TOXICOLOGICAL DATA
DEI

PARAMETER	EPA CLASS.	BCF	SOURCE		CANCER POT FACTOR
Arsenic	A	44.00	EPA (1980)		1.50E+00
Beryllium	B2	19.00	EPA (1980)		4.30E+00
Chromium (VI)	A				-
Aldrin	B2	28.0	EPA (1980)		1.70E+01
alpha - BHC	B2	130.0	EPA (1980)		6.30E+00
Chlordane	B2	14100.0	EPA (1980)		1.30E+00
DDT	B2	53600.0	EPA (1980)		3.40E-01
DDE	B2	5410.0	EPA (1989)	***	3.40E-01
DDD	B2	10300.0	EPA (1989)	***	2.40E-01
Dieldrin	B2	4670.0	EPA (1980)		1.60E+01
Heptachlor	B2	11200.0	EPA (1980)		4.50E+00
Heptachlor epoxide	B2	5684.0	EPA (1980)*		9.10E+00
PCBs (Total)	B2	31200.0	EPA (1980)		7.70E+00
Toxaphene	B2	13100.0	EPA (1980)		1.10E+00
Acrylonitrile	B1	30.00	EPA (1980)		5.40E-01
Benzene	A	5.21	EPA (1980)		2.90E-02
Bromoform	B2	8.30	EPA (1980)	***	7.90E-03
Bromodichloromethane	B2	3.12	EPA (1989)	***	6.20E-02
Carbon tetrachloride	B2	18.75	EPA (1980)		1.30E-01
Chlorodibromomethane	C	4.62	EPA (1989)	***	8.40E-02
Chloroform	B2	3.75	EPA (1980)		6.10E-03
1,2 - Dichloroethane	B2	1.2	EPA (1980)		9.10E-02
1,1 - Dichloroethene	C	5.61	EPA (1980)		6.00E-01
1,3 - Dichloropropene	B2	1.91	EPA (1980)		-
Methylene chloride	B2	0.91	EPA (1980)		7.50E-03
1,1,2 - Trichloroethane	C	4.54	EPA (1980)		5.70E-02
Tetrachloroethene	B2	30.6	EPA (1980)		-
1,1,1,2 - Tetrachloroethane	C	14.14	EPA (1980)		2.60E-02
1,1,2,2 - Tetrachloroethane	C	5.00	EPA (1980)		2.00E-01
Trichloroethene	B2	10.6	EPA (1980)		-
Vinyl chloride	A	1.17	EPA (1980)		-
Benzidine	A	87.50	EPA (1980)		2.30E+02
3,3 - Dichlorobenzidine	B2	312.00	EPA (1980)		4.50E-01
Polynuclear aromatic hydrocarbons (PAHs)					
Benz[a]anthracene	B2	8320.0	EPA (1989)	***	7.30E-01
Benzo[b]fluoranthene	B2	32100.0	EPA (1989)	***	7.30E-01
Benzo[k]fluoranthene	B2	52400.0	EPA (1989)	***	7.30E-01
Benzo[a]pyrene	B2	22600.0	EPA (1989)	***	7.30E+00
Chrysene	B2	6580.0	EPA (1989)	***	7.30E-02
Dibenz[a,h]anthracene	B2	26400.0	EPA (1989)	***	7.30E+00

Indeno[1,2,3-cd]pyrene	B2	256000.0	EPA (1989)	***	7.30E-01
Bis (2-chloroethyl) ether	B2	6.90	EPA (1980)		1.10E+00
Bis (2-ethylhexyl) phthalate	B2	130	EPA (1980)		1.40E-02
Dinitrotoluene mixture (2,4 & 2,6)	B2	3.8	EPA (1980)**		2.00E-03
1,2 - Diphenylhydrazine	B2	24.9	EPA (1980)		8.00E-01
Hexachlorobenzene	B2	8690.00	EPA (1980)		1.60E+00
Hexachlorobutadiene	C	2.78	EPA (1980)		7.80E-02
Hexachloroethane	C	86.90	EPA (1980)		1.40E-02
Isophorone	C	4.38	EPA (1980)		9.50E-04
N-Nitrosodi-N-methylamine	B2	0.03	EPA (1980)		5.10E+01
N-Nitrosodi-N-phenylamine	B2	136.00	EPA (1980)		4.90E-03
N-Nitrosodi-N-propylamine	B2	1.02	EPA (1989)	***	7.00E+00
2,4,6 - Trichlorophenol	B2	150.00	EPA (1980)		1.10E-02
Pentachlorophenol	B2	11.00	EPA (1980)		1.20E-01

* - Value from Table 5 in criteria document (normalized to 3% lipid).
** - BCF for 2,4 - Dinitrotoluene based upon Log P of 1.98.
*** - BCF calculated from Log P and equation Log BCF = (0.85 Log P) - 0.70 (Veith et al, 1979)
Value was also adjusted from 7.6% lipid (equation) to 3% lipid (criteria assumption).

A AND CALCULATIONS FOR HUMAN HEALTH WATER QUALITY CRIT
LAWARE ESTUARY TOXICS MANAGEMENT PROGRAM

CONFIDENCE LEVEL	LAST REVISION	FRESHWATER CRITERIA (UG/L) Fish & Water Ingestion Existing	Fish Ingestion Only Existing
-	01-JUL-95		
SATISFACTORY	01-JAN-90	0.00767	0.132
	01-MAR-91		
SATISFACTORY	01-SEP-89	0.00189	0.0226
SATISFACTORY	01-APR-91	0.00391	0.01315
SATISFACTORY	01-JAN-91	0.000575	0.000588
SATISFACTORY	01-MAY-91	0.000588	0.000591
SATISFACTORY	22-AUG-88	0.00554	0.00585
SATISFACTORY	22-AUG-88	0.00423	0.00436
SATISFACTORY	01-JAN-91	0.000135	0.000144
SATISFACTORY	01-JAN-91	0.000208	0.000214
SATISFACTORY	01-JAN-91	0.000198	0.000208
SATISFACTORY	01-JAN-90	0.0000444	0.0000448
SATISFACTORY	22-AUG-88	0.000730	0.000747
SATISFACTORY	01-JUL-89	0.0591	0.665
SATISFACTORY	01-FEB-90	1.187	71.277
SATISFACTORY	01-JAN-91	4.314	164.240
SATISFACTORY	01-FEB-92	0.559	55.672
LOW	01-MAR-88	0.254	4.418
SATISFACTORY	01-AUG-91	0.411	27.750
HIGH	01-MAR-91	5.669	470.786
SATISFACTORY	01-MAR-90	0.383	98.619
LOW	01-FEB-91	0.0573	3.199
	01-OCT-90		
SATISFACTORY	01-SEP-90	4.653	1577.909
SATISFACTORY	01-JAN-91	0.605	41.615
	-		
SATISFACTORY	01-JAN-91	1.287	29.293
SATISFACTORY	01-JAN-91	0.172	10.769
	01-JUL-89		
	-		
SATISFACTORY	01-JAN-90	0.000118	0.000535
LOW	01-AUG-90	0.0386	0.0767
TEF = 0.1	01-DEC-90	0.00171	0.00177
TEF = 0.1	01-MAR-94	0.000455	0.000460
TEF = 0.1	01-DEC-90	0.000280	0.000282
	01-JUL-92	0.0000644	0.0000653
TEF = 0.01	01-DEC-90	0.0214	0.0224
TEF = 1.0	01-DEC-90	0.0000552	0.0000559

TEF = 0.1	01-DEC-90	0.0000576	0.0000576
LOW	01-MAR-88	0.0311	1.419
SATISFACTORY	01-MAY-90	1.757	5.917
HIGH	01-JUN-92	17.287	1417.004
SATISFACTORY	01-MAR-88	0.0405	0.541
HIGH	01-MAR-91	0.000748	0.000775
SATISFACTORY	01-APR-91	0.445	49.66
SATISFACTORY	01-APR-91	1.95	8.85
SATISFACTORY	01-OCT-92	36.33	2588.1
SATISFACTORY	01-MAR-88	0.000686	8.12
SATISFACTORY	01-MAR-88	4.95	16.16
LOW	01-MAR-88	0.00498	1.508
SATISFACTORY	01-JUN-90	2.14	6.53
SATISFACTORY	01-MAR-91	0.282	8.16

OCTOBER 1996

COMMENTS

CRITERIA SET AT 50 MICROGRAMS PER LITER.

CPF NOT AVAILABLE IN IRIS.

ONE HIT MODEL USED.

CPF NOT AVAILABLE IN IRIS.

CPF NOT AVAILABLE IN IRIS.

ASSESSMENT WITHDRAWN.
CHEMICAL NOT IN IRIS.

WEIBULL MODEL USED.
ONE HIT MODEL USED.

DRAFT - TABLE 1:TOXICOLOGICAL DATA AND CALCULATIONS FOR DRBC HUMAN HEALTH WATER QUALITY CRITERIA FOR CARCINOGENS

9-Nov -2009

PARAMETER	EPA CLASS.	BCF	CANCER POTENCY FACTOR oral slope factor mg/kg/day	CRITERIA (UG/L) Fish & Water Ingestion Existing	Fish & Water Ingestion Revised*	**Fish & Water Ingestion Regulatory Value**	Fish Ingestion Only Existing	Fish Ingestion Only Revised*	**Fish Ingestion Only Regulatory Value**
Arsenic	A	44.00	1.50E+00		0.01685	**0.017**	**0.017**	0.061	**0.061**
Beryllium	C	19.00	2.00E-03	0.00767	6.00	**6**	0.132	NA	
Chromium (VI)	D		-						
Aldrin	B2	4670.0	1.70E+01	0.00013	0.00005	**0.000049**	0.0001	0.000050	**0.000050**
alpha - BHC	B2	130.0	6.30E+00	0.00391	0.00260	**0.0026**	0.01315	0.004884	**0.0049**
Chlordane	B2	14100.0	3.50E-01	0.000575	0.00080	**0.00080**	0.000588	0.000811	**0.00081**
DDT	B2	53600.0	3.40E-01	0.000588	0.00022	**0.00022**	0.000591	0.000219	**0.00022**
DDE	B2	53600.0	3.40E-01	0.00059	0.00022	**0.00022**	0.00059	0.000219	**0.00022**
DDD	B2	53600.0	2.40E-01	0.00083	0.00031	**0.00031**	0.00084	0.000311	**0.00031**
Dieldrin	B2	4670.0	1.60E+01	0.000135	0.00005	**0.000052**	0.000144	0.000054	**0.000054**
Heptachlor	B2	11200.0	4.50E+00	0.000208	0.00008	**0.000079**	0.000214	0.000079	**0.000079**
Heptachlor epoxide	B2	11200.0	9.10E+00	0.000103	0.00004	**0.000039**	0.000106	0.000039	**0.000039**
PCBs (Total)	B2	see http://www.state.nj.us/drbc/PCB_Criterion_Basis_and_Background081709.pdf							
Toxaphene	B2	13100.0	1.10E+00	0.000730	0.00028	**0.00028**	0.000747	0.000278	**0.00028**
Acrylonitrile	B1	30.00	5.40E-01	0.0591	0.05134	**0.051**	0.665	0.247	**0.25**
Benzene	A	5.21	5.50E-02	1.187	0.60862	**0.61**	71.277	13.959	**14**
Bromoform	B2	3.75	7.90E-03	4.314	4.28963	**4.3**	164.240	135.021	**140**
Bromodichloromethane	B2	3.75	6.20E-02	0.559	0.54658	**0.55**	55.672	17.204	**17**
Carbon tetrachloride	B2	18.75	1.30E-01	0.254	0.23129	**0.23**	4.418	1.641	**1.6**
Chlorodibromomethane	C	3.75	8.40E-02	0.411	0.40343	**0.40**	27.750	12.698	**13**
Chloroform	B2	3.75	0.0061	5.669		**5.7**	470.786		**470**
1,2 - Dichloroethane	B2	1.2	9.10E-02	0.383	0.38062	**0.38**	98.619	36.630	**37**
1,1 - Dichloroethene	C	5.61	6.00E-01	0.0573			3.199		
1,3 - Dichloropropene	B2	1.9	1.00E-01	87.000	0.34428	**0.34**	14.000	21.053	**21**
Methylene chloride (dichlorometha	B2	0.91	7.50E-03	4.653	4.62980	**MCL**	1577.909	586.081	**590**
1,1,2 - Trichloroethane	C	4.54	5.70E-02	0.605	0.59057	**0.59**	41.615	15.457	**15**
Tetrachloroethene	B2	30.6	3.98E-02	0.800	0.69367	**0.69**	8.850	3.284	**3**
1,1,1,2 - Tetrachloroethane	C	14.14	2.60E-02	1.287	1.19794		29.293	10.880	
1,1,2,2 - Tetrachloroethane	C	5.00	2.00E-01	0.172	0.16766	**0.17**	10.769	4.000	**4**
Trichloroethene	B2	10.6	1.26E-02	2.700	2.54201	**MCL**	80.700	29.949	**30**
Vinyl chloride	A	1.17	1.40E+00	2.000	0.02475	**0.025**	525.000	2.442	**2.4**
Benzidine	A	87.50	2.30E+02	0.000118	0.00009	**0.000086**	0.000535	0.00020	**0.00020**
3,3 - Dichlorobenzidine	B2	312.00	4.50E-01	0.0386	0.02085	**0.021**	0.0767	0.028	**0.028**
Polynuclear aromatic hydrocarbons (PAHs)									
Benz[a]anthracene	B2	30.0	7.30E-01	0.00171	0.03798	**0.038**	0.00177	0.182648	**0.18**

DRAFT - TABLE 1:TOXICOLOGICAL DATA AND CALCULATIONS FOR DRBC HUMAN HEALTH WATER QUALITY CRITERIA FOR CARCINOGENS

9-Nov -2009

PARAMETER	EPA CLASS.	BCF	CANCER POTENCY FACTOR oral slope factor mg/kg/day	CRITERIA (UG/L) Fish & Water Ingestion Existing	Fish & Water Ingestion Revised*	**Fish & Water Ingestion Regulatory Value**	Fish Ingestion Only Existing	Fish Ingestion Only Revised*	**Fish Ingestion Only Regulatory Value**
Benzo[b]fluoranthene	B2	30.0	7.30E-01	0.000455	0.037976	**0.038**	0.000460	0.182648	**0.18**
Benzo[k]fluoranthene	B2	30.0	7.30E-02	0.000280	0.379764	**0.38**	0.000282	1.826484	**1.8**
Benzo[a]pyrene	B2	30.0	7.30E+00	0.0000644	0.003798	**0.0038**	0.0000653	0.018265	**0.018**
Chrysene	B2	30.0	7.30E-03	0.0214	3.797640	**3.8**	0.0224	18.264840	**18**
Dibenz[a,h]anthracene	B2	30.0	7.30E+00	0.0000552	0.003798	**0.0038**	0.0000559	0.018265	**0.018**
Indeno[1,2,3-cd]pyrene	B2	30.0	7.30E-01	0.0000576	0.037976	**0.038000**	0.0000576	0.182648	**0.18**
Bis (2-chloroethyl) ether	B2	6.90	1.10E+00	0.0311	0.03001	**0.030000**	1.419	0.527	**0.53**
Bis (2-ethylhexyl) phthalate	B2	130	1.40E-02	1.757	1.16959	**1.200000**	5.917	2.198	**2.20**
Dinitrotoluene mixture (2,4 & 2,6)	B2	3.8	3.11E-01	17.287	0.10892	**0.110000**	1417.004	3.385	**3.40**
1,2 - Diphenylhydrazine	B2	24.9	8.00E-01	0.0405	0.03592	**0.036000**	0.541	0.201	**0.20**
Hexachlorobenzene	B2	8690.00	1.60E+00	0.000748	0.00028	**0.000280**	0.000775	0.000288	**0.00029**
Hexachlorobutadiene	C	2.78	7.80E-02	0.445	0.43806	**0.44**	49.66	18.447	**18**
Hexachloroethane	C	86.90	1.40E-02	1.95	1.42015	**1.4**	8.85	3.288	**3.3**
Isophorone	C	4.38	9.50E-04	36.33	35.48225	**35**	2588.1	961.307	**960**
N-Nitrosodi-N-methylamine	B2	0.03	5.10E+01	0.000686	0.00069	**0.00069**	8.12	3.017	**3**
N-Nitrosodi-N-phenylamine	B2	136.00	4.90E-03	4.95	3.26158	**3.3**	16.16	6.002	**6**
N-Nitrosodi-N-propylamine	B2	1.13	7.00E+00	0.00498	0.00495	**0.0050**	1.508	0.506	**0.51**
2,4,6 - Trichlorophenol	B2	150.00	1.10E-02	2.14	1.37592	**1.4**	6.53	2.424	**2.4**
Pentachlorophenol	B2	11.00	1.20E-01	0.282	0.26606	**0.27**	8.16	3.030	**3.0**
benzene	A	5.20	5.50E-02	0.282	0.60867	**0.61**	8.16	13.986	**14**
benzene	A	5.20	1.50E-02	0.282	2.23179	**2.2**	8.16	51.282	**51**
N-Nitrosodi-n-butylamine **NP**	B2	3.38	5.43E+00		0.00626	**0.0063**			**1.24**
N-Nitrosodiethylamine **NP**	B2	0.20	4.35E+01		0.00080	**0.0008**		0.460	**1.24**
N-Nitrosopyrrolidine **NP**	B2	0.06	2.13E+00		0.01642	**0.016**		34.144	**34**

* - Calculations use consumption rate of 17.5 grams per day.

MCL = Maximum contaminant level

NP = non-priority pollutant