

WORKING PAPER

The water sector in Sweden



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1. Introduction

The provision and responsibility for public services are in Sweden divided between three administrative levels: the central level with the parliament, the regional level with County Administration and on the local government level we have the municipalities. On the regional level Sweden is divided into 18 County Administrations and 2 Regional Administrations and on the local level in 290 municipalities. The counties and the municipalities provide for the majority of the public services. The responsibility for water and sewage services lay with the municipalities. They are responsible for parts of the services, i.e. planning for and constructing water and sewage plants as well as the operation of the services.

In general Sweden is rich in water and drinking water with a good quality can be and is produced from surface water as well as groundwater. However conditions for providing water and sewage services in Sweden differ between the municipalities in terms of geographical and demographical differences. A majority of the Swedish population lives in the southern part of the country and in and around the three largest cities (Stockholm, Gothenburg and Malmö). Especially the northern part of Sweden is sparsely populated and the municipalities responsible for providing for water and sewage services need to do so for only few inhabitants.

After a description of the legal framework for the provision of water and sewage services in Sweden, the provision mode of the services and the character of the infrastructure and services will be presented, looking also at the service financing schemes. The report will end with a case study about the provision of water and sewage services in a typical Swedish municipality and with some concluding remarks regarding the challenges facing the sector.

2. Legal framework

The Municipal Act (SFS 1991:900) stipulates how the municipalities and counties are to be organized and governed as well the range of their responsibilities. Besides the Municipal Act the counties and municipalities are also obliged to follow the regulations issued by the Government. Certain services, as for example water and sewage, are also subjected to other laws and regulation as well as to the supervision of the authorities (see below).

Besides what is stipulated in the above mentioned regulations the municipalities and counties are, according to the Swedish constitution, independent. This means that the municipalities and counties have the right to make their own decisions regarding the level of taxes, how to divide resources and how to provide for the public services they by law are obliged to provide for. This also means that there are differences between the municipalities in Sweden in terms of the organization and governance of services as well as the level of fees and taxes.

The provision of water and sewage services in Sweden is regulated by the Public Water and Wastewater Plant Act from 2006 (SFS 2006:412). Besides the law regulating the provision of the services, the treatment of water in Sweden is regulated by the Environmental Act, the Health Act and the Food Act. The latter since water in Sweden is regarded as food and the water works are regarded as food production units. The water and sewage sector in Sweden is also subjected to the directives issued by the European Commission regarding drinking water (98/83/EG) and protection of water sources (2000/60/EG).

The responsibility of water protection falls under the Ministry of Environment. The supervision of the quality of drinking water is divided between the three administrative levels in Sweden. The supervision of water quality is on the central level conducted by the Environmental Protection Agency. On the regional level it is the county administration that has the responsibility and on the local level the responsibility lays with the municipal committee for environment and health.

According to the Environmental Code, a license is required for the discharge of treated sewage water. Most of the licenses are issued by the County Administrative Boards. However, for larger plants it is the Regional Environmental Courts that grant permissions and for small plants the municipal environmental and health committee can give approval.

3. The organization of water and sewage services

In Sweden the municipalities are responsible for the provision of water and sewage services and for the management of stormwater (Water and Sewage Act, SFS 2006:412). Both services are usually conducted by the same organizational entity. The municipalities are according to the Local Government Act (SFS 1991:900) autonomous, which means that they to a large extent have the ability to decide how to arrange the provision of public services. As a consequence there are variations between municipalities in Sweden in regard to how the

provision of services is organized. In-house solutions or municipally owned corporations used to be the most common solution for organizing water and sewage services in Swedish municipalities. However, as the pressure on technological and environmental improvements and financial restraints has increased, different kinds of inter-municipal co-operations became more common (Mattisson, 2000; Thomasson, 2004: 2006).

Through inter-municipal co-operation it is possible to reach economies of scale in the operations as well as to enhance the level of competence within the organization. Inter municipal co-operation is therefore a way to create more sustainable organizations that are more equipped to meet the challenges the sector is facing today and in the near future (Mattisson, 2000; Thomasson, 2004: 2006). One way to organize inter-municipal co-operations is to create a jointly owned limited corporation; another common solution is to form a local government federation. Inter-municipal co-operation is not only used in order to provide the end user with drinking water and waste water services, but also for extracting drinking water from the source and treating it as well as for waste water management and treatment.

To put the operation of the services out for tender is another way to meet the challenges the sector is facing (Mattisson and Thomasson, 2007; Mattisson, 2000; Thomasson, 2004: 2006). Some examples where municipalities have put the operation of water and sewage services out for tender do exist in Sweden (Mattisson and Thomasson, 2007: Mattisson, 2000; Thomasson, 2004: 2006). However, to delegate the responsibility for water and sewage operation through tender to a private contractor is a subject of discussion and still only used by a few smaller municipalities.

The Municipal Act restricts municipalities from operating within the geographical area of other municipalities (Local Government Act, SFS 1991:900). Due to this restriction it has been difficult for municipalities to co-operate without forming local government federations or jointly owned companies. However, in the new Water and Sewage Act which came into force 2006, water and sewage services are exempted from this rule. This means that since 2006 a municipality or a municipally owned company can participate in a call for tender for the provision of water and sewage services in other municipalities (Water and Sewage Act, SFS 2006:412).

Besides the municipal responsibility for providing water and sewage services, Sweden is since 2004 as a result of the incorporation of the European Water Framework (2000/60/EC) into Swedish legislation, divided into five river basin areas. For each of the five areas a River Basin District Authority has been established responsible for co-ordinating the work conducted within the River

Basin Districts as well as the parties involved in water management within the district. The Authority is also responsible for co-ordinating the work conducted by the five different districts. Due to the extensive municipal responsibility for water and sewage services, the River Basin District Authority works co-operate with the municipalities and the municipalities do a lot of the work that is conducted to improve the water quality within the districts.

Each River Basin District has a board that makes the decisions regarding the areas of responsibility assigned to the River Basin District. The board is composed by experts in different fields, which is appointed by the Swedish government. Supervising the work conducted by the River Basin District Authority is responsibility of the County Administrative Board.

4. Infrastructure and operations

Sweden is well equipped when it comes to technical facilities for water supply and waste water management with a total length of water mains that is 67 000 km and with sewage systems of 92 000 km (private house connections are excluded from both figures). Further around 2000 publicly owned water works and around equally many sewage treatment plants exists.

Ground water as well as surface water is used as sources for drinking water. The groundwater usually has a better quality than surface water, but there are not sufficient resources of groundwater in order to serve the whole population. Instead techniques for implementing artificial infiltration and by that gain the advantage of groundwater are used.

Due to the rich access to drinking water in Sweden there is no incentive to save water, at least no policy to form a water resource perspective. To save water can instead be a way to lower the pressure on the water works and sewage treatment plants. However, it is a problem if the flow of water becomes too slow since this increases the time of residence for the water in the mains and could impair the quality of the water.

The customer base for drinking water as well as sewage treatment plants consists of around 7.7 million customers, which is almost 90% of the population (Sweden has a population of just below 9.3 million inhabitants). To serve the need of these customers around 330 litres of drinking water per person and day are produced. Of these 330 litres about 200 is used by households and the rest goes to production, industries and official premises. At the same period the consumption of water has decreased with about 10% per person. The decrease in

water consumption is explained by more efficient techniques requiring smaller flows of water.

During the 60's and 70's large efforts were put into constructing and expanding the waste water treatment services in Sweden. This effort has resulted in a decrease in pollution of receiving water sources. The focus is now on minimising the use of chemicals in wastewater treatment. These methods are currently being supplemented with methods for biological purification. Also the provision of water services expanded during the later half of the 20th century. During the last 35 years half the length of the water mains has been build.

Even though almost half of the system has been built during the last 35 years the cost for maintenance and renewing of existing drinking water mains and of the waste water infrastructure is increasing. Since it is costly to rebuild the older combined system other solutions to improve this system are explored. To be able to cover the cost of maintenance of existing infrastructure and at the same time live up to new and more extensive environmental standards is one of the major challenges facing the Swedish water and sewage sector today.

5. Financing

The majority of the activities conducted by local authorities are financed by taxes (68% in 2006) with some addition of state grants (16% in 2006). A smaller part of the services are fully or partly financed by revenues from fees (7% in 2006). The provision of water and sewage is normally finance by fees, but tax subsidy is allowed (Tagesson, 2007).

The calculation of the fees is regulated by the Water and Sewage Act (SFS 2006:412) and based upon the so called "cost price principle" meaning that the fees charged for the provision of water and sewage services can not exceed the actual cost the municipality has for providing the services. That is you are not allowed to make a profit in this sector and then use that profit in order to finance another public service. If a profit is made for one year the municipality is required to state in the investment plan for the coming years how the profit is going to be used. Since the fee is based upon the actual costs, this means that the level of the fee is influenced by the level of investments and maintenance as well as geographical conditions within a municipality. Due to differences in conditions between municipalities the cost for providing the services and thus also the fee differs from one municipality to another.

The fee for water supply and wastewater management normally consists of two components: a fixed part and a current price that varies depending on the consumption (almost all consumers have water meters). The division between the two components varies from municipality to municipality. For example municipalities with seasonal tourism have decided to almost only base the fee upon a fixed price considering that the consumption of water varies with the season, but costs for the services are constant.

The average price for water in Sweden was 0.029 Swedish crowns per litre in 2008. The average price for drinking water and water and sewage services for a household living in a house was 4336 Swedish crowns for one year (2008). For households living in an apartment the average price was 2735. However, there are large variations in the price between the municipalities ranging from 2370 Swedish crowns per year to 8031 for households living in a house and from 1322 to 5917 for households living in apartments. The average fee has remained more or less the same for the last four years, but over the last decade there has been an increase in the fee of about 7% if the effects of the inflation are discounted.

The “cost price principle” also means that the municipalities are, according to the Water and Sewage Act (2006:412), obliged to separate the financial statement for water and sewage services from the rest of the municipal activities. This in order to be able to account for that the fee does not exceed the necessary cost of providing the services. Such a separation of statements is also required when the water and sewage services are provided through inter-municipal co-operation or through a tender. When it comes to the latter solution it is the cost the municipality pays for the tender that decides the level of the fee.

The level of the fee is decided by the politicians in the municipal council and the decision is based upon information provided by civil servants in the organization providing for the services. A subscriber has the possibility to appeal to the court if he or she thinks that the fee charged is too extensive. Examples exist of verdicts where the court has ruled in favour of the complainant and the water and sewage organization has been forced to repay money to the subscriber (Tagesson, 2007).

Since the level of the fee is based upon the cost-price principle it becomes important to examine how the costs are accounted for on the balance sheet. The Swedish municipal accounting has undergone extensive change over the last years and has become more regulated (Tagesson, 2007). In 1998 the Municipal Accounting Act (KRL, SFS 1997: 617) was introduced. According to this act general accepted accounting principles should be followed (Tagesson, 2007). These principles are defined through practice and standard setting. For standard

setting the Council for Municipal Accounting was established the same year as the act came into force (Tagesson, 2007). The Council for Municipal Accounting is responsible for development and interpretation of generally accepted accounting principles (Tagesson, 2007).

One of the issues that long has been debated within the sector, since it influence the result presented on the balance sheet and thus the level of the fees, is the accounting for reinvestments (Tagesson, 2007). The standard setting bodies argue that reinvestments should be accounted for as investments and not be written off the same year. However there are still municipalities that do this which leads to impaired ability to make comparison and leads to poor consistency (Tagesson, 2007).

Another subject debated is the accounting for connection fees (Tagesson, 2007). Households not connected to the water and waste water services need to pay a connection fee if they want to be connected. The size of the connection fee is decided by the municipality and there are different ways to calculate the fee varying from one municipality to another. The question debated is whether the connection fees should be capitalized or not (Tagesson, 2007).

6. Case study

As mentioned above it has become increasingly common for Swedish municipalities to solve the provision of water and sewage services by engaging in inter-municipal co-operation. One way to do so is to form a jointly owned company, another is to organize the co-operation in local government federations. In this section a case of inter-municipal co-operation through a jointly owned corporation will serve to illustrate the organization and operation of the provision of water and sewage services in Swedish municipalities. The case study is based upon the information provided through semi-structured interviews with employees, manager and board members of the company (for a more extensive overview, see Thomasson, 2009).

Roslagsvatten: A case of inter-municipal co-operation in a jointly owned municipal corporation

Background

Roslagsvatten AB is a limited company, owned by six small-medium sized municipalities in the Stockholm region. As a limited company Roslagsvatten

does not only operate under the Local Government Act (SFS 1991:900) and the Public Water and Wastewater plant Act, but also the Swedish Company Act (SFS 2005:551). The company was founded in 1989 with the corporatization of the water and sewage service in Österåker. The corporatization of the services was a result of a political decision to separate water and sewage services from the other technical services that are financed by taxes and not fees like the water and sewage services are. With the corporatization the budget for water and sewage services was separated from the other services and by that the municipality could ensure that it lived up to the legal requirements and the cost base principle.

Some years after the corporatization the company began to expand and in 2004 the company got its sixth member. Common for the municipalities that have joined the company is that they all have, due to their size, experienced difficulties in organizing and financing water and sewage services on their own.

Organizational structure and area of responsibility

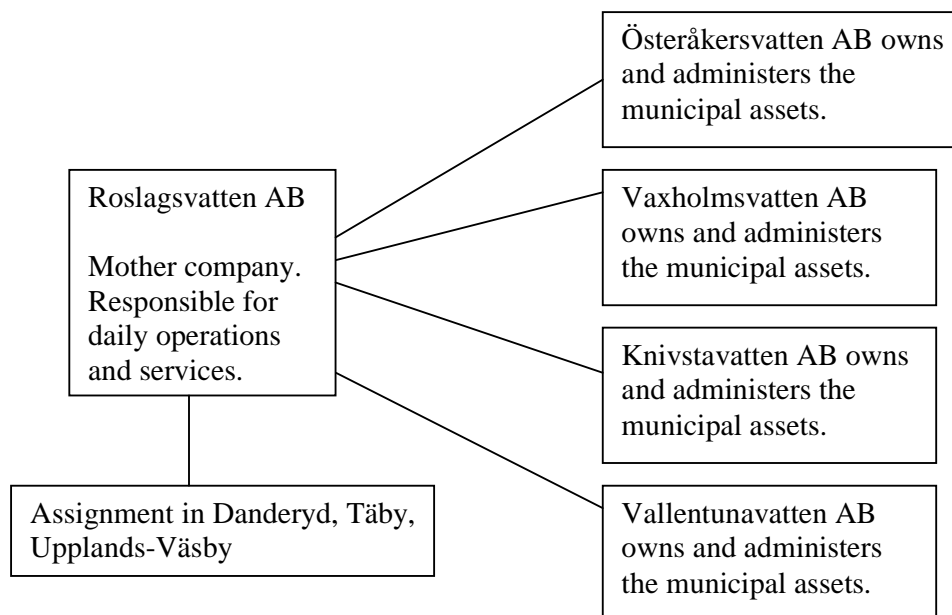
The municipality of Österåker is the majority owner with 61, 8%; the other shares are divided between the other five owners. The four largest owners have with their ownership handed over the municipal responsibility for water and sewage services to the company making the company responsible for providing subscribers in the owning municipalities with water and sewage services.

Two of the municipal owners own only a small percentage of the company since the responsibility the company has in these municipalities is less extensive. The relationship between the company and these municipalities has more the character of a purchaser provider relationship. The reason why the municipalities are part owners in the company is that the Local Government Act (SFS 1991:900) does not allow municipalities to conduct services outside their own geographical area. In the new Public Water and Wastewater Plant Act from 2006 (SFS 2006:412) water and sewage services are exempted from this rule. Since the new regulation came into force Roslagsvatten AB has expanded its activities and is now also conducting water and sewage services in another nearby municipality, Upplands Väsby. Upplands Väsby is not part owner in the company, but instead following the new regulation this relationship is a strict purchaser-provider relationship.

The company is organized as a concern, with a mother company and one subsidiary for each of the four largest owners. Each owner's subsidiary owns and administers the infrastructure for respective municipality (see figure below). The mother company is responsible for the daily operations and for the

employment of all the staff of the entire concern. The majority of the employees are assigned to a certain geographical area. The mother company is also responsible for invoicing and each quarter of a year a settlement is made where the cost for operations is traced back to the respective municipality and compared with the revenues. Overhead costs are divided between the owning municipalities depending on the degree of activity conducted in each municipality.

Figure: mother Company with subsidiaries



Financing and governance

The company is mainly financed by fees paid by subscribers of water and sewage services in the owning municipalities and by the municipality where it has a contract. The rest of the company's financial resources comes from revenues from other services that are bought either by some of the municipalities or by external contractors operating in the area. The company has established rules for how to relate to work conducted outside the public monopoly. One rule, for instance, is that this type of work is only accepted by the company during times of excess capacity. Another is that the assignment should be related to water and sewage activities and contributes to the development of the company's competence as well as generates revenue.

The mother company is governed by a board of directors consisting of politicians from the four largest owners (the two smallest owners have due to their limited involvement with the company opted out of having representation

on the board) and two co-opted board members. The latter are elected based upon their expertise within the field. In total the board has five political directors, two co-opted directors, four substitutes and one chairman. The chairman is appointed by the largest municipality, Österåker.

Each of the four subsidiaries is governed by a board of directors consisting of politicians from the owning municipality. The boards of the subsidiaries are responsible for decision regarding the administration of the infrastructure. Since the law requires that the fee charged by one municipality for water and sewage services are a reflection of the actual costs for providing the services (see Sections 2 and 5 of this report), the decision of the level of the fee as well as investments are taken by the board of the subsidiaries. This means that the level of the fee can differ from one municipality to another, depending on, among other things, the investments decided upon and the condition of the infrastructure.

The owners' directives are the most important control mechanism. The directives are decided by the Municipal Council in each of the owning municipalities and elaborated by the company in collaboration with the municipalities. Besides the directives, the owners exert control over the company by appointing directors to the boards, appointing auditors and participating in the General Annual Meeting. The company has also in collaboration with the owners elaborated an agreement that establishes the conditions for the relationship and the division of responsibility between the company and the owners. Further, the agreement establishes a minimum required level of quality of the services produced, the technical status of the assets and environmental goals. The minimum level agreed upon forces the owners to make sure that their infrastructure, which is the responsibility of the boards of the subsidiaries, holds a certain standard.

7. Conclusions

In Sweden water and wastewater management are the responsibility of municipalities. Municipalities in Sweden are autonomous, which means that they are free to by themselves decide how to provide for the services they are obliged to provide for. They are also free to decide the level of taxes and fees. This means that the organization of water and wastewater management and the level of the fee can and does vary from one municipality to another. However the most common solutions are in-house solutions and to have the services organized in municipally owned companies.

The presence of private operators is limited on the Swedish market for water and wastewater management and the services therefore to a large extent have the character of public monopoly with very small elements of competition. There are some examples of municipalities that have put part or whole of the water and wastewater management operations out for tender, but they are still few and the presence of international companies providing for these services is limited. However, with the exemption from the rule that municipalities only can operate within their own geographical area made in the Public Water and Wastewater Plant Act from 2006 (SFS 2006:412), it is possible that we will see more examples of putting water and sewage services out for tender and an increase in the level of competition on the market.

Sweden is well equipped when it comes to the infrastructure for providing drinking water and for waste water management. The challenges for the sector today and in the future seem to be to maintain a good level of quality in the services as well as to live up to environmental and quality standards at the same time as the financial resources available are scarce, especially in smaller municipalities with fewer tax payers. Another challenge is the succession of generation and to maintain and improve the competence within the municipal organizations. Today the access to qualified personnel is limited due to retirements and a small number of people with the right qualification within the workforce. The competition for qualified personnel is therefore fierce.

As a consequence of the challenges facing the municipalities they have started to look for alternatives to the traditional in-house or company solution. As a result of this there has during the last years been an increase in the number of inter-municipal co-operation within the field of water and wastewater management. With the exemption made in the new Public Water and Wastewater Plant Act from 2006 (SFS 2006:412) inter-municipal co-operation has been further facilitated and no longer requires a joint organization. The development towards more and more inter-municipal co-operation is therefore likely to continue especially as more and more municipalities feel the pressure of limited resources combined with increasing demands.

Bibliography

Mattisson, O. & Thomasson, A. (2007), "The strategic process and its impacts on the outcome of a tender", *Annals of Public and Cooperative Economics*, Vol.78, No. 3, pp. 439-454.

Mattisson, O. (2000), *Kommunala huvudmannastrategier för kostnadspress och utveckling: En studie av kommunal teknik*. Lund: Lund Business Press.

SFS 1970: 244. Lagen om allmänna vatten- och avloppstjänster, Rilex.

SFS 1991: 900. Kommunallag, i SFS, Rilex.

SFS 2005: 551. Aktiebolagslag, i SFS, Elanders Gotab.

SFS 2006: 412. Lag om allmänna vattentjänster, i SFS, Rilex.

Tagesson, T (2007), "Does legislation of form of association influence the harmonization of accounting? A study of accounting in the Swedish water and sewage sector." *Utilities Policy*, Vol. 15, pp. 248-260.

Thomasson, A (2004), *Hur kommer framtidens VA-organisationer att se ut? Två exempel samverkan och entreprenad*. VA-forsk rapportserie nr 2004-16.

Thomasson, A (2006), *Kan driftentreprenaden tillföra något till Svensk VA-sektor? Effekter och erfarenheter av driftentreprenad*. VA-forsk rapportserie nr 2006-11.

Thomasson, A (2009), *Navigating in the landscape of ambiguity – A stakeholder approach to the governance and management of hybrid organizations*. Lund studies in Economics and Management 110. Lund: Lund Business Press.

Webpages:

The Swedish Water and Wastewater Association: Webpage

The Swedish River Basin District Authorities: Webpage

Länstyrelsen: Webpage.

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