N3	5	4	5	14
	L-N8*	1			1
Boreal	(L-N4)	5	10		15
	L-N5	9	10	4	23
	L-N6	8	10	9	27
Highland	(L-N7)	9	9	8	26
Sum		47	55	30	132





Common Nordic network of reference sites?

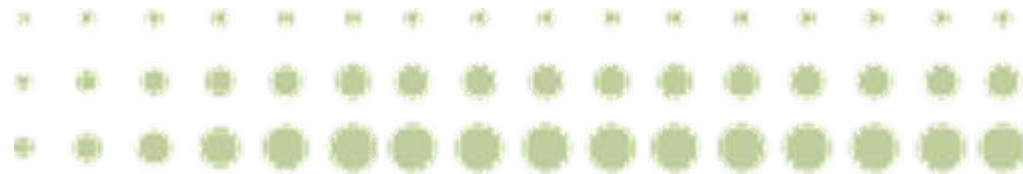
- Norwegian reference lakes and rivers are potential candidates for a common Nordic network of reference sites
 - 132 lakes
 - 61 rivers
- These reference sites belong to the common IC types and are from ecoregions of Norway that are comparable with the other Nordic countries (in terms of biogeographical patterns)





Based on statistics:

- We need 8 sites from each type to define Reference condition
- Samples from 3 year-cycles





- We agreed on making lists of potential reference sites from each country, within late September!
- We need to select approximately 3 sites pr. country pr. water type
- We prefer to select sites with (biological) data

- A future network for monitoring Reference condition in Nordic water types
- Iceland and Denmark?

