INSTRUCTIONS FOR TABLE 4

VALUES USED FOR DAILY INTAKE CALCULATIONS

PURPOSE OF THE TABLE:

- To provide the exposure parameters used for RME and CT intake calculations for each exposure pathway (scenario timeframe, medium, exposure medium, exposure point, receptor population, receptor age, and exposure route)
- To provide the intake equations or models used for each exposure route/pathway.

INFORMATION DOCUMENTED:

- Values used for each intake equation for each exposure pathway and the reference/rationale for each
- Intake equation or model used to calculate the intake for each exposure pathway.

TABLE NUMBERING AND SUMMARY BOX INSTRUCTIONS:

- Complete one copy of Table 4 for each unique combination of the following six fields that will be quantitatively evaluated (Scenario Timeframe, Medium, Exposure Medium, Exposure Point, Receptor Population, and Receptor Age).
- Enter each combination of these six fields in the Summary Box in the upper left corner of the table.
- Number each table uniquely, beginning with 4.1 and ending with 4.n, where "n" represents the total number of combinations of the six key fields.

For the example data provided, there should be seven copies of Table 4, numbered 4.1 through 4.7

Table Number	*Scenario Timeframe*	*Medium*	*Exposure Medium*	*Exposure Point*	*Receptor Population*	*Receptor Age*
4.1	*Current*	*Groundwater*	*Groundwater*	*Aquifer 1-- Tap Water*	*Resident*	*Adult*
4.2	*Current*	*Groundwater*	*Groundwater*	*Aquifer 1-- Tap Water*	*Resident*	*Child*
4.3	*Current*	*Groundwater*	*Air*	*Aquifer 1-- Water Vapors at Showerhead*	*Resident*	*Adult*
4.4	*Current*	*Sediment*	*Animal Tissue*	*Trout from Dean's Creek*	*Fisher*	*Adult*
4.5	*Current*	*Sediment*	*Animal Tissue*	*Trout from Dean's Creek*	*Fisher*	*Child*
4.6	*Future*	*Sediment*	*Animal Tissue*	*Trout from Dean's Creek*	*Fisher*	*Adult*
4.7	*Future*	*Sediment*	*Animal Tissue*	*Trout from Dean's Creek*	*Fisher*	*Child*

It is possible that some tables may contain the same data associated with different descriptions in the Summary Box in the upper left corner.

In the example Standard Tables, the sediment data in Tables 4.4 through 4.7 may be the same, even though the Scenario Timeframes and Receptor Ages are different.

HOW TO COMPLETE/INTERPRET THE TABLE	
SUMMARY BOX IN UPPER LEFT CORNER	
Row 1 - Scenario Timeframe	
Definition: • The time period (current and/or future) being considered for the exposure pathway.	
Instructions: • Choose from the picklist to the right.	***Current*** ***Future*** ***Current/Future*** ***Not Documented***
Row 2 - Medium	
Definition: • The environmental substance (e.g, air, water, soil) which has been contaminated.	
Instructions: • Choose from the picklist to the right.	***Groundwater*** ***Leachate*** ***Sediment*** ***Sludge*** ***Soil*** ***Surface Water*** ***Debris*** ***Other*** ***Liquid Waste*** ***Solid Waste*** ***Air*** ***Surface Soil*** ***Subsurface Soil***
Row 3 - Exposure Medium	
Definition: • The contaminated environmental medium to which an individual is exposed. Includes the transfer of contaminants from one medium to another. ***For example:*** ***1) Contaminants in Groundwater (the Medium) remain in Groundwater (the Exposure Medium) and are available for exposure to receptors.*** ***2) Contaminants in Groundwater (the Medium) may be transferred to Air (the Exposure Medium) and are available for exposure to receptors.*** ***3) Contaminants in Sediment (the Medium) may be transferred to Animal Tissue (the Exposure Medium) and are available for exposure to receptors.***	

Instructions: • Choose from the picklist to the right.	***Groundwater*** ***Leachate*** ***Sediment*** ***Sludge*** ***Soil*** ***Surface Water*** ***Debris*** ***Other*** ***Liquid Waste*** ***Solid Waste*** ***Air*** ***Plant Tissue*** ***Animal Tissue*** ***Spring Water*** ***Surface Soil*** ***Subsurface Soil*** ***Particulates*** ***Vapors***
Row 4 - Exposure Point	
Definition: • An exact location of potential contact between an organism and a chemical within an exposure medium. ***For example:*** ***1) Contaminants are in Groundwater (the Medium and the Exposure Medium) and exposure to Aquifer 1 - Tap Water (the Exposure Point) is evaluated.*** ***2) Contaminants in Groundwater (the Medium) may be transferred to Air (the Exposure Medium) and exposure to Aquifer 1 - Water Vapors at Showerhead (the Exposure Point) is evaluated.*** ***3) Contaminants in Sediment (the Medium) may be transferred to Animal Tissue (the Exposure Medium) and Trout in Dean's Creek (the Exposure Point) is evaluated.***	
Instructions: • Provide the information as text in the Table (not to exceed 80 characters).	***The field can not exceed 80 characters.***
Row 5 - Receptor Population	
Definition: • The exposed individual relative to the exposure pathway considered.	***For example, a resident (receptor population) who drinks contaminated groundwater.***

Instructions: • Choose from the picklist to the right.	***Resident*** ***Industrial Worker*** ***Commercial Worker*** ***Construction Worker*** ***Other Worker*** ***Golfer*** ***Jogger*** ***Fisher*** ***Hunter*** ***Fisher/Hunter*** ***Swimmer*** ***Other Recreational Person*** ***Child at School/Daycare/ Playground*** ***Trespasser/Visitor*** ***Farmer*** ***Gardener*** ***Other***
Row 6 - Receptor Age	
Definition: • The description of the exposed individual as defined by the EPA Region or dictated by the site.	***For example, a resident (receptor population) who drinks contaminated groundwater.***
Instructions: • Choose from the picklist to the right.	***Child*** ***Adult*** ***Adolescents (teens)*** ***Pre-Adolescents*** ***Not Documented*** ***Child/Adult*** ***Geriatric*** ***Sensitive*** ***Other*** ***Infant*** ***Toddler*** ***Pregnant***
BODY OF THE TABLE	
Column 1 - Exposure Route	
Definition: • The way a chemical comes in contact with an organism (e.g., by ingestion, inhalation, dermal contact).	
Instructions: • Choose from the picklist to the right.	***Inhalation*** ***Ingestion* (i.e., Inhalation and Ingestion)** ***Combined*** ***Dermal Absorption*** ***Not Documented*** ***External (Radiation)***
Column 2 - Parameter Code	
Definition: • The code used for parameters in the intake equation.	

Instructions:

- Enter the appropriate code for the intake parameter from the picklist below.
- Develop additional intake parameter codes as necessary.

Parameter Code	*Parameter Definition*	*Units*
CS	*Chemical Concentration in Soil*	*mg/kg*
CW	*Chemical Concentration in Water*	*ug/l*
IR-W	*Ingestion Rate of Water*	*liters/day*
EF	*Exposure Frequency*	*days/year*
ED	*Exposure Duration*	*years*
CF1	*Conversion Factor 1*	*mg/ug*
BW	*Body Weight*	*kg*
AT-C	*Averaging Time (Cancer)*	*days*
AT-N	*Averaging Time (Non-Cancer)*	*days*
KP	*Permeability Constant (Dermal for Liquids)*	*cm/hr*
ET	*Exposure Time*	*hr/day*
CF2	*Conversion Factor 2*	*l/cm3*
SA	*Skin Surface Area Available for Contact*	*cm2*
IN	*Inhalation Rate*	*m^3/hr*
IR-SM	*Ingestion Rate (Swimming)*	*l/hr*
IR-S	*Ingestion Rate of Soil*	*mg/day*
DABS	*Dermal Absorption Factor (Solid)*	*--*
SSAF	*Soil to Skin Adherence Factor*	*mg/cm^2/event*
IR-F	*Ingestion Rate of Food*	*kg/meal*
EF-F	*Exposure Freqeuncy (Food)*	*meals/year*

Do not provide detailed information regarding modeled intakes in this table. This information should be provided separately. The table should list the name of the model used or the equation with a footnote providing a reference to the supporting information regarding route-specific EPCs and modeled intake development.

Column 3 - Parameter Definition

Definition:

- The parameter used in the intake equation.

Instructions:

- Enter the parameter definition, consistent with the picklist defined under Column 2.
- Develop additional intake parameter definitions as necessary.

Do not provide detailed information regarding modeled intakes in this table. This information should be provided separately. The table should list the name of the model used or the equation with a footnote providing a reference to the supporting information regarding route-specific EPCs and modeled intake development.

Column 4 - Units

Definition:

- The units for the parameter code used in the intake equation.

Instructions: • Enter the units for each parameter code consistent with the picklist defined under Column 2. • Develop additional intake parameter units as necessary.	***Refer to Regional guidance to determine if there is a preference regarding the units used for different matrices (e.g., mg/kg for soil, ug/L for groundwater).*** ***Refer to Glossary for Units picklist***
Column 5 - RME Value	
Definition: • The parameter value used for the RME intake calculation.	
Instructions: • Enter the values used for RME calculations. • For the CS and CW (chemical concentrations in soil and water, respectively) parameters, refer to Table 3.n or supporting documentation, as appropriate.	***Refer to Regional guidance for intake parameter values appropriate for each exposure pathway.***
Column 6 - RME Rationale/Reference	
Definition: • The reason and reference for the parameter value used.	***This rationale may be based upon Regional or National guidance.***
Instructions: • Enter the rationale and reference for the value. • If the value used is inconsistent with guidance values, provide a detailed explanation of the rationale and a complete reference for the value used.	***Provide sufficient detail that the reviewer can easily substantiate the value.***
Column 7 - CT Value	
Definition: • The parameter value used for the CT exposure intake calculation.	
Instructions: • Enter the values used for CT exposure calculations. • For the CS and CW (chemical concentrations in soil and water, respectively) parameters, refer to Table 3.n or supporting documentation, as appropriate.	***Refer to Regional guidance for intake parameter values appropriate for each exposure pathway.***
Column 8 - CT Rationale/Reference	
Definition: • The reason and reference for the parameter value used.	***This rationale may be based on Regional or National guidance.***

Instructions: • Enter the rationale and reference for the value. • If the value used is inconsistent with guidance values, provide a detailed explanation of the rationale and a complete reference for the value used.	***Provide sufficient detail that the reviewer can easily substantiate the value.***
Column 9 - Intake Equation/Model Name	
Definition: • The calculation, equation, or model used for intake estimates for each exposure route.	
Instructions: • Enter the National and/or Regional guidance for intake calculations, equations, and/or models.	***Do not provide detailed information regarding modeled intakes in this table. This information should be provided separately. The table should list the name of the model used or the equation footnote providing a reference to the supporting information regarding route-specific EPCs and modeled intake development.***