

Bathing water results 2010 – France

1. Reporting and assessment

This report gives a general overview of bathing water quality in France during the 2010 bathing season. In 2010 France reported under the Directive 2006/7/EC.

Before the necessary data set for assessment of bathing water quality under the Directive 2006/7/EC is compiled (data for three or four consecutive years) the rules for transition period assessment are applied. This means that the classification of bathing waters is defined on the basis of concentrations of intestinal enterococci and *Escherichia coli* that are reported under the Directive 2006/7/EC. The limit values for the classification are taken from the Directive 76/160/EEC. For the conversion of reported parameters under the Directive 2006/7/EC, Article 13.3 of the Directive 2006/7/EC foresees that the parameter *Escherichia coli*, reported under the Directive 2006/7/EC, is assumed to be equivalent to the parameter faecal coliforms of the Directive 76/160/EEC. The parameter intestinal enterococci reported under the Directive 2006/7/EC is assumed to be equivalent to the parameter faecal streptococci.

The results are classified in the following categories:

- Class CI: Compliant with the mandatory value of the Directive 76/160/EEC for Escherichia coli
 and not compliant with the guide values of the Directive 76/160/EEC for Escherichia coli or
 intestinal enterococci;
- Class CG: Compliant with the mandatory value of the Directive 76/160/EEC for Escherichia coli and the more stringent guide values for the Escherichia coli and intestinal enterococci;
- Class NC: Not compliant with the mandatory value of the Directive 76/160/EEC for *Escherichia coli*;
- Class B: Banned or closed (temporary or throughout the season);
- Class NF: Insufficiently sampled;
- Class NS: Not sampled.

The new bathing water directive (2006/7/EC) requires Member States to start sampling shortly before the start of the bathing season. It also requires that the interval between sampling should not exceed one month. In some cases these required changes in regard to the old bathing water directive (76/160/EEC) have not yet been implemented, resulting in a late start date of sampling at some sites and/or insufficiently frequent sampling. For that reason two rules in regard to sampling frequency are considered in the assessment of the monitoring results in 2010. By the first rule, 41 days were taken as a maximum difference between two samples (less strict rule), whereas by the second rule the maximum days between two samples considered were 32 days (strict rule). The new directive also requires that the first sample must be taken shortly before the start of a bathing season. However, in the assessment of bathing water quality in 2010, the first sample could be taken not later than 10 days after the start of the bathing season. If this was a case, the second sample should have been taken no later than 41 days after the start of the bathing season when the less strict rules or 32 days when the strict rules are used in the assessment. The bathing water is classified as insufficiently sampled or not sampled when the pre-season sample is missing or when the difference between two consecutive samples is larger than 41 days by the less strict rule or 32 days by the strict rule. In graphs results applying the less strict rules are presented.

2. Length of bathing season and number of bathing waters

In France the length of the bathing season varied widely. The earliest date of an opening of inland bathing waters was 1 May 2010 and of coastal waters 15 May 2010. The latest date of an opening of inland bathing waters was 1 August 2010 and of coastal waters 3 July 2010. Inland bathing areas closed from 25 June to 3 October 2010. Most inland bathing areas closed in August 2010. Coastal bathing areas closed mainly in September 2010.

A total of 3 326 bathing waters were reported in France during the 2010 bathing season, of which 2 012 were coastal (2 006) or transitional bathing waters (six) and 1 314 inland bathing waters (436 on rivers; 878 on lakes).

With 3 326 bathing waters France accounts for about 15.8 % 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 and the Directive 2006/7/EC is presented in Table 1. The number of inland bathing waters decreased significantly since the start of the reporting from 1 743 in 1991 to 1 319 in 2006. It increased slightly afterwards to 1 344 in 2008 and decreased again to 1 314 in 2010. In 2010, there were 29 less inland bathing waters than in the previous year: 17 new bathing waters were added to the list, six were re-opened and 52 were de-listed. The number of coastal bathing waters remained approximately at the same level from 1993 till 2007 and increased afterwards to 2 012 in 2010. There were seven more coastal bathing waters in 2010 than in the previous year: 14 new bathing waters were added to the list and three were de-listed.

3. Bathing water quality

The results of the bathing water quality in France for the period 1991-2009 as reported in the past reporting years and for the bathing season of 2010 are presented in Figure 1. The previous reports are available on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html; Water and Health/Bathing Water/2005-2010 reports) and the European Environment Agency's bathing water website (http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water; reports for the 2008 and 2009 bathing seasons).

The graphs show, for coastal and inland bathing waters separately:

- 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 or closed (temporarily or throughout the season) (class B, grey line).

Table 1 shows the same information in absolute numbers and in percentages separately for coastal and inland bathing waters. The numbers and percentages of insufficiently sampled or not sampled bathing waters are also presented. Table 2 shows the bathing water quality results for the 2009 and 2010 seasons in France for all bathing waters.

Map 1 shows the location of the reported bathing waters in France. The results applying the less strict rules are presented. In addition, insufficiently sampled bathing waters by the strict rules are presented as an orange outline. The location of the bathing waters is based on the geographic coordinates reported by the French authorities.

Coastal bathing waters

In France, 89.4 % of the coastal bathing waters met the mandatory water quality in 2010. This is a decrease of 7 % compared to the previous year. Some 68.4 % of the bathing waters met the more stringent guide values, which is a decrease of 28 %. The number of non-compliant bathing waters with the mandatory values decreased from 61 (3 %) to eight bathing waters (0.4 %). No coastal bathing water had to be closed during the season.

Since 1991, the compliance rate of coastal bathing waters gradually increased. The dip in 1995 is explained by the large number of insufficiently sampled bathing waters in that year. Since 2003 the percentage of bathing waters that met the mandatory water quality remained stable around 96 %, but with a drop to 89.4 % in 2010, when 10.2 % of bathing waters were insufficiently sampled. From 2003 to 2007, the rate of compliance with the guide values was up to 77 %, except in 2004 (73.9 %). Since then, the compliance rate increased above 96 %, but with a drop to 68.4 % in 2010. Since the start of reporting in 1991, one to two bathing waters were closed for three years only.

Inland bathing waters

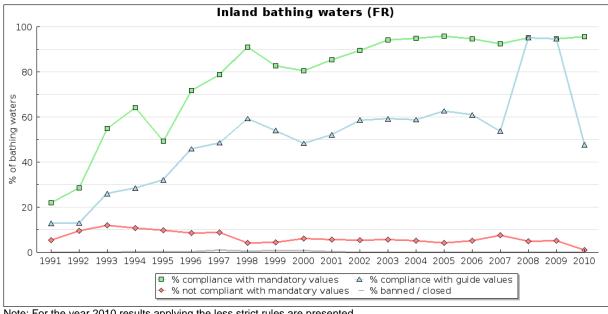
Some 95.7 % of the inland bathing waters met the mandatory water quality in 2010. This is an increase of 1.1 % compared to the previous year. The rate of compliance with the guide values decreased from 94.6 % to 47.7 %. The number of non-compliant bathing waters with the mandatory values decreased from 68 (5.1 %) to 13 bathing waters (1 %). Since 2002, no inland bathing water had to be closed during the season.

The compliance rate increased from the early 90's until the early 2000's. Since 2003, both the compliance rate with mandatory values and the compliance rate with guide values remained at approximately the same level. This level is about 95 % for the mandatory values and about 60 % for the guide values with a drop in 2007 and 2010. In 2008 and 2009, the compliance rate with the guide values reached the level for the mandatory values, as for the coastal bathing waters.

Coastal bathing waters (FR) 100 80 of bathing waters 60 40 % 20 0 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2003 2004 2005 2006 2007 2008 2009 2010 2002 % compliance with mandatory values % not compliant with mandatory values % banned / closed

Figure 1: Results of bathing water quality in France from 1991 to 2010

Note: For the year 2010 results applying the less strict rules are presented.



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Table 1: Results of bathing water quality in France from 1991 to 2010

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		Total number of bathing	Compliance with guide and mandatory values**		Compliance with mandatory values		Not compliant		Banned/closed temporarily or throughout the season		Insufficiently sampled or not sampled	
		waters	number	%	number	%	number	%	number	%	number	%
	1991	1527	866	56.7	1121	73.4	129	8.4	0	0.0	277	18.1
Coastal	1992	1932	798	41.3	1106	57.2	226	11.7	0	0.0	600	31.1
bathing waters	1993	1856	1016	54.7	1328	71.6	161	8.7	0	0.0	367	19.8
	1994	1870	1109	59.3	1492	79.8	158	8.4	0	0.0	220	11.8
	1995	1874	768	41.0	1098	58.6	114	6.1	0	0.0	662	35.3
	1996	1846	1249	67.7	1576	85.4	85	4.6	0	0.0	185	10.0
	1997	1829	1220	66.7	1646	90.0	137	7.5	1	0.1	45	2.5
	1998	1856	1340	72.2	1753	94.5	103	5.5	0	0.0	0	0.0
	1999	1829	1326	72.5	1666	91.1	64	3.5	2	0.1	97	5.3
	2000	1846	1279	69.3	1593	86.3	76	4.1	2	0.1	175	9.5
	2001	1859	1217	65.5	1579	84.9	68	3.7	0	0.0	212	11.4
	2002	1869	1265	67.7	1635	87.5	66	3.5	0	0.0	168	9.0
	2003	1873	1453	77.6	1801	96.2	38	2.0	0	0.0	34	1.8
	2004	1872	1383	73.9	1791	95.7	81	4.3	0	0.0	0	0.0
	2005	1894	1500	79.2	1835	96.9	59	3.1	0	0.0	0	0.0
	2006	1893	1495	79.0	1825	96.4	67	3.5	0	0.0	1	0.1
	2007	1897	1474	77.7	1815	95.7	81	4.3	0	0.0	1	0.1
	2008	1968	1913	97.2	1913	97.2	53	2.7	0	0.0	2	0.1
	2009	2005	1932	96.4	1932	96.4	61	3.0	0	0.0	12	0.6
	2010*	2012	1377	68.4	1799	89.4	8	0.4	0	0.0	205	10.2
	2010	2012	1371	68.1	1791	89.0	8	0.4	0	0.0	213	10.6
Inland bathing		1743	224	12.9	382	21.9	93	5.3	0	0.0	1268	72.7
	1991	1754	227	12.9	500	28.5	166	9.5	0	0.0	1088	62.0
	1992	1660	432	26.0	911	54.9	200	12.0	0	0.0	549	33.1
waters	1993	1663			1065		178	10.7	4	0.0	416	25.0
	1994	1640	473 527	28.4 32.1	810	64.0 49.4	159	9.7	4	0.2	667	40.7
	1995	1648	756	45.9	1180	71.6	142	8.6	5	0.2	321	19.5
	1996										_	
	1997	1587	770	48.5	1250	78.8	139	8.8	14	0.9	184	11.6
	1998	1553	921	59.3	1413	91.0	65	4.2	7	0.5	68	4.4
	1999	1455	785	54.0	1204	82.7	64	4.4	12	0.8	175	12.0
	2000	1493	721	48.3	1201	80.4	91	6.1	11	0.7	190	12.7
	2001	1492	777	52.1	1272	85.3	83	5.6	4	0.3	133	8.9
	2002	1457	854	58.6	1305	89.6	77	5.3	0	0.0	75	5.1
	2003	1405	831	59.1	1323	94.2	80	5.7	0	0.0	2	0.1
	2004	1406	826	58.7	1334	94.9	72	5.1	0	0.0	0	0.0
	2005	1328	832	62.7	1274	95.9	54	4.1	0	0.0	0	0.0
	2006	1319	803	60.9	1249	94.7	69	5.2	0	0.0	1	0.1
	2007	1339	719	53.7	1237	92.4	100	7.5	0	0.0	2	0.1
	2008	1344	1278	95.1	1278	95.1	65	4.8	0	0.0	1	0.1
	2009	1343	1271	94.6	1271	94.6	68	5.1	0	0.0	4	0.3
	2010*	1314	627	47.7	1257	95.7	13	1.0	0	0.0	44	3.3
	2010	1314	627	47.7	1255	95.5	13	1.0	0	0.0	46 nder Direc	3.5

*Less strict rules applied (41 days taken as a maximum difference between two samples for reporting under Directive 2006/7/EC). **Bathing waters which were compliant with the guide values were also compliant with the mandatory values for five parameters under the Directive 76/160/EEC (1991-2009) or the mandatory value for *Escherichia coli* (2010).

Table 2: Results of bathing water quality for all bathing waters in France in 2009 and 2010

FR												
		Total number of bathing	Compliance with guide and mandatory values**		Compliance with mandatory values		Not compliant		Banned/closed temporarily or throughout the season		Insufficiently sampled or not sampled	
		waters	number	%	number	%	number	%	number	%	number	%
All	2009	3348	3203	95.7	3203	95.7	129	3.9	0	0.0	16	0.5
bathing waters	2010*	3326	2004	60.3	3056	91.9	21	0.6	0	0.0	249	7.5
	2010	3326	1998	60.1	3046	91.6	21	0.6	0	0.0	259	7.8

^{*}Less strict rules applied (41 days taken as a maximum difference between two samples for reporting under Directive 2006/7/EC). **Bathing waters which were compliant with the guide values were also compliant with the mandatory values for five parameters under the Directive 76/160/EEC (2009) or the mandatory value for *Escherichia coli* (2010).

4. Important information as provided by the French authorities

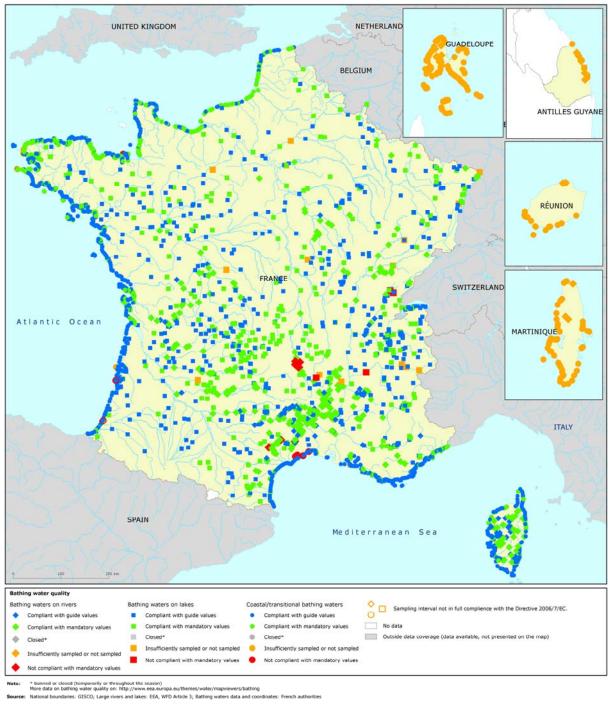
Every year the decentralised departments of the Ministry for Health and Solidarity, i.e. the Departmental Directorates for Health and Social Affairs (DDASS), conduct hygiene checks on coastal and freshwater bathing areas frequented by the public. France has been monitoring hygiene in coastal bathing water since 1972 and in freshwater bathing areas since 1979. DDASS became Regional Agencies of Health (ARS) in 1 April 2010 but missions in the field of bathing waters didn't change.

De-listing of bathing waters

In 2010, 55 bathing waters were de-listed due to various reasons:

- prohibition by law for security reasons;
- prohibition by law or by decision of the private operator due to financial or other reasons;
- area is not frequented or attended related to the attractiveness of another site;
- site becomes inaccessible to bathers and/or lack of water;
- area is dedicated to another activity, bathing will be prohibited or not practiced;
- a water treaty which does not correspond to the definition of Directive 2006/7/EC;
- prohibition for health reasons (pH, cyanobacteria ...) with no possible improvement.

Map 1: Bathing waters reported during the 2010 bathing season in France



The reasons for de-listing of each bathing water as reported by the French authorities (in French) are as follows:

Bathing water identification code	Bathing water name	Commune	Reasons for change
FR210202001D077013	LA SEINE	MELUN	zone dédiée r´ une autre activité que la baignade, cette derničre y étant interdite ou non pratiquée
FR210202168D077012	LA PLAGE	SEINE-PORT	interdiction par arreté municipal pour motif de sécurité
FR210803026D095010	BASE DE PLEIN AIR ET DE LOISIRS	CERGY	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR221201013D010035	BAYEL	BAYEL	interdiction pour raison sanitaire (pH, cyanobactéries) sans amélioration possible
FR221201021D010063	BRIENNE LA VIEILLE	BRIENNE LA VIEILLE	interdiction pour raison sanitaire (pH, cyanobactéries) sans amélioration possible
FR221203016D010034	BAR SUR SEINE	BAR SUR SEINE	interdiction pour raison sanitaire (pH, cyanobactéries) sans amélioration possible
FR221203071D010071	DOSCHES LA PICARDE CENTRE NAUTIQUE	DOSCHES	zone dédiée r´ une autre activité que la baignade, cette derničre y étant interdite ou non pratiquée
FR222104037D002580	EURO LOISIRS	CIRY SALSOGNE	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financière ou autre
FR224102104D018012	PLAN D'EAU POINTE DU CARROIR	SIDIAILLES	interdiction par arręté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre
FR226103127D021090	LAC DE MARCENAY	MARCENAY	interdiction par arrêté municipal ou par décision du gestionnaire privé, pour raison financière ou autre; interdiction pour raison sanitaire (pH, cyanobactéries) sans amélioration possible
FR226201046D058065	ETANG DU MARNANT	LA NOCLE MAULAIX	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financière ou autre
FR226201067D058084	BAIGNADE TOBOGGAN	TAZILLY	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financière ou autre
FR226202093D058085	ETANG DE VAUX (COLONIE DE PALAISEAU)	VITRY LACHE	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financière ou autre
FR226302098D071392	CAMPING DU MOULIN DE COLLONGE	SAINT BOIL	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financicre ou autre
FR226304013D071001	PLAN D'EAU DE LOUVAREL	CHAMPAGNAT	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR226401008D089442	AUGY	AUGY	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financière ou autre
FR226401010D089430	BAZARNES	BAZARNES	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre
FR226402126D089115	TANLAY - LE PRE DE SEBILLE	TANLAY	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre
FR226403107D089960	VINNEUF	VINNEUF	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financière ou autre
FR243302190D070500	BAIGNADE DU BARRAGE	MALANS	interdiction par arreté municipal pour motif de sécurité
FR251402128D072012	PLAGE CAMPING DE TUFFE	TUFFE	zone non fréquentée ou arret de la fréquentation liée r' l'attractivité d'un autre site
FR252201018M029269	BEG AR SKEIZ	GUISSENY	interdiction par arreté municipal pour motif de sécurité
FR253302040D079060	PLAN D'EAU DE	CHERVEUX	interdiction par arreté municipal pour motif de

Bathing water identification code	Bathing water name	Commune	Reasons for change
	CHERVEUX		sécurité
FR261205086D033075	LAC DE ST CHRISTOPHE DE DOUBLE	SAINT CHRISTOPHE DE DOUBLE	interdiction par arreté municipal pour motif de sécurité
FR261302026D040036	LATECOERE	BISCARROSSE	interdiction par arręté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre; zone dédiée r´ une autre activité que la baignade,
FR262102068D009025	LAC DE MONTBEL COTE MONTBEL	MONTBEL	cette derničre y étant interdite ou non pratiquée interdiction pour raison sanitaire (pH, cyanobactéries) sans amélioration possible
FR262201071D012044	LA PLAGETTE	SAINT-JEAN- DU-BRUEL	zone non fréquentée ou arret de la fréquentation liée r' l'attractivité d'un autre site
FR262202025D012080	FRONTIN BAS	CANET-DE- SALARS	zone non fréquentée ou arret de la fréquentation liée r' l'attractivité d'un autre site
FR262203022D012115	PLAN D'EAU DU PORT DE LA COMBE	FLAGNAC	zone non fréquentée ou arret de la fréquentation liée r' l'attractivité d'un autre site
FR262203047D012011	CAMPING LA PLAINE	SAINT- PARTHEM	zone non fréquentée ou arret de la fréquentation liée r' l'attractivité d'un autre site
FR262402101D032085	LAC DE MONTREAL DU GERS	MONTREAL	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre
FR262403084D032030	LAC DE MIELAN	MIELAN	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre
FR262503007D046037	LA SAULE	BETAILLE	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR262601043D065002	LE LAC VERT LAC	GEU	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR262601043D065003	LE LAC VERT PATAUGEOIRE	GEU	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR262601043D065004	LE LAC VERT TOBOGGAN	GEU	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR262601043D065005	LE LAC VERT GRAND BAIN	GEU	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR263103018D019075	LABEILLE	EYGURANDE	zone dédiée r´ une autre activité que la baignade, cette derničre y étant interdite ou non pratiquée
FR263202129D023160	MASMENGEAS	SARDENT	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre
FR263302003D087001	JONAS	AMBAZAC	zone dédiée r´ une autre activité que la baignade, cette derničre y étant interdite ou non pratiquée
FR263302028D087040	ETANG DE NOUAILHAS	LA CROISILLE- SUR-BRIANCE	zone dédiée r´ une autre activité que la baignade, cette derničre y étant interdite ou non pratiquée
FR263302058D087020	LA SABLIERE	LE PALAIS- SUR-VIENNE	interdiction par arreté municipal pour motif de sécurité
FR263302060D087021	ETANG DU BOURG DE PEYRAT-LE- CHATEAU	PEYRAT-LE- CHATEAU	zone dédiée r' une autre activité que la baignade, cette derničre y étant interdite ou non pratiquée
FR271401263D038061	LA TERRASSE - LAC DE LA TERRASSE - PATAUGEOIRE	LA TERRASSE	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre
FR281202152D030209	LE MOULIN DE RUNEL	SALINELLES	interdiction par arreté municipal ou par décision du gestionnaire privé, pour raison financičre ou autre

Bathing water identification code	Bathing water name	Commune	Reasons for change
FR281503097D066155	CAMPING L'EAU VIVE	VERNET LES BAINS	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR282101006D004540	PLAN D'EAU AMENAGE	JAUSIERS	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR282102003D004010	PLAN D'EAU	ALLOS	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR282103010D004600	CAMPING LA CELESTINE	BEYNES	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR282103037D004250	LAC DE MOUSTIERS	MOUSTIERS- SAINTE-MARIE	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR282202090D005200	CHAMPBEAU	RIBIERS	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR282202094D005080	PLAN D'EAU DU PIGEROLLES	ROSANS	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR282202127D005130	PLAN D'EAU DE LA GERMANETTE	SERRES	plan d'eau ne correspondant pas la défintion de la directive 2006/7/CE (traité ou séparé des eaux de surface et des eaux souterraines)
FR282302001M006515	BAINS DE LA POLICE	NICE	interdiction par arreté municipal pour motif de sécurité
FR282404009M013247	ANSE DE BOUMANDARIEL	MARTIGUES	interdiction par arreté municipal pour motif de sécurité

For three other inland bathing waters (RIVIERE LAROSE, MIMENTE and BARRAGE DE NAUSSAC) only the identification code (BWID) has changed.

Information to public

Since July 2008, the Ministry of Health has opened a new version of website on the quality of bathing water. This national website http://baignades.sante.gouv.fr includes a map search module and gives the French, English or German public access to the monitoring results not only from previous seasons but also, in real time, from the health inspections being carried out during the current bathing season.

Combating pollution

Since 2010, surveys have been carried out by ARS and managers in order to determine the causes of pollution in bathing areas where the water quality is insufficient. Managers of areas where bathing water was found to be of insufficient quality have been reminded of their duty to identify the causes of pollution and their obligation to take appropriate measures as a result. When the source of pollution has been identified, an action plan has been implemented, which may entail a more or less substantial amount of work. Moreover, for certain bathing areas, work to identify and evaluate the causes of pollution that may affect the quality of bathing water has been carried out rigorously to prepare the bathing water profiles required for the implementation of Directive 2006/7/EC.

The Ministry of Health in collaboration with the Ministry of Environment is preparing a generalization of this work of identification and evaluation of the causes of pollution that can affect the quality of bathing waters for all sites that have been identified under the Directive 2006/7/EC, so that each site will have a profile in 2011.

5. More information on bathing water quality in Europe

Of the more than 21 000 bathing areas monitored throughout the European Union in 2010, two-thirds were in coastal waters and the rest in rivers and lakes. The largest number of coastal bathing waters

can be found in Italy, Greece, France, Spain and Denmark, while Germany and France have the highest number of inland bathing waters.

During recent years, including the 2010 bathing season, majority of Member States have adjusted their monitoring programmes to meet the requirements of the new bathing water directive (2006/7/EC). Luxembourg was the first country to report under this Directive in 2007. Cyprus, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, Slovakia, Spain and Sweden started to report under the new directive in 2008. Malta and the Netherlands started to report in 2009, while Austria, Belgium - Walloon Region, France, Greece, Italy, Portugal and Slovenia reported under this Directive for the first time in 2010. Historical data of two microbiological parameters, *Escherichia coli* and intestinal enterococci were sent by Sweden (since 2005), Luxembourg and Malta (since 2006), Belgium - Walloon Region, Greece, Hungary and Portugal (since 2007), and France (since 2009). To conclude, 20 Member States and the Walloon Region of Belgium monitored and reported under the new directive (Directive 2006/7/EC) in 2010.

Assessment of the status of all bathing waters in 2010 under the rules of the new directive (Directive 2006/7/EC) is made for Luxembourg, Malta and Hungary. Assessment of the bathing water quality on a country level for the other countries that reported under the new directive has been done using transition rules. Bathing water quality for individual bathing waters having four year set of data can be seen on the interactive maps and data viewer that are described below.

Three non-EU countries, Croatia, Montenegro and Switzerland have reported monitoring results under the new directive. Switzerland sent data on *Escherichia coli* for all bathing waters but only for some data on intestinal enterococci.

Overall in 2010, 92.1 % of Europe's coastal bathing waters and 90.2 % of inland bathing waters met the minimum water quality standards set by the bathing water directives. During recent years there has been deterioration in bathing water quality but still more than nine in ten bathing waters meet the minimum quality standards. The share of non compliant bathing waters was 1.2 % for coastal bathing waters and 2.8 % for inland bathing waters. The decrease reflects in part year to year variation but also indicates that further work is necessary to ensure that the quality of bathing waters is constantly improved and maintained.

More information on bathing water quality in the European Member States, including the EU summary report, the reports for 27 Member States, Croatia, Montenegro and Switzerland, can be found on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html) and the European Environment Agency's bathing water website (http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water). The Institute for Water of the Republic of Slovenia (IWRS), a partner in the EEA European Topic Centre on Inland, Coastal and Marine Waters (ETC/ICM) has produced the reports for the bathing seasons from the 2008 bathing season on. Countries have collaborated in the assessment of bathing water quality and supplied additional information when needed.

Interactive information on bathing water quality

The bathing water section of the Water Information System for Europe (WISE), which is accessible at the EEA bathing water website, allows users to view the quality of the bathing water at more than 22 000 coastal beaches and inland bathing sites across Europe. Users can check bathing water quality on an interactive map or can download data for a selected country or region and make comparisons with previous years.

The WISE map viewer (http://www.eea.europa.eu/themes/water/interactive/bathing) is an online map viewer for visualisation of European spatial water data. It includes a lot of interactive layers, allowing water themes to be visualised at different scales. Broad resolutions display the aggregated data by Member State. At finer resolutions the locations of monitoring stations are displayed.

The WISE Bathing Water Quality data viewer (http://www.eea.europa.eu/themes/water/status-and-monitoring/bathing-water-data-viewer) combines text and graphical visualisation, providing a quick check on locations and statistics on the quality of coastal and freshwater bathing waters. It also documents how bathing waters have changed throughout Europe in recent years and provides a full

summary of Europe's bathing water quality. Users can search information at three spatial levels - country, region and province - and observe specific bathing water locations on the Google Earth, Google maps or Bing maps.

The Eye On Earth - Water Watch application (http://www.eea.europa.eu/data-and-maps/explore-interactive-maps/eye-on-earth) allows users to zoom in on a given section of the coast, riverbank or lake, both in street map or, where available, bird's eye viewing formats. A 'traffic-light' indicator (red, amber, green) of bathing water quality, based on the official bathing water data, is put alongside the ratings of people who have visited the bathing site, including any comments users wish to make. For historical data Water Watch uses a simplified index of bathing water quality data. The Czech Republic, Estonia, Finland (one municipality), Hungary, Lithuania, Luxembourg, Malta, the Netherlands, Norway (one municipality), Slovenia, Slovakia and England and Wales were also sending near real time information on bathing water quality to the Eye On Earth application. The bathing water quality from Austria, Belgium, Bulgaria, Croatia, Denmark, France, Germany, Ireland, Italy, Poland, Portugal, Spain, Sweden and Scotland and Northern Ireland was also presented on Eye on Earth Water Watch.

National and local information on bathing water quality

In order to make information to the public more effective, all EU countries have national or local web portals with detailed information for each bathing site. Websites generally include a map search function and public access to the monitoring results both in real time and for previous seasons.

Information on EU bathing water legislation

EU Member States will have to comply with the stricter and more ambitious requirements laid out in Directive 2006/7/EC by 2015 at the latest. The new legislation requires more effective monitoring and management of bathing waters, greater public participation and improved information dissemination. By March 2011 Member States have to have established bathing water profiles. More on the new legislation can be found on the European Commission's websites and on http://eurlex.europa.eu/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF.