

The Swedish water districts

The numbers in brackets indicate the percentage of the total number in Sweden.

Bothnian Sea

Population: 920,000 (10%)

Area: 140,000 km² (31%)

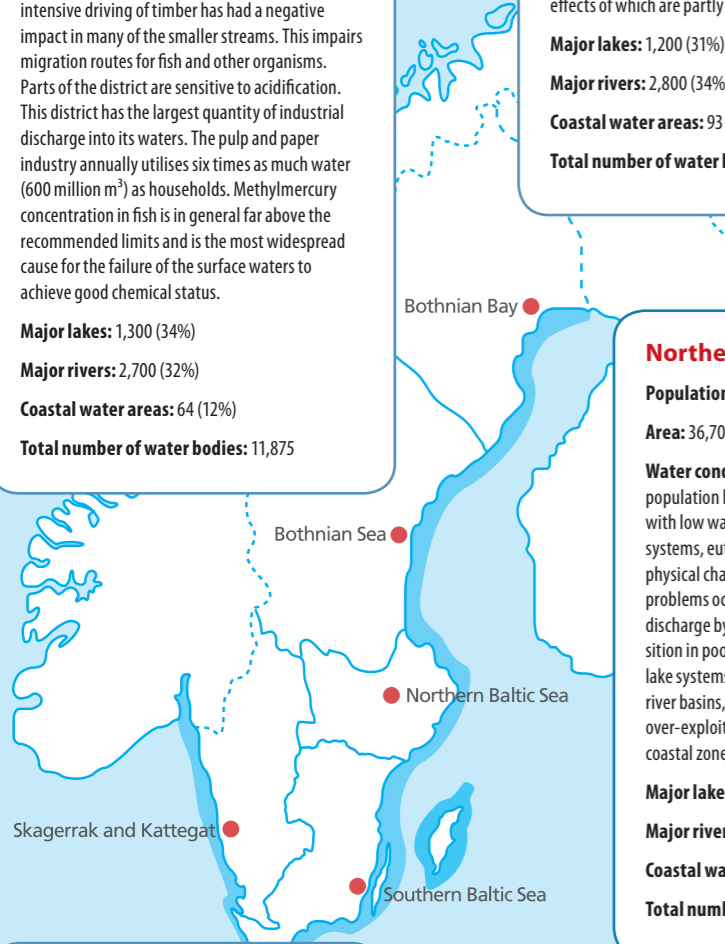
Water conditions: Most of the major rivers are regulated for hydro-electric purpose. The formerly intensive driving of timber has had a negative impact in many of the smaller streams. This impairs migration routes for fish and other organisms. Parts of the district are sensitive to acidification. This district has the largest quantity of industrial discharge into its waters. The pulp and paper industry annually utilises six times as much water (600 million m³) as households. Methylmercury concentration in fish is in general far above the recommended limits and is the most widespread cause for the failure of the surface waters to achieve good chemical status.

Major lakes: 1,300 (34%)

Major rivers: 2,700 (32%)

Coastal water areas: 64 (12%)

Total number of water bodies: 11,875



Bothnian Bay

Population: 490,000 (5%)

Area: 147,000 km² (33%)

Water conditions: The water quality is generally good with low pollution loads, but with significant human impact in some areas. The impact of physical changes are however significant with rivers deared for the formerly intensive driving of timber and dams built for power plants. Other impacts come from mining and large scale forestry activities. Nutrient discharge occurs mainly as a result of sewage treatment works and industry by the coast. The biological effects of which are partly unclear.

Major lakes: 1,200 (31%)

Major rivers: 2,800 (34%)

Coastal water areas: 93 (17%)

Total number of water bodies: 7,601

Northern Baltic Sea

Population: 3 million (33%)

Area: 36,700 km² (8%)

Water conditions: The district has a large population living within a relatively small area, with low water resources and sensitive water systems, eutrophication, acidification, and physical changes on the water environment. The problems occur as a result of significant nutrient discharge by households and farming, acid deposition in poorly buffered lake systems, lowered lake systems, and canalised rivers and regulated river basins, physical effects on the banks, and over-exploitation of the water resources on the coastal zone.

Major lakes: 320 (8%)

Major rivers: 600 (7%)

Coastal water areas: 130 (24%)

Total number of water bodies: 1,656

Skagerrak and Kattegat

Population: 2.4 million (27%)

Area: 69,500 km² (15%)

Water conditions: The district's most important problems are acidification of lakes, rivers and streams, eutrophication of sensitive coastal zones, and physical changes such as the building of dams and canalising of rivers and streams. Nitrogen and sulphur deposition deriving from sources outside of Sweden is the main cause of acidification, and the nitrogen deposition combined with nitrogen from agriculture causes eutrophication.

Major lakes: 615 (16%)

Major rivers: 1,350 (16%)

Coastal water areas: 100 (18%)

Total number of water bodies: 3,105

Southern Baltic Sea

Population: 2.3 million (25%)

Area: 54,000 km² (12%)

Water conditions: The most significant problem in the district is eutrophication combined with quite sensitive and valuable coastal zones. Households and farming cause the majority of nitrogen discharge. Industries use the largest amount of water. The district contains 50 per cent of the Swedish livestock production. In recent years, rising humus levels in the water has become an increasing problem.

Major lakes: 420 (11%)

Major rivers: 940 (11%)

Coastal water areas: 160 (30%)

Total number of water bodies: 2,206

Sweden is divided into five water districts. Five County Administrative Boards are appointed as River Basin District Authorities. They have the overall responsibility for implementing the Water Framework Directive in Sweden.

Learn more about the Swedish River Basin District Authorities at www.vattenmyndigheterna.se

The road to better water

Sweden and the Water Framework Directive



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Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such. In many ways, however, water is in short supply, and for many people clean water is not something that can be taken for granted. In Sweden, we have relatively good access to clean water. Long glacial periods have left boulder-ridges and sand deltas that function as natural purifiers. We also have a long-running tradition of water conservation. However, Sweden still has environmental problems to solve, and new issues continue to appear: discharge of nutrients that affect the sea water, power plant dams that impair the migration routes of fish in our rivers, acidification, and ground water running dry constitute some of the challenges lying ahead.

One water management system for all of Europe

In 2004, the European Water Framework Directive was incorporated into Swedish legislation. The Water Framework Directive commits all of the EU Member States to cooperate on water issues. The overall aim is to achieve good status in all waters by the year 2015.

In Sweden, the introduction of the Water Framework Directive has led to a better overview on water issues, clearer aims for water quality and a more active involvement of all interested parties.

We follow the water's flow

Water cuts across geographical and organisational boundaries. The river basin management is based on the water's natural flow. This means that we have divided Sweden into five water districts. One County Administrative Board in each district has been appointed River Basin District Authority.



River Basin management follows the water's natural flow by focusing on the river basin. Within this geographical area, all water, via lakes and rivers, flows out to the sea.

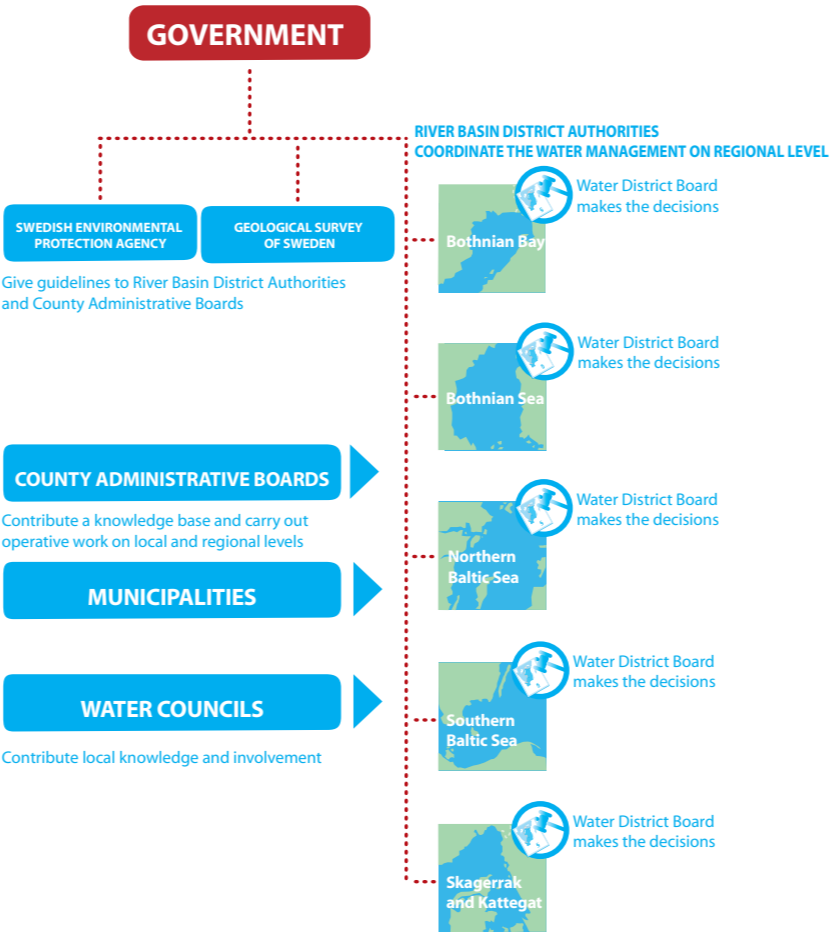
In Sweden, river basin management encompasses lakes, rivers, coastal and ground water. The coastal water includes all water within one nautical mile – 1,852 metres – of the skerries and islets located the farthest away from the coasts and archipelagos.

Who does what in water management?

The task of coordinating the work in the district and ensuring that the different organisations are working towards the same goal lies with the five River Basin District Authorities. The national authorities – the Swedish Environmental Protection Agency and the Geological Survey of Sweden – guide the River Basin District Authorities by creating regulations and guidelines, amongst other things. The Swedish Government has the ultimate responsibility for carrying out the Water Framework Directive.

At every River Basin District Authority there is a Water District Board that makes decisions on the authority's various fields of responsibility. The Water District Board is made up of experts from different fields, and is appointed by the Government.

Sweden's municipalities and County Administrative Boards have important roles in the water management. They contribute a knowledge base to the River Basin District Authorities, and perform a great deal of the operative work on local and regional levels.



The management cycle

River basin management work is carried out in six-year cycles. A management cycle starts by a characterization of the water. The River Basin District Authorities use this basic data in order to develop suggestions for environmental quality standards (i.e. quality requirements) for each of the district's existing water bodies. If the evaluation indicates that the water will not meet quality requirements on time, measures have to be taken. It is above all the responsibility of the municipalities and County Administrative Boards to carry out the measures presented to them by the River Basin District Authorities. At the end of the management cycle, a river basin management plan is developed, and the results of the work are reported back to the European Union.



Extensive participation in water conservation work

The European Water Framework Directive and Swedish legislation emphasize openness and extensive participation in the implementation of the Directive. An integrated river basin management system has been suggested, which means that all sectors of society shall take responsibility for water issues.

Distributing information and involving all interested parties in the water management are important tasks for the River Basin District Authorities. Formal consultations and public participation will be carried out prior to major decisions, such as decisions on environmental quality standards, programmes of measures and river basin management plans. All parties – individuals and organisations alike – shall have the opportunity to offer comments on the suggestions that the Water District Board will decide upon.

Water councils contribute local knowledge and involvement

Encouraging local participation is one of the cornerstones of Swedish river basin management. Local knowledge and involvement facilitates and improves water management. Water councils are local and regional collaborative bodies, and exist in several places in Sweden. Here, all affected parties can meet and develop communal solutions to local water queries.

A water council often consists of representatives from municipalities, industries, landowners and interest groups. The water councils function as an important partner to the River Basin District Authorities. Members of the water councils can, at an early stage, participate in preparations for and discussions on how local water resources are to be managed. As a result of local knowledge and experience, the authorities can ensure that the right measures are carried out in the right place.