

# Bathing water results 2008 – Austria

## 1. Introduction

This report gives a general overview of bathing water quality in Austria during the 2008 bathing season.

Austria reported 15 parameters under the Directive 76/160/EEC (1 Total coliforms, 2 Faecal coliforms, 3 Faecal streptococci, 4 Salmonella, 5 Entero viruses, 6 pH, 7 Colour, 8 Mineral oils, 9 Surface-active substances reacting with methylene blue, 10 Phenols (phenol indices), 11 Transparency, 12 Dissolved oxygen, 13 Tarry residues and floating materials, 14 Ammonia, 19 Nitrates and phosphates).

The parameters to be taken into account for assessment according to the assessment rules of the Directive 76/160/EEC are microbiological (1 Total coliforms, 2 Faecal coliforms) and physico-chemical (8 Mineral oils, 9 Surface-active substances reacting with methylene blue, 10 Phenols (phenol indices)).

The bathing waters are classified in the following categories:

- Compliant with mandatory values of the Directive for the 5 parameters (class CI)
- Compliant with mandatory and more stringent guide values of the Directive for the 5 parameters (class CG)
- Not compliant with mandatory values of the Directive for the 5 parameters (class NC)
- Banned (temporarily closed) or closed throughout the season (class B)

## 2. Length of bathing season and number of bathing waters

For all bathing waters the bathing season lasted 2.5 months, from 15 June till 31 August 2008.

A total of 268 freshwater bathing waters were monitored in Austria for 2008 bathing season (24 on rivers; 244 on lakes). Austria has no coastal bathing waters.

With 268 bathing waters Austria accounts for about 1.2% of the reported bathing waters of the European Union.

The evolution of the reported number of bathing waters since monitoring of the water quality began under the Directive 76/160/EEC is presented in Table 1. Only minor fluctuations can be noticed in the number of reported bathing waters since the start of the reporting in 1997 (266-270 bathing waters). In 2008, one new bathing water was added to the list compared to the previous year and one was de-listed.

## 3. Results of bathing water quality

The results of the bathing water quality in Austria for the period 1997-2007 as reported in 2008 report and for the bathing season of 2008 are presented in Figure 1.

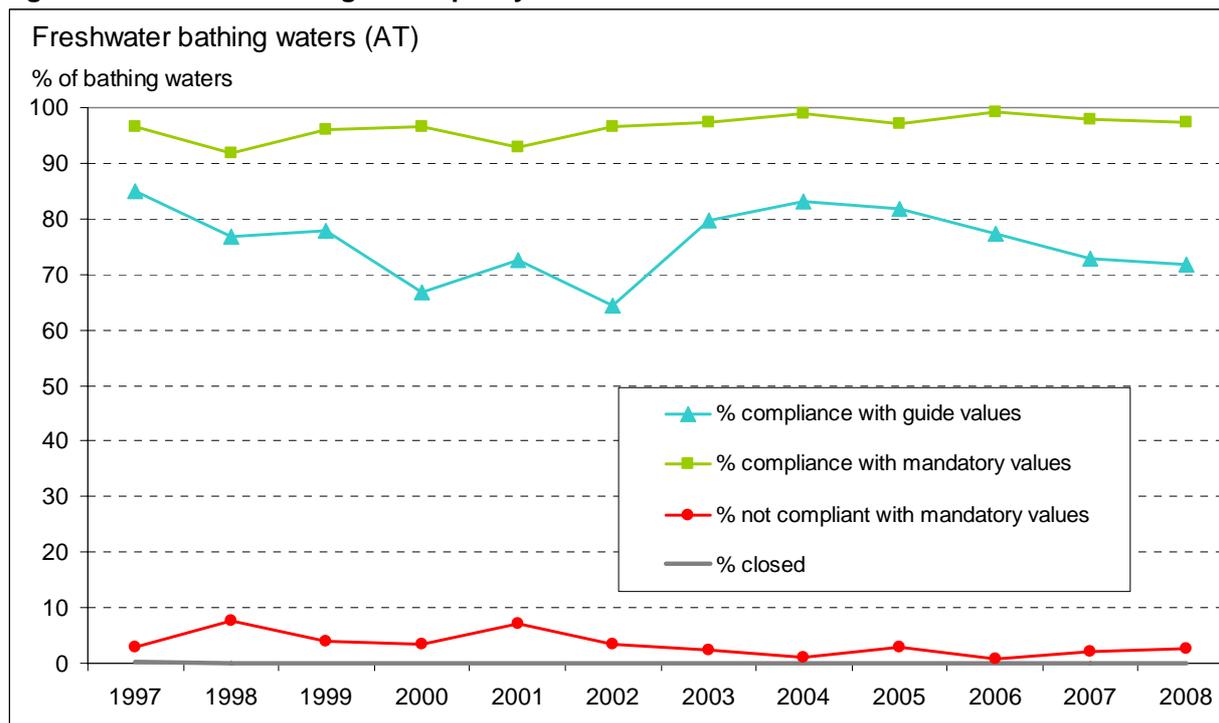
The graph shows, for freshwater bathing waters:

- The percentage of bathing waters that comply with the guide values (class CG, blue line)
- The percentage of bathing waters that comply with the mandatory values (class CI, green line)
- The percentage of bathing waters that do not comply with the mandatory values (class NC, red line)
- The percentage of bathing waters that are banned (temporarily closed) or closed throughout the season (class B, grey line)

Table 1 and Table 2 show the same information in absolute numbers and in percentages for freshwater bathing waters.

Map 1 shows the locations of the reported bathing waters in Austria. The location of the bathing waters is based on the geographic coordinates reported by the Austrian authorities.

**Figure 1: Results of bathing water quality in Austria from 1997 to 2008**



**Table 1: Results of bathing water quality in Austria from 1997 to 2008 as absolute numbers**

		AT				Banned/closed throughout the season
		Total number of bathing waters	Compliance with guide values	Compliance with mandatory values	Not compliant	
Fresh water bathing water	1997	268	228	259	8	1
	1998	270	207	248	21	0
	1999	270	210	259	11	0
	2000	268	179	259	9	0
	2001	267	194	248	19	0
	2002	267	172	258	9	0
	2003	266	212	259	6	0
	2004	267	222	264	3	0
	2005	268	219	260	8	0
	2006	268	207	266	2	0
	2007	268	195	262	6	0
2008	268	192	261	7	0	

Note: Bathing waters which were insufficiently sampled or not sampled according to the Bathing Water Directive were not included in this table. Therefore, in some cases, the sum of the different categories will not be equal to the total number of bathing waters.

**Table 2: Results of bathing water quality in Austria from 1997 to 2008 as percentages**

		AT				
		Total number of bathing waters	% compliance with guide values	% compliance with mandatory values	% not compliant	% banned/closed throughout the season
Fresh water bathing water	1997	268	85.1	96.6	3.0	0.4
	1998	270	76.7	91.9	7.8	0.0
	1999	270	77.8	95.9	4.1	0.0
	2000	268	66.8	96.6	3.4	0.0
	2001	267	72.7	92.9	7.1	0.0
	2002	267	64.4	96.6	3.4	0.0
	2003	266	79.7	97.4	2.3	0.0
	2004	267	83.1	98.9	1.1	0.0
	2005	268	81.7	97.0	3.0	0.0
	2006	268	77.2	99.3	0.7	0.0
	2007	268	72.8	97.8	2.2	0.0
	2008	268	71.6	97.4	2.6	0.0

Note: Bathing waters which were insufficiently sampled or not sampled according to the Bathing Water Directive were not included in this table. Therefore, in some cases, the sum of the different categories will not be equal to the total number of bathing waters.

#### 4. Development of bathing water quality

In Austria, 97.4% of the freshwater bathing waters (261) met the mandatory values in 2008. This is 0.4% less than previous year, when 262 bathing waters met the mandatory values. The rate of compliance with the guide values in 2008 was 71.6% (192 bathing waters) after a decrease by 1.2% compared to 2007. There were 73.6% of bathing waters that were compliant with mandatory values also compliant with the guide values in 2008 (0.8% less than in 2007 and 4.2% less than in 2006). There were seven bathing waters non-compliant with the mandatory values (2.6%). Since 1998, no bathing waters were closed during the bathing season in Austria.

Looking at the compliance of bathing waters with the mandatory values of the Directive 76/160/EEC, the quality of bathing waters is reasonably stable. However, there is a decrease in the number of bathing waters that meet the more stringent guide values from 83.1% in 2004 to 71.6% in 2008. The same is true for the number of bathing waters that are not compliant with the mandatory values. Furthermore, in 2007 and 2008 six and seven bathing waters respectively were non-compliant, that is 30% of non compliant bathing waters in 1998. Only tree and two bathing waters respectively were non compliant in 2004 and 2006.

## **5. General information as provided by the Austrian authorities**

Monitoring results on bathing water quality are made public through the media (primarily the local press, and occasionally local radio stations) and are also published online on the websites of the federal and provincial governments.

As reported by Austrian authorities to EC the temporary exceedance of the mandatory limit values for total coliform were detected on seven bathing waters (Zicksee St. Andrä, Herrenteich Litschau, Kamp Flussbad Langenlois, Donau Weißkirchen, Stausee Ottenstein, Badensee Wundschuh, Badesees Überwasser in Ladis). At no bathing waters there was an immediate health risk to bathers.

### **Wastewater treatment**

Measures to improve and guarantee the water quality for bathing waters were taken under the 1959 Austrian Water Act, long before Austria became a member of the EU.

Eutrophication effects due to wastewater discharges into a number of Austrian lakes gave rise to remediation programmes in the early 1970s. Since then, wastewater has been collected in ringsewage systems and treated in at least biological wastewater treatment plants. The treated effluent is discharged into rivers downstream of the lake in order to keep even the treated wastewater completely out of lakes.

The waste water treatment programmes were implemented for all surface waters. Wastewater treatment plants must adhere to strict national standards on the removal of nutrients. In the last 30 years, more than EUR 25 billion has been spent on the sewage system and wastewater treatment plants. Around EUR 1.5 billion has been invested in restoring water quality in Austrian lakes.

As the enlargement/ upgrading of the waste water treatment plants for the city of Vienna were finalised in 2005 and for Graz in 2007, the very stringent standards, which were set by the EU for waste water treatment in sensitive areas, are observed now on the whole territory of Austria. The sewage systems and waste water treatment in small settlements are continued to be improved.

### **Reduction of diffuse pollution sources**

It has proved that compared to point sources the process to reduce pollution from diffuse sources is much more difficult and therefore has shown less progress. Agriculture is a major diffuse pollution source despite the fact that Austria's almost exclusively organic, family-run farms use relatively low levels of fertilizers compared with many other Member States.

Austria's national strategies to reduce pollution from diffuse sources are based on:

- action programmes according to the EU nitrates directive (91/676/EEC), which are implemented throughout Austrian territory;
- the Austrian environmental programme based on Council Regulation (ECC) No 2078/92. This programme provides financial incentives of EUR 440 million a year to encourage environmentally friendly agriculture to help reducing pollution from diffuse sources;
- in addition programmes of measures based on the Water Framework Directive (2000/60/EC) will support in future.

## **6. More information on bathing water quality in the European Union**

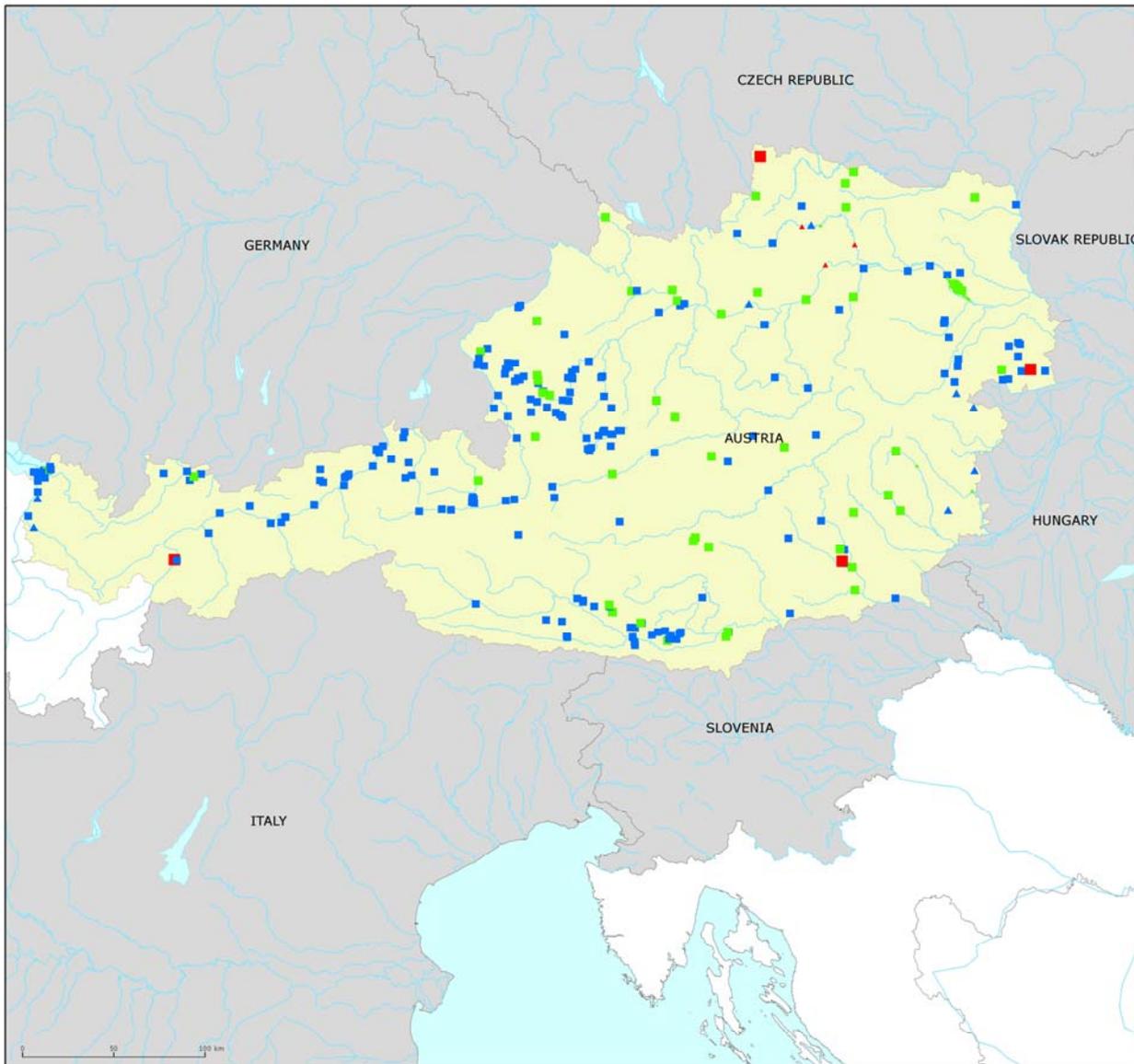
More information on bathing water quality in the European Member States, including the reports for 27 Member States and the EU summary report, can be found on the bathing water quality website ([http://ec.europa.eu/environment/water/water-bathing/index\\_en.html](http://ec.europa.eu/environment/water/water-bathing/index_en.html)).

By 2015, Member States will have to comply with the stricter and more ambitious requirements laid out in the new Bathing Water Directive (Directive 2006/7/EC). This Directive requires more effective monitoring and management of bathing waters, greater public participation and improved information. More information on the new Directive can be found on the bathing water quality website and on <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF>.

Cyprus, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, Slovakia, Spain and Sweden started to report according to more stringent new requirements in 2008 bathing season, while Luxembourg already started in 2007 bathing season.

WISE - Water Information System for Europe ([www.water.europa.eu](http://www.water.europa.eu)) is a gateway to all water related information. Among other water related data, information on individual bathing water quality can be found in the WISE Map viewer and WISE Data viewer through interactive maps and graphs (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>).

**Map 1: Bathing waters reported during the 2008 bathing season in Austria**



Bathing water quality		Bathing waters on lakes		No data	
▲	Compliant with guide values	■	Compliant with guide values	□	No data
▲	Compliant with mandatory values	■	Compliant with mandatory values	■	Outside data coverage (data available, not presented on the map)
▲	Closed*	■	Closed*		
▲	Insufficiently sampled or not sampled	■	Insufficiently sampled or not sampled		
▲	Not compliant with mandatory values	■	Not compliant with mandatory values		

**Note:** \* banned (temporarily closed) or closed throughout the season  
 More data on bathing water quality on: <http://www.eea.europa.eu/themes/water/mapviewers/bathing>  
**Source:** National boundaries: GISCO  
 Large rivers and lakes: EEA, WFD Article 3  
 Bathing waters data and coordinates: Austrian authorities