

ACQUEDOTTI PER CLASSE DI ACQUA PRELEVATA E FONTE PREVALENTE DI ALIMENTAZIONE – (ANNO 1999)

FONTE PREVALENTE DI ALIMENTAZIONE	Classi di acqua prelevata (migliaia di mc)								Totale
	1 - 100	101 - 500	501 - 2.000	2.001 - 5.000	5.001 - 10.000	10.001 - 20.000	20.001 - 100.000	> 100.000	
Sorgente	5861	1576	402	95	42	16	16	4	8012
Pozzo	1113	1139	728	203	86	30	23	2	3324
Corso d'acqua superficiale	101	63	29	9	9	3	2	-	216
Lago naturale	2	6	7	1	-	1	-	-	17
Bacino artificiale	55	38	27	7	7	10	6	1	151
Acque marine o salmastre di superficie	-	4	2	-	1	1	-	-	8
Totale	7132	2826	1195	315	145	61	47	7	11728

SMALL SYSTEMS LARGE PROBLEMS

A European inventory of small water systems and associated problems

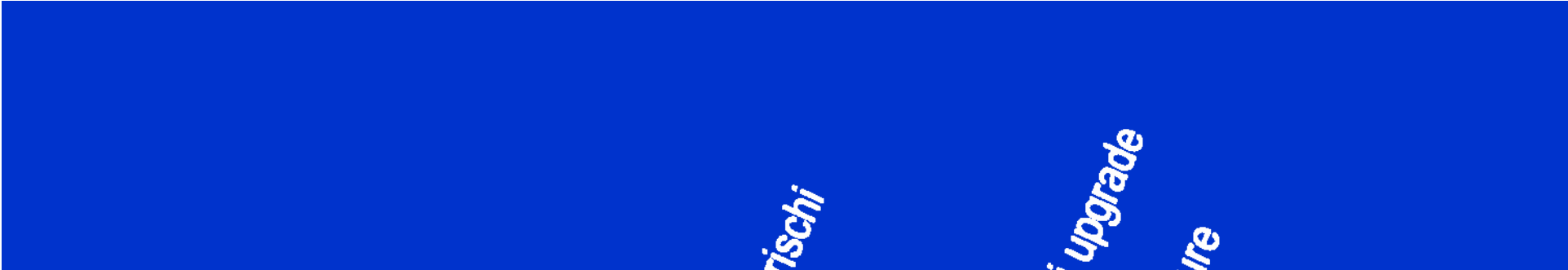


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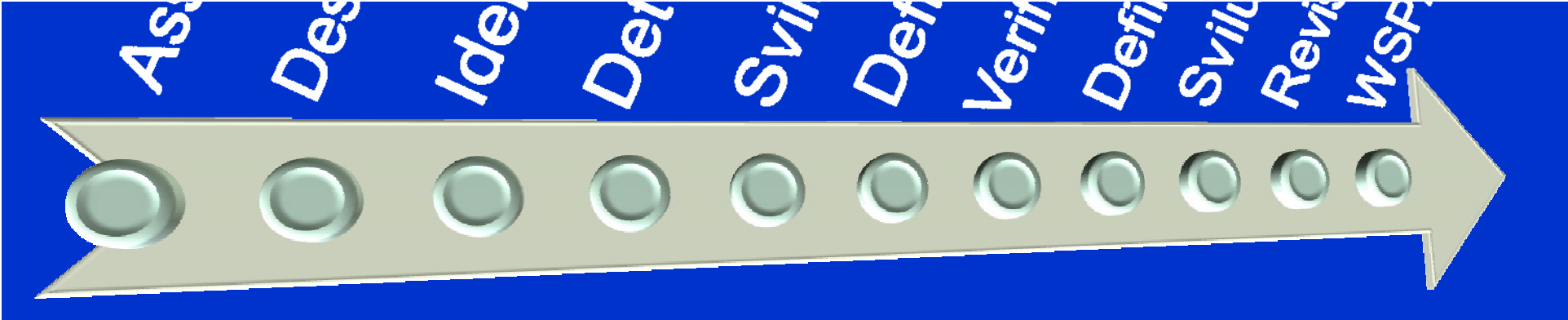
to e/o identificazione dei pozzi;

n particolare contaminazione fecale;
à dell'acqua: Ferro e manganese,
ganolettici, Radon;

l'acqua e l'insorgenza di malattie
fettuata in modo non sistematico.



Water Safety Plan Manual



CLASS OF CHEMICAL PARAMETERS IN EUROPE (PROPOSAL FOR DWD REVISION)

No.	Group of parameters	Example	Purpose
1	A core group of parameters for which there should be a requirement to monitor or to demonstrate, by risk assessment and chemical analysis, that they are not present in the raw water.	Arsenic	Protection of health. Retaining confidence of consumers and satisfying political concerns of MS and EP
2	An acceptability group for which there should be a requirement to monitor when there is a problem	Iron	To maintain acceptability and consumers confidence
3	Substances to be controlled by product specifications	Acrylamide	Protection of health, by controlling products
4	Substances to be controlled under the DWSP approach, for which no appropriate analysis exist	Endocrine disruptors	Protection of health, based on risk assessment and operational monitoring
5	Substances to be monitored to ensure compliance when they are shown to be present following hazard identification and risk assessment (or substances that need not be monitored if the hazard identification and risk assessment show that they are absent??).	Disinfection by-products	Protect public health through risk assessment. Provide benchmarks for water supply. If process used then required monitoring for compliance.

Some critical parameters in Europe

1: Parameters where problems originate from the raw water		2: Parameters where problems arise for other reasons		3: Additional national parameters		4: Suggestions to new parameters		5: Suggestion to deletion	
Nitrate	13	Iron	11	Total hardness	10	Chlorate	7	Selenium	11
Iron	11	Lead	7	Residual free chlorine	5	Minimal total hardness	5	Epichlorohydrin	9
Manganese	11	Trihalomethanes	6	Manganese	3	Chlorite	5	Acrylamide	7
Pesticides	11	Manganese	5	Calcium	3	MicrocystinLR	5	Cyanide	6
Fluoride	10	Nitrite	5	Silver	3	Uranium	4	Mercury	6
Arsenic	8	Pesticides	4	Ozone	3	Zinc	3	Vinyl chlorid	5
Nitrite	7	Aluminium	4	Nitrite	2	Manganese	2	Dichloroethane	2
Sulfate	5	Turbidity	4	Turbidity	2	Calcium	2	Arsenic	2
Ammonium	5	Nickel	4	Chlorite	2	Corrosiveness	2		
Boron	5	Nitrate	3	Radon	2				
Chloride	4	Colour	3	Beta global activity	2				
Sodium	3	Bromate	3	Mineral oils	2				
Chlorinated solvents	3	pH	2	Uranium	2				
Aluminium	2	Cadmium	2	Zinc	2				
Oxidisability	2	Chlorite	2	Microcystin LR	2				
Antimony	2	Copper	2						
pH	2	Chromium	2						

POSSIBILI PARAMETRI DA AGGIUNGERE

Parametro

Possibile valore

Clorito

0,7 mg/L

Clorato

0.7 mg/L

Acidi cloroacetici totali

80 µg/L

Microcistina L-R

1 µg/L

Radon

100 Bq/L

Uranio

15 – 30 µg/L

POSSIBILI PARAMETRI DA ELIMINARE



Parameter

Valore parametro

Benzene

1.0 $\mu\text{g/L}$

Cyanide

50 $\mu\text{g/L}$

1,2 dichloroethane

3 $\mu\text{g/L}$

Mercury

1 $\mu\text{g/L}$

Total Pesticides

0.5 $\mu\text{g/L}$

Oxidisability

5 mg/L O_2

Sulphate

250 mg/L

Selenium?

10 $\mu\text{g/L}$

Tritium

100 Bq/L