

Annexure 7 - Specific limits set for evaluating different threat types assessed

ASPECT	SUBSTANCE/PARAMETER	WASTEWATER LIMIT VALUES		THREAT RATINGS				
		SPECIAL LIMIT	GENERAL LIMIT	VL	L	M	H	VH
Water Quantity volumes of flow -	Runoff volumes	-	-	No change		Up to 5x natural runoff	5 - 10 x natural runoff	>10x natural runoff
Water Quantity patterns of flow -	Runoff regime (flow peaks)	-	-	No change		Up to 5x natural runoff	5 - 10 x natural runoff	>10x natural runoff
Sedimentation and turbidity	Suspended Solids (mg/l)	10	25	<10	10 - 25	<125	<250	>250
Water Quality inputs of Increased nutrients -	Ammonia (ionised and un-ionised) as Nitrogen (mg/l)	2	36	<2	2 - 36	<180	<360	>360
	Nitrate/Nitrite as Nitrogen (mg/l)	1,5	15	<1.5	1.5 - 15	<75	<150	>150
	Ortho-Phosphate as phosphorous (mg/l)	1 (median)	10	<1	1 - 10	<50	<100	>100
Water quality - Increased toxic contaminants	Soap, oil or grease (mg/l)	0	2.5	0	0 - 2.5	<12.5	<25	>25
	Dissolved Arsenic (mg/l)	0,01	0.02	<0.01	0.01 - 0.02	<0.1	<0.2	>0.2
	Dissolved Cadmium (mg/l)	0,001	0.005	<0.001	0.001 - 0.005	<0.025	<0.05	>0.05
	Dissolved Chromium (VI) (mg/l)	0,02	0.05	<0,02	0,02 - 0.05	<0.25	<0.5	>0.5
	Dissolved Copper (mg/l)	0,002	0.01	<0,002	0,002 - 0.01	<0.05	<0.1	>0.1
	Dissolved Cyanide (mg/l)	0,01	0.02	<0,01	0,01 - 0.02	<0.1	<0.2	>0.2
	Dissolved Iron (mg/l)	0,3	0.3	<0,3	0,3	<1.5	<3	>3
	Dissolved Lead (mg/l)	0,006	0.01	<0,006	0,006 - 0.01	<0.05	<0.1	>0.1
	Dissolved Manganese (mg/l)	0,1	0.1	<0,1	0,1	<0.5	<1	>1
	Mercury and its compounds (mg/l)	0,001	0.005	<0,001	0,001 - 0.005	<0.025	<0.05	>0.05
	Dissolved Selenium (mg/l)	0,02	0.02	<0,02	0,02	<0.1	<0.2	>0.2

ASPECT	SUBSTANCE/PARAMETER	WASTEWATER LIMIT VALUES		THREAT RATINGS				
		SPECIAL LIMIT	GENERAL LIMIT	VL	L	M	H	VH
	Dissolved Zinc (mg/l)	0,04	0.1	<0,04	0,04 - 1	<0.5	<1	>1
	Boron (mg/l)	0,5	1	<0.5	0,5 - 1	<5	<10	>10
Water quality – changes in acidity (pH)	pH	5,5-7,5	5,5-9,5	5,5-7,5	5,5-9,5	5 - 10	4.5 - 10.5	<4.5 - >10.5
Water quality – concentration of salts (salinization)	Electrical Conductivity (mS/m)	50 mS/m above background receiving water, to a maximum of 100 mS/m	70 mS/m above intake to a maximum of 150 mS/m	50 mS/m - 100 mS/m above background receiving water	70 mS/m - 150 mS/m above background receiving water	150 mS/m - 200 mS/m above background receiving water	200 mS/m - 300 mS/m above background receiving water	>300 mS/m above background receiving water
Water quality – temperature	Runoff temperature	-	-	No change	0 – 1°C	1 – 2°C	2 – 4°C	>4°C
Water quality – pathogens (i.e. disease-causing organisms)	Faecal Coliforms (per 100 ml)	-	1000	0	<1000	<5000	<10000	>10000