

Norwegian Water



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2014

Benchmarking of municipal water services



Norwegian Water has performed annual benchmarking of municipal water services since 2003. Participation is optional. 77 municipalities are participating in 2014, representing 3 million inhabitants.

The system for benchmarking is called "bedreVA" (Better water & wastewater). This is a tool which documents the condition of the drinking water and wastewater services, with respect to both quality and cost. The results are presented at a municipal level. Participating municipalities can compare their own results with other participants as an aid in communication with the politicians, the users and the media as well as a baseline for prioritising improving actions.

With respect to the quality of the service, both water and wastewater have five defined assessment areas. There are a set of criteria within each area for classifying the service as Good, Insufficient or Poor. A colour system is used when presenting the results.

Data report

The Norwegian municipalities have to report data concerning the water services to a state register. In order to avoid reporting of data about the water services twice by the municipalities, Norwegian Water has an agreement that allows the import of data from the state register to "bedreVA". However, "bedreVA" also demands some additional data that the participants must report directly.

The municipalities can choose between two different levels of ambition in "bedreVA" - level 1, which is a simplified level, or level 2, which is more advanced. Level 2 demands more reporting but in return, it provides a deeper cost analysis.

Collectively, the results illustrate that the number of municipalities with "Good Quality" has almost doubled in the last four years. In 2012, 40% of the participating municipalities had good or almost good quality on all the assessment criteria for both drinking water and wastewater. The quality of the drinking water was better than the quality of the wastewater services.

Positive development

Almost all of the participating municipalities were delivering water of a hygienically safe standard. The calculated water loss from the mains system has also illustrated a positive development the last three years. In 2012, 43 % of the municipalities had a calculated water loss of > 40 %, while in 2010, this figure was 49 % of the municipalities.

The results for the wastewater services show a clear improvement from 2011 to 2012 with respect to compliance with treatment

requirements. 53 % of the municipalities complied with treatment requirements in 2012 compared with 37 % in 2011. The number of basement floods and sewer blockages has also decreased over the last few years.

The yearly charges for both water and wastewater has increased on average by 15% over the last four years, over and above price increases. This may be a result of the positive development of the service standard.

Currently, a new and improved version of "bedreVA" is under development. This should be set into operation from 2015.





Drinking water supply – The Local Authorities standard for services in 2012

Local authority	Inhabitants connected to the service	QI	Hygienically safe drinking water	Usable water quality	Stable delivery	Alternative supply	Main supply function
Alstahaug	7100	3.3	Green	Green	Green	Green	Yellow
Nøtterøy	21100	3.3	Green	Green	Yellow	Green	Yellow
Drammen	64598	3.3	Green	Green	Yellow	Green	Yellow
Bergen	260000	3.3	Green	Green	Yellow	Green	Yellow
Tromsø	68158	3.3	Green	Yellow	Green	Green	Yellow
Namsos	10700	3.2	Green	Green	Green	Red	Yellow
Skedsmo	49698	3.2	Green	Green	Green	Red	Yellow
Oslo	613900	3.2	Green	Green	Green	Red	Yellow
Arendal	39500	3.2	Green	Green	Green	Red	Yellow
Skien	51415	3.2	Green	Green	Green	Red	Yellow
Søgne	9850	3.2	Green	Green	Green	Red	Yellow
Trondheim	170000	3.2	Green	Green	Green	Red	Yellow
Løten	5126	3.2	Green	Green	Green	Green	Red
Grue	3730	3.2	Green	Green	Green	Red	Yellow
Hjartdal	708	3.2	Yellow	Green	Green	Green	Green
Rælingen	16050	3.1	Green	Green	Yellow	Green	Yellow
Lier	19250	3.1	Green	Yellow	Green	Yellow	Yellow
Sandefjord	44629	3.0	Green	Green	Red	Green	Yellow
Bykle	819	2.9	Green	Yellow	Green	Green	Red

Assessment criteria for the standard of the drinking water supply

Good:	<ul style="list-style-type: none"> Hygiene: 100 % of the inhabitants connected to the municipal drinking water supplies have hygienically safe drinking water. The water supply is protected against contamination by the water source and the catchment area and through the water treatment has a documented good hygienic water quality. Usability: 100 % of connected inhabitants have good usable quality and the demands for pH and colour are satisfactory. Constant supply: unplanned breaks in pressurised water supplies (from water towers) are on average < 0.5 hours per inhabitant per year, and the total break is < 1.0 hour on average. Alternative supply: 100 % of inhabitants receiving water from a water works supplying > 1000 inhabitants, have good alternative water supplies that can provide water for a period of 3 months. Mains distribution: The calculated water loss is < 20 % of the total volume of water produced and delivered by the mains distribution network.
4 points in the quality index	

Poor:	<ul style="list-style-type: none"> Hygiene: > 10 % of the inhabitants connected or > 1000 inhabitants do not have hygienically safe drinking water. Protection against contamination from the source, catchment area and / or water treatment is poor and / or enteric bacteria have been measured in several samples from the mains supply. Usability: > 25 % of inhabitants that are connected or > 5000 inhabitants have poor usable water quality. The levels for pH and / or colour are not satisfactory and can not be maintained over the year. Constant supply: Unplanned breaks in pressure supplied systems are > 1.0 hour on average per inhabitant per year. Alternative supply: > 25 % of inhabitants or > 5000 inhabitants, receiving water from a water works supplying > 1000 inhabitants, have no alternative water supply, or that the alternative supply has an insufficient quality. Mains distribution: < 0.5 % of the total main supply is renewed during the year (based upon an average value for the previous three years) AND the calculated loss is > 40 % OR the total leakage repairs on the mains system are > 0.10 per km. per year.
0 points in the quality index	

Insufficient:	<ul style="list-style-type: none"> The criteria between good and poor standard.
2 points in the quality index	



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