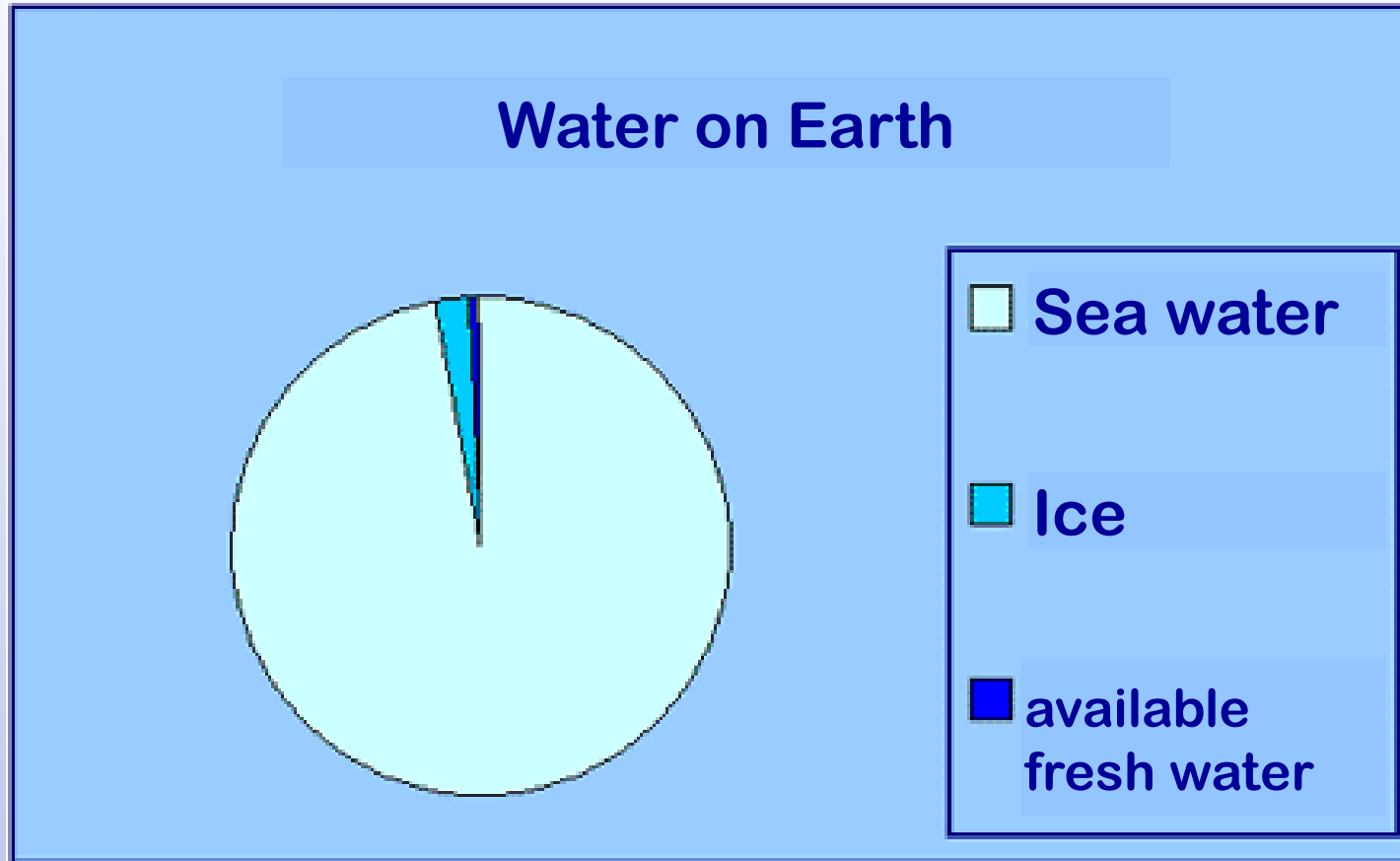


- The Water Matrix (Sources, Usage, Discharge)
- Desalination & Me
- Surface Water & Filtration
- The Danube & Reuse & Pollution

Water Resources on Earth

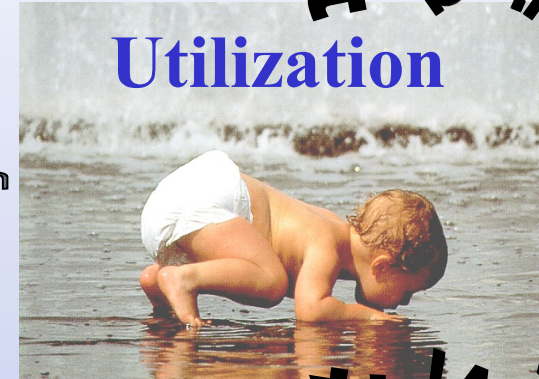
	Volume x 10³ km³	% Total Volume	% Fresh Water	Years for Renew
Oceans	1 370 323	93.94	-	3 000
Deep Well Water	60 000	4.11	-	5 000
Active Well Water	4 000	0.27	14.09	330
Ice	24 000	1.65	84.57	8 000
Lakes	280	0.02	0.99	7
Humidity in Soil	85	0.01	0.30	1
Atmosphere	14	0.00	0.00	0.03
Rivers	1.2	0.00	0.00	0.03
Fresh Water Total	28 380.2	1.95	100	
Water Total	1 458 703	100		2 800


„according to Lvovitch 1979 cited at Schwoebel: Einführung in die Limnologie 6. Auflage Stuttgart 1987“





Direct Utilization



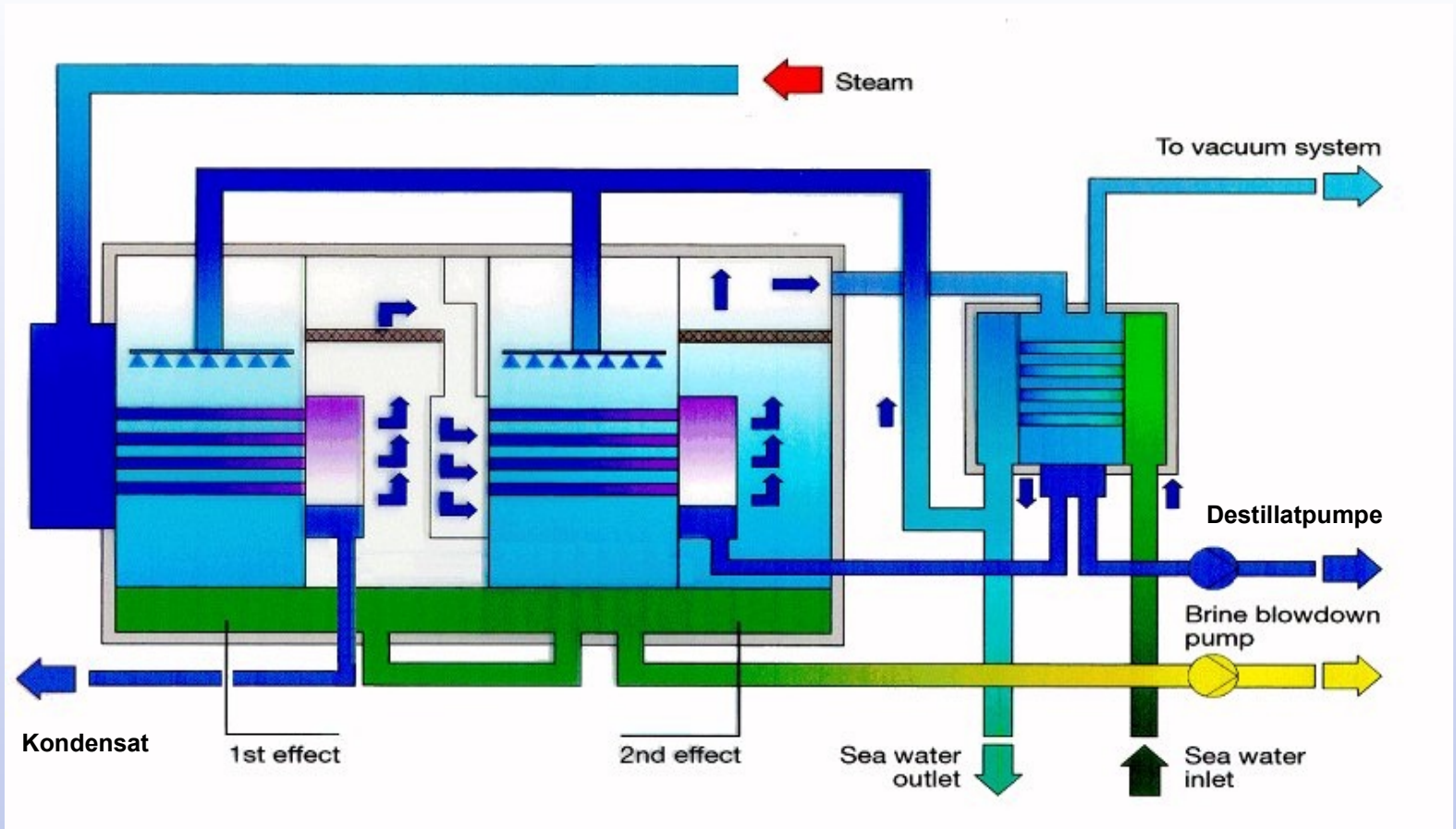
<p>Products</p> <p>Sources</p>	<p>Drinking Water</p> <p>Industrial Water</p> <p>Process Water; Washing Water</p> <p>Cooling Water; Boiler Feed</p>
<p>Ground Water</p> <p>Well Water</p> <p>Surface Water</p> <p>Sea and Brackish Water</p> <p>Recycled Water</p>	

H_2O	suspended	dissolved
inorganic	Colloids Dispersed particulate matter Clay, Sand etc.	Iron, manganese, Ammonia, Arsenic, Bromide Colour, Taste, Odour; Salts, Hardness etc.
organic	Microorganisms (Viruses Algae Bacteria Giardia Cryptosporidium) Organic particles etc.	DOC (Humic acid Colour, Taste, Odour, Pesticides VOC) etc.

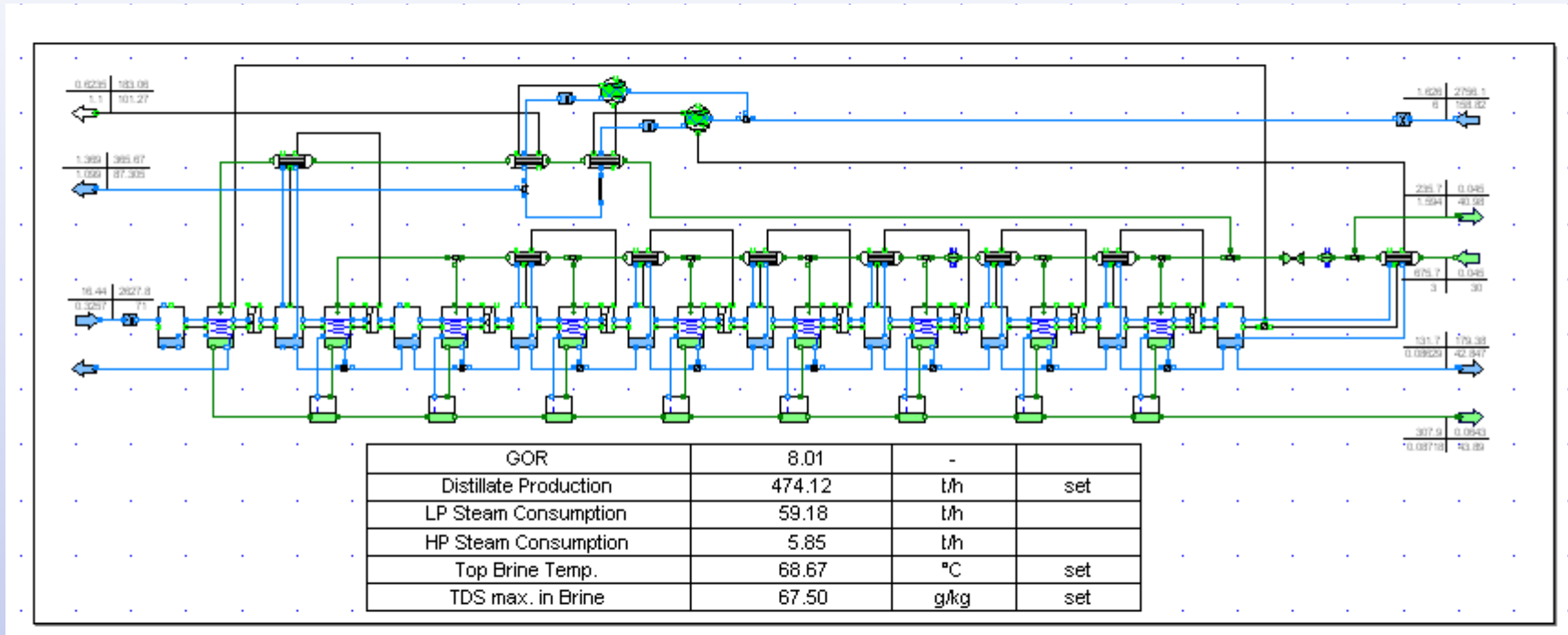
Thermal Desalination



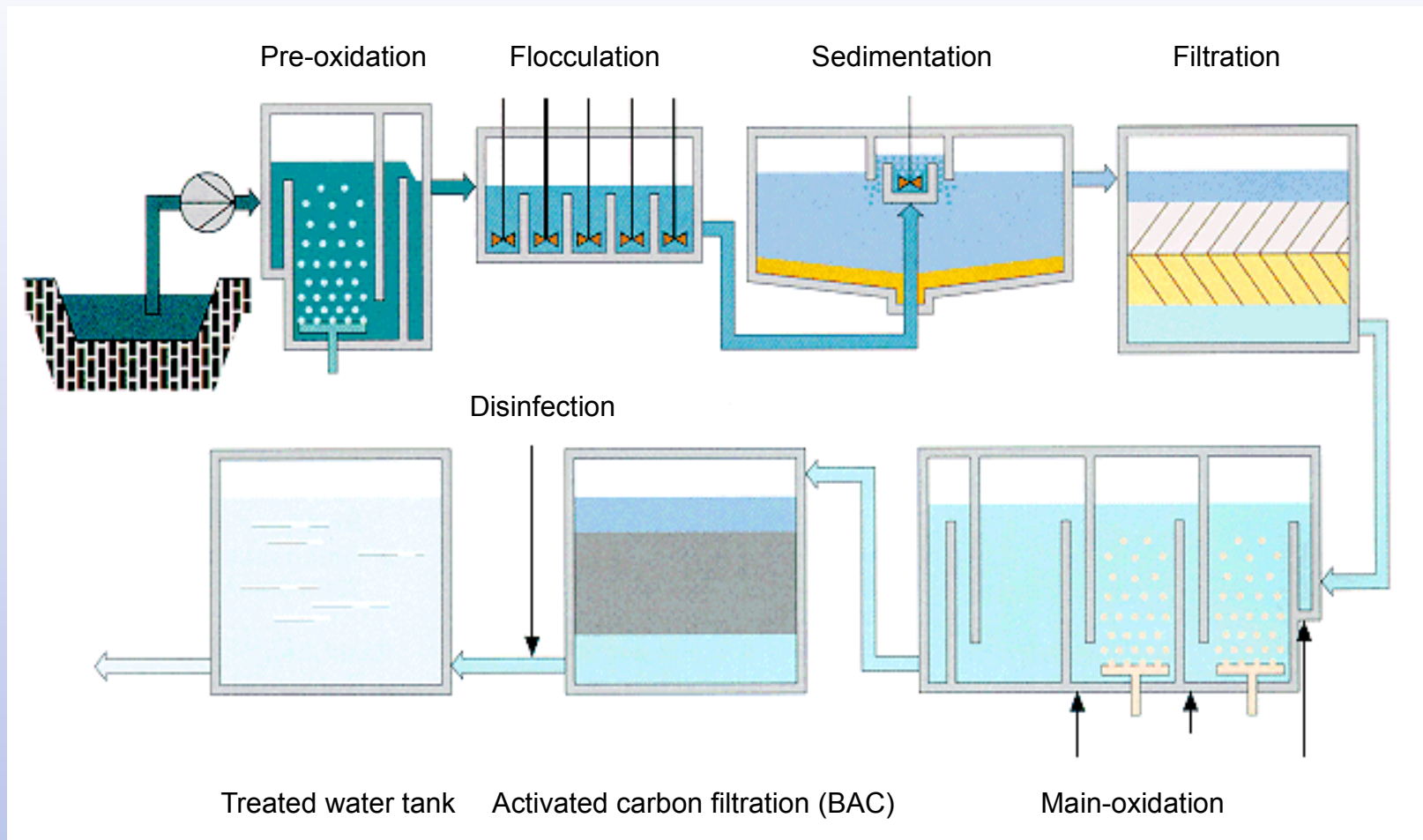
MED - Multi Effect Distillation Process



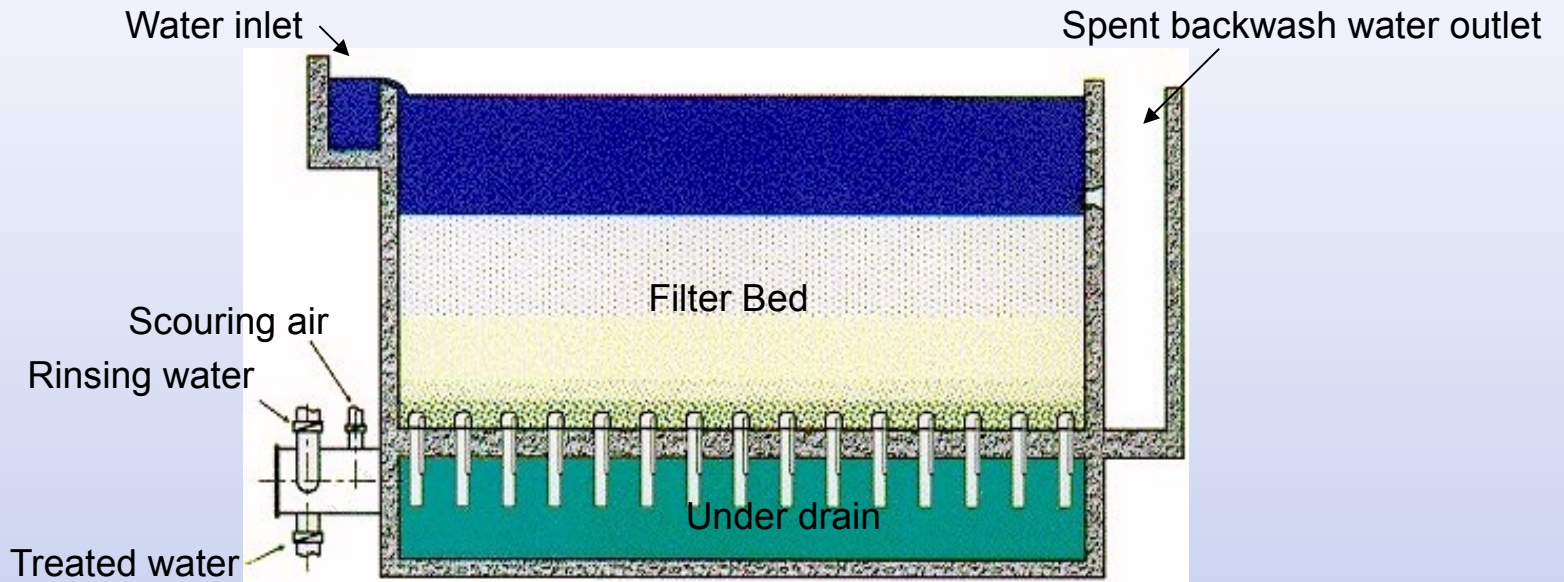
Simulation Thermal Desalination



Process Scheme Surface Water Treatment for organically loaded Raw Water

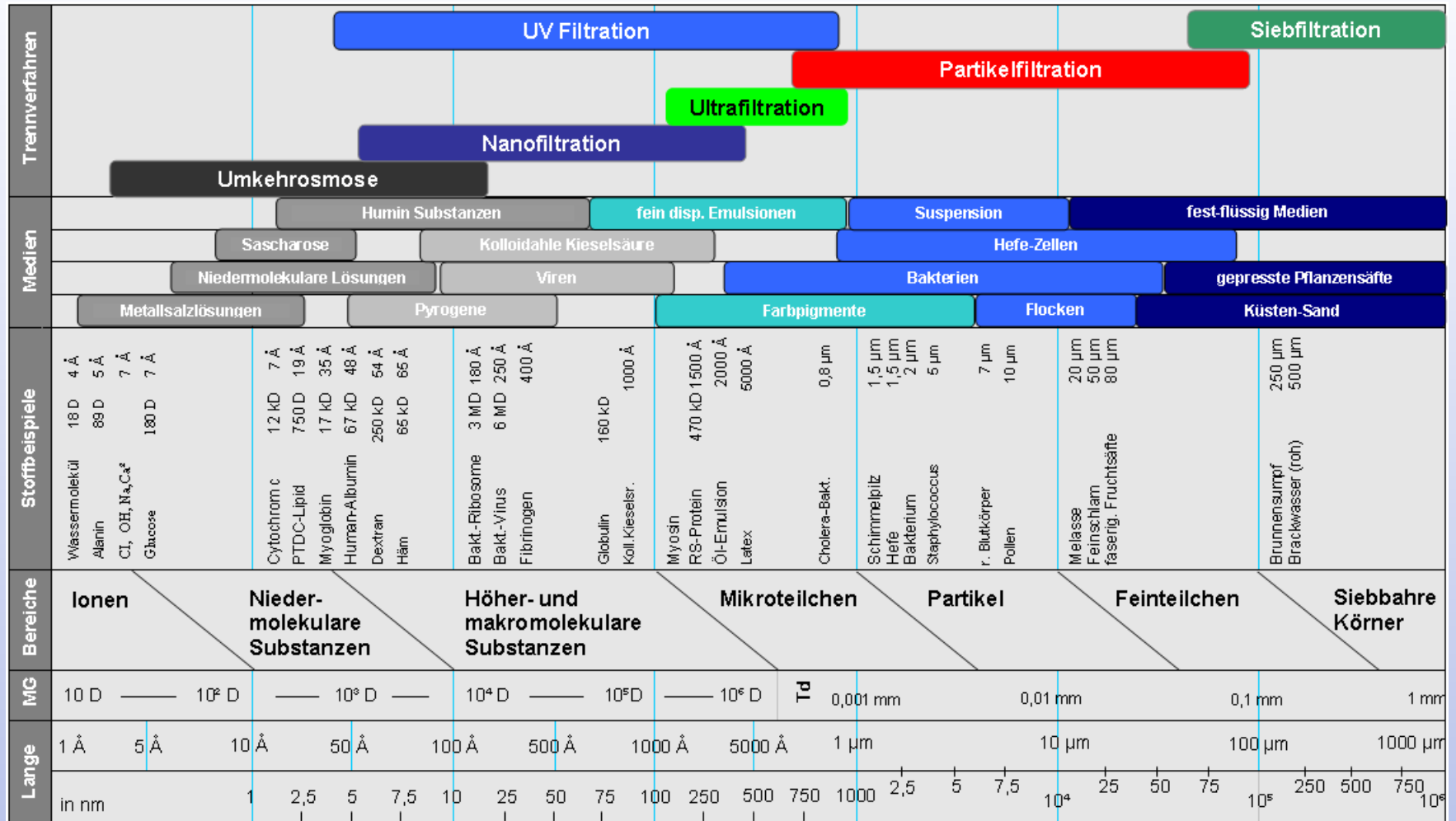


Deep Bed Filtration



„Multiple Manhole“





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