



# Waste information of Stockholm County

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### Introduction

### The Assignment

Kommunförbundet Stockholms Län (The Association of Local Authorities in Stockholm County) via RAS (Regional Co-operation in Waste Management at Stockholm County) are participating in an international project, RECO (Regional Cooperation on Waste Management in the Baltic Sea Region). Kommunförbundet Stockholms län (The Association of Local Authorities in Stockholm County) have prioritised the section of the project that concerns "Public Awareness". The assignment that was formulated consists of an expertise inventory of information within the waste management sector and a workshop.

My task has been to perform the inventory of information within the waste management area in the County of Stockholm. The inventory has been compiled in a report that is also intended to reflect how inhabitants in the municipality adopt the waste management information that is being produced and information which has already been produced.

The term waste information means the information that is valuable within the community, which is used within the waste management sector in order to get individuals to adopt the systems supplied and how the local community is best able to create a sustainable form of waste management also through receiving feedback concerning how information functions and is received.

The intention of this report is to describe in a simple and easily understandable way the waste management information within the County of Stockholm and which events/breaking points within the waste management sector that have made it develop into what it is today.

My ambition has been to make the presentation both practical as well as easy to understand – regardless of whether you are an information officer, politician or a public servant.

The report should be seen more as a description and explanation of how waste management information can be formulated rather than pretending to be a scientific paper.

The report should be able to be used as a source of inspiration by all those who work with waste management information. Waste management information is definitely not just a load of rubbish.

Many thanks to all those who helped to produce this material and who have assisted and discussed waste management information with me during the spring.

Stockholm, May 2006

Gunilla Törnquist-Hedström

## The method – or how the assignment was implemented

Based on the formulated assignment, I presented a number of questions to those that I had been given the names of and who supposedly worked with waste management information in all municipalities within the County of Stockholm. The questions were sent by electronic post to information officers and waste officers in all municipalities within the county. The sending out of questions took place on January 17, 2006 and was later followed by reminders from myself and from KSL (The Association of Local Authorities in Stockholm County). By the end of February I had received some form of contact and replies or referrals from 21 of the county's 26 municipalities. I received no personal contact from information officers at municipalities that purchase services from SRV (Södertörn Refuse Collection Department) except for some cases where they referred all questions concerning waste management information to SRV directly. I was unable to come into contact with five of the municipalities within the county despite repeated reminders.

Once all the material had been collected I had lengthy talks with information officers regarding personal visits at SRV (Södertörn Refuse Collection Department), FTI (previously known as Förpackningsinsamlingen (the Packaging Collection Service)) as well as several visits to Ingrid Olsson at SÖRAB (Regional refuse collection company in northern Stockholm County). In addition, Kerstin Ahne, Kerstin Ahne Market Research AB and I went through the investigations that she has performed on behalf of SÖRAB and Upplands Väsby municipality among others concerning household knowledge of sorting at source and their views concerning information about waste management.

I have also had additional discussions by telephone with Renhållningsverksföreningen (RVF – The Swedish Association of Waste Management), Håll Sverige Rents desk (Keep Sweden Tidy foundation), Peter Wenster at Kommunförbundet (The Swedish Association of Local Authorities and Regions SALAR), Bengt Frizén in Täby municipality etc. Göran Lundberg at KSL (The Association of Local Authorities in Stockholm County) has also provided me with primary data and acted as a discussion partner during the course of the work.

I have chosen to compile the collected material based upon how and what it is that results in waste management information in the County of Stockholm functioning as well as it does. I have resisted performing detailed evaluations or descriptions of the information work in individual municipalities. My approach has been to describe the information work within the entire county.

My approach has also been to choose simple words. Several of those questioned that work in the waste management industry also state that the industry lacks common and complete terminology lists. I have chosen to use the words waste and household waste and sometimes even the word refuse. Sorting at source describes the collection of certain waste components. Recycling station means FTI (the Packaging Collection Service) collection containers and recycling centres mean municipal collection sites primarily intended for bulky refuse.

"Information is the strategic messages that are to lead to increased knowledge. Communication is the process of messages based upon interaction among those that partake in this process and that leads to some form of attitude or approach."

Information officer term according to the Svenska Informationsföreningen (Swedish Information Society).

# What makes municipal inhabitants sort and correctly dispose of their household waste?

The basis for correct disposal is having simple waste systems.... The basis for getting the local municipal inhabitants to properly dispose of their waste is the provision of a sufficiently simple waste system so that access to rubbish bins/containers is both comfortable and easy. It should be sufficiently comfortable for us with our knowledge and understanding of the value of taking our waste with us to be able to manage (handle/want to) deposit the waste in the correct manner (= right location).

Even the question of a simple waste system can be quite complicated. We are housed in different ways in areas of detached houses or in high-rise apartment buildings. The waste systems can and are different depending on where we live or work. We have different opportunities and possibilities of being able to take things with us from home – depending upon mobility and perhaps partly also depending upon age. Access to a car can also be a factor that helps to simplify when it comes to transporting bulky waste.

"Normal" household waste, meaning remains from the household, is something that most of us (all of us?) are able to deposit close to the living quarters. When it comes to packing, newspapers, glass, hazardous waste goods, etc it becomes a larger problem for many of us.

# ...but we must receive information and knowledge in order to act correctly

To be able to sort your waste (sorting at source) and to do it correctly, in other words leaving waste in the correct manner and at the right location, you *must have been provided with information about what and how you should act*. For many it is sufficient to know *how* one should act – but others need to be convinced and be given explanations about *why they should sort* and why they should not throw away dangerous waste in the rubbish bin – in order for them to do the right thing.

# From which source have I acquired my knowledge about what/how to dispose of my waste?

Knowledge, that makes us act correctly, can either have been taken with us since we were small and/or acquired as adults. Our parents taught us or we learnt in some other manner when growing up. So despite the fact that, ever since we were born, we have ourselves contributed to household waste, and somewhere along the way ought to have become aware that household waste (refuse) is something that must be taken care of and dealt with it is not named as a "source of information". In other words, the fact that we ought to have learnt this when growing up, it is not named in those investigations concerning household knowledge and opinions about waste management and information that has been produced by some of the municipalities within the county. In the SÖRAB (Regional refuse collection company in northern Stockholm County) investigation from 2005, 9-10% mentioned however that they acquired information "through the school". This can in part be linked with that the question of sorting at source and thus the interrelated question of making the waste issue clear is a relatively new finding and was actually not introduced until during the 1980s.

# Type of housing dictates/may dictate whether I receive direct or indirect waste information

In the investigation performed by the Utrednings- och Statistikkontoret (Stockholm Office of Research and Statistics) which was commissioned by Stockholms Stads Renhållningsförvaltning (Stockholm City Refuse Collection Department) at the end of 2005, owners of detached houses stated that they had acquired information/knowledge about sorting and recycling mainly from the Renhållningsförvaltningen (Refuse Collection Department). Those that lived in multiple-dwelling buildings stated that they primarily acquired information via television/newspapers/radio. Those living in multiple-dwelling buildings stated that they received secondary information from landlords.

Within the county it appears that the major/most important waste information for owners of detached houses appears to originate from the municipality or the entrepreneur assigned with the task of collecting the waste. Residents in multiple-dwelling buildings appear to get more information in the form of "second-hand information", in other words via the owner of the building or the residents association. (See also the section entitled: How do the local inhabitants receive the waste information?)

### *The municipality – a credible source*

A fundamental question, that appears when I studied the waste information material from the municipalities within the county, is:

Is it sufficient that the municipality/or its representatives/appear as the source of the information in order for me to act correctly?

My answer to this question is an unreserved "yes". If this is also linked to the fact that the municipality enjoys considerable credibility and is something of a "brand name" so that the municipality is considered to know what is best for its inhabitants when it comes to questions that are beneficial for the community/society – it is a question that perhaps needs to be looked at in more detail.

In the investigation commissioned by Upplands Väsby in 2004, respondents were asked what confidence they had in municipality waste management. One can also compare this with the answers to a similar questionnaire conducted in 2001. It appears that the confidence in how the municipality takes care of the waste in Upplands Väsby has increased greatly in this three-year period. In 2004, 72% of those questioned had quite considerable or very considerable confidence in how the municipality handled waste management. The equivalent figure back in 2001 was 62%. And the percentage of those expressing little confidence had decreased from 17% to 6%. A clear result of an information drive — do you not think so?

So even if the municipality in some cases has assigned an entrepreneur and it is the entrepreneur or SRV (Södertörn Refuse Collection Department), for example, that appear as the senders of waste information it does seem that credibility follows the question of waste management. Or might it be a case of the municipal inhabitants taking for granted that it is the municipality that lies behind the local waste management – regardless of who actually collects the containers in front of the houses.

One can almost draw the conclusion that the municipal inhabitants reason that it cannot be a rogue company that works with collecting household waste.

What is required in order to ensure that we act correctly and where necessary change our behaviour?

The intention of the municipality waste information is that we continue to do the right thing, in other words sort our waste in the correct manner and deposit it at the right locations.

If we act incorrectly today then we ought to learn to act correctly. If we change address or do some other type of change we must be informed about how we should act regarding the waste question and how we shall act in this new area. If the municipality changes waste systems or if new laws or rules governing waste management come into force, this must be communicated to the county inhabitants. One example of a clear change, which should be communicated, was when electronic waste collection was implemented in 2001.

If we are to change our behaviour regarding sorting and disposing of our waste the following is required –

- Sufficiently simple collection systems so that we are able to understand what to do
- There shall be simple and clear instructions regarding how to sort and where we should deposit the sorted waste. The information must be provided close by or why not in the dwelling in other words right where the waste is produced. Or at least by the waste container or in the waste room in the house where I live.
- We shall be able to read and understand the instructions and advice regardless of whether we receive it in writing or verbally. The instructions shall be concise and simple. We shall trust that the author or source (municipality or its representatives) that provides us with the information is reliable, in other words it is important that we are encouraged to do.
- Those that require additional argumentation (knowledge) in order to change their behaviour that need to be convinced about the environmental benefits of for example sorting and depositing waste they must also obtain the additional information about the reasons. What are the consequences for our environment if we do not sort waste, etc or what other arguments work on us so as to make us act correctly.
- Or that we in some other way obtain information about how and what we should do. Indirect influence through children at school, through work, friends, the media - or in some way that is specially suitable in my case if I require information and advice/expertise provided in some specific language for example.
- Alternatively, instead of using knowledge, expertise, environmental argumentation use financial incentives, in other words that which is already performed for example in Sollentuna: "He who sorts correctly pays less".

In certain areas it is the building caretaker or the owner of the building that is responsible for instructions to new residents concerning how to deal with waste at that specific location. Svenska Bostäder (Swedish Homes) have, in certain areas, special "miljövärdar" (environmental coaches or advisors) that are

assigned the task of showing/helping the residents with waste issues. FTI (the Packaging Collection Service) have experimented with using specially trained persons that were to stand and provide information in various languages at the recycling stations in certain areas of the city of Stockholm. FTI (the Packaging Collection Service) make use of so called "sopspioner" (waste spies) at recycling stations – and in this way want to catch inhabitants that act incorrectly, in other words sort incorrectly or dispose of waste at the wrong locations.

Of course, we now know that the systems change, our consumption behaviour changes and our behaviour changes over time for many different reasons. We also know that many of us live in a municipality but work in another municipality and perhaps have a summer cottage in a third municipality. In addition, we travel in many different ways.

If it is indeed so that waste systems exist in different forms in different municipalities and that the information works and is formulated in different ways – then we have an additional factor that makes it somewhat harder for us to know – how should one/we take care of waste?

# Waste information in the County of Stockholm

### County of Stockholm – a mix of urban environments and rural areas

The County of Stockholm consists of 26 municipalities with considerably varying character. There is the City of Stockholm with its 765,000 inhabitants from the compact Gamla Stan with narrow streets and tight alleyways to the outer areas with areas of detached houses. There are the archipelago municipalities and their special waste management problems where the number of inhabitants more than doubles during the summer months. There are the inner city municipalities with their high-rise buildings and large groups of different language groupings. There are the Mälaren region municipalities with their mix of built-up areas and rural areas.

What influences the waste management information in the county, which similarities and differences exist when it comes to how the various municipalities manage waste issues. What consequences do this have on the way the municipalities work with major influxes/exoduses or large movements of people between the municipalities?

# Breakingpoints and events that have been decisive during the development of waste information in the County of Stockholm

First, it is important to state that information on what and how local residents ought to do with their waste (their rubbish) in many cases has led the way for municipal information in general. In several of the municipalities within the county it is obvious that waste management information has been responsible for the first professionally focussed information process and waste information differs considerably today from other municipal information.

#### **Sorting at source**

The fact that waste information came first was due to the fact, according to some people, that those responsible within the municipalities saw a need of informing the general public so as to get people to do the right thing when sorting at source became relevant.

#### Battery issue and the dioxine debate

In other areas it has been said that the need for waste information became apparent primarily when the issue of batteries first appeared during the 1980's. It was then realised that humans needed to start sorting their waste in order to remove that which was dangerous to the environment if it ended up in the usual rubbish bags. The dioxine debate is also named as another reason why we could not just continue throwing everything in the rubbish bags and then let it get burnt.

#### "Var sak för sig" (Everything separated)

Renhållningsförvaltningen (Stockholm City Refuse Collection Administration) - in the city of Stockholm, at that point in time it was Skafab (Waste Refinement Company in Stockholm Municipality) who handled the city waste and refuse collection - say that in their case it was sorting at source that speeded up the information process. In other words, the inhabitants of the city were to be taught to sort "at source" instead of sorting centrally. It was not the rubbish tip from now on – now one was to remove materials that were able to be recycled. Stockholm city started a project called "Var sak för sig" (everything separated) that was about collecting the various fractions directly at the dwelling. This is seen to be the starting point of an intensive information project and an increased need to directly inform local households.

#### To be able to recycle you must first sort

It was also during the 1980's that the term recycle started to be used – and in order to recycle one first had to sort the waste. Then one had to explain how and what ought to be sorted. In the beginning it was done with the assistance of articles in the local newspapers or in special information brochures that were distributed to households. Sorting guides, in other words simple news sheets or brochures that describe what to sort and how waste should be sorted, have also existed for quite some time.

Another example is environmental calendars that in the beginning were mainly nice printed papers but which as the years passed by, developed into being a reminder of different annual needs regarding knowing where and how I should dispose of everything from dangerous waste to Christmas trees. Täby municipality started distributing environmental calendars to all households in the area as early as 1988. Approximately ten of the municipalities in the county currently distribute environmental calendars to all households in the county.

In the beginning of the 1990's, composting and local compost containers started to be discussed by certain municipalities.

In the middle of the 1990's, the law on manufacturer responsibility was implemented and it changed waste management information processes to a certain extent. Municipal information was complimented with the information that is provided by Förpackningsinsamlingen (Package and Newspaper Collection Department) and other parties.

An additional reason that is often mentioned regarding why waste information developed at an early stage and also resulted in a major impact is that waste management is financed through the use of charges or fees. In other words, you pay for your own waste collection. Fee or tariff financing has meant that one can buy information and printing services especially for waste information.

# The waste issue was top of the agenda when the environmental debate started

As has already been named, one cannot talk about municipality waste information without looking at what other national information that has existed and which concerns the question of waste

Different nationwide campaigns started at an early stage which, all in their own special way, contributed to making people far more aware that the question of waste was becoming far more complicated as products and other objects we consume became more and more advanced.

The waste issue first entered the agenda thanks to the environmental debate that started in various forms in Sweden at the start of the 1960's. In 1962, Svenska Naturskyddsföreningen (the Swedish Nature Protection Society) started their campaign "Håll Naturen Ren" ("Keep Sweden tidy"). The following year, in 1963, Rachel Carson's book "Tyst vår" ("Quiet spring") was published in Swedish for the very first time.

The Rikskommittén Håll Sverige Rent (National Committee of Keeping Sweden Tidy) ran the campaign "Ett renare samhälle" ("A cleaner society") together with county committees during the years 1970-74. In Stockholm, the county committee ran the campaign "Håll skärgården ren" ("Keep the archipelago clean") from 1974 up until 1983. Håll Sverige Rent ("Keep Sweden tidy") was founded in 1983 by Naturvårdsverket and AB Svenska Returpack. The foundation receives half a Swedish öre for each aluminium can returned (soft drinks and beer) – money that was used in campaigns fighting littering.

In 1992, the United Nations held a global environmental conference in Rio de Janeiro. The five principles that were adopted during the conference became trendsetters for environmental work throughout the world. "Polluter Pay Principle" which was the principle that the polluter bears the full cost for the pollution and the "Kretsloppsprincipen" ("The Circulation principle") led the way in Sweden up until the so-called Circulation Principle Proposition in 1993.

In this way, manufacturer responsibility was implemented in Sweden. REPA started in 1995 and Förpackningsinsamlingen (the Packaging Collection Service) started in 1996 and the introduction of these participants/parties influenced and changed waste information in the entire country. Designated collection containers for glass had, however, existed ever since Swedish Glasåtervinning (Swedish Glass Recycling) was established in 1986. Newspapers had also been collected even prior to that time. Nacka municipality state, for example, that they collected newspapers at gates or from so-called "tidningsmajor" (newspaper collection bins) back in the 1980's.

The Rio conference was also the initial phase of the Agenda 21 work. By 1995/96, all municipalities in Sweden were to have implemented local Agenda 21 for environmental work within the bounds of their own county.

The mercury campaign was run during the 1990's. The Batteriförordningen (the Regulation on Battery Disposal) from 1997 stated that all batteries were to be collected. Naturvårdsverket (the National Environmental Protection Agency), Svenska Kommunförbundet (the Swedish Association of Local Authorities), Renhållningsverksföreningen (Association of Refuse Collection Departments) and Batteriföreningen (Battery Association) joined forces on the question of batteries and the first professional nationwide advertising campaigns started with the "Hem-till-holken-kampanjen" in 1999.

During 2000, Miljödepartementet (the Department of the Environment) contacted several participants of the first hazardous waste campaign. The RAS committee (Regional Cooperation in Waste Management) unites the municipalities in the County of Stockholm forming a powerful campaign that includes using the sides of busses and activities at recycling centres and environmental stations on the day of the campaign, May 20, 2000. This campaign is followed up by the campaign implemented by RAS (Regional Co-operation in Waste Management) for the collection of electronic waste components in the beginning of 2002. This is a clear example of local, powerful forms of cooperation in the municipality in order to partly support the nationwide campaign and partly focus on the individual municipality. The collective results of these campaigns have been very good

# Waste systems importance for acting correctly

The waste systems in the different municipalities within the County of Stockholm appear to be almost identical. One either deposits household waste in a plastic sack or in a container or a bin. Waste suction systems arrived as early as the start of the 1980's but have in recent years been re-launched in a major way in new residential areas within the City of Stockholm such as Hammarby Sjöstad and Lilla Essingen.

What is happening now regarding the systems is that there is a move away from collecting the waste in plastic sacks to whenever possible, collecting household waste in containers.

The reason behind changing the residence proximal waste collection provided is claimed to be working environment related. In other words, one wants to make it easier for those that work

with collecting the containers. This also applies not only to the collection of waste in multiple-residency buildings but now also in areas with detached houses and villas. In the county of Järfälla, waste collection lorries have been banned from driving into the narrow Viksjö semi-detached house area since February, 2006. This means that several thousand detached-house owners have to move their collection bins to a communal collection site.

Multiple-residency buildings have started sealing their old stairwell rubbish chutes and moved the collection of refuse to containers located in special refuse rooms. This means that the collection of waste is in the process of being transferred away from the household. We are moving in the opposite direction to that which we decided when apartments with rubbish chutes intended to simplify for the householders of that time were displayed at the Stockholm Fair back in 1930.

It is interesting that at the time of writing these lines (April 2006) Hyresgästföreningen in Stockholm (the Stockholm Tenants Association) are involved in a battle against a municipal property company, Centrumkompaniet, in order to be allowed to reopen the refuse chutes that were closed two years ago. This is an example of a manifestation of residents wanting to retain the possibility of depositing their refuse as close to their dwellings as possible...

#### Comments regarding the above:

A person who is very familiar with waste issues commented on this case – in which case one would need to have ten different refuse chutes, in other words a hole for each fraction that we are expected to sort. In other words, if one is to have refuse chutes to simplify for householders to deposit all types of rubbish.

When instructions concerning how refuse rooms were to be designed first appeared in 1978, Sundbyberg municipality began to check waste rooms and measure walking distances. Waste carousels and compressors were installed in order to make space for all the waste that was produced. Today, the municipality is working to remove all compressed sacks as well as large sacks. In the municipality of Sundbyberg there will be no sacks whatsoever by 2009/10.

In Sollentuna, it is said that all working environmental problems were solved during the 1990's. They only have container collection. In addition, 18,000 of the municipality's 24,000 households have joined the system of having two containers in order to sort household food waste using one of the containers. It can be stated that the environmental goal in Sollentuna municipality of sorting food waste, where 35% is to be recycled, has already been achieved. The national environmental goal is set for 2010 and covers food waste from households, restaurants, kitchens etc. One reason for this relatively rapid adoption of sorting waste using two separate containers is that the municipality offers a multi-levelled charge for those that sort. The motto in Sollentuna is "Those that sort a lot pay a little".

# Living in an apartment or detached houses – does it matter – or are other factors decisive regarding how/where one disposes of waste?

Sorting requirement have also resulted in municipal inhabitants themselves having to know what waste should be deposited where and later, he/she must themselves transport their waste sacks/newspapers/glass or whatever else it is.

If one lives in multiple-residency buildings that have waste rooms with different containers for different waste types then it is simple. If you only have access to containers for household waste and must yourself transport sorted newspapers/packaging/electronic waste etc to the recycling station or recycling centre – then it becomes more difficult. At least if you live in

the city centre or in multiple-residency buildings. Those who seem to be the best at acting properly are owners of detached houses – this may be because in most cases they are able to use a car – they drive regardless and thus have more opportunities to take their own waste with them.

According to an investigation in the city of Stockholm in 2005, 39% of those living in multiple-residency buildings stated that they deposit glass in their own bulky waste rooms.

When it comes to residents within the city of Stockholm, 10% of those living in multiple-residency buildings stated for example that they deposit glass packs at recycling centres while 59% of those living in detached houses perform the same task. Here we can presume that behaviour, i.e. getting to a recycling centre, is linked to whether one has a car or not. It may be that the difference is less between car-driving residents in multiple-residency buildings and car-driving residents in detached houses. We do not know this – since the questions have not been asked in this way.

This was purely an example of how our behaviour is not just influenced by where we live – but rather by the way we live and what opportunities we have to transport our waste.

# Is the perception of the municipality important regarding how waste information is formulated?

During the collection of material about waste information, I was unable to refrain from wondering whether it matters how the municipality is made up. In other words, is the municipality a mixed municipality i.e. urban and rural areas such as Nacka for example or is it purely a "city municipality" like the city of Stockholm or Sundbyberg, in other words those municipalities that have the majority of their residents living in multiple-residency buildings. The conclusion that I am able to draw from my material is that – no, it is not important. On the contrary, it appears that the smaller the size of the municipality – the less need for waste information. People know what to do regardless. But even here there are exceptions – among the two smallest municipalities in the county we found the clearest and most powerful information work. This is the case in Ekerö with their 24,000 inhabitants and Upplands Väsby with their 37,500 inhabitants.

The larger the number of inhabitants within a municipality, the more professional the information needs to be in order to reach everyone. This has been proven by Renhållningsförvaltningen (Refuse Collection Department) that are responsible for cleaning the city of Stockholm and who serve the 765,000 inhabitants. It is also shown by the cooperation that was performed within the framework for SRV (Södertörn Refuse Collection Department) who serve 284,000 inhabitants in five municipalities.

Certain municipalities have a tougher task when it comes to informing the municipal inhabitants. This applies for example to the municipality of Järfälla where 21% of the inhabitants have foreign backgrounds and where there is also a very young population.

#### What does waste information look like?

RAS (Regional Co-operation in Waste Management).

Waste information in the county's various municipalities basically follows the same pattern. This may be because they have influenced one another over the municipality borders and may also be an effect of the cooperation within

SÖRAB (Regional refuse collection company in northern Stockholm County), that was founded in 1978, has not only influenced the work in the municipalities that co-own the company – but also influenced the work in the other municipalities within the county by having professional and good information work at an early stage. As early as 1988, SÖRAB (Regional refuse collection company in northern Stockholm County) provided schools within the municipalities with books and films on how waste can be useful once again through recycling.

SRV (Södertörn Refuse Collection Department), who provide waste handling on behalf of the municipalities of Botkyrka, Haninge, Huddinge, Nynäshamn and Salem, are responsible for waste information to more than 100,000 households. SRV started their information work as early as the beginning of the 1990's at the same time as a new waste plan was implemented. At that time the MD of SRV required professional help with the information work. Until then he himself together with the MD secretary had taken care of the company information. SRV are responsible for all information concerning waste in the five municipalities – the sender is not the respective municipality but it is always SRV who are indicated as being the sender. Regardless of whether it concerns messages to house owners about waste collection or if it is a resident new to the area.

Today the printed newspapers and information letters of the past are being replaced by referrals to municipality homepages. Environmental calendars still exist in ten of the municipalities. More than ten or so municipalities use local papers in order to spread their message. Primarily they are paid adverts. A handful of municipalities state that they actively work with school information.

# How is the municipality waste information perceived by the municipal inhabitants?

Current measurements of which types of information about waste collection that municipal inhabitants state that they have received during last year SÖRAB (Refuse Collection Company in the municipalities north of Stockholm) for those municipalities that cooperate within SÖRAB, Upplands Väsby and Renhållningsförvaltningen (Refuse Collection Department).

During the investigation performed during 2002 and 2005 by Renhållningsförvaltningens it was discovered that the inhabitants in the city of Stockholm feel well or quite well informed about how they should manage their waste. Among those living in detached houses within the city, the percentage informed increased from 66% to 82% during the last three years. Among those living in multiple-residency buildings, the percentage that was well informed increased from 58% to 71%.

If one looks more closely at those that live in single-family dwellings older people (in other words over 50 years of age) consider themselves better informed than younger people.

Among those that live in single-family houses, it is the men that to a greater extent feel that they are well informed. 85% of the men compared with 79% of the women. However while the women that live in multiple-family dwellings consider themselves to be better informed than men in multiple-family dwellings. Outer suburb residents also consider themselves to be better informed than inner city residents!

The results of similar investigations performed by SÖRAB (Regional refuse collection company in northern Stockholm County) in June of 2005 show that approximately 90% of those that live in single-family dwellings within the SÖRAB area say that they are quite well or very well informed about how they should sort their household waste. The equivalent figure for households in multiple-family dwellings are that eight out of ten, i.e approximately 80%, feel that they are well informed. Even here one can see clearly that older and middle aged people that respond are better informed than those that are younger.

The different forms of information that one asks about are among others information sheets/brochures from the municipality, environmental calendars, newspapers from the municipality, local newspapers, articles in newspapers, advertising in newspapers, information through invoices, information through waste rooms, through landlords/residents associations, through work, through information meetings, through municipality homepage or some other webpage.

Waste information within the municipality consists mainly – still – of printed material while it is apparent that it is predominantly younger people that use homepages in order to obtain waste information.

In general we can see that that which we already knew does apply, in other words that those living in detached houses to a greater extent state that they receive waste information directly from the municipality or information through the municipality newspaper. House owners are thus more direct recipients of municipality information. At the same time as they are the recipients of invoices regarding waste invoices also are direct customers of the municipality.

Residents living in multiple-residency buildings are indirect recipients of municipal waste information – and reveal to a smaller (in certain cases much less) extent that they receive some type of information from the municipality. Waste information to residents living in multiple-residency buildings arrive primarily through the owner of the building (or the residents association).

It is interesting to note however in the SÖRAB (Regional refuse collection company in northern Stockholm County) investigations, when presented with the question "If it is one of the listed methods that you think is specially effective way of informing", both house owners and residents in multiple-residency buildings to a degree of almost 70% say that information sheets and brochures from the municipality are the best form! Approximately half of those that responded in both groups think that it is good informing through the environmental calendar.

Here one can presume that the answers depend on the fact that one considers the municipality to be a more credible sender of messages than other newspapers/media, or other channels in general.

# **Examples of information material and activities**

Environmental calendars (calendars)

Calendars (environmental calendars) were mentioned earlier. Around ten of the municipalities in the county currently publish environmental calendars. Täby started in1988. The calendar contains a heap of information about waste management within the municipality. The pictures are beautiful nature pictures. The famous artist Gunnar Brusewitz illustrated Täby's

Avfallsinformation 2006

Avfallsinformation 2006

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environmental calendar for many years. In the investigation that the municipality of Täby has undertaken concerning their environmental calendar it can be seen that in 2004 88% had heard of the environmental calendar. 64% of those that answered used the environmental calendar for waste and recycling questions. In 2001 a similar investigation had been performed – and when compared it was found that the environmental calendar is used more in 2004 than was the

Sollentuna vann

miljökalender-

case several years earlier.

It is slightly contradictory however in the SÖRAB (Regional refuse collection company in northern Stockholm County) investigation from 2005. When asked where one acquired information about sorting at source – 31% of those in detached houses and 28% of those living in multiple-residency buildings answered spontaneously (i.e. they named it themselves at first) that "they would ring the municipality". 28% and 20% respectively would seek information on the municipality homepage. 7% of those living in detached houses and 3% of those living in multiple-residency buildings would check their environmental calendar. But when questioned about evaluating the information obtained they answered, via reminders, 53% of those living in detached houses and 44% of those living in multiple-residency buildings that the calendar/environmental calendar is a very good source! In other words, more than half of those questioned think that the calendar is a good method.

The municipality of Sollentuna's Environmental Calendar for 2006 was recognised by the Yrkesföreningen Miljö och Hälsa (The Professional Association for Environment and Health) that chose Sollentuna's calendar as the best calendar of the year, partly because it was "relatively rich in information about waste". The environmental calendar this year shows pictures depicting how Sollentuna looked like in the past.

The advantage of producing calendars for many years is recognition – as in the case of  $T\ddot{a}by - i.e.$  a plus that it is published every year.

Special newspapers about waste and recycling

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SÖRAB (Regional refuse collection company in northern Stockholm County) produced the newspaper Natur och Retur for a number of years. The newspaper came out once a year and was distributed to the 183,000 households in the nine municipalities contracted by SÖRAB. But those measurements that Ingrid Olsson, information officer at SÖRAB, performed in order to see how the newspaper was appreciated and used – then she was only able to state that not enough individuals read and/or knew of it. A conclusion that Ingrid Olsson made based on this was that

municipality inhabitants want quicker returns (feedback) of information – how much waste is collected and how good are we in our municipality.

In other words producing a newspaper once a year – it is too little – and costs too much in relation to the awareness one receives. And perhaps also that SÖRAB (Regional refuse collection company in northern Stockholm County) is an "unclear" sender – it is of course not your own municipality.

SRV (Södertörn Refuse Collection Department) have on the other hand opted to continue with their customer newspaper. SRV's newspaper Kretsloppet is issued four times a year and is distributed to 125,000 households within the SRV area. The newspaper has generally been issued since 1990 and in those investigations that have been performed, Kretsloppet has had high levels of awareness. The newspaper has changed its appearance during the years – and the sender SRV has profiled itself very clearly. It is also a difference from the other municipalities within the county of Stockholm and it is SRV that is the sender of all waste information that goes to the five municipalities served by SRV. SRV strengthen therefore their role even as a collection entrepreneur.



#### Newsletter

The newsletter does not appear to be an important or deciding information channel for the municipalities. Those newsletters that exist, such as Renhållningsförvaltningens (Refuse Collection Department) Dina Sopor (Your Refuse), is distributed to well defined and limited target groups and not to all municipality inhabitants.

### Brochures, sorting guides

Most of the municipalities within the county state that they distribute brochures about refuse sorting, sorting guides etc to the municipality inhabitants

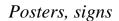
They are fine, expensive brochures with clear and good information.

Some of the municipalities that have good brochures worth reading are Nacka, Ekerö, Lidingö and SRV (Södertörn Refuse Collection Department). Ekerö recently collected their information material (an information letter, price list and new brochure) in a brown bag and distributed them to all households in the municipality.

Renhållningsförvaltningens (Refuse Collection Department) refuse sorting book is substantial but perhaps not so widely distributed.

### Flyers, "hangers" etc

It appears that there are many different types of waste information material within the county's municipalities. Some have been produced in connection with campaigns, others as postcards used by SRV (Södertörn Refuse Collection Department) to communicate directly with owners of detached houses. Hangers that are hung on door handles (alternatively the door handle of refuse rooms) used also by SRV when welcoming new house owners as customers.



Posters and signs with a message about how to sort, where one should deposit, etc also exist in a number of versions. There are posters and signs to set up in refuse rooms, posters at recycling stations and recycling centres.

It is advertising posters on busses, the underground trains and in town in connection with different campaigns and activities. For the municipality inhabitants it may however be difficult to differentiate when it is the municipality authority that is making an appearance and when it is other participants. But perhaps it does not matter – as long as it makes us do the right thing.

## Municipality newspaper

In most cases one makes it clear that one communicates questions about waste using the municipality newspapers. Facts such as new regulations, new recycling centres and reminders are advertised in the municipality newspaper. Even regular adverts appear.

## Homepages

The municipality homepages stand for an increasing share of waste information. In investigations many state that they seek information on the municipality homepages if they want to find out more about how to sort and deposit, etc. For example, Nacka municipality state that they had more than 1000 unique visitors on their homepage in the beginning of the

When it comes to the question of waste it is not only the municipality homepages where one can seek information. There is also a large number of homepages from the various participants within the waste industry. If you want concrete information about waste, waste statistics, etc concerning your own area it is <a href="www.dinkommun.nu">www.dinkommun.nu</a>, in other words the joint homepage for RASK (Regional Co-operation in Waste

Management) in the county of Stockholm that applies.

#### Media

Advertisements about opening hours at recycling centres, changes to charges and fees or news regarding waste management appear regularly in all local newspapers within the county.

When it comes to using media in a public relations manner perhaps not all municipalities work so strategically as one possibly could. During the time that I have monitored waste information in the county of Stockholm, in other words during the spring of 2006 – the newspaper coverage have mainly been about messy recycling stations and about litter in general. And here we are not accusing the municipalities of littering – rather the media appear to know that it is FTI (the Packaging Collection Service) who are responsible for the recycling stations. FTI are careful to point out that they cannot help it if for example the city of Stockholm have failed to earmark sufficient land areas and sites for recycling stations.



INFRASTRUKTUR

# Campaigns – and utilising central campaigns...

As previously mentioned, the county of Stockholm has through RAS (Regional Co-operation in Waste Management) on several occasions coordinated campaign activities in conjunction with nationwide campaigns. Such an example, which produced good results, was the Hazardous Waste campaign in 2000.

Cooperation between the various participants within the waste sector is perhaps not always perfect. Here far more ought to be achieved – if the various campaigns were coordinated and timed. One should repeat the message and concentrate more on recognition, in other words the more and more expensive advertising is no longer sufficiently effective in order to stand out and convey the message. It is apparent from the material I have seen that the material that has existed for some time has more clout. A clear example of this is the Batteriinsamlingens material (battery collection material) – "hem till holken" (back to the nest) – that still has considerable recognition. Despite the fact that it is seven or eight years since the campaign was run for the first time. But since it still exists in school material – and nowadays also in a nursery school material – the message is repeated for new generations in a skilful manner.

### Targeted activities

School information in the county appears to be organised mainly in the form of special activities. Renhållningsförvaltningen (Refuse Collection Department) has those so-called environmental days that are aimed at schools. Sune's sopbok (refuse book) is an example of material that Renhållningsförvaltningen provides on behalf of the schools.

Since 1997, Upplands Väsby have organised reoccuring waste theatre for forth graders. This year there is also to be a drawing competition for students in the forth grade.

accept visiting school classes.

In Södertälje they have produced an interactive story on CD. The CD has been sent to all intermediate-level school students in Södertälje. It has also been shown on the Gröna Påsen (Green Bag) homepage. At Telge Recycling, who are responsible for waste information in Södertälje, they

The municipality of Ekerö organise project works at the high school and at Komvux (adult education centre). Solna municipality has for one year been involved in a project where students in the ninth year produce the calendar for 2007.

#### Personal meetings

An important part of the information work is obviously meetings in person. In other words when those responsible for waste issues meet with the local inhabitants. The most spontaneous meetings with the local inhabitants appear to be when the inhabitants visit a manned recycling centre.

Otherwise, it is mostly about municipal waste experts offering their time and appearing at planned meetings with tenants, home owners or in other constellations.

The scope of this type of meetings has not been evident in the material that I received. Organising open houses at recycling centres is something that is performed/has been performed in several places. Partly in conjunction with larger campaigns and happenings – but also in order to celebrate the opening of new recycling centres.

SÖRAB (Regional refuse collection company in northern Stockholm County) are now concentrating on a new type of activity – the so-called Timellaren. This entails leaving information about how to take care of your waste right at the building supplies store. It is clear and a good example of how to meet the municipality inhabitant at an early stage during the "waste process" and that one is present at the same location as the customer.

#### **Conclusions**

To draw a number of conclusions based on the material that I have presented and commented on – this is perhaps a little presumptuous. But what I will risk saying is the following:

Waste information in the County of Stockholm has existed at an early stage, in other words it has a historic background which means that it is well established and recognised. The fact that it has existed for quite some time, and has been run in a systematic and similar manner, is in many ways positive – it is a form of clear recognition of both the waste system as well as the waste information. Since this in itself simplifies for municipal inhabitants to continue to correctly take care of their sorting at source and how to deposit waste. It also makes it easier when moving between municipalities.

The messages that are conveyed, that is how we should sort and how we should deposit, seem to be well entrenched in the inhabitants in our county.

The municipalities or those that take care of waste issues in their place, are seen as being responsible and having a strong, major "brand name". In other words what the municipality says is credible.

These are vital and strong reasons for saying that waste information in the County of Stockholm are really not just a load of rubbish.

