

Determinands in Waterbase – TCM version 5

Determinands for Inputs and Discharges only:

Determinand	Unit
Flow	m3/s
Volume	m3

Nutrients, oxygen and organic matter:

The units noted in the determinand list have been used in the data tables.

Determinand	Unit		
	Discharges	Input	Quality
Ammonium	tonnes/y	tonnes/y	µMol N
Ammonium	tonnes/y	tonnes/y	mgN/L
Biological Oxygen Demand			µMol O2
BOD5	tonnes/y	tonnes/y	µMol O2
BOD5	tonnes/y	tonnes/y	mgO2/L
BOD7	tonnes/y	tonnes/y	µMol O2
Chemical Oxygen Demand		tonnes/y	µMol O2
Chlorophyll a			µg/L
Chlorophyll a			µg/l
COD			mgO2/L
CODCr	tonnes/y	tonnes/y	µMol O2
CODMn		tonnes/year	µMol O2
CODMn		tonnes/y	µMol O2
Dissolved Oxygen		tonnes/year	µMol O2
Dissolved Oxygen		tonnes/year	mg.l-1
Dissolved Oxygen		tonnes/year	mg/L
Hydrogen sulfide			µMol H2S
Kjedahl N			mg/L
Nitrate	tonnes/y	tonnes/y	mgN/L
Nitrate	tonnes/y	tonnes/y	µMol N
Nitrate to Orthophosphate ratio			molar ratio
Nitrate+Nitrite			µmolN/l
Nitrite	tonnes/y	tonnes/y	mgN/L
Nitrite	tonnes/y	tonnes/y N	mgN/L
Nitrite	tonnes/y	tonnes/y	µMol N
Nitrite	tonnes/y	tonnes/y N	µMol N
Orthophosphate	tonnes/y	tonnes/y	mgP/L
Orthophosphate	tonnes/y	tonnes/y	µMol P
Oxygen saturation			%
Particulate Organic Nitrogen			µMol N
pH			pH
pH			
Salinity			psu

Silicate			µMol Si
Suspended particulate matter	tonnes/y	tonnes/y	
Temperature			°C
TOC			mg
Total Inorganic Nitrogen		tonnes/y	
Total Nitrogen	tonnes/y	tonnes/y	µMol N
Total Nitrogen	tonnes/y	tonnes/year P	µMol N
Total Nitrogen to Total Phosphorus ratio			molar ratio
Total Organic Carbon	tonnes/y	tonnes/y	µMol C
Total Organic Carbon	tonnes/y	tonnes/y	mg/l
Total Organic Nitrogen			µMol N
Total Oxidised Nitrogen			µMol N
Total Phosphorus	tonnes/y	tonnes/y	µMol P
Total Phosphorus	tonnes/y	tonnes/y	mgP/L

Hazardous substances:

The units noted in the determinand list have been used in the data tables.

Determinand	Unit				
	Discharges	Input	HSBiota	HSSediment	HSWater
DDTx			µg/kg	µg/kg	
LINDAN			µg/kg		
PCBx			µg/kg	µg/kg	
1,1,1, Trichloroethane					µg/l
1,1,2,2,-Tetrachloroethane					µg/l
1,1,2-Trichloroethane					µg/l
1,1-Dichloroethane					µg/l
1,1-Dichloroethylene					µg/l
1,2,3,-Trichloropropane					µg/l
1,2,3-trichlorobenzene				µg/kg	
1,2,4-trichlorobenzene				µg/kg	µg/l
1,2,4-trichlorobenzene				mg/kg	µg/l
1,2-Dibromoethane					µg/l
1,2-Dichloroethane				mg/kg	µg/l
1,2-Dichloropropane					µg/l
1,3,5-trichlorobenzene				µg/kg	µg/l
1-methylnaphthalene				µg/kg	
2,2',3,3',4,4',5 Heptachlorobiphenyl (CB170)					µg/l
2,2',3,4,4',5,5'-heptachlorobiphenyl (CB180)			µg/kg	µg/kg	µg/l
2,2',3,4,4',5'-hexachlorobiphenyl (CB 138)			µg/kg	µg/kg	
2,2',3,4,4',5'-hexachlorobiphenyl (CB138)			µg/kg	µg/kg	µg/l
2,2',4,4',5,5' hexachlorobiphenyl (CB153)				µg/kg	
2,2',4,4',5,5'-hexachlorobiphenyl (CB 153)			µg/kg		

2,2',4,4',5,5'-hexachlorobiphenyl (CB153)			µg/kg	µg/kg	µg/l
2,2',4,5,5'-pentachlorobiphenyl (CB101)			µg/kg	µg/kg	µg/l
2,2',4,5,5'-pentachlorobiphenyl (CB153)					µg/l
2,2',5,5'-tetrachlorobiphenyl (CB52)			µg/kg	µg/kg	µg/l
2,2',3,4,4',5,5'-heptachlorobiphenyl (CB180)			µg/kg	µg/kg	
2,2',3,4,4',5'-hexabromodiphenyl ether (BD(E)138)				µg/kg	
2,2',3,4,4',5'-hexachlorobiphenyl (CB138)			µg/kg	µg/kg	
2,2',3,4,4'-pentabromodiphenyl ether (BDE85)				µg/kg	
2,2',4,4',5,5'-hexachlorobiphenyl (CB153)			µg/kg	µg/kg	
2,2',4,4',5,6'-hexabromodiphenyl ether (BDE154)				µg/kg	
2,2',4,4',5-pentabromodiphenyl ether (BDE99)				µg/kg	
2,2',4,4',6-pentabromodiphenyl ether (BD(E)100)				µg/kg	
2,2',4,4'-tetrabromodiphenyl ether (BDE47)				µg/kg	
2,2',4,5,5'-pentachlorobiphenyl (CB101)			µg/kg	µg/kg	
2,2',5,5'-tetrachlorobiphenyl (CB52)			µg/kg	µg/kg	
2,2',3,4,4',5' Heptachlorobiphenyl (CB138)					µg/l
2,2',3,4',5',6 Hexachlorobiphenyl (CB149)					µg/l
2,3,3',4,4',5-hexachlorobiphenyl (CB156)			µg/kg		
2,3,3',4,4'-pentachlorobiphenyl (CB105)			µg/kg		
2,3,3',4,4',5'-hexachlorobiphenyl (CB157)				µg/kg	
2,3,3',4,4',5-hexachlorobiphenyl (CB156)			µg/kg	µg/kg	
2,3,3',4,4'-pentachlorobiphenyl (CB105)			µg/kg	µg/kg	
2,3',4,4',5-pentachlorobiphenyl (CB118)			µg/kg	µg/kg	µg/l
2,3',4,4',5'-pentachlorobiphenyl (CB118)					µg/l
2,3',4,4',5-pentachlorobiphenyl (CB118)			µg/kg	µg/kg	
2,4,4'-trichlorobiphenyl (CB28)			µg/kg	µg/kg	
2,4,4'-trichlorobiphenyl (CB28)			µg/kg	µg/kg	µg/l
2-methylnaphthalene				µg/kg	
3,3',4,4',5,5' HexCB (PCB169)			µg/kg		
3,3',4,4',5,5'-HexCB (PCB 169)			µg/kg	µg/kg	
3,3',4,4'-tetrachlorobiphenyl (CB77)			µg/kg		
3,3',4,4'-tetrachlorobiphenyl(CB 77)			µg/kg	µg/kg	
4-Nonylphenol					µg/l
5,5',6,6'-decachlorobiphenyl (CB209)			µg/kg	µg/kg	
Acenaphthene			µg/kg	µg/kg	µg/l
Acenaphthylene			µg/kg	µg/kg	
Adsorbable organic halogene	tonnes/y				
Alachlor					µg/l
Aldrin			µg/kg	µg/kg	µg/l
alfa-HCH			µg/kg		
alpha-Endosulfan			µg/kg	µg/kg	µg/l

alpha-HCH			µg/kg	µg/kg	µg/l
alpha-HCH (alpha-hexachlorocyclohexane)			µg/kg	µg/kg	
Aluminum and its compounds		tonnes/y	µg/kg	%	µg/l
Aluminum and its compounds		tonnes/y	µg/kg	µg/kg	µg/l
Anthracene			µg/kg	mg/kg	µg/l
Anthracene			µg/kg	µg/kg	µg/l
Arochlor 1254			µg/kg		
Arochlor 1260			µg/kg		
Arsenic and its compounds		tonnes/y	µg/kg	µg/kg	µg/l
Arsenic and its compounds		tonnes/y	µg/kg	mg/kg	µg/l
Atrazine					µg/l
Average Riverine flow for Year		m3/sec			
Benzene				mg/kg	µg/l
benzo -g,h,i-perylene				µg/kg	
benzo -k'-fluoranthene				µg/kg	
Benzo[a]anthracene			µg/kg	µg/kg	
benzo-a-pyrene			µg/kg	µg/kg	µg/l
benzo-a-pyrene			µg/kg	mg/kg	µg/l
benzo-b-fluoranthene			µg/kg	mg/kg	µg/l
benzo-b-fluoranthene			µg/kg	µg/kg	µg/l
Benzo-e-pyrene			µg/kg		
benzo-g,h,i-perylene			µg/kg	µg/kg	µg/l
benzo-g,h,i-perylene			µg/kg	mg/kg	µg/l
benzo-k-fluoranthene			µg/kg	µg/kg	µg/l
benzo-k-fluoranthene			µg/kg	mg/kg	µg/l
beta-HCH			µg/kg	µg/kg	µg/l
Bis(pentabromophenyl) ether				µg/kg	
Boron					µg/l
Bromodichloromethane					µg/l
Cadmium			µg/kg		
Cadmium and its compounds	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
Cadmium and its compounds	tonnes/y	tonnes/y	µg/kg	mg/kg	µg/l
Cadmium and its compounds	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
caesium 137					Bq/m3
Carbon Tetrachloride (aka tetrachloromethane)					µg/l
Cd			µg/kg		
Chemical Oxygen Demand		tonnes/y			
Chloromethane (aka methylchloride)					µg/l
Chlorpyrifos					µg/l
Chromium and its compounds	tonnes/y	tonnes/y	µg/kg	mg/kg	µg/l
Chromium and its compounds	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
Chrysene			µg/kg	µg/kg	
Cobalt and its compounds		tonnes/y	µg/kg	µg/kg	
COD-Cr	tonnes/y				

Copper and its compounds	tonnes/y	tonnes/y	µg/kg	mg/kg	µg/l
Copper and its compounds	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
Cr			µg/kg		
Cu			µg/kg		
DDD, o, p'			µg/kg		µg/l
DDD, o, p'			µg/kg	µg/kg	
DDD, p, p'			µg/kg	µg/kg	µg/l
DDD, p, p'			µg/kg	µg/kg	
DDD, p,p'			µg/kg		
DDD,o,p'			µg/kg		
DDD,p,p'			µg/kg		
DDDP'p'			µg/kg		
DDE, o, p'					µg/l
DDE, o, p'			µg/kg	µg/kg	
DDE, o,p'			µg/kg		
DDE, p, p'			µg/kg	µg/kg	µg/l
DDE, p, p'			µg/kg	µg/kg	
DDE, p,p'			µg/kg		
DDE,p,p'			µg/kg		
DDEp'p'			µg/kg		
DDT					µg/l
DDT, o, p'			µg/kg	µg/kg	µg/l
DDT, o,p'			µg/kg		
DDT, o,p'			µg/kg	µg/kg	
DDT, p, p'			µg/kg	µg/kg	µg/l
DDT, p,p'			µg/kg	µg/kg	µg/l
DDT, p,p'			µg/kg	µg/kg	
DDT,o,p'			µg/kg		
DDT,p,p'			µg/kg		
DDTp'p'			µg/kg		
delta-HCH			µg/kg	µg/kg	µg/l
Detergents	tonnes/y				
Dibenz[a,h]anthracene			µg/kg	µg/kg	
Dibromochloromethane					µg/l
Dibutyltin (DBT)			µg/kg	µg/kg	
Dichloromethane				µg/kg	µg/l
Dichlorvos					µg/l
Dieldrin			µg/kg	µg/kg	µg/l
Dimethoate					µg/l
Discharge		million m3/year			
Diuron					µg/l
Endosulfan					µg/l
Endrin			µg/kg	µg/kg	µg/l
Ethylbenzene					µg/l

Fluorene			µg/kg	µg/kg	µg/l
Fluoroanthene			µg/kg	mg/kg	µg/l
Fluoroanthene			µg/kg	µg/kg	µg/l
gama-HCH			µg/kg		
gamma-HCH			µg/kg	µg/kg	µg/l
H	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
HCB				µg/kg	µg/l
Heptachlor			µg/kg	µg/kg	µg/l
Heptachlor epoxide				µg/kg	µg/l
Hexachlorobenzene			µg/kg	µg/kg	µg/l
Hexachlorobenzene (HCB)			µg/kg		
Hexachlorobutadiene				µg/kg	µg/l
Hexachlorocyclohexane					µg/l
HgT			µg/kg		
Hydrocarbons	tonnes/y				
indeno (1,2,3-cd) pyrene				µg/kg	
indeno(1,2,3-cd) pyrene			µg/kg	µg/kg	µg/l
indeno(1,2,3-cd) pyrene			µg/kg	mg/kg	µg/l
Iron and its compounds		tonnes/year	µg/kg	µg/kg	µg/l
Iron and its compounds		tonnes/year	µg/kg	%	µg/l
Iron and its compounds		tonnes/y	µg/kg	µg/kg	µg/l
Iron and its compounds		tonnes/y	µg/kg	%	µg/l
Isodrin					µg/l
Isopropylbenzene					µg/l
Isoproturon					µg/l
Lead			µg/kg		
Lead and its compounds			µg/kg		
Lead and its compounds	tonnes/y	tonnes/y	µg/kg	mg/kg	µg/l
Lead and its compounds	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
Lindane (gamma-HCH)			µg/kg	µg/kg	
Linuron					µg/l
Manganese and its compounds		tonnes/y	µg/kg	µg/kg	µg/l
Mercury			µg/kg		
Mercury and its compounds	tonnes/y	tonnes/y	µg/kg	mg/kg	µg/l
Mercury and its compounds	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
Methoxychlor				µg/kg	
Mirex				µg/kg	
Molybdenum and its compounds		tonnes/y		µg/kg	
Naphthalene			µg/kg	µg/kg	
Naphthalene, chloro derivs.			µg/kg		
Nickel			µg/kg		
Nickel and its compounds	tonnes/y	tonnes/y	µg/kg	mg/kg	µg/l
Nickel and its compounds	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
Non-ionised Ammonia		tonnes/year N			

Octachloronaphthalene				µg/kg	
Oil and Grease					µg/l
Organic Carbon				% of total dw	
Orthophosphate	tonnes/y	tonnes/y			
p,p' DDD				µg/kg	µg/l
p,p' DDE				µg/kg	µg/l
p,p' DDT				µg/kg	µg/l
p,p' DDT				µg/kg	µg/l
PAH (sum of 16 samples)			µg/kg		
PAH (sum of 16)					µg/l
para-tert-octylphenol					µg/l
Pb			µg/kg		
PCB Congeners IUPAC Nos 28, 52, 101, 118, 138, 153, 180			µg/kg		
Pentachlorobenzene				µg/kg	µg/l
Pentachlorophenol				µg/kg	µg/l
Perchloroethylene (aka tetrachloroethylene)					µg/l
Perchloroethylene (aka tetrachloroethylene)					µg/l
Phenanthrene			µg/kg	µg/kg	µg/l
Phenols	tonnes/y		µg/kg	µg/kg	µg/l
Phenols	tonnes/y		µg/kg	µg/kg	µg/l
Polyaromatic Hydrocarbons			µg/kg		µg/l
Polychlorinated biphenyls			µg/kg	µg/kg	
Pyrene			µg/kg	µg/kg	µg/l
Quintozene				µg/kg	
Selenium and its compounds			µg/kg	mg/kg	µg/l
Selenium and its compounds			µg/kg	µg/kg	µg/l
Simazine					µg/l
Simazine					µg/l
strontium 90					Bq/m3
strontium 90					Bq/m3
Styrene					µg/l
Sum of (DDT (p,p'), DDE (p,p'), DDD (p,p'), DDT (o,p'), DDE (o,p'), DDD (o,p'))					µg/l
Sum PCB			µg/kg		
Sum PCB			µg/kg		
Sum PCB7					µg/l
Sum PCB7					µg/l
Surface Active Substances					µg/l
Suspended solids	tonnes/y				
Suspended solids	tonnes/y				
Tetrachloroethylene (aka perchloroethylene)					µg/l
Tin and its compounds				µg/kg	
Toluene (aka methylbenzene)					µg/l

Toluene (aka methylbenzene)					µg/l
Total Inorganic Nitrogen		tonnes/y			
Total Nitrogen	tonnes/y	tonnes/y			
Total Nitrogen	tonnes/y	tonnes/year P			
Total petroleum hydrocarbons					µg/l
Total Phosphoros	tonnes/y				
trans-Nonachlor				µg/kg	
Tribromomethane					µg/l
Tributyltin			µg/kg		
Tributyltin			µg/kg		
Tributyltin compounds			µg/kg	µg/kg	µg/l
Trichlorobenzene					µg/l
Trichloroethylene					µg/l
Trichloromethane				mg/kg	µg/l
Trifluralin					µg/l
Vanadium and its compounds		tonnes/y	µg/kg	µg/kg	µg/l
Vinyl chloride					µg/l
Vinyl chloride					µg/l
Volume					
Xylene (aka dimethylbenze)					µg/l
Xylene (aka dimethylbenzene)					µg/l
Zinc			µg/kg		
Zinc			µg/kg		
Zinc and its compounds	tonnes/y	tonnes/y	µg/kg	µg/kg	µg/l
Zinc and its compounds	tonnes/y	tonnes/y	µg/kg	mg/kg	µg/l
Zinc and its compounds	tonnes/y	tonnes/y	µg/kg	mg/kg	µg/l
Zn			µg/kg		