

Table 5-10I Calculation of Non Cancer Hazards Ingestion of Lobsters Resident -CT

Scenario Timeframe:	Future
Medium:	Sediment
Exposure Medium:	Lobsters
Receptor Population:	Resident
Receptor Age:	Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Relative Absorption Factor	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Hazard Quotient
Ingestion (1)	ARSENIC	2.82E+00	mg/kg	1	8.36E-04	mg/kg-day	3.00E-04	(mg/kg-d)	2.79E+00
	COPPER	1.29E+01	mg/kg	1	3.81E-03	mg/kg-day		(mg/kg-d)	
	LEAD	8.15E-02	mg/kg	1	2.41E-05	mg/kg-day		(mg/kg-d)	
	MERCURY	2.10E-01	mg/kg	1	6.22E-05	mg/kg-day	3.00E-04	(mg/kg-d)	2.07E-01
	SODIUM	4.04E+03	mg/kg	1	1.20E+00	mg/kg-day		(mg/kg-d)	
	ALPHA-HEXACHLOROCYCLOHEXANE	2.10E-05	mg/kg	1	6.22E-09	mg/kg-day		(mg/kg-d)	
	DIELDRIN	2.20E-04	mg/kg	1	6.52E-08	mg/kg-day	5.00E-05	(mg/kg-d)	1.30E-03
	ENDOSULFAN SULFATE	1.70E-05	mg/kg	1	5.04E-09	mg/kg-day		(mg/kg-d)	
	4-CHLORO-3-METHYLPHENOL	1.00E-01	mg/kg	1	2.96E-05	mg/kg-day		(mg/kg-d)	
	ACENAPHTHYLENE	2.00E-05	mg/kg	1	5.93E-09	mg/kg-day		(mg/kg-d)	
Total Hazard Index									3.0E+00

(1) Intake Ingestion =

$$= \text{EPC} * \frac{\text{EPC} * (\text{IFadj} * \text{CF2} * \text{RAF} * \text{EF}) / (\text{AT} * 365 \text{ day/yr})}{2.96E-04}$$

IFadj =	(IR-C * ED-C * CF)/BW-C + (IR-A * ED-A * CF)/BW-A	EPC, mg/kg	Exposure Point Concentration	chem-specific
=	2.67E+03	IFadj, mg-yr/kg-day	Ingestion Rate, age adjusted	2.67E+03
		RAF, unitless	Relative Absorption Factor	1
		EF, day/yr	Exposure Frequency	365
		AT, yr	Averaging Time	9
		BW-A, kg	Body Weight, Adult	70
		ED-A, years	Exposure Duration, Adult	7
		BW-C, kg	Body Weight, Child	15
		ED-C, years	Exposure Duration, Child	2
		IR-A, kg/day	Ingestion Rate, Adult	0.016
		IR-C, kg/day	Ingestion Rate, Child	0.008
		CF, mg/kg	Conversion Factor	1.00E+06
		CF2, kg/mg	Conversion Factor	1.00E-06

mg/kg = milligram/kilogram

mg/kg - day = milligram/kilogram - day

NA = Not Applicable

EPC = Exposure Point Concentration

CT - Central Tendency

Table 5-10I
Calculation of Non Cancer Hazards
Ingestion of Lobsters
Resident -RME

Scenario Timeframe:	Future
Medium:	Sediment
Exposure Medium:	Lobsters
Receptor Population:	Resident
Receptor Age:	Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Relative Absorption Factor	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Hazard Quotient
Ingestion (1)	ARSENIC	2.82E+00	mg/kg	1	1.40E-03	mg/kg-day	3.00E-04	(mg/kg-d)	4.66E+00
	COPPER	1.29E+01	mg/kg	1	6.36E-03	mg/kg-day		(mg/kg-d)	
	LEAD	8.15E-02	mg/kg	1	4.04E-05	mg/kg-day		(mg/kg-d)	
	MERCURY	2.10E-01	mg/kg	1	1.04E-04	mg/kg-day	3.00E-04	(mg/kg-d)	3.47E-01
	SODIUM	4.04E+03	mg/kg	1	2.00E+00	mg/kg-day		(mg/kg-d)	
	ALPHA-HEXACHLOROCYCLOHEXANE	2.10E-05	mg/kg	1	1.04E-08	mg/kg-day		(mg/kg-d)	
	DIELDRIN	2.20E-04	mg/kg	1	1.09E-07	mg/kg-day	5.00E-05	(mg/kg-d)	2.18E-03
	ENDOSULFAN SULFATE	1.70E-05	mg/kg	1	8.42E-09	mg/kg-day		(mg/kg-d)	
	4-CHLORO-3-METHYLPHENOL	1.00E-01	mg/kg	1	4.95E-05	mg/kg-day		(mg/kg-d)	
	ACENAPHTHYLENE	2.00E-05	mg/kg	1	9.90E-09	mg/kg-day		(mg/kg-d)	
Total Hazard Index									5.0E+00

$$(1) \text{ Intake Ingestion} = \frac{\text{EPC} * (\text{IFad}_j * \text{CF}_2 * \text{RAF} * \text{EF})}{(\text{AT} * 365 \text{ day/yr})}$$

$$= \text{EPC} * 4.95\text{E-}04$$

IFad _j =	(IR-C * ED-C * CF)/BW-C + (IR-A * ED-A * CF)/BW-A	EPC, mg/kg	Exposure Point Concentration	chem-specific
=	1.49E+04	IFad _j , mg-yr/kg-da	Ingestion Rate, age adjusted	1.49E+04
		RAF, unitless	Relative Absorption Factor	1
		EF, day/yr	Exposure Frequency	365
		AT, yr	Averaging Time	30
		BW-A, kg	Body Weight, Adult	70
		ED-A, years	Exposure Duration, Adult	24
		BW-C, kg	Body Weight, Child	15
		ED-C, years	Exposure Duration, Child	6
		IR-A, kg/day	Ingestion Rate, Adult	0.034
		IR-C, kg/day	Ingestion Rate, Child	0.008
		CF, mg/kg	Conversion Factor	1.00E+06
		CF ₂ , kg/mg	Conversion Factor	1.00E-06

mg/kg = milligram/kilogram
mg/kg - day = milligram/kilogram - day
NA = Not Applicable
EPC = Exposure Point Concentration
RME = Realistic Maximum Exposure

Table 5-10I
Calculation of Non Cancer Hazards
Ingestion of Lobsters
Child Resident - RME

Scenario Timeframe:	Future
Medium:	Sediment
Exposure Medium:	Lobsters
Receptor Population:	Resident
Receptor Age:	Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Relative Absorption Factor	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Hazard Quotient
Ingestion (1)	ARSENIC	2.82E+00	mg/kg	1	1.50E-03	mg/kg-day	3.00E-04	(mg/kg-d)	5.01E+00
	COPPER	1.29E+01	mg/kg	1	6.85E-03	mg/kg-day		(mg/kg-d)	
	LEAD	8.15E-02	mg/kg	1	4.35E-05	mg/kg-day		(mg/kg-d)	
	MERCURY	2.10E-01	mg/kg	1	1.12E-04	mg/kg-day	3.00E-04	(mg/kg-d)	3.73E-01
	SODIUM	4.04E+03	mg/kg	1	2.15E+00	mg/kg-day		(mg/kg-d)	
	ALPHA-HEXACHLOROCYCLOHEXANE	2.10E-05	mg/kg	1	1.12E-08	mg/kg-day		(mg/kg-d)	
	DIELDRIN	2.20E-04	mg/kg	1	1.17E-07	mg/kg-day	5.00E-05	(mg/kg-d)	2.35E-03
	ENDOSULFAN SULFATE	1.70E-05	mg/kg	1	9.07E-09	mg/kg-day		(mg/kg-d)	
	4-CHLORO-3-METHYLPHENOL	1.00E-01	mg/kg	1	5.33E-05	mg/kg-day		(mg/kg-d)	
	ACENAPHTHYLENE	2.00E-05	mg/kg	1	1.07E-08	mg/kg-day		(mg/kg-d)	
Total Hazard Index									5.4E+00

(1) Intake Ingestion =
= EPC *

$$\text{EPC} * (\text{IR} * \text{RAF} * \text{EF} * \text{ED}) / (\text{BW} * \text{AT} * 365 \text{ day/yr})$$

5.33E-04

EPC, mg/kg	Exposure Point Concentration	chem-specific
IR, kg/day	Ingestion Rate	0.008
RAF, unitless	Relative Absorption Factor	1
EF, day/yr	Exposure Frequency	365
AT, yr	Averaging Time	6
ED, years	Exposure Duration	6
BWchild, kg	Body Weight	15

NA = Not Applicable
mg/kg - day = milligram/kilogram - day
mg/kg = milligram/kilogram

EPC = Exposure Point Concentration

Table 5-10I
Calculation of Non Cancer Hazards
Ingestion of Lobster Tomalley
Resident - CT

Scenario Timeframe:	Future
Medium:	Sediment
Exposure Medium:	Tomalley
Receptor Population:	Resident
Receptor Age:	Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Relative Absorption Factor	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Hazard Quotient
Ingestion (1)	ARSENIC	4.29	mg/kg	1	1.27E-03	mg/kg-day	3.00E-04	(mg/kg-d)	4.24E+00
	CADMIUM	0.85	mg/kg	1	2.52E-04	mg/kg-day	1.00E-03	(mg/kg-d)	2.52E-01
	COPPER	49.9	mg/kg	1	1.48E-02	mg/kg-day		(mg/kg-d)	
	LEAD	0.04	mg/kg	1	1.19E-05	mg/kg-day		(mg/kg-d)	
	MERCURY	0.09	mg/kg	1	2.67E-05	mg/kg-day	3.00E-04	(mg/kg-d)	8.89E-02
	SELENIUM	1.04	mg/kg	1	3.08E-04	mg/kg-day	5.00E-03	(mg/kg-d)	6.16E-02
	SODIUM	3.16E+03	mg/kg	1	9.36E-01	mg/kg-day		(mg/kg-d)	
	Total PCBs	1.30E-01	mg/kg	1	3.85E-05	mg/kg-day	2.00E-05	(mg/kg-d)	1.93E+00
	4,4'-DDE	3.80E-02	mg/kg	1	1.13E-05	mg/kg-day	3.00E-04	(mg/kg-d)	3.75E-02
	ALPHA-HEXACHLOROCYCLOHEXANE	1.10E-03	mg/kg	1	3.26E-07	mg/kg-day		(mg/kg-d)	
	DIELDRIN	2.60E-03	mg/kg	1	7.70E-07	mg/kg-day	5.00E-05	(mg/kg-d)	1.54E-02
	ENDRIN ALDEHYDE	3.80E-03	mg/kg	1	1.13E-06	mg/kg-day		(mg/kg-d)	
	ENDRIN KETONE	6.30E-04	mg/kg	1	1.87E-07	mg/kg-day		(mg/kg-d)	
	HEPTACHLOR EPOXIDE	4.70E-04	mg/kg	1	1.39E-07	mg/kg-day	1.30E-05	(mg/kg-d)	1.07E-02
	4-CHLORO-3-METHYLPHENOL	4.40E-01	mg/kg	1	1.30E-04	mg/kg-day		(mg/kg-d)	
	ACENAPHTHYLENE	1.90E-03	mg/kg	1	5.63E-07	mg/kg-day		(mg/kg-d)	
	BENZO(A)PYRENE equivalent	4.90E-03	mg/kg	1	1.45E-06	mg/kg-day		(mg/kg-d)	
BENZO[G,H,I]PERYLENE	3.30E-03	mg/kg	1	9.78E-07	mg/kg-day		(mg/kg-d)		
PHENANTHRENE	6.70E-03	mg/kg	1	1.99E-06	mg/kg-day		(mg/kg-d)		
Total Hazard Index									6.6E+00

(1) Intake Ingestion =
$$\frac{\text{EPC} * (\text{IFadj} * \text{CF2} * \text{RAF} * \text{EF})}{(\text{AT} * 365 \text{ day/yr})}$$

= EPC * 2.96E-04

IFadj =	$(\text{IR-C} * \text{ED-C} * \text{CF}) / \text{BW-C} + (\text{IR-A} * \text{ED-A} * \text{CF}) / \text{BW-A}$	EPC, mg/kg	Exposure Point Concentration	chem-specific
=	2.67E+03	IFadj, mg-yr/kg-day	Ingestion Rate, age adjusted	2.67E+03
		RAF, unitless	Relative Absorption Factor	1
		EF, day/yr	Exposure Frequency	365
		AT, yr	Averaging Time	9
		BW-A, kg	Body Weight, Adult	70
		ED-A, years	Exposure Duration, Adult	7
		BW-C, kg	Body Weight, Child	15
		ED-C, years	Exposure Duration, Child	2
		IR-A, kg/day	Ingestion Rate, Adult	0.016
		IR-C, kg/day	Ingestion Rate, Child	0.008
		CF, mg/kg	Conversion Factor	1.00E+06
		CF2, kg/mg	Conversion Factor	1.00E-06

Table 5-10I
Calculation of Non Cancer Hazards
Ingestion of Lobster Tomalley
Resident - RME

Scenario Timeframe:	Future
Medium:	Sediments
Exposure Medium:	Tomalley
Receptor Population:	Resident
Receptor Age:	Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Relative Absorption Factor	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Hazard Quotient
Ingestion (1)	ARSENIC	4.29	mg/kg	1	2.12E-03	mg/kg-day	3.00E-04	(mg/kg-d)	7.08E+00
	CADMIUM	0.85	mg/kg	1	4.21E-04	mg/kg-day	1.00E-03	(mg/kg-d)	4.21E-01
	COPPER	49.9	mg/kg	1	2.47E-02	mg/kg-day		(mg/kg-d)	
	LEAD	0.04	mg/kg	1	1.98E-05	mg/kg-day		(mg/kg-d)	
	MERCURY	0.09	mg/kg	1	4.46E-05	mg/kg-day	3.00E-04	(mg/kg-d)	1.49E-01
	SELENIUM	1.04	mg/kg	1	5.15E-04	mg/kg-day	5.00E-03	(mg/kg-d)	1.03E-01
	SODIUM	3.16E+03	mg/kg	1	1.56E+00	mg/kg-day		(mg/kg-d)	
	Total PCBs	1.30E-01	mg/kg	1	6.44E-05	mg/kg-day	2.00E-05	(mg/kg-d)	3.22E+00
	4,4'-DDE	3.80E-02	mg/kg	1	1.88E-05	mg/kg-day	3.00E-04	(mg/kg-d)	6.27E-02
	ALPHA-HEXACHLOROCYCLOHEXANE	1.10E-03	mg/kg	1	5.45E-07	mg/kg-day		(mg/kg-d)	
	DIELDRIN	2.60E-03	mg/kg	1	1.29E-06	mg/kg-day	5.00E-05	(mg/kg-d)	2.58E-02
	ENDRIN ALDEHYDE	3.80E-03	mg/kg	1	1.88E-06	mg/kg-day		(mg/kg-d)	
	ENDRIN KETONE	6.30E-04	mg/kg	1	3.12E-07	mg/kg-day		(mg/kg-d)	
	HEPTACHLOR EPOXIDE	4.70E-04	mg/kg	1	2.33E-07	mg/kg-day	1.30E-05	(mg/kg-d)	1.79E-02
	4-CHLORO-3-METHYLPHENOL	4.40E-01	mg/kg	1	2.18E-04	mg/kg-day		(mg/kg-d)	
	ACENAPHTHYLENE	1.90E-03	mg/kg	1	9.41E-07	mg/kg-day		(mg/kg-d)	
	BENZO(A)PYRENE equivalent	4.90E-03	mg/kg	1	2.43E-06	mg/kg-day		(mg/kg-d)	
	BENZO(G,H,I)PERYLENE	3.30E-03	mg/kg	1	1.63E-06	mg/kg-day		(mg/kg-d)	
	PHENANTHRENE	6.70E-03	mg/kg	1	3.32E-06	mg/kg-day		(mg/kg-d)	
	Total Hazard Index								

(1) Intake Ingestion =
$$\frac{EPC * (IF_{adj} * CF_2 * RAF * EF)}{(AT * 365 \text{ day/yr})}$$

= EPC * 4.95E-04

IF _{adj} =	(IR-C * ED-C * CF)/BW-C + (IR-A * ED-A * CF)/BW-A	EPC, mg/kg	Exposure Point Concentration	chem-specific
=	1.49E+04	IF _{adj} , mg-yr/kg-da	Ingestion Rate, age adjusted	1.49E+04
		RAF, unitless	Relative Absorption Factor	1
		EF, day/yr	Exposure Frequency	365
		AT, yr	Averaging Time	30
		BW-A, kg	Body Weight, Adult	70
		ED-A, years	Exposure Duration, Adult	24
		BW-C, kg	Body Weight, Child	15
		ED-C, years	Exposure Duration, Child	6
		IR-A, kg/day	Ingestion Rate, Adult	0.034
		IR-C, kg/day	Ingestion Rate, Child	0.008
		CF, mg/kg	Conversion Factor	1.00E+06
		CF ₂ , kg/mg	Conversion Factor	1.00E-06

mg/kg = milligram/kilogram
mg/kg - day = milligram/kilogram - day
NA = Not Applicable
EPC = Exposure Point Concentration
RME = Realistic Maximum Exposure

Table 5-10I

Calculation of Non Cancer Hazards

Ingestion of Lobster Tomalley

Child Resident - RME

Scenario Timeframe:	Future
Medium:	Sediment
Exposure Medium:	Lobster Tomalley
Receptor Population:	Resident
Receptor Age:	Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Relative Absorption Factor	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Hazard Quotient
Ingestion (1)	ARSENIC	4.29	mg/kg	1	2.29E-03	mg/kg-day	3.00E-04	(mg/kg-d)	7.63E+00
	CADMIUM	0.85	mg/kg	1	4.53E-04	mg/kg-day	1.00E-03	(mg/kg-d)	4.53E-01
	COPPER	49.9	mg/kg	1	2.66E-02	mg/kg-day		(mg/kg-d)	
	LEAD	0.04	mg/kg	1	2.13E-05	mg/kg-day		(mg/kg-d)	
	MERCURY	0.09	mg/kg	1	4.80E-05	mg/kg-day	3.00E-04	(mg/kg-d)	1.60E-01
	SELENIUM	1.04	mg/kg	1	5.55E-04	mg/kg-day	5.00E-03	(mg/kg-d)	1.11E-01
	SODIUM	3.16E+03	mg/kg	1	1.69E+00	mg/kg-day		(mg/kg-d)	
	Total PCBs	1.30E-01	mg/kg	1	6.93E-05	mg/kg-day	2.00E-05	(mg/kg-d)	3.47E+00
	4,4'-DDE	3.80E-02	mg/kg	1	2.03E-05	mg/kg-day	3.00E-04	(mg/kg-d)	6.76E-02
	ALPHA-HEXACHLOROCYCLOHEXANE	1.10E-03	mg/kg	1	5.87E-07	mg/kg-day		(mg/kg-d)	
	DIELDRIN	2.60E-03	mg/kg	1	1.39E-06	mg/kg-day	5.00E-05	(mg/kg-d)	2.77E-02
	ENDRIN ALDEHYDE	3.80E-03	mg/kg	1	2.03E-06	mg/kg-day		(mg/kg-d)	
	ENDRIN KETONE	6.30E-04	mg/kg	1	3.36E-07	mg/kg-day		(mg/kg-d)	
	HEPTACHLOR EPOXIDE	4.70E-04	mg/kg	1	2.51E-07	mg/kg-day	1.30E-05	(mg/kg-d)	1.93E-02
	4-CHLORO-3-METHYLPHENOL	4.40E-01	mg/kg	1	2.35E-04	mg/kg-day		(mg/kg-d)	
	ACENAPHTHYLENE	1.90E-03	mg/kg	1	1.01E-06	mg/kg-day		(mg/kg-d)	
	BENZO(A)PYRENE equivalent	4.90E-03	mg/kg	1	2.61E-06	mg/kg-day		(mg/kg-d)	
	BENZO(G,H,I)PERYLENE	3.30E-03	mg/kg	1	1.76E-06	mg/kg-day		(mg/kg-d)	
	PHENANTHRENE	6.70E-03	mg/kg	1	3.57E-06	mg/kg-day		(mg/kg-d)	
	Total Hazard Index								

(1) Intake Ingestion =
= EPC *

$EPC * (IR * RAF * EF * ED) / (BW * AT * 365 \text{ day/yr})$
5.33E-04

NA = Not Applicable
mg/kg - day = milligram/kilogram - day
mg/kg = milligram/kilogram

EPC = Exposure Point Concentration

EPC, mg/kg	Exposure Point Concentration	chem-specific
IR, kg/day	Ingestion Rate	0.008
RAF, unitless	Relative Absorption Factor	1
EF, day/yr	Exposure Frequency	365
AT, yr	Averaging Time	6
ED, years	Exposure Duration	6
BWchild, kg	Body Weight	15

Table 5-10I
Calculation of Non Cancer Hazards
Ingestion of Clams (Reference Location)
Resident - RME

Scenario Timeframe:	Future
Medium:	Sediment
Exposure Medium:	Clams (Reference)
Receptor Population:	Resident
Receptor Age:	Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Relative Absorption Factor	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Hazard Quotient
Ingestion (1)	ALUMINUM	4.27E+02	mg/kg	1	2.11E-01	mg/kg-day	1.00E+00	(mg/kg-d)	2.11E-01
	ANTIMONY	6.40E-02	mg/kg	1	3.17E-05	mg/kg-day		(mg/kg-d)	
	ARSENIC	3.42E+00	mg/kg	1	1.69E-03	mg/kg-day	3.00E-04	(mg/kg-d)	5.65E+00
	COPPER	7.61E+00	mg/kg	1	3.77E-03	mg/kg-day		(mg/kg-d)	
	IRON	1.50E+03	mg/kg	1	7.43E-01	mg/kg-day	3.00E-01	(mg/kg-d)	2.48E+00
	LEAD	1.47E+00	mg/kg	1	7.28E-04	mg/kg-day		(mg/kg-d)	
	MANGANESE	5.74E+01	mg/kg	1	2.84E-02	mg/kg-day	1.40E-01	(mg/kg-d)	2.03E-01
	MERCURY	5.00E-02	mg/kg	1	2.48E-05	mg/kg-day	3.00E-04	(mg/kg-d)	8.25E-02
	SODIUM	4.34E+03	mg/kg	1	2.15E+00	mg/kg-day		(mg/kg-d)	
	VANADIUM	2.17E+00	mg/kg	1	1.07E-03	mg/kg-day	1.00E-03	(mg/kg-d)	1.07E+00
	Total PCBs	8.60E-03	mg/kg	1	4.26E-06	mg/kg-day	2.00E-05	(mg/kg-d)	2.13E-01
	ENDOSULFAN SULFATE	5.90E-05	mg/kg	1	2.92E-08	mg/kg-day		(mg/kg-d)	
	ENDRIN KETONE	4.60E-04	mg/kg	1	2.28E-07	mg/kg-day		(mg/kg-d)	
	DELTA-BHC	4.10E-05	mg/kg	1	2.03E-08	mg/kg-day		(mg/kg-d)	
	ACENAPHTHYLENE	5.20E-04	mg/kg	1	2.58E-07	mg/kg-day		(mg/kg-d)	
	BENZO(A)PYRENE equivalent	6.00E-03	mg/kg	1	2.97E-06	mg/kg-day		(mg/kg-d)	
	BENZO(G,H,I)PERYLENE	5.00E-03	mg/kg	1	2.48E-06	mg/kg-day		(mg/kg-d)	
PHENANTHRENE	2.00E-03	mg/kg	1	9.90E-07	mg/kg-day		(mg/kg-d)		
4-CHLORO-3-METHYLPHENOL	2.00E-01	mg/kg	1	9.90E-05	mg/kg-day		(mg/kg-d)		
Total Hazard Index									9.9E+00

(1) Intake Ingestion =

$$= \text{EPC} * \frac{\text{EPC} * (\text{IFadj} * \text{CF2} * \text{RAF} * \text{EF})}{(\text{AT} * 365 \text{ day/yr})}$$

IFadj =	(IR-C * ED-C * CF)/BW-C + (IR-A * ED-A * CF)/BW-A	EPC, mg/kg	Exposure Point Concentration	chem-specific
=	1.49E+04	IFadj, mg-yr/kg-da	Ingestion Rate, age adjusted	1.49E+04
		RAF, unitless	Relative Absorption Factor	1
		EF, day/yr	Exposure Frequency	365
		AT, yr	Averaging Time	30
		BW-A, kg	Body Weight, Adult	70
		ED-A, years	Exposure Duration, Adult	24
		BW-C, kg	Body Weight, Child	15
		ED-C, years	Exposure Duration, Child	6
		IR-A, kg/day	Ingestion Rate, Adult	0.034
		IR-C, kg/day	Ingestion Rate, Child	0.008
		CF, mg/kg	Conversion Factor	1.00E+06
		CF2, kg/mg	Conversion Factor	1.00E-06

mg/kg = milligram/kilogram
mg/kg - day = milligram/kilogram - day
NA = Not Applicable
EPC = Exposure Point Concentration
RME = Realistic Maximum Exposure

Table 5-10I
Calculation of Non Cancer Hazards
Ingestion of Mussels (Reference Location)
Resident - RME

Scenario Timeframe:	Future
Medium:	Sediment
Exposure Medium:	Mussels (Reference)
Receptor Population:	Resident
Receptor Age:	Child/Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Relative Absorption Factor	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Hazard Quotient
Ingestion (1)	ARSENIC	1.53E+00	mg/kg	1	7.58E-04	mg/kg-day	3.00E-04	(mg/kg-d)	2.53E+00
	CADMIUM	3.16E-01	mg/kg	1	1.56E-04	mg/kg-day	1.00E-03	(mg/kg-d)	1.56E-01
	IRON	1.66E+02	mg/kg	1	8.22E-02	mg/kg-day	3.00E-01	(mg/kg-d)	2.74E-01
	LEAD	4.11E-01	mg/kg	1	2.04E-04	mg/kg-day		(mg/kg-d)	
	MERCURY	5.00E-02	mg/kg	1	2.48E-05	mg/kg-day	3.00E-04	(mg/kg-d)	8.25E-02
	SODIUM	5.27E+03	mg/kg	1	2.61E+00	mg/kg-day		(mg/kg-d)	
	VANADIUM	6.40E-01	mg/kg	1	3.17E-04	mg/kg-day	1.00E-03	(mg/kg-d)	3.17E-01
	ENDOSULFAN SULFATE	8.80E-05	mg/kg	1	4.36E-08	mg/kg-day		(mg/kg-d)	
	ENDRIN KETONE	3.70E-04	mg/kg	1	1.83E-07	mg/kg-day		(mg/kg-d)	
	ACENAPHTHYLENE	6.00E-04	mg/kg	1	2.97E-07	mg/kg-day		(mg/kg-d)	
	BENZO(A)PYRENE equivalent	2.90E-03	mg/kg	1	1.44E-06	mg/kg-day		(mg/kg-d)	
Total Hazard Index									3.4E+00

(1) Intake Ingestion =
$$\frac{EPC * (IFadj * CF2 * RAF * EF)}{(AT * 365 \text{ day/yr})}$$

= EPC * 4.95E-04

IFadj =	$(IR-C * ED-C * CF)/BW-C + (IR-A * ED-A * CF)/BW-A$	EPC, mg/kg	Exposure Point Concentration	chem-specific
=	1.49E+04	IFadj, mg-yr/kg-da	Ingestion Rate, age adjusted	1.49E+04
		RAF, unitless	Relative Absorption Factor	1
		EF, day/yr	Exposure Frequency	365
mg/kg = milligram/kilogram		AT, yr	Averaging Time	30
mg/kg - day = milligram/kilogram - day		BW-A, kg	Body Weight, Adult	70
NA = Not Applicable		ED-A, years	Exposure Duration, Adult	24
EPC = Exposure Point Concentration		BW-C, kg	Body Weight, Child	15
RME = Realistic Maximum Exposure		ED-C, years	Exposure Duration, Child	6
		IR-A, kg/day	Ingestion Rate, Adult	0.034
		IR-C, kg/day	Ingestion Rate, Child	0.008
		CF, mg/kg	Conversion Factor	1.00E+06
		CF2, kg/mg	Conversion Factor	1.00E-06