## Public toilets in Vienna: Operation between cost efficiency and service for the public

The keys to sustainable and therefore successful operation of public toilets are cleanliness and accessibility, unfortunately in most cases these qualities cannot be found easily.

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#### Abstract

This article reviews the status quo of public toilet facilities in Vienna. Specifically it deals with the 2004 recommendations of the municipal auditor concerning the closing of low-frequented facilities, which are subject to a high degree of not-intended use and the questions regarding the consequences of their closing, that were subsequently raised. This article explores, if employing sustainable operation and maintenance methods in public toilets in Vienna could prevent the closing of the relevant public toilet facilities or if other changes are necessary.

# Administration of public toilets in Vienna

#### Statistics

The public toilets of Vienna are under the administration of Municipal Department 48 – Waste Management, Street Cleaning and Vehicle Fleet. According to their homepage "waste prevention and separation ... are the central goals of the municipal department." (http://www.wien.gv.at/umwelt/ma48/)

In the context of public toilets they are responsible for the development, construction, management, operation and maintenance of the buildings and structures, as well as the continuous monitoring of



Figure 1: The famous Wilhelm Beetz Jugendstil facilities at Graben 1<sup>st</sup> district



Figure 2: Public toilet facilities with cleaning personnel, 1<sup>st</sup> district

#### Key factors for successful O&M of public toilet facilities are:

Hard keys:

- good cleaning system and materials have to be easy to clean
- equipment has to have a high tolerance against vandalism
- Soft keys:

promotion of the social acceptability of public toilet facilities, to encourage social acceptable behaviour amongst the users, resulting in less waste, dirt and vandalism

#### Public toilets of Vienna:

- flush toilets (6 litres limit, some old models with a higher consumption rate)
- water-flushed urinals
- waterless urinals (using membrane technology, some models use sealing liquid)
- handicapped accessible flush toilets
- hand washing facilities (no-touch with faucets with flow restrictor, some old models different)
- septic tanks (for facilities at the Donauinsel, recreational area of Vienna)

technical functions. In 2004 the Municipal Department had 7 relevant staff members responsible for 327 public toilet facilities. Each district council is responsible for the allocation of the annual budget to individual public toilet facilities in their respective district. (Figure 1 and Figure 2)

The official website of the city of Vienna includes a list of public toilet facilities (Table 1), indexed by districts, that also shows which of the facilities is handicapped accessible, closed, under construction, etc. and how to find them.

The facilities are divided into 5 categories:

- facilities with handicapped accessible stalls and cleaning personnel
- facilities with handicapped accessible stalls
- facilities with cleaning personnel
- public toilet facilities
- urinals

Table 1: Distribution of the facilities in the Viennadistricts 2004

District	Public toilet facilities with personnel	Public toilet without personnel	Population per 31.03.2004	Inhabitants per facility
1.	5	12	17.774	1.046
2.	24	2	93.586	3.599
3.	11	1	85.078	7.090
4.	3	1	29.673	7.418
5.	8	0	51.561	6.445
6.	6	4	29.104	2.910
7.	7	1	29.146	3.643
8.	2	0	23.123	11.562
9.	9	1	39.141	3.914
10.	13	2	160.956	10.730
11.	5	3	81.627	10.203
12.	6	3	83.158	9.240
13.	11	0	51.312	4.665
14.	11	1	81.131	6.761
15.	5	1	69.142	11.524
16.	15	0	90.465	6.031
17.	7	0	51.263	7.323
18.	9	0	46.622	5.180
19.	17	0	67.204	3.953
20.	12	0	80.710	6.726
21.	34	2	134.522	3.737
22.	50	1	143.688	2.817
23.	22	0	87.187	3.963
Sum	292	35	1.627.173	4.976

In 2004 the municipal auditor of the city of Vienna published the until today most up-to-date report (Kontrollamt, 2004): "MA 48, assessment of the behaviour in the context of the operation of public toilet facilities." The goal of this report was to evaluate the necessity of each public toilet facility and the possibility of closing them down. Between this report and 2009 26 facilities have been closed, without any alternate facilities being constructed. The facilities, which were closed were more or less evenly distributed across the entire greater municipal area. The initial uneven distribution of public toilets to the districts of Vienna follows the typical pattern of preferred locations; close to touristic attractions, in parks and recreational areas and along subway lines, i.e. in public transport stations. Of the 327 facilities in 2004, 76 are located at public transport stations, 51 in the recreational area Donauinsel and 29 close to 2009 market areas. In October the "Bezirksjournal", a Viennese local newspaper, started a survey among the inhabitants of the 4th district, if they would need more public toilet facilities in their district. A clear majority of 92 % answered with "yes we would need more public toilet facilities", not a surprising result. (Heine, 2009a, 2009b)

#### Running and irregular costs for public toilets

The report of the municipal auditor differentiates between facilities with and without attendants. 89 % of the existing facilities do not have attendants (292 facilities), which also means, that their usage is free of any charges, while some users of facilities with attendants have to pay for the service (Kontrollamt, 2004). These are mainly highly frequented facilities close to touristic attractions and historical facilities. Charges are only imposed on the usage of stalls.

The usage of urinals is free, whether there is an attendant or not. This automatically leads to discrimination against female users, since they do not have an alternative to using a stall. The collected money is used to pay the wages of cleaning staff, which represent the largest part to the running costs. The percentages of energy related costs are relatively small. In the course of the past few years' changing from water-flushed urinals to waterless urinals could further reduce costs. (Kontrollamt, 2004) (Figure 3, Table 2)

#### Vandalism and not-intended use

If one compares the frequency of use to the costs for misuse it becomes evident that less frequented facilities are significantly more often subject to misuse, e.g. the use of the facilities for the purpose



Figure 3: The typical fee for the usage of public toilet facilities in Vienna is 50 Euro cents.

oft drug abuse or shelter. (Kontrollamt, 2004) Table 3 presents the situation of public toilet facilities in relation to frequency of use and misuse.

One also has to take into account the standard of the equipment in the facilities, which are destroyed on a regular base. The most vulnerable are those equipped with porcelain toilets and urinals, due to the nature of the material. Others, which are equipped with stainless steel objects are not destroyed as often, but if they are, one could see that vandals actually are giving a lot of thought to their act of destruction, unscrewing screws, lifting equipment out of its usual place before destroying it. Even though the MA 48 tries to implement equipment, which is designed to endure vandalism, this problem might only be solved with the introduction of social control through attending personnel.

Most stalls are equipped with mechanical counters for the number of users. On the basis of these numbers, the amount of water used, and general benchmark values the facilities were classified as high, medium or low frequented facilities, since the actual counting of users is not possible with justifiable means. The municipal auditor advised the closing of low frequented facilities, which are subject to a high degree of not-intended use. The main argument behind this recommendation was that only the designation of an attendant would improve the situation.

This recommendation of course raises a number of questions:

- Is the closing of public toilet facilities in the interest of the general public?
- If a municipal government is responsible for the provision of a functioning urban infrastructure should they be allowed to close down public toilets? Or are they such an integral part of a functioning city that they have to be accessible regardless of the expense to the annual municipal budget?
- What consequences does the closing have for various user groups?
- Should and can restaurants and cafes (e.g. McDonalds restaurants were named in the survey quite often) take on the provision of traditional public functions like the provision of

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	2001 in Mio. EUR excl.	2002 in Mio. EUR excl.	2003 in Mio. EUR excl.	
	VAT	VAT	VAT	
Running costs for cleaning	1,88	1,91	1,84	
Energy related costs	0,13	0,11	0,09	
Costs due to vandalism	0,21	0,14	0,14	
Maintenance costs	0,39	0,37	0,33	
Total expenditure	3,23	3,26	3,26	
% of total expenditure for cleaning costs	58,2	61,8	65,9	

#### Table 3: Relation user frequency to not-intended use (a total of 321 facilities were included in the study)

Frequency of utilization	Number of facilities with low/medium/high frequency of utilization	% of users frequenting public toilet facility	Costs occurring due to vandalism in %	Not-intended use in %
low	97	30	64	71
medium	150	47	22	18
high	74	23	14	11
Sum	321	100	100	100

public toilets? (Klaesener-Metzner, 2010) And what happens to user groups, which are not necessarily always granted access to private properties like restaurants and cafes or those who are unable to access them for various reasons?

The official comment of the municipal department MA48 on the report of the municipal auditor was that the MA 48 is going to work towards solutions for each single facility on the basis of the recommendation of the municipal auditor as well as their statistical data. The result, until today, was the closing of 26 facilities (2004 - 2009)

#### **Operation and maintenance**

Good toilets are based on good design and availability as much as they are on good management and maintenance. (Greed, 2003, Gershernson and Penner, 2009) The third pillar are social factors like: education of users, training of cleaners and attendants and cultural change in societal attitude towards the topic of (public) toilets. (Klaesener-Metzner, 2010)

In Vienna only about 11 % of the existing public toilet facilities are operated on an everyday base by attending personnel. These are mainly those close to touristic attractions. Virtually none of them are open everyday all year-round. The municipal department MA48 outsourced the cleaning to private companies. The public toilets inside of public transport stations are cleaned through personnel of the public transport company (Wiener Linien).

The cleaning routine consists of: emptying the waste bins, cleaning the facilities (equipment, floors, walls, etc.), re-stocking hygienic articles (soap, toilet paper) and monitoring the functions of the equipment (incl. reporting malfunctions). In some of the newer facilities the cleaning personnel can use their "Clean Handy", with which they can test, block or delay the flushing, while e.g. cleaning water-flush urinals, which operate with a movement sensor (MA48, 2009).

During highly frequented times, e.g. during an event close to the toilet facility (a significant amount of facilities are close to public places, which attract visitors for various reasons, tourists, people demonstrating, waiting in lines), cleaning personnel have the task of cleaning the toilets after each use. This means that the seat must be wiped, the availability of toilet paper has to be checked and the toilet has to be flushed, regardless if the previous user has already done this. Considering 6 liters per flush and e.g. 200 users per day this are 1.200 litres of unnecessarily flushed water per event day, just to give users the feeling of well maintained, which in this case equals clean, toilets. Since Austria is a water-rich country and the Viennese sewer system is working properly this is not of major concern to the operators.

Apart from regular operations, maintenance work due to misuse and vandalism is necessary. As mentioned before these activities account for a significant part of the budget and are the reason for a significant number of closures of public toilets worldwide. This can be seen and is the topic of various studies all over Europe. (e.g. Greed in the U.K., HafenCity University Hamburg in Germany, Klaesener-Metzner in Austria) (Greed, 2003, Pinto, 2009)

Public toilets are a particular type of public space, since they are a space in which not only a very private need can be fulfilled. But it is a room in public, which is withdrawn from social control, in that it is blocked from sight, i.e. hiding what people really do in "there". This lack of social control seems to encourage a kind of behaviour, which would not be engaged in plain sight. The seclusion, or privacy of the stalls seems to encourage drug misuse; apathy washing ones hands if there is no one else at the hand washbasin... why wash your hands?

Keeping this in mind, as well as the fact, that public toilets are an integral part of public life in metropolitan areas, they have to be treated in accordance with their specific requirements. Even though, nowadays, great value is placed on having a "personal" facility, a personal mobile toilet for everyone living in the city remains impossible. The She-Pee (http://www.pmatestore.co.uk/) will not substitute the public toilet, like the mobile phone substituted telephone booths. But the product aims to give something to its potential users, which public toilets often enough cannot provide: accessibility and cleanliness. Therefore it might make a good addition to what should be provided within the city. It should not be the goal though, that women have to take care of their needs on a private base, while men are provided with a free municipal service. This would drive us away from equality further, instead of bringing gender equality into the public facilities.

Gender mainstreaming is a topic, which is included into the design of new public toilet facilities in Vienna (http://www.wien.gv.at/menschen/). This approach includes:

- well-lit entrances, which are easy to find and on display,
- good lighting in the toilet rooms,
- maintenance personnel will be on site to ensure regular cleaning and security through the personnel's presence,
- a larger number of cubicles for women is needed, and
- changing tables should be available not only in women's toilets.

Previously, women and men stalls were built in approximately the same number. If the urinals are taken into account, this results in a much larger offering of toilets for men then for women, resulting in the well known long queues in front of women's facilities compared to those in front of men's facilities. The inclusion of changing tables into men's facilities mirrors the changing society where finally, not only women care for small children. Those standards are valid for new facilities, which only account for a small fraction of the public toilets, until now 2 facilities are building according to these standards. Therefore the unequal distribution will continue to be present in a foreseeable future.



Figure 4: Women queuing in front of public toilet facilities, while men just walk in, a typical sight in everyday life

### Conclusions

There is not any one single perfect solution related to the successful operation and maintenance of public toilets, since solutions always depend on the cultural and societal background of the various users.

Since studies show that clean toilets are much less subjected to misuse and destruction, and therefore much less subject to closures, the focus should be on solutions, which encourage socially acceptable behaviour, and lead to pollution abatement. Everyone knows the feeling of using something for the first time or after it has been cleaned, an item not contaminated by dirt is handled with more care than the same, dirty one. The more valuable this item is to us, the more careful we use it. Following this observation fashionable design could be a possible solution to achieve the goal of well-maintained toilets, e.g. a colourful, designer public toilet. Unfortunately, the state of some nightclub toilets proves this hypothesis wrong. Even though interior designers gave quite some thought to their looks, they are still a dirty mess at the end of every party evening. Such a party night could be considered the equivalent of a day full of heavy use for public toilets, which have to cope with an even more diverse clientele, which seems to care even less about the state of the toilet, when leaving it. This should not discourage planners to give special attention to design aspects, which are not purely functional. A colour, which helps brighten up the room, will certainly make a small, but maybe for some users substantial. difference.

Observations also show that users treat toilets, which are cleaned after each use, with more respect. The factor of social control plays a mayor role in this. If it is clear who the culprit is who messed the toilet up, users tend to care more. Unfortunately 100 % coverage of the city with public toilets with attendants is far from realistic, if one considers the municipal budget. Some cities have started building self-cleaning cubicles, which disinfect the whole cubicle after the user. Advertising, integrated newsstands, information booths and so on, often cover high acquisition costs of those high-tech toilets. Concepts like this are opportunities; making toilets integrated parts of public transportation and commercial facilities may make them more accessible to the general public that need them. Similar concepts of combining different functions, within public toilet buildings can be found in urban areas all over the world. The combination of public toilets with other public facilities, which can not be found in large numbers or not at all in the city at the moment, like drug centres, street worker facilities, etc., might also lead to less misuse of the toilet facilities.

Public toilets play a vital role in a municipal environment. If they are not accessible, the general public faces consequences, from very personal bodily ones, to economic damages, due to declining numbers of tourists. Everyone sometimes is in the situation to need a toilet and not have his or her private one at hand. If we are in a foreign country, on our way to work or shopping, does not matter, when this important personal need becomes urgent. Not providing public toilet facilities in a municipal area would be discrimination against potential users. Unfortunately the limit for a possible commitment of public authorities is the respective budget. The higher costs for operation and maintenance the higher the probability of closures. Since some of those costs are directly related to user behaviour, we as potential users should start to take some responsibility too.

In the end having public toilets that are clean and accessible may not only be a question of proper operation and maintenance, but also of behavioural change of their users.

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