TABLE 4: Permit by Rule Numerical Standards for Organic Regulated Substances in Soil and Dredged Material for *Historic Fill* and *Exceeding Safe Fill Standards or Impacted by Spill or Release*

REGULATED SUBSTANCE	CASRN	SHS[1] (residnetial, used aquifer, TDS<2500 mg/L)						Permit By Rule	Permit By Rule[3]		
		Direct Contact(RDC)		*Soil to Groundwater Pathway Numeric Value*				Historic Fill	Soil/Dredged Material Exceeding Safe Fill or		
		Soil MSC[2] mg/kg		100XMSC (M) mg/kg	Generic Value (GV) mg/kg			Section 287.102(n) mg/kg Higher of M to GV	Impacted by Spill/Release:Section 287.102(m) RDC[4] (soil) mg/kg	GWMSC[5] mg/L	
ACENAPHTHENE	83-32-9	13000	G	220	2700	E		2700	13000	2.2	G
ACENAPHTHYLENE	208-96-8	13000	G	220	2500	E		2500	13000	2.2	G
ACEPHATE	30560-19-1	880	G	7.6	0.9	E		7.6	880	0.076	G
ACETALDEHYDE	75-07-0	140	N	1.9	0.23	E		1.9	140	0.019	N
ACETONE	67-64-1	10000	C	370	41	E		370	10000	3.7	G
ACETONITRILE	75-05-8	1100	C	17	1.9	E		17	1100	0.17	N
ACETOPHENONE	98-86-2	10000	C	370	200	E		370	10000	3.7	G
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	4.7	G	0.017	0.069	E		0.069	4.7	0.00017	G
ACROLEIN	10-702-8	0.38	N	0.0055	0.00062	E		0.0055	0.38	0.000055	N
ACRYLAMIDE	79-06-1	4	G	0.0033	0.00057	E		0.0033	4	0.000033	N
ACRYLIC ACID	79-10-7	19	N	0.28	0.051	E		0.28	19	0.0028	N
ACRYLONITRILE	107-13-1	4.7	N	0.063	0.0087	E		0.063	4.7	0.00063	N
ALACHLOR	15972-60-8	220	G	0.2	0.077	E		0.2	220	0.002	M
ALDICARB	116-06-3	220	G	0.7	0.12	E		0.7	220	0.007	M
ALDRIN	309-00-2	1.1	G	0.00087	0.1	E		0.1	1.1	0.0000087	N
ALLYL ALCOHOL	107-18-6	330	N	4.9	0.58	E		4.9	330	0.049	N
AMINOBIPHENYL, 4-	92-67-1	0.85	G	0.0031	0.0012	E		0.0031	0.85	0.000031	G
AMITROLE	61-82-5	19	G	0.07	0.029	E		0.07	19	0.0007	G
AMMONIA	7664-41-7	1900	N	3000	360	E		3000	1900	30	H
AMMONIUM SULFAMATE	7773-06-0	44000	G	200	24	E		200	44000	2	H
ANILINE	62-53-3	19	N	0.28	0.16	E		0.28	19	0.0028	N
ANTHRACENE	120-12-7	66000	G	6.6	350	E		350	66000	0.066	S
ATRAZINE	1912-24-9	81	G	0.3	0.13	E		0.3	81	0.003	M
BAYGON (PROPOXUR)	114-26-1	880	G	0.3	0.057	E		0.3	880	0.003	H
BENOMYL	17804-35-2	11000	G	180	880	E		880	11000	1.8	G
BENTAZON	25057-89-0	6600	G	110	16	E		110	6600	1.1	G
BENZENE	71-43-2	41	N	0.5	0.13	E		0.5	41	0.005	M
BENZIDINE	92-87-5	0.078	G	0.00029	0.38	E		0.38	0.078	0.0000029	G
BENZO[A]ANTHRACENE	56-55-3	25	G	0.09	79	E		79	25	0.0009	G
BENZO[A]PYRENE	50-32-8	2.5	G	0.02	46	E		46	2.5	0.0002	M
BENZO[B]FLUORANTHENE	205-99-2	25	G	0.09	120	E		120	25	0.0009	G
BENZO[GHI]PERYLENE	191-24-2	13000	G	0.026	180	E		180	13000	0.00026	S
BENZO[K]FLUORANTHENE	207-08-9	250	G	0.055	610	E		610	250	0.00055	S
BENZOIC ACID	65-85-0	190000	C	15000	2900	E		15000	190000	150	G
BENZOTRICHLORIDE	98-07-7	1.4	G	0.0051	0.012	E		0.012	1.4	0.000051	G
BENZYL ALCOHOL	100-51-6	10000	C	1100	400	E		1100	10000	11	G

APPENDIX A

TABLE 4: Permit by Rule Numerical Standards for Organic Regulated Substances in Soil and Dredged Material for *Historic Fill* and *Exceeding Safe Fill Standards or Impacted by Spill or Release*

REGULATED SUBSTANCE	CASRN	SHS[1] (residnetial, used aquifer, TDS<2500 mg/L)						Permit By Rule	Permit By Rule[3]		
		Direct Contact(RDC)		*Soil to Groundwater Pathway Numeric Value*				Historic Fill	Soil/Dredged Material Exceeding Safe Fill or		
		Soil MSC[2]		100XMSC (M)	Generic Value (GV)			Section 287.102(n)	Impacted by Spill/Release:Section 287.102(m)		
		mg/kg		mg/kg	mg/kg			mg/kg	RDC[4] (soil)	GWMSC[5]	
								Higher of M to GV	mg/kg	mg/L	
BENZYL CHLORIDE	100-44-7	6.4	N	0.087	0.051	E		0.087	6.4	0.00087	N
BHC, ALPHA	319-84-6	2.8	G	0.01	0.046	E		0.046	2.8	0.0001	G
BHC, BETA-	319-85-7	9.9	G	0.037	0.22	E		0.22	9.9	0.00037	G
BHC, DELTA-	319-86-8	130	G	2.2	11	E		11	130	0.022	G
BHC, GAMMA (LINDANE)	58-89-9	14	G	0.02	0.072	E		0.072	14	0.0002	M
BIPHENYL, 1,1-	92-52-4	11000	G	180	790	E		790	11000	1.8	G
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.96	N	0.013	0.0039	E		0.013	0.96	0.00013	N
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	32	N	30	8	E		30	32	0.3	H
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0051	N	0.000069	0.00001	E		0.000069	0.0051	0.00000069	N
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	1300	G	0.6	130	E		130	1300	0.006	M
BISPHENOL A	80-05-7	11000	G	180	700	E		700	11000	1.8	G
BROMACIL	314-40-9	22000	G	8	2	E		8	22000	0.08	H
BROMOCHLOROMETHANE	74-97-5	2200	G	9	1.6	E		9	2200	0.09	H
BROMODICHLOROMETHANE	75-27-4	8.6	N	10	3.4	E		10	8.6	0.1	M
BROMOMETHANE	74-83-9	95	N	1	0.54	E		1	95	0.01	H
BROMOXYNIL	1689-84-5	4400	G	73	63	E		73	4400	0.73	G
BROMOXYNIL OCTANOATE	1689-99-2	4400	G	8	360	E		360	4400	0.08	S
BUTADIENE, 1,3-	106-99-0	5.3	G	0.015	0.0062	E		0.015	5.3	0.00015	N
BUTYL ALCOHOL, N-	71-36-3	6600	N	97	12	E		97	6600	0.97	N
BUTYLATE	2008-41-5	10000	C	35	51	E		51	10000	0.35	H
BUTYLBENZENE, N-	104-51-8	8800	G	150	950	E		950	8800	1.5	G
BUTYLBENZENE, SEC-	135-98-8	8800	G	150	350	E		350	8800	1.5	G
BUTYLBENZENE, TERT-	98-06-6	8800	G	150	270	E		270	8800	1.5	G
BUTYLBENZYL PHTHALATE	85-68-7	10000	C	270	10000	C		10000	10000	2.7	S
CAPTAN	133-06-2	5100	G	19	12	E		19	5100	0.19	G
CARBARYL	63-25-2	22000	G	70	41	E		70	22000	0.7	H
CARBAZOLE	86-74-8	900	G	3.3	21	E		21	900	0.033	G
CARBOFURAN	1563-66-2	1100	G	4	0.87	E		4	1100	0.04	M
CARBON DISULFIDE	75-15-0	10000	C	190	160	E		190	10000	1.9	N
CARBON TETRACHLORIDE	56-23-5	21	N	0.5	0.26	E		0.5	21	0.005	M
CARBOXIN	5234-68-4	22000	G	70	53	E		70	22000	0.7	H
CHLORAMBEN	133-90-4	3300	G	10	1.6	E		10	3300	0.1	H
CHLORDANE	57-74-9	51	G	0.2	49	E		49	51	0.002	M
CHLORO-1,1-DIFLUOROETHANE, 1-	75-68-3	190000	C	14000	2300	E		14000	190000	140	N
CHLORO-1-PROPENE, 3- (ALLYL	107-05-1	19	N	0.28	0.065	E		0.28	19	0.0028	N
CHLOROACETOPHENONE, 2-	532-27-4	1.9	G	0.031	0.0093	E		0.031	1.9	0.00031	G

TABLE 4: Permit by Rule Numerical Standards for Organic Regulated Substances in Soil and Dredged Material for *Historic Fill* and *Exceeding Safe Fill Standards or Impacted by Spill or Release*

REGULATED SUBSTANCE	CASRN	SHS[1] (residnetial, used aquifer, TDS<2500 mg/L)					Permit By Rule	Permit By Rule[3]		
		Direct Contact(RDC)		*Soil to Groundwater Pathway Numeric Value*			Historic Fill	Soil/Dredged Material Exceeding Safe Fill or		
		Soil MSC[2] mg/kg		100XMSC (M) mg/kg	Generic Value (GV) mg/kg		Section 287.102(n) mg/kg Higher of M to GV	Impacted by Spill/Release:Section 287.102(m) RDC[4] (soil) mg/kg	GWMSC[5] mg/L	
CHLOROANILINE, P-	106-47-8	880	G	15	19	E	19	880	0.15	G
CHLOROBENZENE	108-90-7	4400	G	10	6.1	E	10	4400	0.1	M
CHLOROBENZILATE	510-15-6	66	G	0.24	1.6	E	1.6	66	0.0024	G
CHLOROBUTANE, 1-	109-69-3	10000	C	1500	2300	E	2300	10000	15	G
CHLORODIBROMOMETHANE	124-48-1	12	N	10	3.2	E	10	12	0.1	M
CHLORODIFLUOROMETHANE	75-45-6	190000	C	10	2.6	E	10	190000	0.1	H
CHLOROETHANE	75-00-3	6200	G	23	5	E	23	6200	0.23	G
~~[CHLOROETHYL VINYL ETHER, 2-]~~	~~[110-75-8]~~	~~[1700]~~	~~[N]~~	~~[24]~~	~~[3.1]~~	~~[E]~~			0.24	~~N~~
CHLOROFORM	67-66-3	14	N	10	2.5	E	10	14	0.1	M
CHLORONAPHTHALENE, 2-	91-58-7	18000	G	290	6,200	E	6200	18000	2.9	G
CHLORONITROBENZENE, P-	100-00-5	990	G	3.7	4.9	E	4.9	990	0.037	G
CHLOROPHENOL, 2-	95-57-8	330	N	4	4.4	E	4.4	330	0.04	H
CHLOROPRENE	126-99-8	130	N	1.9	0.45	E	1.9	130	0.019	N
CHLOROPROPANE, 2-	75-29-6	1900	N	28	21	E	28	1900	0.28	N
CHLOROTHALONIL	1897-45-6	1600	G	6	15	E	15	1600	0.06	G
CHLOROTOLUENE, O-	95-49-8	4400	G	10	20	E	20	4400	0.1	H
CHLORPYRIFOS	2921-88-2	660	G	2	23	E	23	660	0.02	H
CHLORSULFURON	64902-72-3	11000	G	180	25	E	180	11000	1.8	G
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	2200	G	40	650	E	650	2200	0.4	H
CHRYSENE	218-01-9	2500	G	0.19	230	E	230	2500	0.0019	S
CRESOL(S)	1319-77-3	330	N	18	3.1	E	18	330	0.18	[N]
CRESOL, 0- (METHYLPHENOL, 2-)	95-48-7	10000	C	180	64	E	180	10000	1.8	G
CRESOL, M (METHYLPHENOL, 3-)	108-39-4	10000	C	180	36	E	180	10000	1.8	G
CRESOL, P (METHYLPHENOL, 4-)	106-44-5	1100	G	18	4.2	E	18	1100	0.18	G
CRESOL, P-CHLORO-M-	59-50-7	1100	G	18	37	E	37	1100	0.18	G
CROTONALDEHYDE	4170-30-3	9.4	G	0.0079	0.00099	E	0.0079	9.4	0.000079	N
CROTONALDEHYDE, TRANS-	123-73-9	9.4	G	0.035	0.0044	E	0.035	9.4	0.000079	G
CUMENE	98-82-8	7300	N	110	780	E	780	7300	1.1	N
CYCLOHEXANONE	108-94-1	10000	C	4,900	1,400	E	4900	10000	49	N
CYFLUTHRIN	68359-37-5	5500	G	0.1	33	E	33	5500	0.001	S
CYROMAZINE	66215-27-8	1700	G	27	84	E	84	1700	0.27	G
DDD, 4,4'-	72-54-8	75	G	0.062	6.8	E	6.8	75	0.00062	N
DDE, 4,4'-	72-55-9	53	G	0.19	41	E	41	53	0.0019	[~~S~~]
DDT, 4,4'-	50-29-3	53	G	0.19	110	E	110	53	0.0019	[~~S~~]
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	10000	C	40	10000	C	10000	10000	0.4	M

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		Soil MSC[2] mg/kg		100XMSC (M) mg/kg	Generic Value (GV) mg/kg		Section 287.102(n) mg/kg Higher of M to GV	Impacted by Spill/Release:Section 287.102(m) RDC[4] (soil) mg/kg	GWMSC[5] mg/L	
DIALLATE	2303-16-4	18	N	0.25	0.15	E	0.25	18	0.0025	N
DIAMINOTOLUENE, 2,4-	95-80-7	5.6	G	0.021	0.0042	E	0.021	5.6	0.00021	G
DIAZINON	333-41-5	200	G	0.06	0.082	E	0.082	200	0.0006	H
DIBENZO[A,H]ANTHRACENE	53-70-3	2.5	G	0.009	41	E	41	2.5	0.00009	G
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	3.8	N	0.02	] 0.0092	E	0.02	3.8	0.0002	M
DIBROMOBENZENE, 1,4-	106-37-6	2200	G	37	150	E	150	2200	0.37	G
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.21	G	0.005	0.0012	E	0.005	0.21	0.00005	M
DIBROMOMETHANE	74-95-3	670	N	9.7	3.7	E	9.7	670	0.097	N
DIBUTYL PHTHALATE, N-	84-74-2	10000	C	370	1500	E	1500	10000	3.7	G
DICHLORO-2-BUTENE, 1,4-	764-41-0	91000	N	0.0016	0.0009	E	0.0016	91000	0.000016	N
DICHLOROBENZENE, 1,2-	95-50-1	3800	N	60	59	E	60	3800	0.6	M
DICHLOROBENZENE, 1,3-	541-73-1	60	N	60	61	E	61	60	0.6	H
DICHLOROBENZENE, P-	106-46-7	750	G	7.5	10	E	10	750	0.075	M
DICHLOROBENZIDINE, 3,3'-	91-94-1	40	G	0.15	[8.4] 8.3	E	0.15	40	0.0015	G
DICHLORODIFLUOROMETHANE (FREON	75-71-8	3800	N	100	100	E	100	3800	1	H
DICHLOROETHANE, 1,1-	75-34-3	200	N	2.7	0.65	E	2.7	200	0.027	N
DICHLOROETHANE, 1,2-	107-06-2	12	N	0.5	0.1	E	0.5	12	0.005	M
DICHLOROETHYLENE, 1,1-	75-35-4	6.4	N	0.7	0.19	E	0.7	6.4	0.007	M
DICHLOROETHYLENE, CIS-1,2-	156-59-2	670	N	7	1.6	E	7	670	0.07	M
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	1300	N	10	2.3	E	10	1300	0.1	M
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	680	N	0.5	0.076	E	0.5	680	0.005	M
DICHLOROPHENOL, 2,4-	120-83-2	660	G	2	1	E	2	660	0.02	H
DICHLOROPHENOXYACETIC ACID, 2,4-	94-75-7	2200	G	7	1.8	E	7	2200	0.07	M
DICHLOROPROPANE, 1,2-	78-87-5	18	N	0.5	0.11	E	0.5	18	0.005	M
DICHLOROPROPENE, 1,3-	542-75-6	8.6	N	0.66	0.12	E	0.66	8.6	0.0066	G
DICHLOROPROPIONIC ACID (DALAPON),	75-99-0	2000	N	20	5.3	E	20	2000	0.2	M
DICHLORVOS	62-73-7	62	G	0.052	0.012	E	0.052	62	0.00052	N
DICYCLOPENTADIENE	77-73-6	6600	G	0.055	0.12	E	0.12	6600	0.00055	N
DIELDRIN	60-57-1	1.1	G	0.0041	0.11	E	0.11	1.1	0.000041	G
DIETHYL PHTHALATE	84-66-2	10000	C	500	160	E	500	10000	5	H
DIFLUBENZURON	35367-38-5	4400	G	20	52	E	52	4400	0.2	S
DIMETHOATE	60-51-5	44	G	0.73	0.28	E	0.73	44	0.0073	G
DIMETHOXYBENZIDINE, 3,3-	119-90-4	1300	G	4.7	16	E	16	1300	0.047	G
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	3.9	G	0.014	0.037	E	0.037	3.9	0.00014	G
DIMETHYLANILINE, N,N-	000121-69-7	440	G	7.3	4.1	E	7.3	440	0.073	G

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DIMETHYLBENZIDINE, 3,3-	000119-93-7	1.9	G	0.0072	0.4	E	0.4	1.9	0.000072	G
[~~DIMETHYLHYDRAZINE, 1,1-~~]	[~~57-14-7~~]	[~~0.64~~]	[~~N~~]	~~0.0087~~	~~0.00097~~	~~E~~		[~~0.64~~]	[~~0.087~~]	[~~N~~]
DIMETHYLPHENOL, 2,4-	105-67-9	4400	G	73	32	E	73	4400	0.73	G
DINITROBENZENE, 1,3-	99-65-0	22	G	0.1	0.049	E	0.1	22	0.001	H
DINITROPHENOL, 2,4-	51-28-5	440	G	1.9	0.21	E	1.9	440	0.019	N
DINITROTOLUENE, 2,4-	121-14-2	58	G	0.21	0.05	E	0.21	58	0.0021	G
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	220	G	3.7	1.1	E	3.7	220	0.037	G
DINOSEB	88-85-7	220	G	0.7	0.29	E	0.7	220	0.007	M
DIOXANE, 1,4-	123-91-1	41	N	0.56	0.073	E	0.56	41	0.0056	N
DIPHENAMID	957-51-7	6600	G	20	12	E	20	6600	0.2	H
DIPHENYLAMINE	122-39-4	5500	G	20	12	E	20	5500	0.2	H
DIPHENYLHYDRAZINE, 1,2-	122-66-7	22	G	0.083	0.15	E	0.15	22	0.00083	G
DIQUAT	85-00-7	480	G	2	0.24	E	2	480	0.02	M
DISULFOTON	298-04-4	2.7	N	0.03	0.078	E	0.078	2.7	0.0003	H
DIURON	330-54-1	440	G	1	0.86	E	1	440	0.01	H
ENDOSULFAN	115-29-7	1300	G	5.8	30	E	30	1300	0.058	N
ENDOSULFAN I (ALPHA)	959-98-8	1300	G	22	110	E	110	1300	0.22	G
ENDOSULFAN II (BETA)	33213-65-9	1300	G	22	130	E	130	1300	0.22	G
ENDOSULFAN SULFATE	1031-07-8	1300	G	12	70	E	70	1300	0.12	S
ENDOTHALL	145-73-3	4400	G	10	4.1	E	10	4400	0.1	M
ENDRIN	72-20-8	66	G	0.2	5.5	E	5.5	66	0.002	M
EPICHLOROHYDRIN	106-89-8	19	N	0.28	0.056	E	0.28	19	0.0028	N
ETHEPHON	16672-87-0	1100	G	18	2.1	E	18	1100	0.18	G
ETHION	563-12-2	110	G	1.8	39	E	39	110	0.018	G
ETHOXYETHANOL, 2- (EGEE)	110-80-5	3800	[~~C~~]	55	7.8	E	55	3800	0.55	N
ETHYL ACETATE	141-78-6	10000	C	870	220	E	870	10000	8.7	N
ETHYL ACRYLATE	140-88-5	23	N	0.31	0.12	E	0.31	23	0.0031	N
ETHYL BENZENE	100-41-4	10000	C	70	46	E	70	10000	0.7	M
ETHYL DIPROPYLTHIOCARBAMATE, S-(EPTC)	759-94-4	5500	G	91	65	E	91	5500	0.91	G
ETHYL ETHER	60-29-7	10000	C	190	53	E	190	10000	1.9	N
ETHYL METHACRYLATE	97-63-2	20000	G	87	14	E	87	20000	0.87	N
ETHYLENE GLYCOL	107-21-1	10000	C	] 1400	170	E	170	10000	14	H
ETHYLENE THIOUREA (ETU)	96-45-7	18	G	0.3	0.034	E	0.3	18	0.003	H
ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	2.2	G	0.037	0.12	E	0.12	2.2	0.00037	G

APPENDIX A

TABLE 4: Permit by Rule Numerical Standards for Organic Regulated Substances in Soil and Dredged Material for *Historic Fill* and *Exceeding Safe Fill Standards or Impacted by Spill or Release*

REGULATED SUBSTANCE	CASRN	SHS[1] (residnetial, used aquifer, TDS<2500 mg/L)					Permit By Rule	Permit By Rule[3]		
		Direct Contact(RDC)		*Soil to Groundwater Pathway Numeric Value*			Historic Fill	Soil/Dredged Material Exceeding Safe Fill or		
		Soil MSC[2] mg/kg		100XMSC (M) mg/kg	Generic Value (GV) mg/kg		Section 287.102(n) mg/kg Higher of M to GV	Impacted by Spill/Release:Section 287.102(m) RDC[4] (soil) mg/kg	GWMSC[5] mg/L	
FENAMIPHOS	22224-92-6	55	G	0.2	0.17	E	0.2	55	0.002	H
FENVALERATE (PYDRIN)	51630-58-1	5500	G	8.5	94	E	94	5500	0.085	S
FLUOMETURON (FLUOMETRON IN EPA FEB 96)	2164-17-2	2900	G	9	2.5	E	9	2900	0.09	H
FLUORANTHENE	206-44-0	8800	G	26	3,200	E	3200	8800	0.26	S
FLUORENE	86-73-7	8800	G	150	3000	E	3000	8800	1.5	G
FLUOROTRICHLOROMETHANE (FREON 11)	75-69-4	10000	C	200	87	E	200	10000	2	H
FONOFOS	944-22-9	140	N	1	2.9	E	2.9	140	0.01	H
FORMALDEHYDE	50-00-0	24	N	100	12	E	100	24	1	H
FORMIC ACID	64-18-6	10000	C	1,900	210	E	1900	10000	19	N
FOSETYL-AL	039148-24-8	190000	C	11000	9,700	E	11000	190000	110	G
FURAN	110-00-9	220	G	0.97	0.42	E	0.97	220	0.0097	N
FURFURAL	98-01-1	660	G	11	1.4	E	11	660	0.097	N
GLYPHOSATE	1071-83-6	22000	G	70	620	E	620	22000	0.7	M
HEPTACHLOR	76-44-8	4	G	0.04	0.68	E	0.68	4	0.0004	M
HEPTACHLOR EPOXIDE	1024-57-3	2	G	0.02	1.1	E	1.1	2	0.0002	M
HEXACHLOROBENZENE	118-74-1	11	G	0.1	0.96	E	0.96	11	0.001	M
HEXACHLOROBUTADIENE	87-68-3	44	G	0.1	1.2	E	1.2	44	0.001	H
HEXACHLOROCYCLOPENTADIENE	77-47-4	1500	G	5	91	E	91	1500	0.05	M
HEXACHLOROETHANE	67-72-1	220	G	0.1	0.56	E	0.56	220	0.001	H
HEXANE	110-54-3	3800	N	55	500	E	500	3800	0.55	N
HEXYTHIAZOX (SAVEY)	78587-05-0	5500	G	50	820	E	820	5500	0.5	S
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.064	N	0.00088	0.000098	E	0.00088	0.064	0.0000088	N
HYDROQUINONE	123-31-9	8800	G	150	20	E	150	8800	1.5	G
INDENO[1,2,3-CD]PYRENE	193-39-5	25	G	0.09	7000	E	7000	25	0.0009	G
IPRODIONE	36734-19-7	8800	G	150	430	E	430	8800	1.5	G
ISOBUTYL ALCOHOL	78-83-1	10000	C	290	76	E	290	10000	2.9	N
ISOPHORONE	78-59-1	10000	C	10	1.9	E	10	10000	0.1	H
KEPONE	143-50-0	1.1	G	0.0041	0.56	E	0.56	1.1	0.000041	G
MALATHION	121-75-5	1400	N	10	34	E	34	1400	0.1	H
MALEIC HYDRAZIDE	123-33-1	110000	G	400	47	E	400	110000	4	H
MANEB	12427-38-2	1100	G	18	2	E	18	1100	0.18	G
MERPHOS OXIDE	78-48-8	6.6	G	0.11	15	E	15	6.6	0.0011	G
METHACRYLONITRILE	126-98-7	13	N	0.19	0.031	E	0.19	13	0.0019	N
METHAMIDOPHOS	10265-92-6	11	G	0.18	0.022	E	0.18	11	0.0018	G
METHANOL	67-56-1	10000	C	490	58	E	490	10000	4.9	N

TABLE 4: Permit by Rule Numerical Standards for Organic Regulated Substances in Soil and Dredged Material for *Historic Fill* and *Exceeding Safe Fill Standards or Impacted by Spill or Release*

REGULATED SUBSTANCE	CASRN	SHS[1] (residnetial, used aquifer, TDS<2500 mg/L)					Permit By Rule	Permit By Rule[3]		
		Direct Contact(RDC)		*Soil to Groundwater Pathway Numeric Value*			Historic Fill	Soil/Dredged Material Exceeding Safe Fill or		
		Soil MSC[2] mg/kg		100XMSC (M) mg/kg	Generic Value (GV) mg/kg		Section 287.102(n) mg/kg Higher of M to GV	Impacted by Spill/Release:Section 287.102(m) RDC[4] (soil) mg/kg	GWMSC[5] mg/L	
METHOMYL	16752-77-5	5500	G	20	3.2	E	20	5500	0.2	H
METHOXYCHLOR	72-43-5	1100	G	4	630	E	630	1100	0.04	M
METHOXYETHANOL, 2-	109-86-4	220	G	3.7	0.41	E	3.7	220	0.037	G
METHYL ACETATE	79-20-9	10000	C	3700	690	E	3700	10000	37	G
METHYL ACRYLATE	96-33-3	6600	G	110	27	E	110	6600	1.1	G
METHYL CHLORIDE	74-87-3	180	N	0.3	0.038	E	0.3	180	0.003	H
METHYL ETHYL KETONE	78-93-3	10000	C	280	54	E	280	10000	2.8	N
METHYL ISOBUTYL KETONE	108-10-1	1500	N	19	2.9	E	19	1500	0.19	N
METHYL METHACRYLATE	80-62-6	10000	C	190	26	E	190	10000	1.9	N
METHYL METHANESULFONATE	66-27-3	180	G	0.67	0.083	E	0.67	180	0.0067	G
METHYL PARATHION	298-00-0	17	N	0.2	0.42	E	0.42	17	0.002	H
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	1300	G	22	120	E	120	1300	0.22	G
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	10000	C	2	0.28	E	2	10000	0.02	H
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	140	G	0.51	3.9	E	3.9	140	0.0051	G
METHYLNAPHTHALENE, 2-	91-57-6	4400	G	73	2,900	E	2900	4400	0.73	G
METHYLSTYRENE, ALPHA	98-83-9	15000	G	68	120	E	120	15000	0.68	N
NAPHTHALENE	91-20-3	4400	G	10	25	E	25	4400	0.1	H
NAPHTHYLAMINE, 1-	134-32-7	9.9	G	0.037	0.3	E	0.3	9.9	0.00037	G
NAPHTHYLAMINE, 2-	91-59-8	9.9	G	0.037	0.012	E	0.037	9.9	0.00037	G
NAPROPAMIDE	15299-99-7	22000	G	370	860	E	860	22000	3.7	G
NITROANILINE, M-	99-09-2	13	G	0.21	0.033	E	0.21	13	0.0021	G
NITROANILINE, O-	88-74-4	13	G	0.21	0.038	E	0.21	13	0.0021	G
NITROANILINE, P-	100-01-6	13	G	0.21	0.031	E	0.21	13	0.0021	G
NITROBENZENE	98-95-3	110	G	1.8	0.79	E	1.8	110	0.018	G
NITROPHENOL, 2-	88-75-5	1800	G	29	5.9	E	29	1800	0.29	G
NITROPHENOL, 4-	100-02-7	1800	G	6	4.1	E	6	1800	0.06	H
NITROPROPANE, 2-	79-46-9	0.12	N	0.0016	0.00026	E	0.0016	0.12	0.000016	N
NITROSODIETHYLAMINE, N-	55-18-5	0.0073	N	0.0001	0.000018	E	0.0001	0.0073	0.000001	N
NITROSODIMETHYLAMINE, N-	62-75-9	0.023	N	0.00031	0.000041	E	0.00031	0.023	0.0000031	N
NITROSO-DI-N-BUTYLAMINE, N-	924-16-3	3.3	G	0.0027	0.0033	E	0.0033	3.3	0.000027	N
NITROSODI-N-PROPYLAMINE, N-	621-64-7	2.6	G	0.0094	0.0013	E	0.0094	2.6	0.000094	G
NITROSODIPHENYLAMINE, N-	86-30-6	3700	G	13	20	E	20	3700	0.13	G
NITROSO-N-ETHYLUREA, N-	759-73-9	0.13	G	0.00047	0.000054	E	0.00047	0.13	0.0000047	G
OCTYL PHTHALATE, DI-N-	117-84-0	4400	G	73	10,000	C	10000	4400	0.73	G
OXAMYL (VYDATE)	23135-22-0	5500	G	20	2.6	E	20	5500	0.2	M
PARATHION	56-38-2	1300	G	22	130	E	130	1300	0.22	G

TABLE 4: Permit by Rule Numerical Standards for Organic Regulated Substances in Soil and Dredged Material for *Historic Fill* and *Exceeding Safe Fill Standards or Impacted by Spill or Release*

REGULATED SUBSTANCE	CASRN	SHS[1] (residnetial, used aquifer, TDS<2500 mg/L)					Permit By Rule	Permit By Rule[3]		
		Direct Contact(RDC)		*Soil to Groundwater Pathway Numeric Value*			Historic Fill	Soil/Dredged Material Exceeding Safe Fill or		
		Soil MSC[2] mg/kg		100XMSC (M) mg/kg	Generic Value (GV) mg/kg		Section 287.102(n) mg/kg Higher of M to GV	Impacted by Spill/Release:Section 287.102(m) RDC[4] (soil) mg/kg	GWMSC[5] mg/L	
PCB-1016 (AROCLOR)	12674-11-2	15	G	0.05	14	E	14	15	0	P
PCB-1221 (AROCLOR)	11104-28-2	36	G	0.05	0.24	E	0.24	36	0	P
PCB-1232 (AROCLOR)	11141-16-5	36	G	0.05	0.19	E	0.19	36	0	P
PCB-1242 (AROCLOR)	53469-21-9	36	G	0.05	6	E	6	36	0	P
PCB-1248 (AROCLOR)	12672-29-6	9.9	G	0.05	24	E	24	9.9	0	P
PCB-1254 (AROCLOR)	11097-69-1	4.4	G	0.05	100	E	100	4.4	0	P
PCB-1260 (AROCLOR)	11096-82-5	30	G	0.05	230	E	230	30	0	P
PEBULATE	1114-71-2	10000	C	180	300	E	300	10000	1.8	G
PENTACHLOROBENZENE	608-93-5	180	G	2.9	230	E	230	180	0.029	G
PENTACHLORONITROBENZENE	82-68-8	69	G	0.25	5	E	5	69	0.0025	G
PENTACHLOROPHENOL	87-86-5	150	G	0.1	5	E	5	150	0.001	M
PHENACETIN	62-44-2	8100	G	30	12	E	30	8100	0.3	G
PHENANTHRENE	85-01-8	66000	G	110	10,000	E	10000	66000	1.1	S
PHENOL	108-95-2	130000	G	400	66	E	400	130000	4	H
PHENYLENEDIAMINE, M-	108-45-2	1300	G	22	3.1	E	22	1300	0.22	G
PHENYLPHENOL, 2-	90-43-7	9200	G	34	490	E	490	9200	0.34	G
PHORATE	298-02-2	13	N	0.19	0.41	E	0.41	13	0.0019	N
PHTHALIC ANHYDRIDE	85-44-9	190000	C	7,300	2,300	E	7300	190000	73	G
PICLORAM	1918-02-1	15000	G	50	7.4	E	50	15000	0.5	M
POLYCHLORINATED BIPHENYLS(ARACLORS)(PCBS)									0.0005	M
PRONAMIDE	23950-58-5	17000	G	5	3.1	E	5	17000	0.05	H
PROPANIL	709-98-8	1100	G	18	9.2	E	18	1100	0.18	G
PROPHAM	122-42-9	4400	G	73	17	E	73	4400	0.73	G
PROPYLBENZENE, N-	103-65-1	2200	G	150	290	E	290	2200	1.5	G
PROPYLENE OXIDE	75-56-9	75	G	0.28	0.049	E	0.28	75	0.0028	G
PYRENE	129-00-0	6600	G	13	2200	E	2200	6600	0.13	S
PYRIDINE	110-86-1	67	N	0.97	0.11	E	0.97	67	0.0097	N
QUINOLINE	91-22-5	1.5	G	0.0055	0.018	E	0.018	1.5	0.000055	G
QUIZALOFOP (ASSURE)	76578-14-8	2000	G	30	47	E	47	2000	0.3	S
RONNEL	299-84-3	11000	G	180	280	E	280	11000	1.8	G
SIMAZINE	122-34-9	150	G	0.4	0.15	E	0.4	150	0.004	M
STRYCHNINE	57-24-9	66	G	1.1	0.89	E	1.1	66	0.011	G
STYRENE	100-42-5	10000	C	10	24	E	24	10000	0.1	M
TEBUTHIURON	34014-18-1	15000	G	50	83	E	83	15000	0.5	H
TERBACIL	5902-51-2	2900	G	9	2.2	E	9	2900	0.09	H

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REGULATED SUBSTANCE	CASRN	SHS[1] (residnetial, used aquifer, TDS<2500 mg/L)					Permit By Rule	Permit By Rule[3]		
		Direct Contact(RDC)		*Soil to Groundwater Pathway Numeric Value*			Historic Fill	Soil/Dredged Material Exceeding Safe Fill or		
		Soil MSC[2]		100XMSC (M)	Generic Value (GV)		Section 287.102(n)	Impacted by Spill/Release:Section 287.102(m)		
		mg/kg		mg/kg	mg/kg		mg/kg	RDC[4] (soil)	GWMSC[5]	
							Higher of M to GV	mg/kg	mg/L	
TERBUFOS	13071-79-9	1.7	N	0.09	0.12	E	0.12	1.7	0.0009	H
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	66	G	1.1	5.1	E	5.1	66	0.011	G
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8-(TCDD)	1746-01-6	0.00012	G	0.000003	0.032	E	0.032	0.00012	0.00000003	M
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	690	G	7	18	E	18	690	0.07	H
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	5.5	N	0.03	0.0093	E	0.03	5.5	0.0003	N
TETRACHLOROETHYLENE (PCE)	127-18-4	340	G	0.5	0.43	E	0.5	340	0.005	M
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	6600	G	29	450	E	450	6600	0.29	N
TETRAETHYL LEAD	78-00-2	0.022	G	0.00037	0.0046	E	0.0046	0.022	0.0000037	G
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	33	N	0.49	0.73	E	0.73	33	0.0049	N
THIOFANOX	39196-18-4	66	G	1.1	0.12	E	1.1	66	0.011	G
THIRAM	137-26-8	1100	G	18	47	E	47	1100	0.18	G
TOLUENE	108-88-3	7600	N	100	44	E	100	7600	1	M
TOLUIDINE, M-	108-44-1	75	G	0.28	0.13	E	0.28	75	0.0028	G
TOLUIDINE, O-	95-53-4	75	G	0.28	0.32	E	0.32	75	0.0028	G
TOLUIDINE, P-	106-49-0	94	G	0.35	0.32	E	0.35	94	0.0035	G
TOXAPHENE	8001-35-2	16	G	0.3	1.2	E	1.2	16	0.003	M
TRIALLATE	2303-17-5	2900	G	47	240	E	240	2900	0.47	G
TRIBROMOMETHANE (BROMOFORM)	75-25-2	290	N	10	4.4	E	10	290	0.1	M
TRICHLORO-1,2,2-TRIFLUOROETHANE,	76-13-1	190000	C	8300	2600	E	8300	190000	83	N
TRICHLOROBENZENE, 1,2,4-	120-82-1	2200	G	7	27	E	27	2200	0.07	M
TRICHLOROBENZENE, 1,3,5-	108-70-3	1300	G	4	31	E	31	1300	0.04	H
TRICHLOROETHANE, 1,1,1-	71-55-6	4400	G	20	7.2	E	20	4400	0.2	M
TRICHLOROETHANE, 1,1,2-	79-00-5	20	N	0.5	0.15	E	0.5	20	0.005	M
TRICHLOROETHYLENE (TCE)	79-01-6	190	N	0.5	0.17	E	0.5	190	0.005	M
TRICHLOROPHENOL, 2,4,5-	95-95-4	22000	G	370	2,300	E	2300	22000	3.7	G
TRICHLOROPHENOL, 2,4,6-	88-06-2	1600	G	6	17	E	17	1600	0.06	G
TRICHLOROPHENOXYACETIC ACID, 2,4,5-(2,4,5-T)	93-76-5	2200	G	7	1.5	E	7	2200	0.07	H
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP) (SILVEX)	93-72-1	1800	G	5	22	E	22	1800	0.05	M
TRICHLOROPROPANE, 1,1,2-	598-77-6	1100	G	18	3.1	E	18	1100	0.18	G
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.16	N	4	[3.3] 3.2	E	4	0.16	0.04	H
TRICHLOROPROPENE, 1,2,3-	96-19-5	1100	G	18	11	E	18	1100	0.18	G
TRIFLURALIN	1582-09-8	1700	G	0.5	0.96	E	0.96	1700	0.005	H
TRIMETHYLBENZENE, 1,3,4-(TRIMETHYLBENZENE, 1,2,4-)	95-63-6	110	N	1.6	9	E	9	110	0.016	N

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REGULATED SUBSTANCE	CASRN	SHS[1] (residnetial, used aquifer, TDS<2500 mg/L)					Permit By Rule Historic Fill Section 287.102(n)	Permit By Rule[3] Soil/Dredged Material Exceeding Safe Fill or Impacted by Spill/Release:Section 287.102(m)		
		Direct Contact(RDC)		*Soil to Groundwater Pathway Numeric Value*						
		Soil MSC[2] mg/kg		100XMSC (M) mg/kg	Generic Value (GV) mg/kg		mg/kg Higher of M to GV	RDC[4] (soil) mg/kg	GWMSC[5] mg/L	
TRIMETHYLBENZENE, 1,3,5-	108-67-8	110	N	1.6	2.8	E	2.8	110	0.016	N
TRINITROTOLUENE, 2,4,6-	118-96-7	110	G	0.2	0.023	E	0.2	110	0.002	H
VINYL ACETATE	108-05-4	3800	N	55	6.5	E	55	3800	0.55	N
VINYL BROMIDE (BROMOETHENE)	593-60-2	160	G	0.14	0.068	E	0.14	160	0.0014	N
VINYL CHLORIDE	75-01-4	1.3	N	0.2	0.027	E	0.2	1.3	0.002	M
WARFARIN	81-81-2	66	G	1.1	2.6	E	2.6	66	0.011	G
XYLENES (TOTAL)	1330-20-7	8300	N	1,000	990	E	1000	8300	10	M
ZINEB	12122-67-7	11000	G	180	29	E	180	11000	1.8	G

[1] Statewide healtth standards

[2] Medium specific concentration as defined in Section 250.1 of Act 2 regulations

[3] Soil must meet both the RDC and GWMSC numeric standards under this permit by rule

[4] Residential direct contact numeric standards as listed in Tables 3A of Chapter 250, Appendix A, to be met in soil exceeding safe fill stds or soil impacted by spill/release

[5] Groundwater MSC to be analyzed by leach test or SPLP analysis

G - Ingestion

N - Inhalation

C - Cap

E - Number calculated by the soil to groundwater equation in 25 Pa. Code Section 250.308

M - Maximum Contaminant Level

H - Lefetime Health Advisory Level

S - Aqueous solubility cap

P - For MSC in groundwater for PCBs, look under polychlorinated biphenyls (PCBS)