

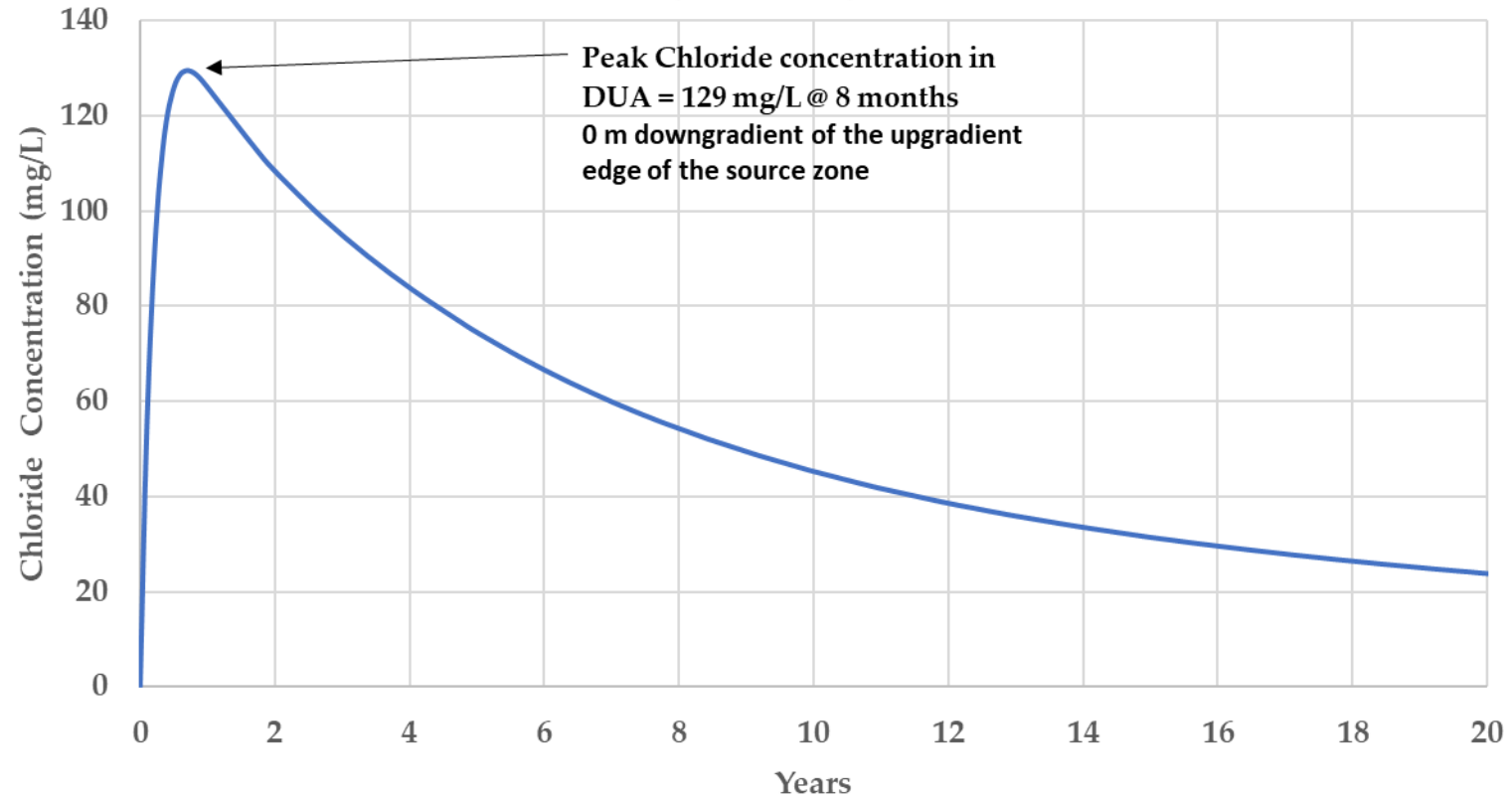
APPENDIX A: NUMERICAL MODEL BREAKTHROUGH CURVES

Model Runs	Parameter	Suggested Values/ Changes	Model Number	Peak Concentrations and Arrival Time	Peak Concentration Location (from upgradient edge of the source zone)
New Base Case	b = 0 m, X = 10 m, K1 = 8E-7 m/s and K2 = 1E-6 m/s	-	TSCIBase	129 mg/L @ 8 months	0 m (underneath the source)
Scenario 1A	b	3 m	TSCIS1Ab	19.3 mg/L @ 11 years	10 m From the edge of the source
Scenario 1B	b	1 m	TSCIS1Bb	29.2 mg/L @ 7 years	0 m (underneath the source)
Scenario 1C	b	0.3 m	TSCIS1Cb	86.3 mg/L @ 14 months	0 m (underneath the source)
Scenario 1D	b	0.1 m	TSCIS1Db	112 mg/L @ 9 months	0 m (underneath the source)
Scenario 2A	X	30 m	TSCI2AX	264 mg/L @ 14 months	0 m (underneath the source)
Scenario 2B	X	100 m	TSCI2BX	375 mg/L @ 2.6 years	0 m (underneath the source)
Scenario 3A	K1	1E-7 m/s	TSCI3AK1	145 mg/L @ 2.3 years	0 m (underneath the source)
Scenario 3B	K1	1E-8 m/s	TSCI3BK1	159 mg/L @ 3.1 years	0 m (underneath the source)
Scenario 4	K2	1E-5 m/s	TSCI4K2	114 mg/L @ 2 months	0 m (underneath the source)

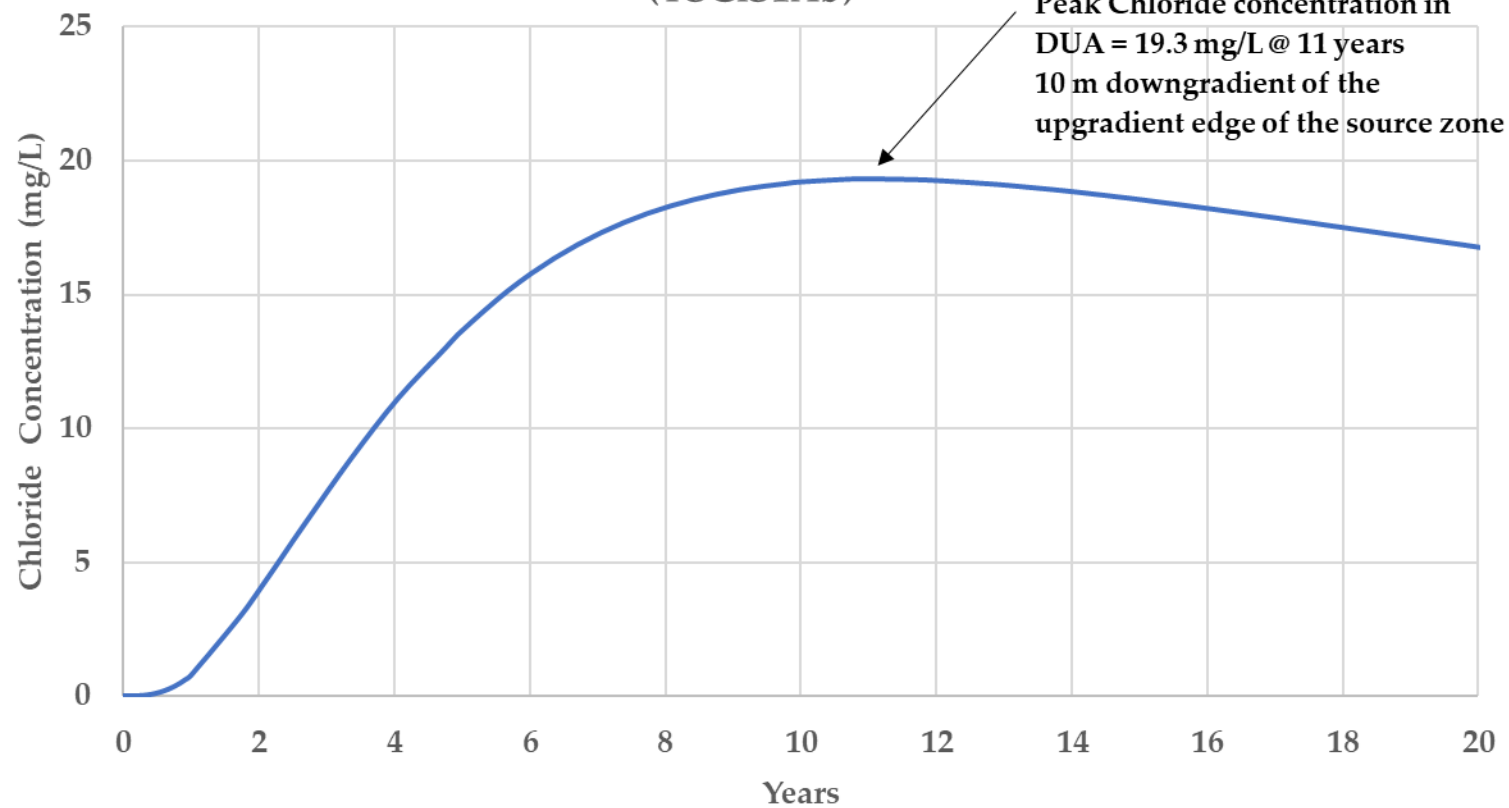
Models are zipped and saved in this folder:

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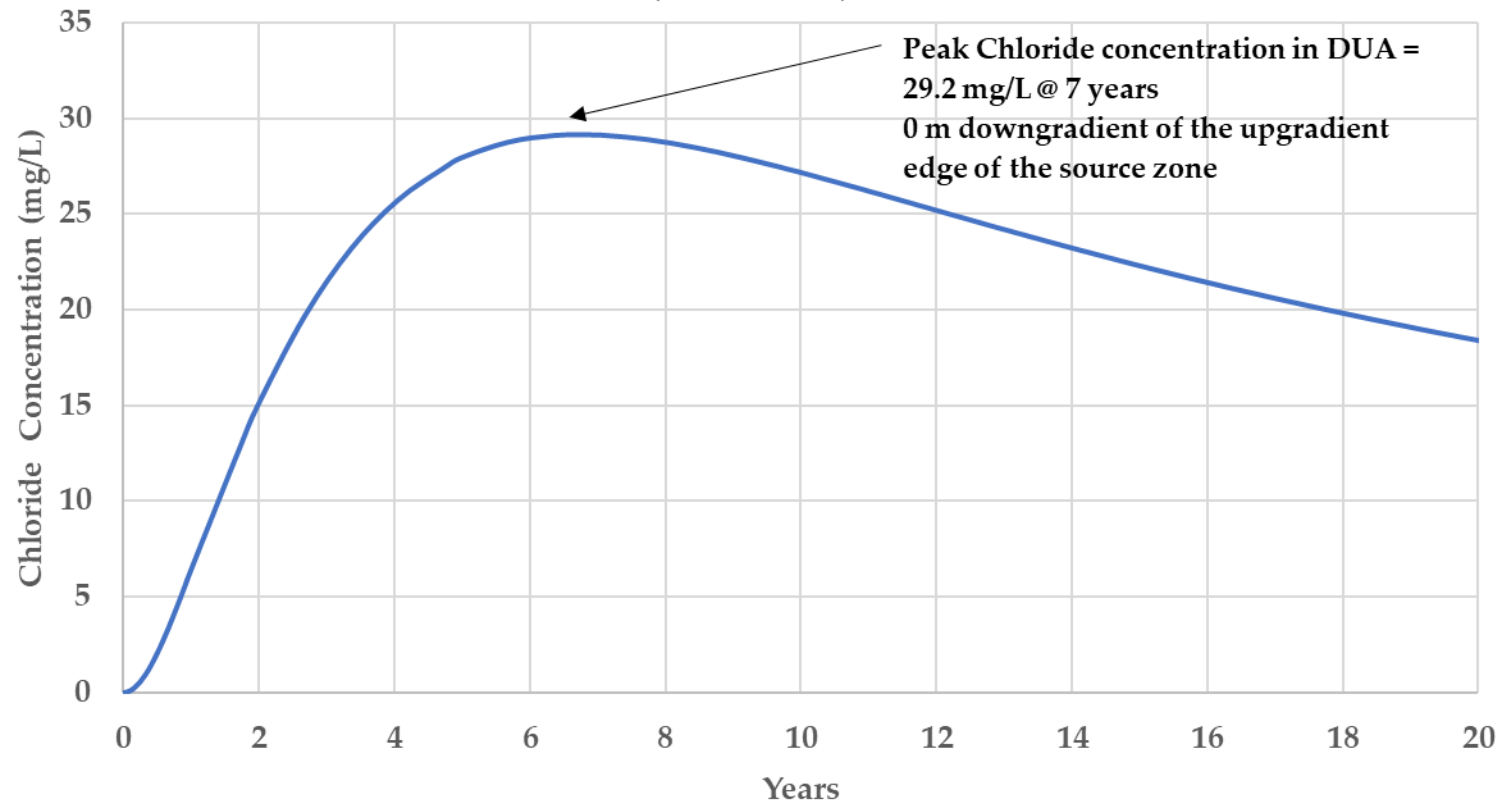
Chloride Base Case Model (TSClBase)



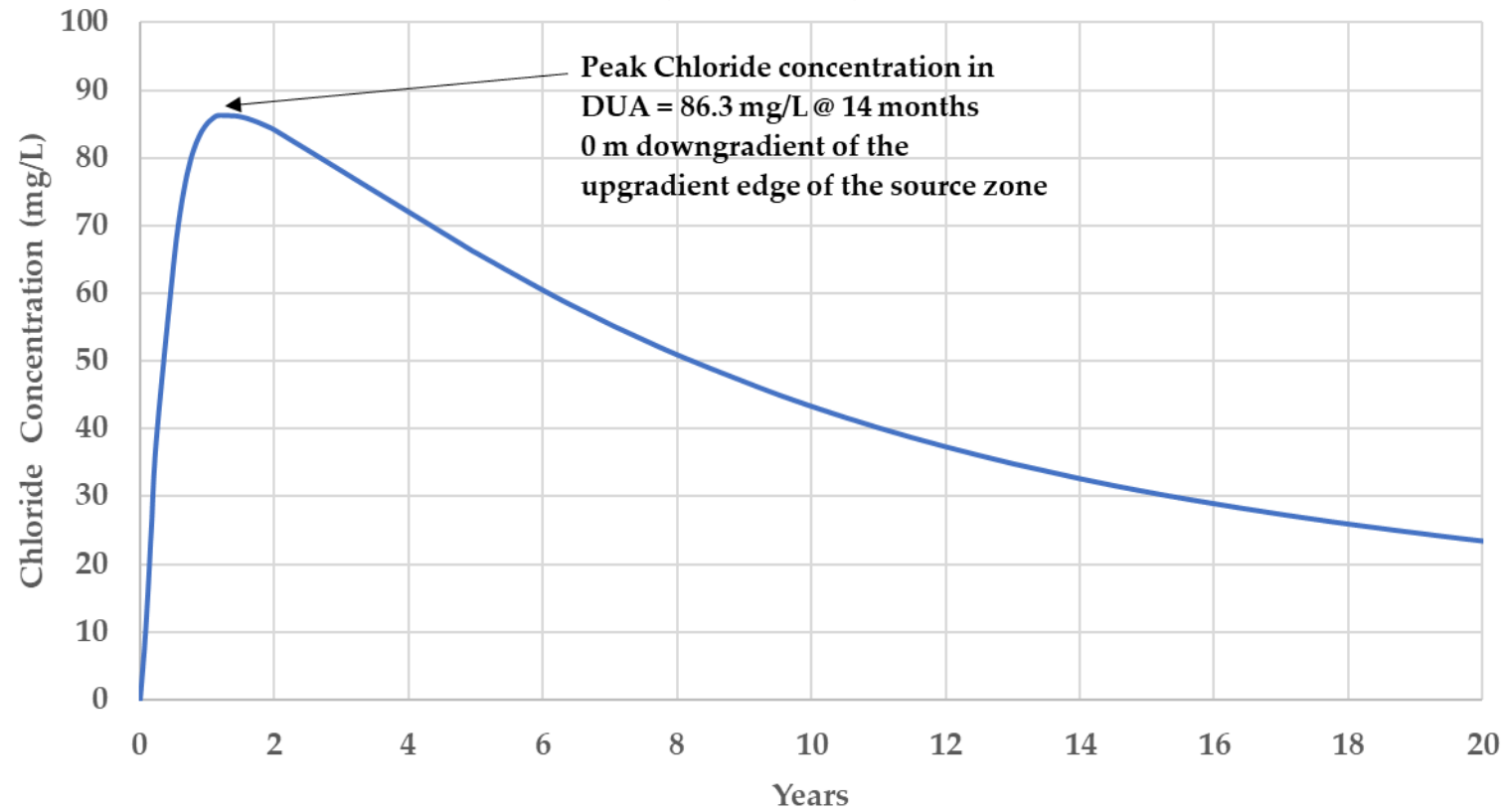
Chloride Scenario 1A Model (TSCIS1Ab)



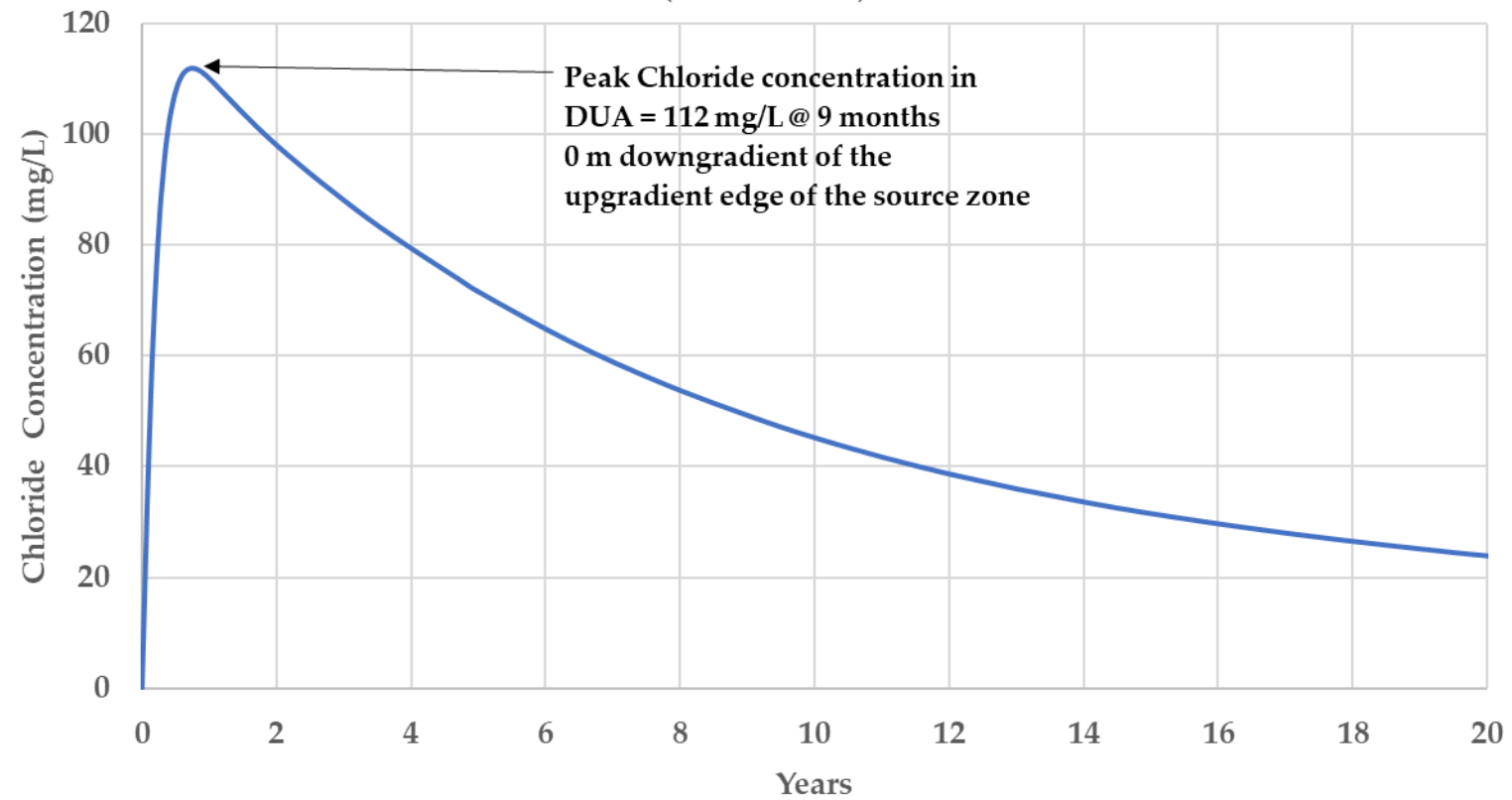
Chloride Scenario 1B Model (TSCIS1Bb)



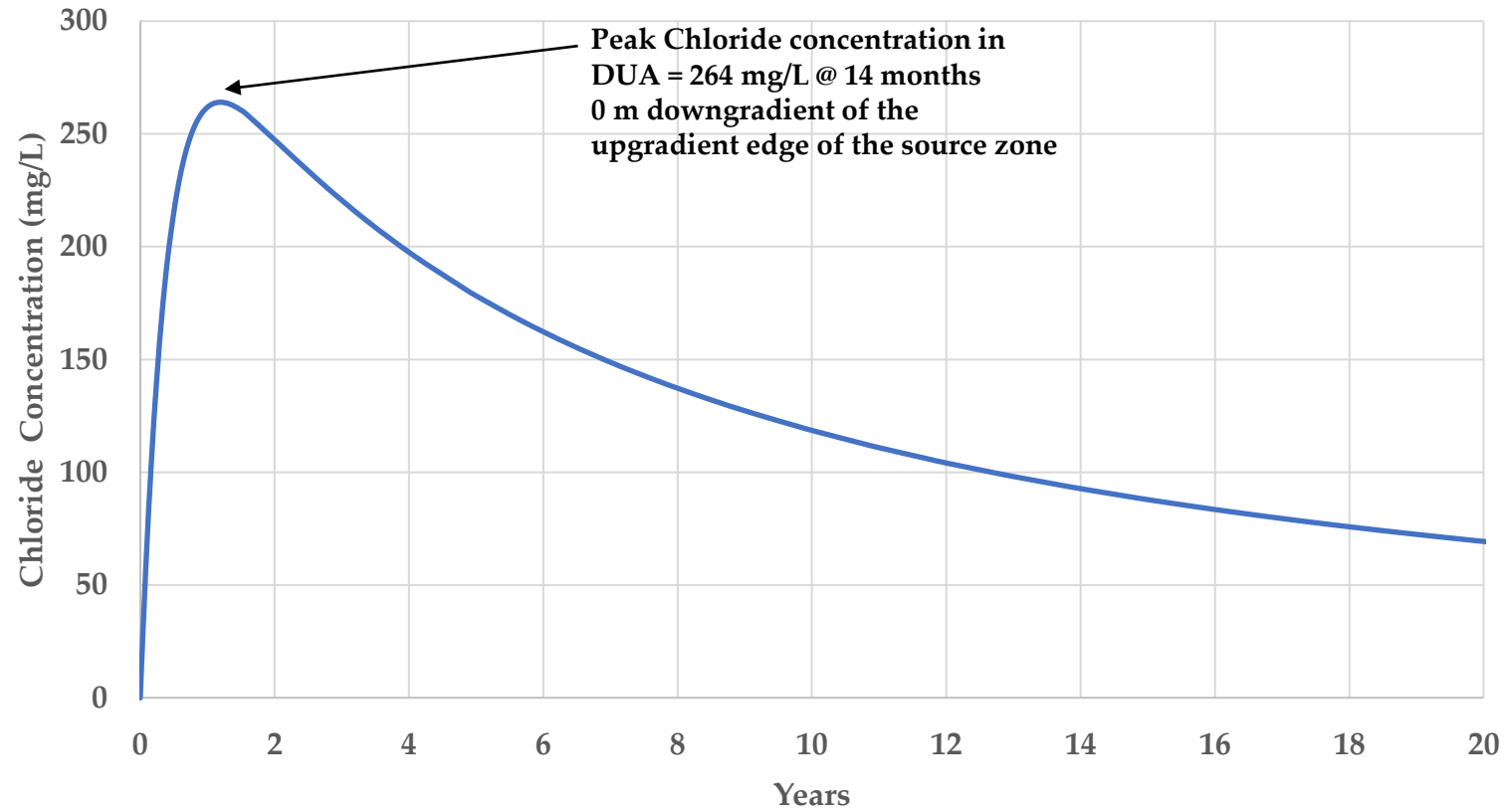
Chloride Scenario 1C Model (TSCIS1Cb)



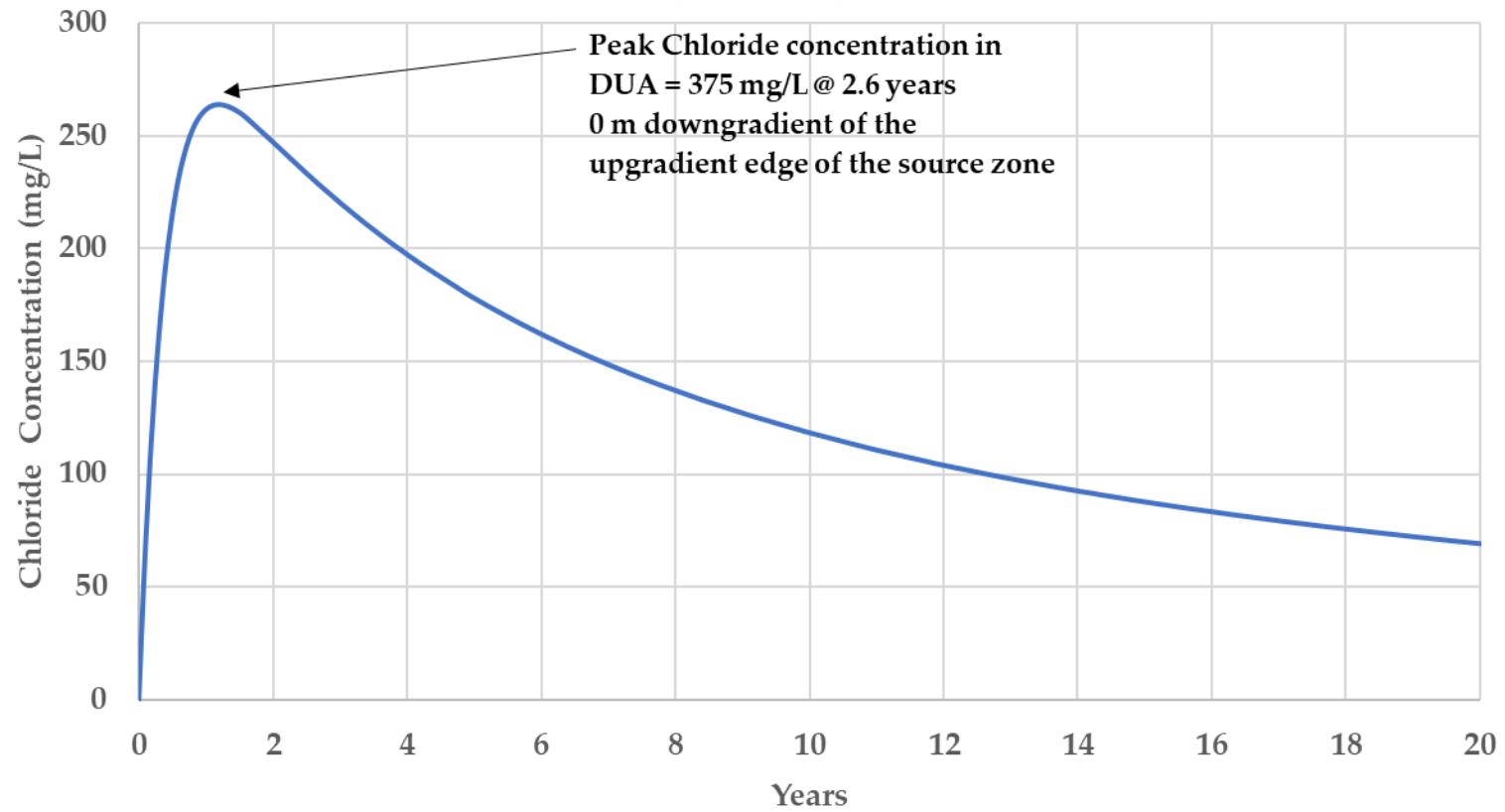
Chloride Scenario 1D Model (TSCIS1Db)



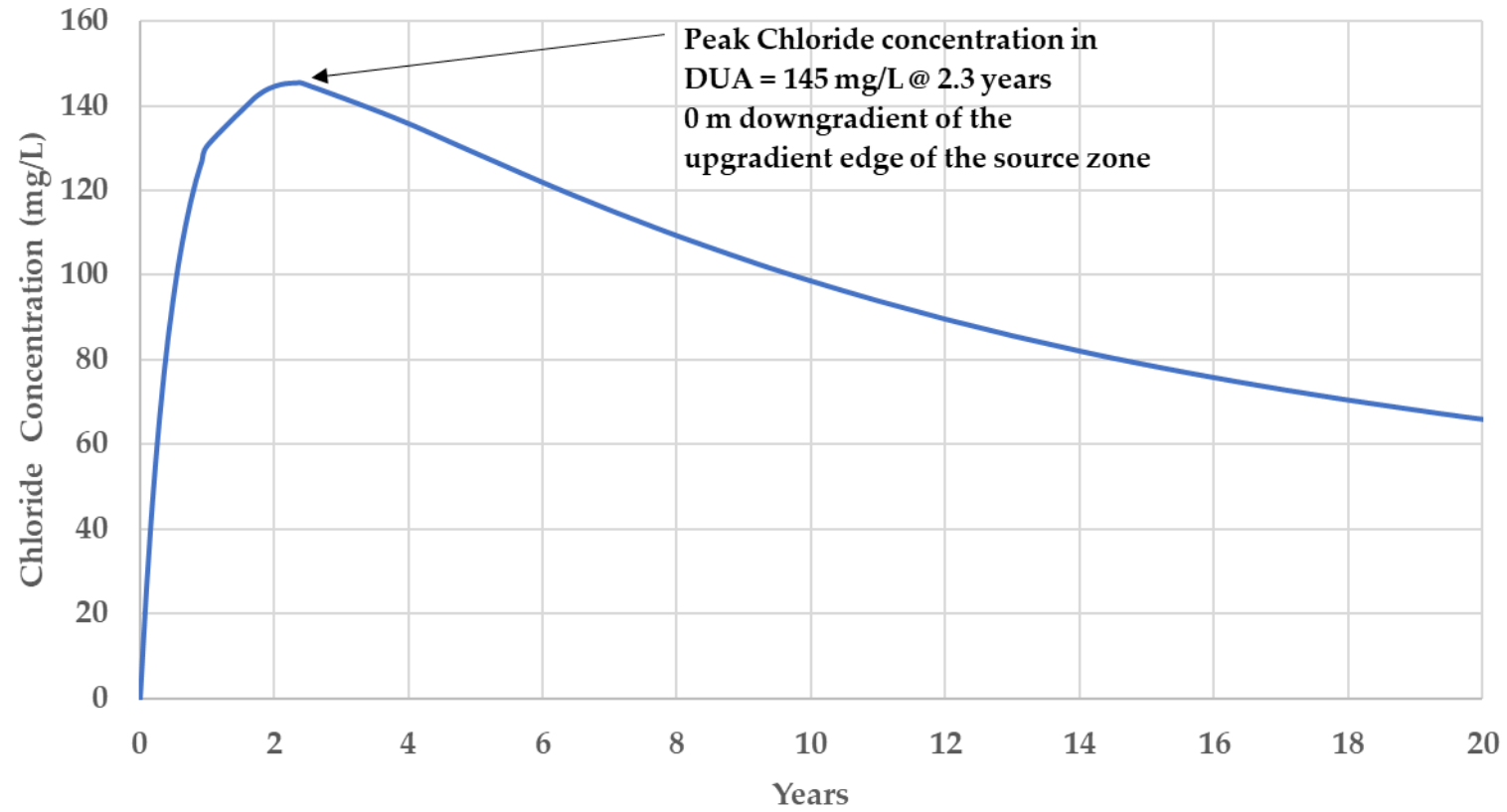
Chloride Scenario 2A Model (TSC12AX)



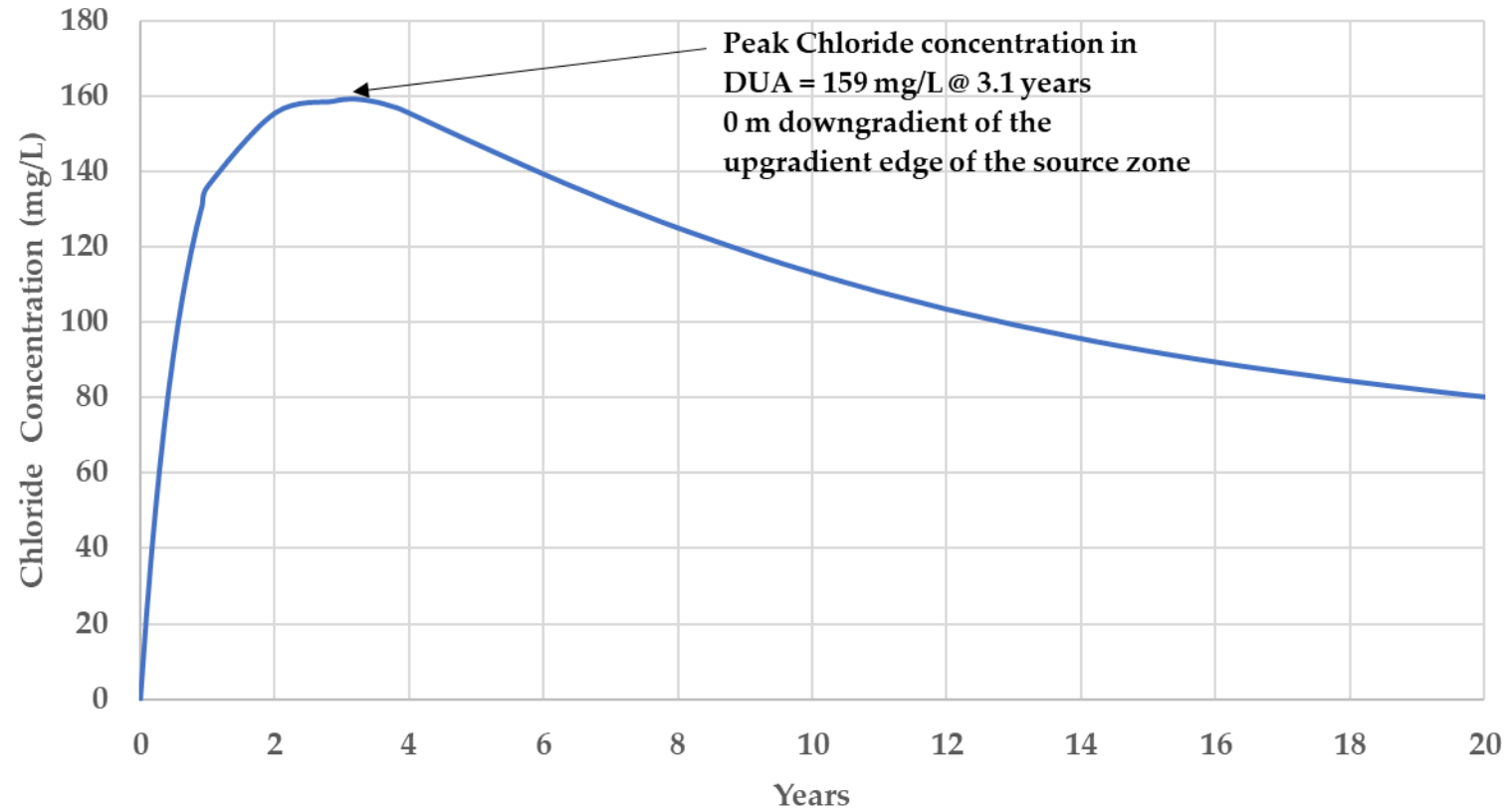
Chloride Scenario 2B Model (TSCl2BX)



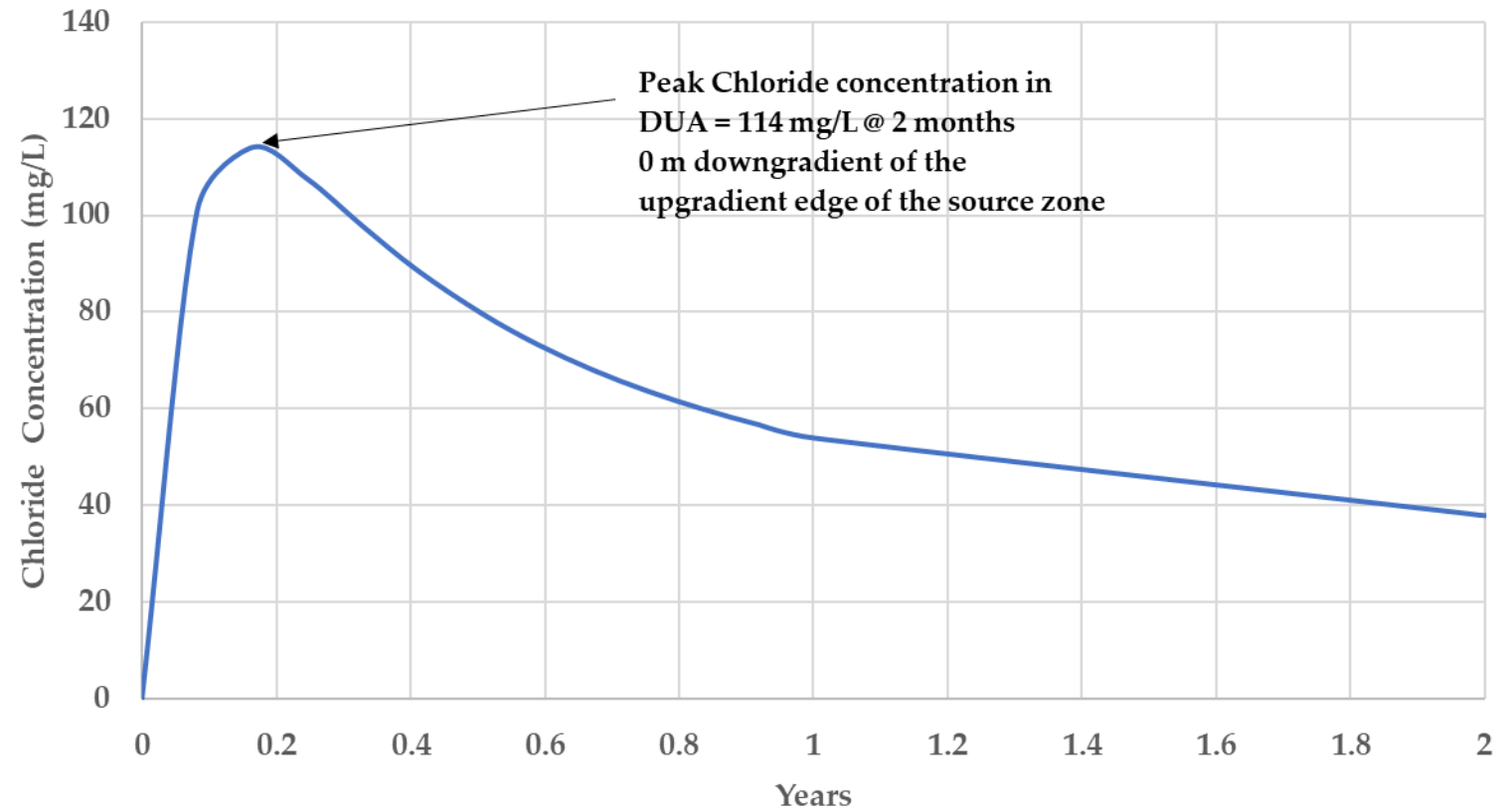
Chloride Scenario 3A Model (TSC13AK1)



Chloride Scenario 3B Model (TSCI3BK1)



Chloride Scenario 4 Model (TSCl4K2)

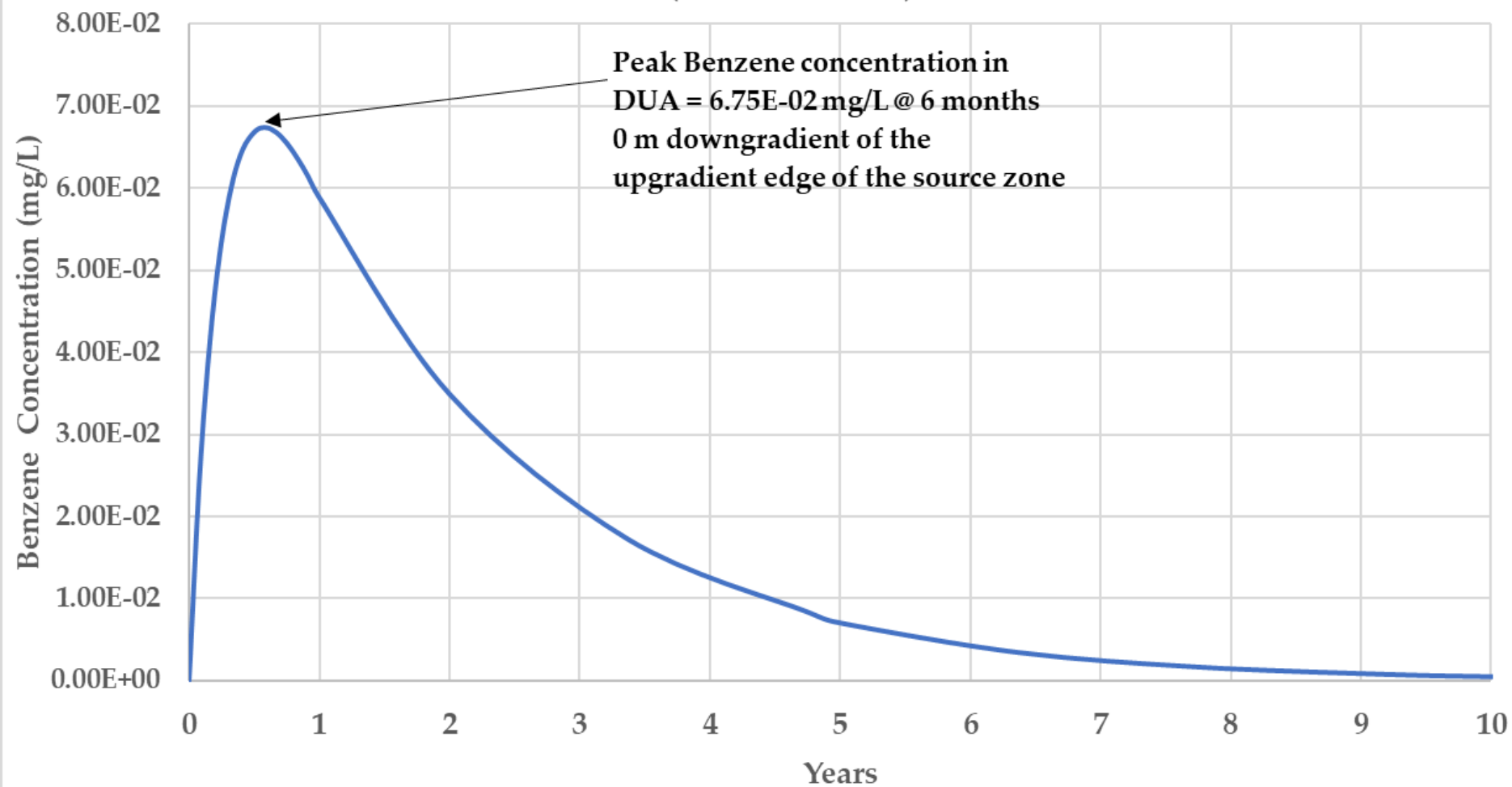


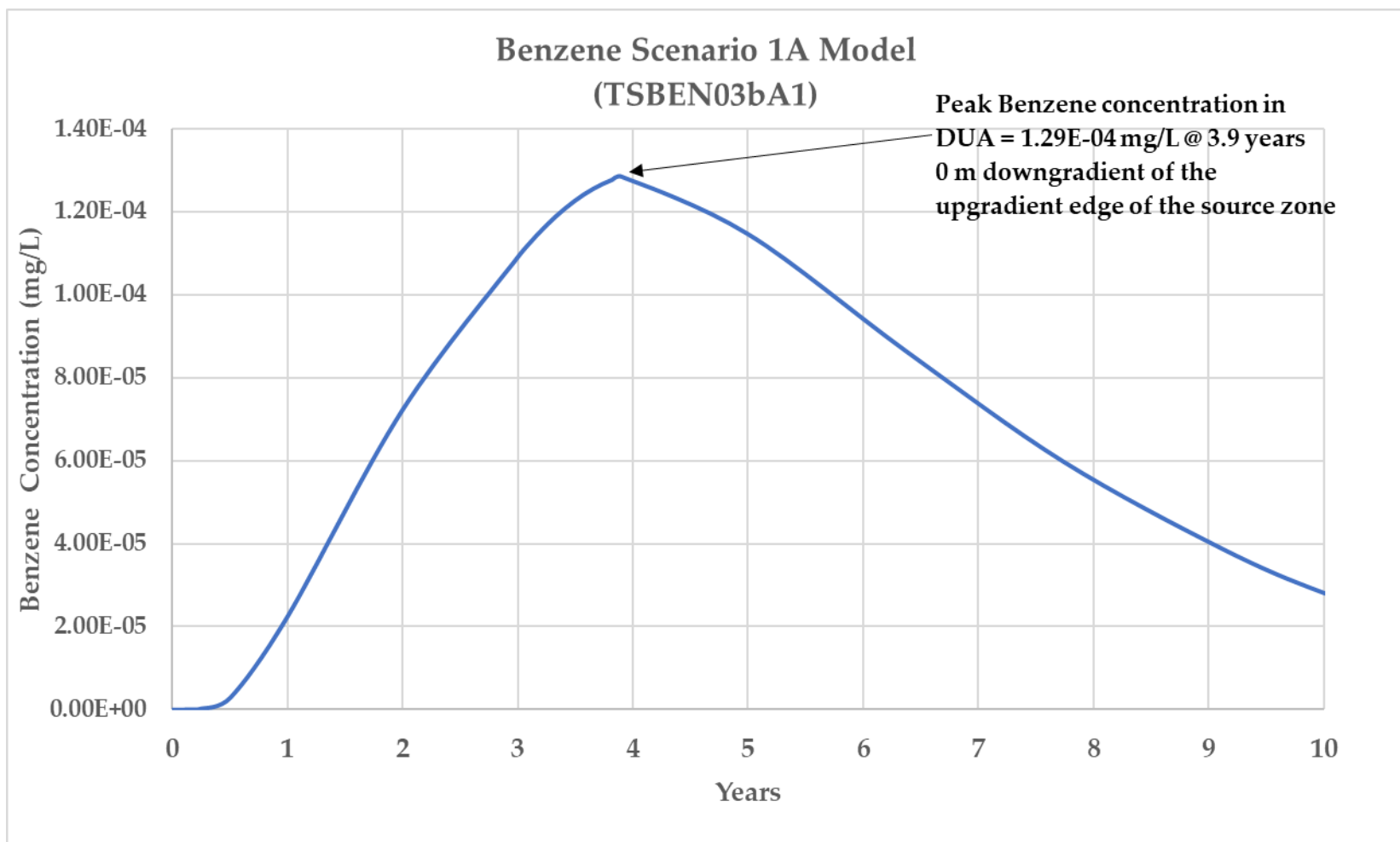
Model Runs	Parameter	Suggested Values/ Changes	Model Number	Peak Concentrations and Arrival Time	Peak Concentration Location
New Base Case	b = 0 m, X = 10 m, K1 = 8E-7 m/s and K2 = 1E-6 m/s	-	TSBEN03bE1	6.75E-02 mg/L @ 6 months	0 m (underneath the source)
Scenario 1A	b	3 m	TSBEN03bA1	1.29E-04 mg/L @ 3.9 years	0 m (underneath the source)
Scenario 1B	b	1 m	TSBEN03bB1	5.45E-03 mg/L @ 1.9 years	0 m From the edge of the source
Scenario 1C	b	0.3 m	TSBEN03bC1	2.80E-02 mg/L @ 1.08 years	0 m (underneath the source)
Scenario 1D	b	0.1 m	TSBEN03bD1	5.05E-02 mg/L @ 8 months	0 m (underneath the source)
Scenario 2A	X	30 m	TSBEN03XA1	9.59E-02 mg/L @ 9 months	0 m (underneath the source)
Scenario 2B	X	100 m	TSBEN03XB1	1.03E-01 mg/L @ 10 months	0 m (underneath the source)
Scenario 3A	K1	1E-7 m/s	TSBENK1A1	3.66E-02 mg/L @ 11 months	0 m (underneath the source)
Scenario 3B	K1	1E-8 m/s	TSBENK1B1	7.25E-02 mg/L @ 11 months	0 m (underneath the source)
Scenario 4	K2	1E-5 m/s	TSBEN03K21	4.16E-02 mg/L @ 3 months	0 m (underneath the source)

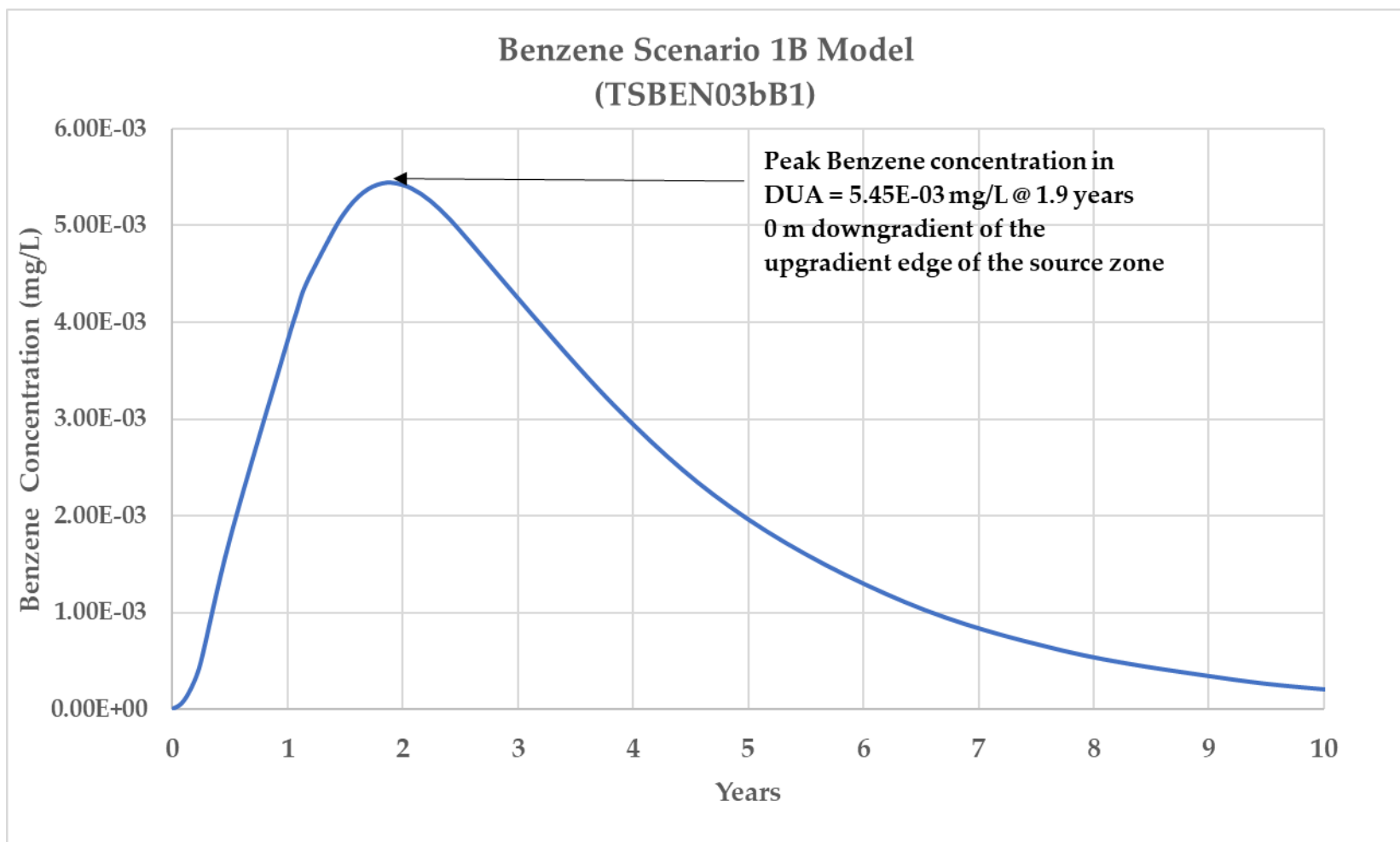
Models are zipped and saved in this folder:

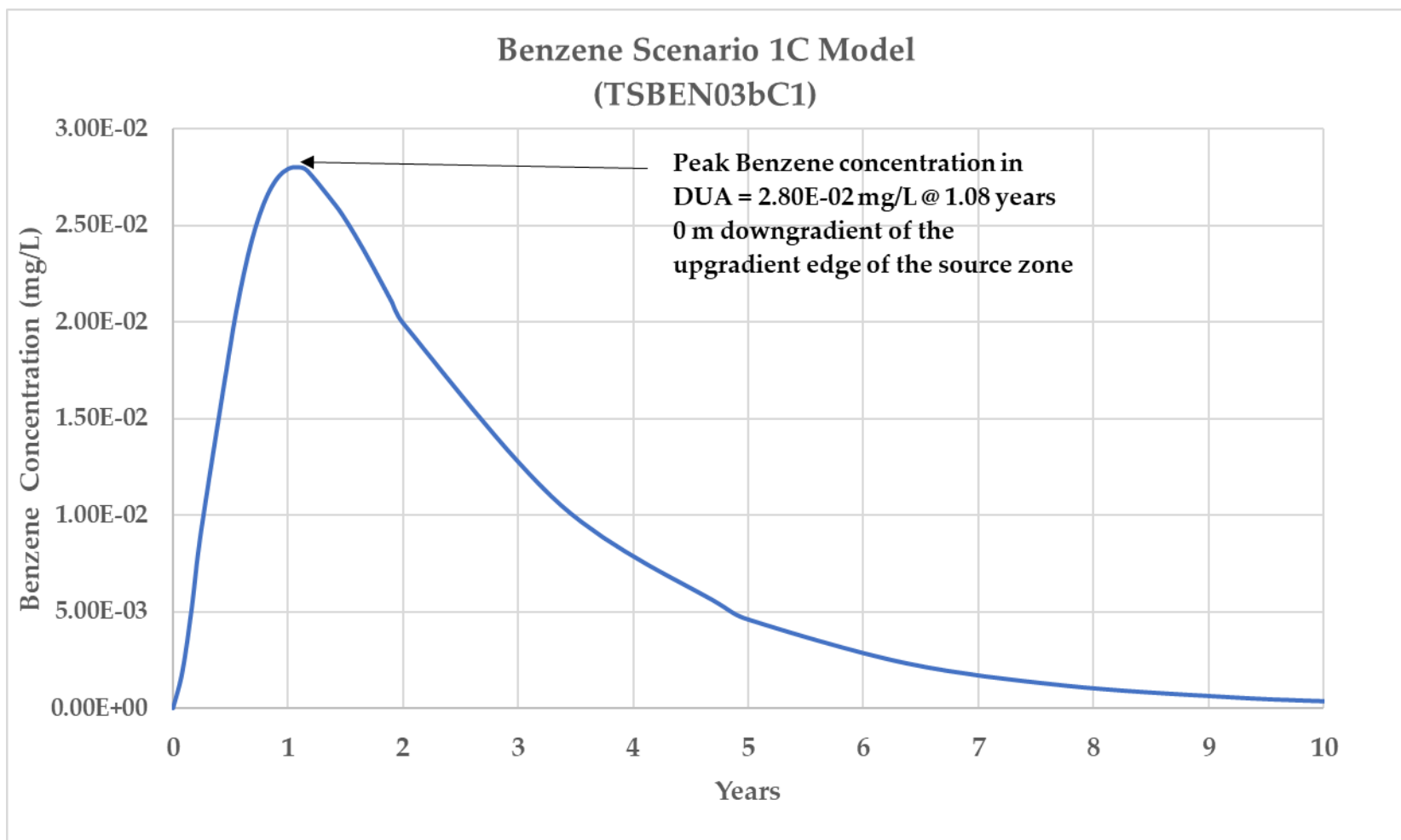
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Benzene Base Model (TSBEN03bE1)

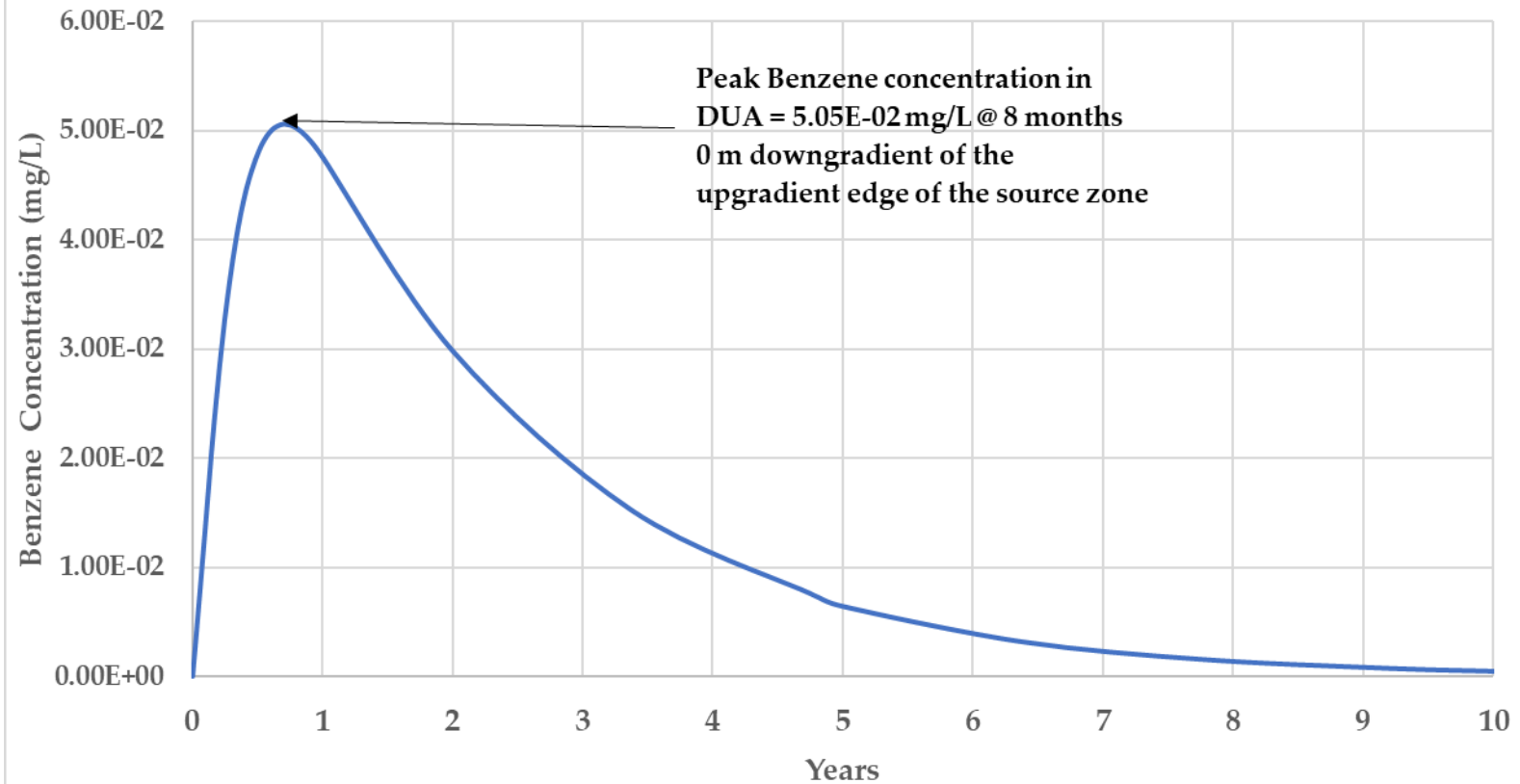




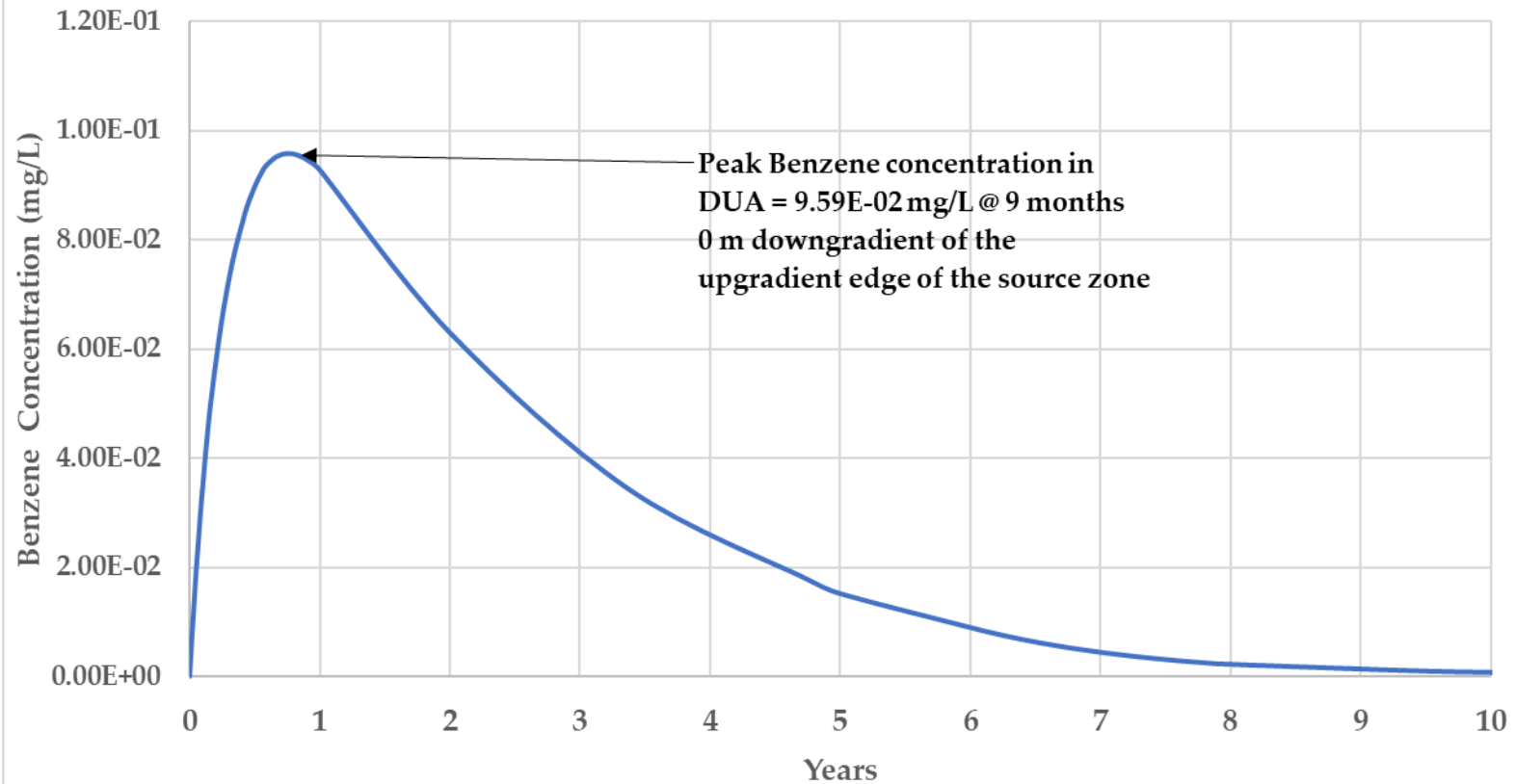


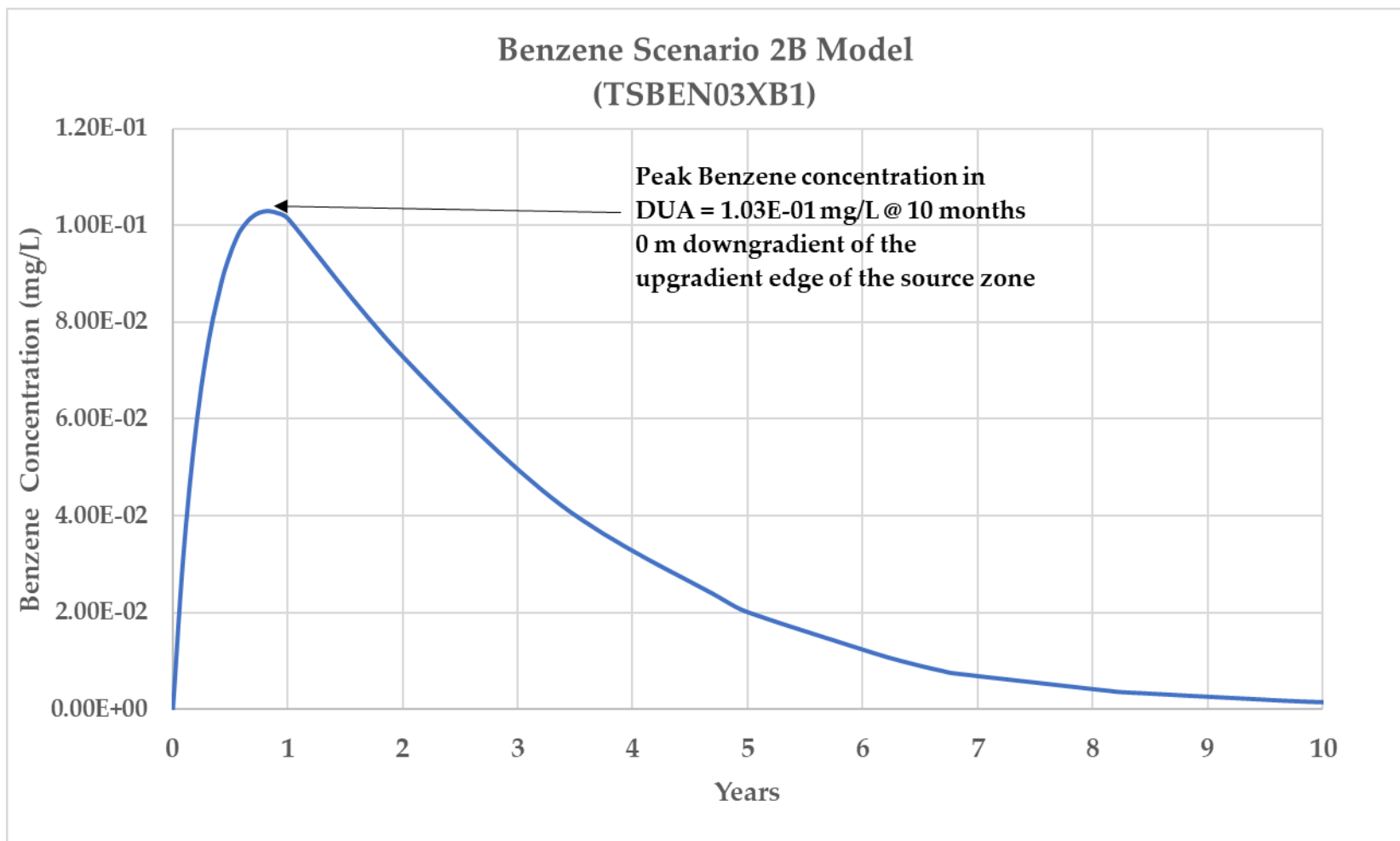


Benzene Scenario 1D Model (TSBEN03bD1)

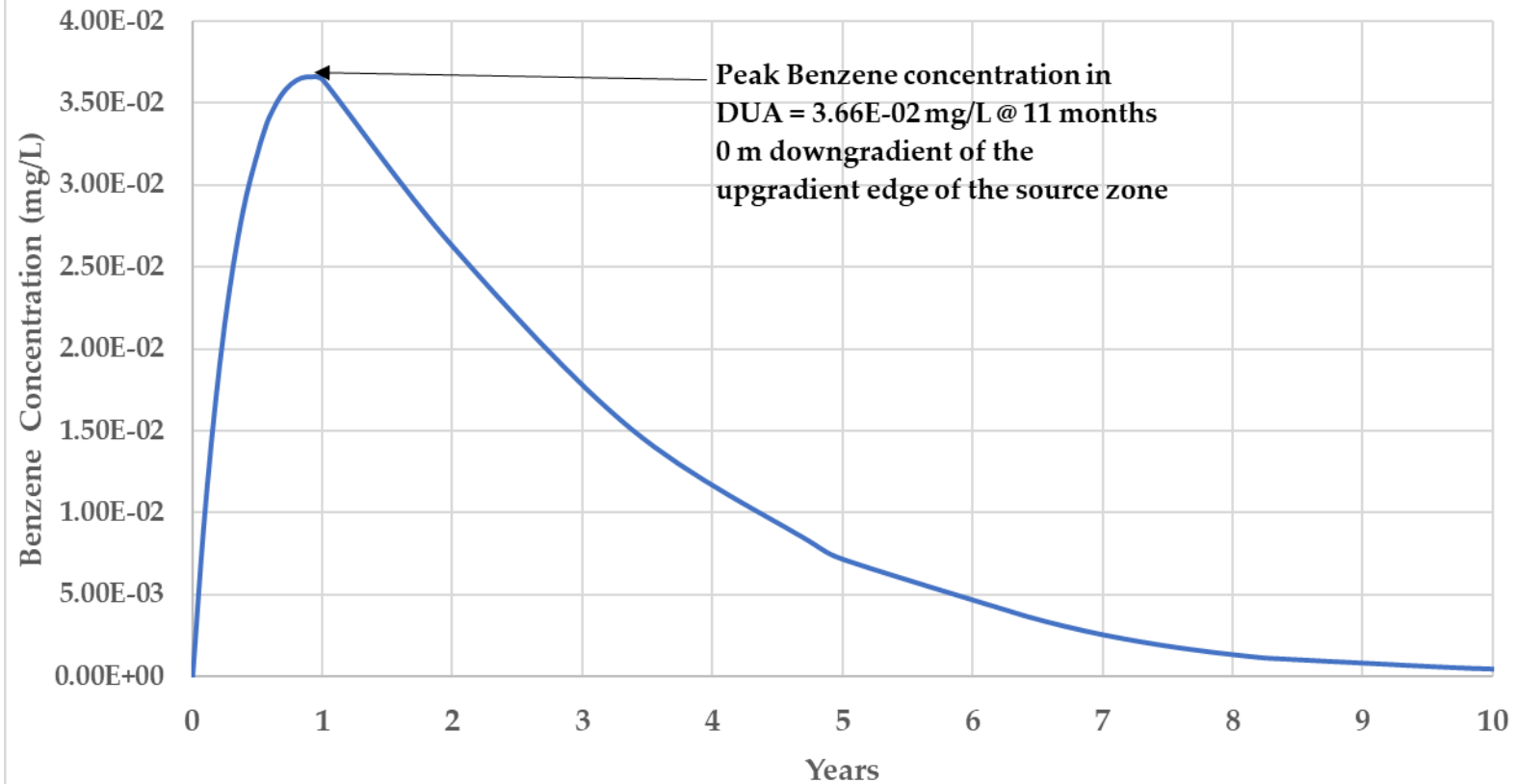


Benzene Scenario 2A Model (TSBEN03XA1)

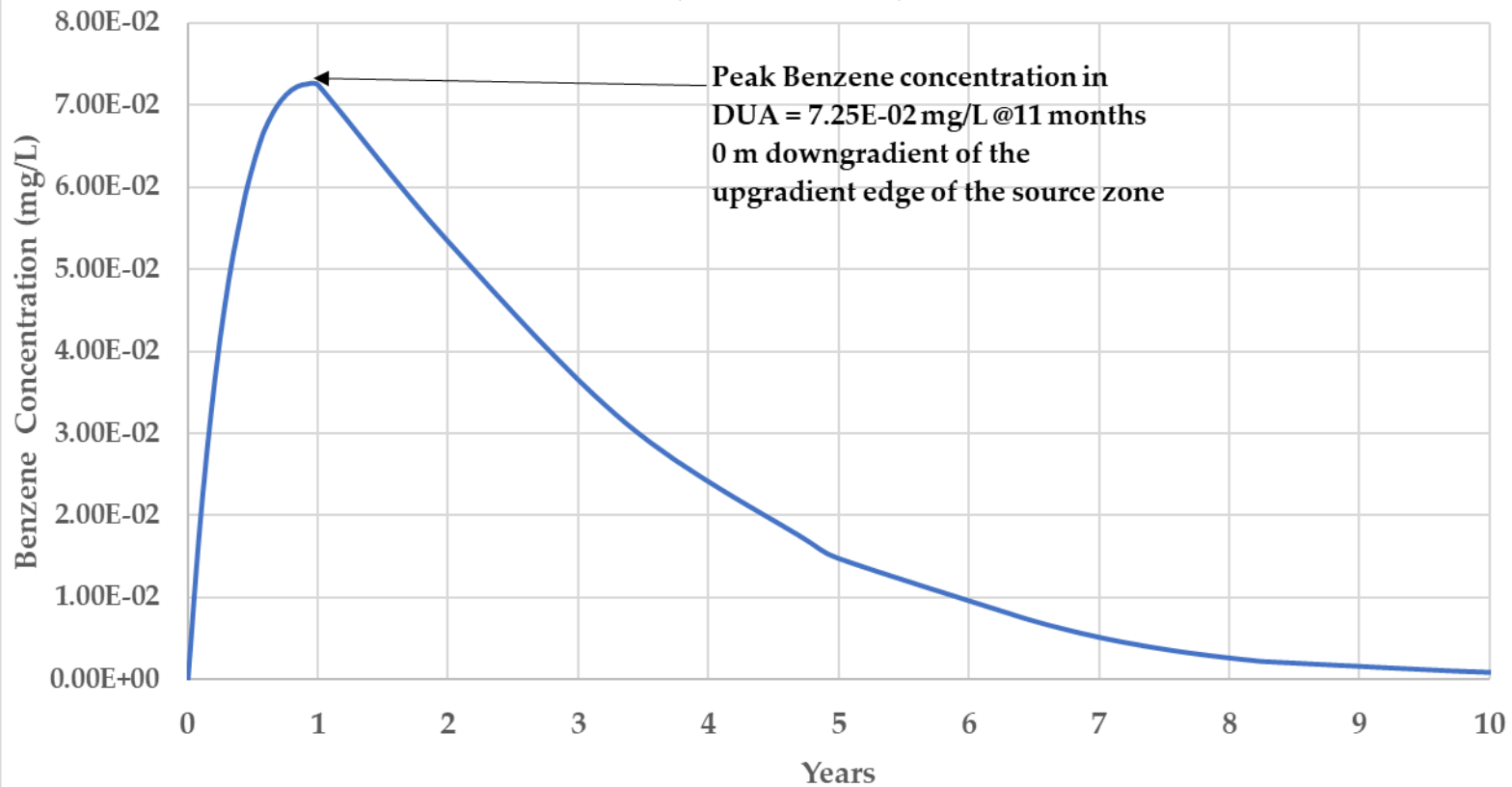




Benzene Scenario 3A Model (TSBENK1A1)



**Benzene Scenario 3B Model
(TSBENK1B1)**



**Benzene Scenario 3B Model
(TSBEN03K21)**

