Welcome to the CLU-IN Internet Seminar

NARPM Presents...Software Demonstration of the ATSDR Brownfields/Land Reuse Site Tool and the ATSDR Dose Calculator Tool

Delivered: October 4, 2011, 1:00 PM - 3:00 PM, EDT (17:00-19:00 GMT)

Presenters:
Gary D. Perlman, US Public Health Service ATSDR Region 1 (gap6@CDC.GOV, perlman.gary@epa.gov, or 617-918-1492)
Moderators:
Michael Adam, U.S. EPA, Technology Innovation and Field Services Division (adam.michael@epa.gov or (703) 603-9915)

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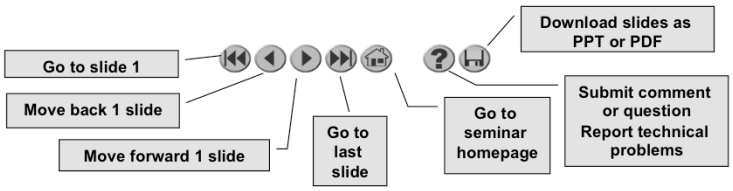
Housekeeping

- Please mute your phone lines, Do NOT put this call on hold
  - press *6 to mute #6 to unmute your lines at anytime
- Q&A
- Turn off any pop-up blockers
- Move through slides using # links on left or buttons



- This event is being recorded
- Archives accessed for free **http://cluin.org/live/archive/**

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Although I'm sure that some of you have these rules memorized from previous CLU-IN events, let's run through them quickly for our new participants.

Please mute your phone lines during the seminar to minimize disruption and background noise. If you do not have a mute button, press *6 to mute #6 to unmute your lines at anytime. Also, please do NOT put this call on hold as this may bring delightful, but unwanted background music over the lines and interupt the seminar.

You should note that throughout the seminar, we will ask for your feedback. You do not need to wait for Q&A breaks to ask questions or provide comments. To submit comments/questions and report technical problems, please use the ? Icon at the top of your screen. You can move forward/backward in the slides by using the single arrow buttons (left moves back 1 slide, right moves advances 1 slide). The double arrowed buttons will take you to 1st and last slides respectively. You may also advance to any slide using the numbered links that appear on the left side of your screen. The button with a house icon will take you back to main seminar page which displays our agenda, speaker information, links to the slides and additional resources. Lastly, the button with a computer disc can be used to download and save today's presentation materials.

With that, please move to slide 3.

Slide 3

Brownfields Software Tools

October 4, 2011

Presenter: Gary Perlman

Team: Laurel Berman and Leann Bing

Agency for Toxic Substances and Disease Registry (ATSDR)

Slide 4

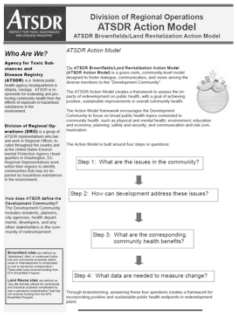
Who We Are - ATSDR

- ATSDR is a federal public health agency of the U.S. Department of Health and Human Services.
- Our goal is to prevent harmful exposures and diseases related to toxic substances.
- Our Brownfields/Land Reuse Initiative integrates public health principles into redevelopment.

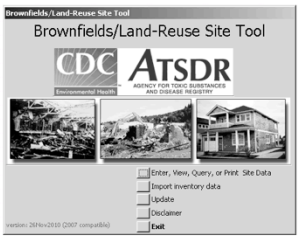
Slide 5

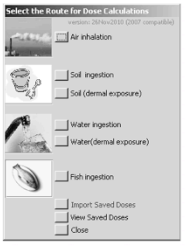
What Tools Are Available?

- Land Reuse SiteTool
- Dose Calculator
- Action Model
- DVDs – healthy redevelopment videos



- We will focus on the Land Reuse Site Tool and Dose Calculator

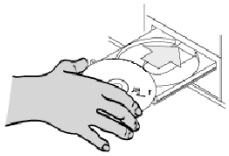


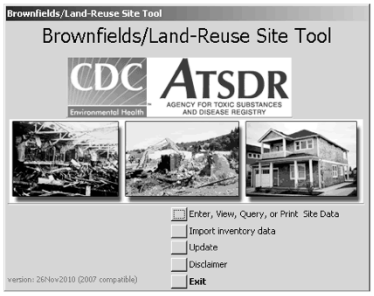


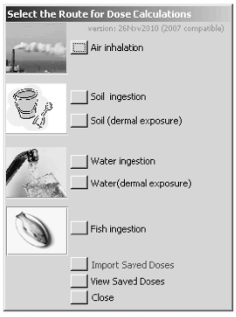
Slide 6

Land Reuse Screening Tool

- Can be used for Brownfields inventory
- Rapid site assessment
- Easy to use
- Uses site information to assess public health involvement.
- Includes an integrated Dose Calculator module
- Requires Microsoft® Access®



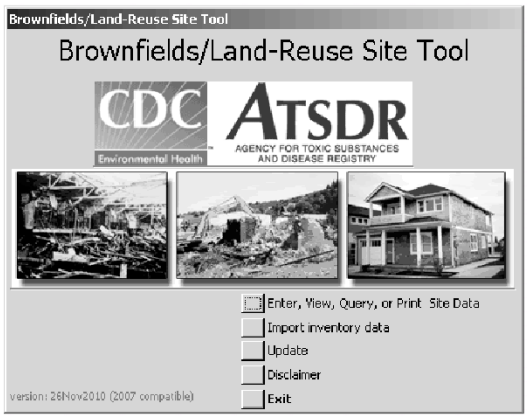




Slide 7

Brownfields/Land Re-use Site Tool

- This Tool is an inventory, rapid site screening and multiple chemical exposure dose calculating tool that allows users to assess sites by past/future use, institutional controls, sensitive populations, and suspected or confirmed contamination.



Gary

Slide 8

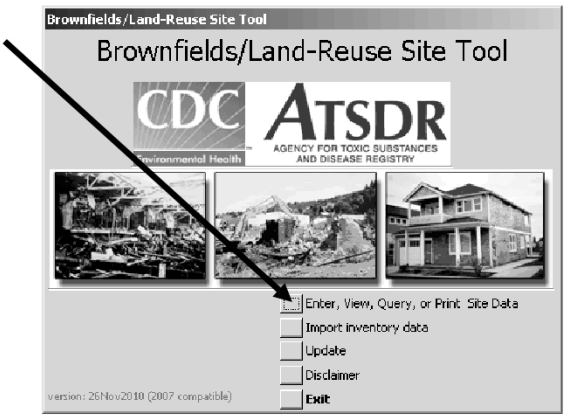
Brownfields/Land Re-use Site Tool

- **Evaluate exposures by defining exposed populations and sub-groups, multiple exposure pathways, user specific ingestion rates for population groups or use defaults**
- **Calculate doses using ranges of exposure parameters, 95% confidence intervals, geometric mean, and other statistical parameters.**
- **Test the data for Normal/Log Normal distributions Import and process laboratory data (10,000 data points per minute throughput)**
- **Import site data from Excel.**
- **Export data.**
- **Query data.**
- **Troubleshoot analytical problems.**
- **Set up quality-assurance or quality-control programs.**
- **Compare various laboratory methods.**

Slide 9

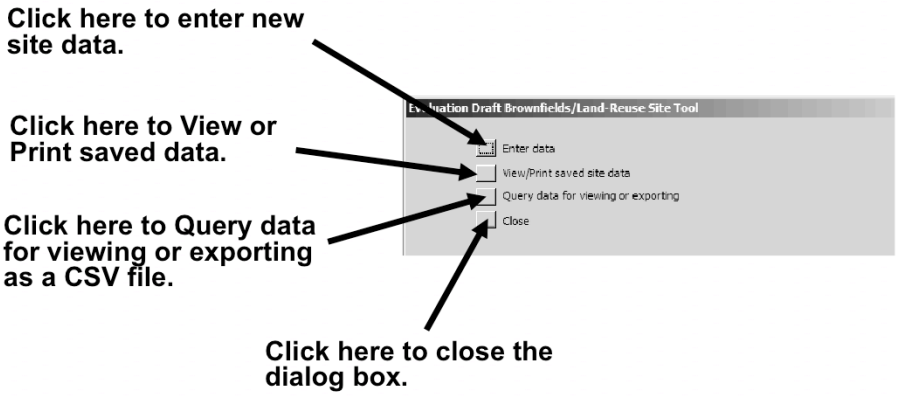
Brownfields/Land Re-use Site Tool

Start by clicking on the button labeled "Enter, View, Query, or Print Site Data"



Slide 10

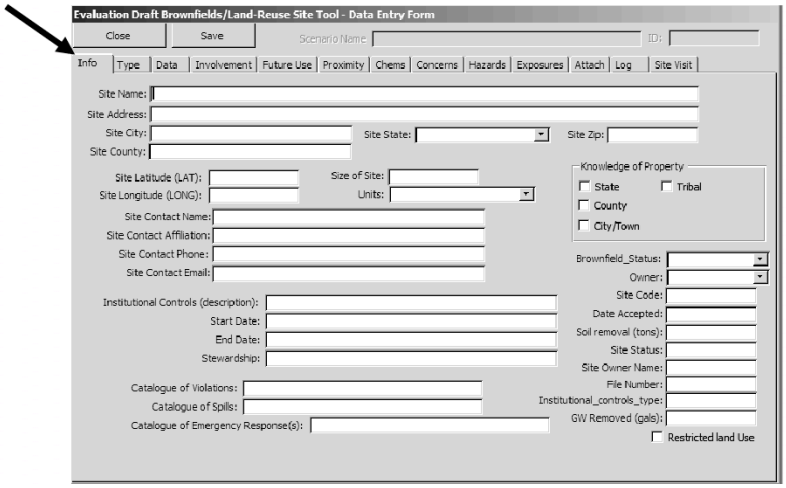
Brownfields/Land Re-use Site Tool



Slide 11

Brownfields/Land Re-use Site Tool

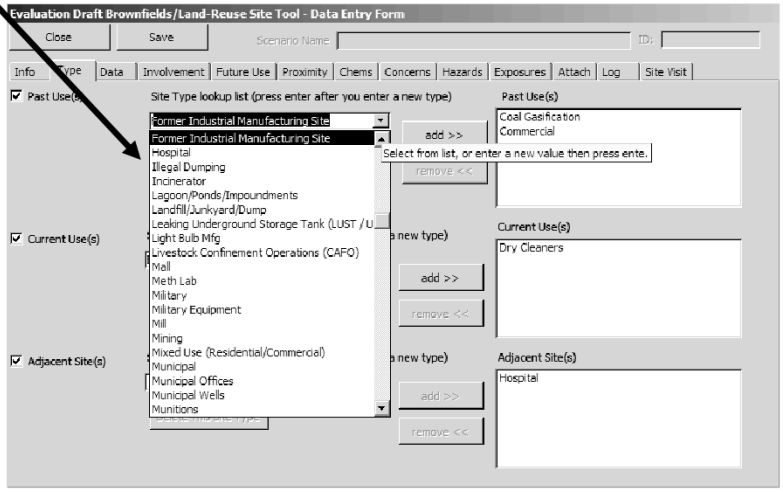
The information for each site is entered on a series of 13 screens. The screens are also known as "pages". The first page contains information related to "Site Information". Enter the site information, then click on the name of the next "page".



Slide 12

Brownfields/Land Re-use Site Tool

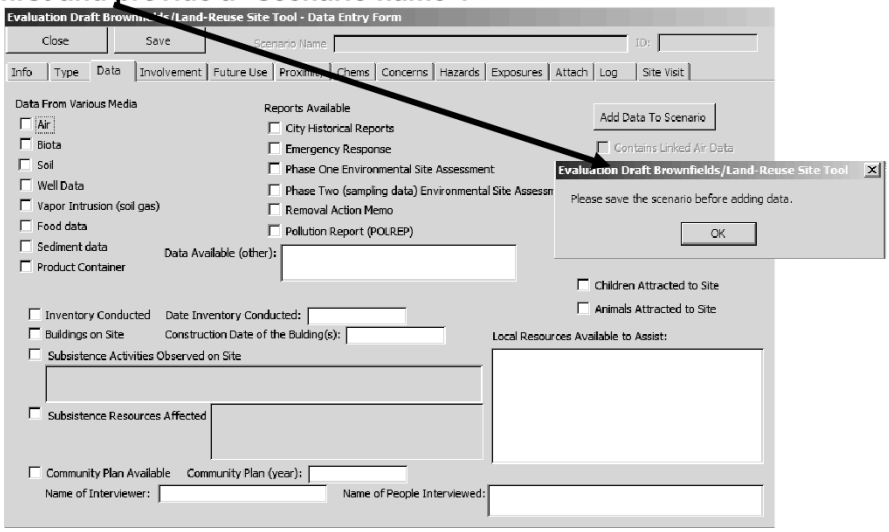
Enter "Past type(s), Current Uses, and Adjacent site(s) information. Select from the list and add to the box to the right.



Slide 13

Brownfields/Land Re-use Site Tool

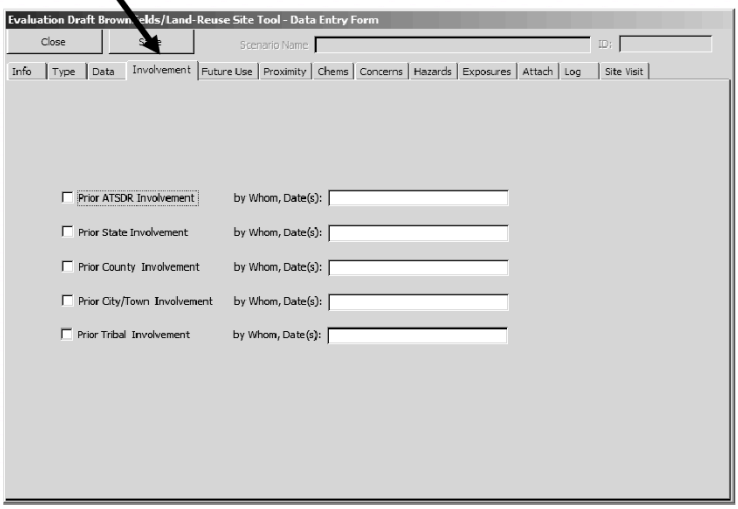
Enter information on this page labeled "Data" then click the next "page". If you will be importing analytical data, save the site data first and provide a "scenario name".



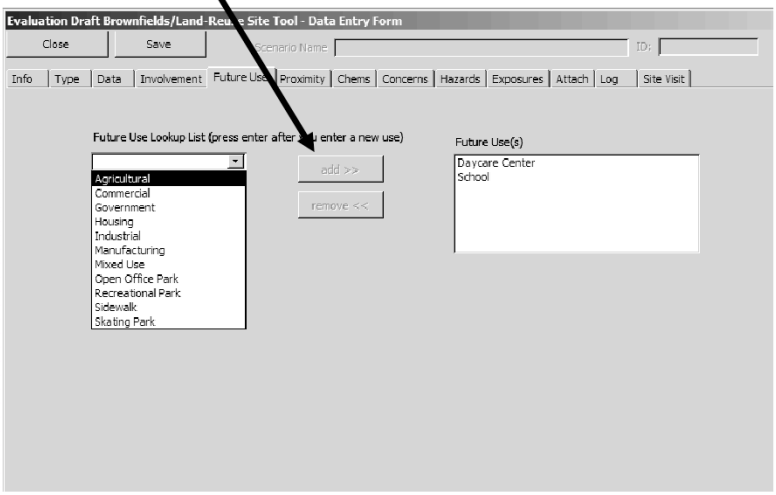
Slide 14

Brownfields/Land Re-use Site Tool

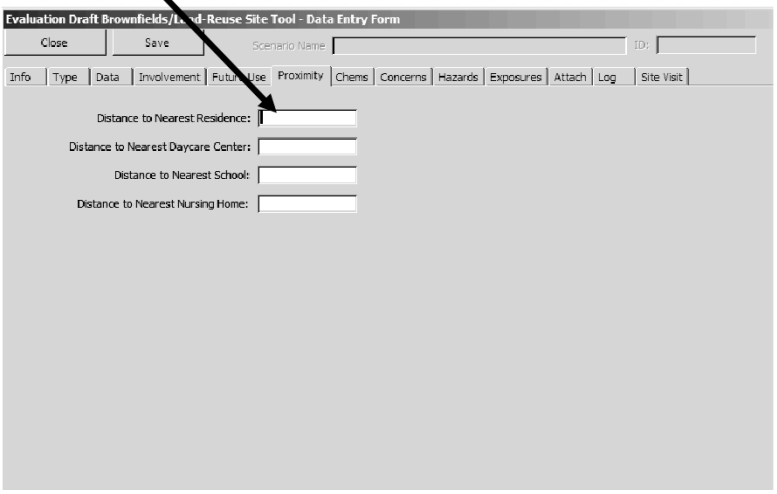
Enter information on this page labeled "Involvement" then click the next "page".



Enter "future Use" information. Select from the list and add to the box to the right.



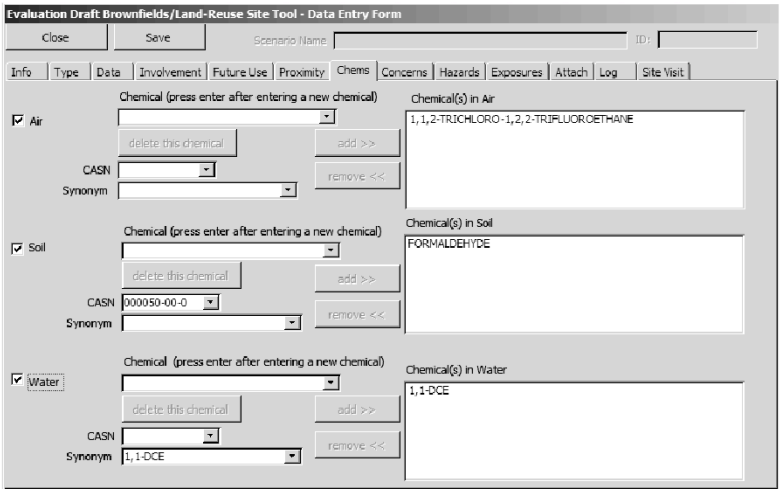
Enter information on this page labeled "Proximity" then click the next "page".



Slide 17

Brownfields/Land Re-use Site Tool

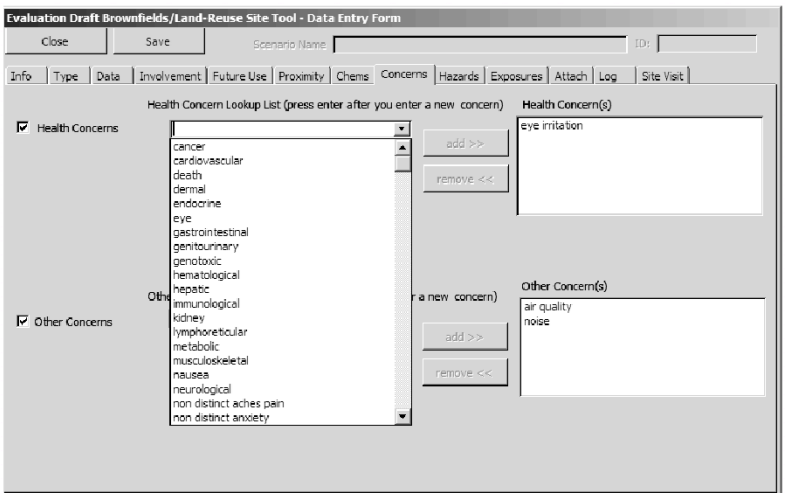
The information on this page is descriptive only chemical names will be saved. Select the chemical name then click "add>>" to add it to the site information to be saved. Analytical data can only be imported on the Data page.



Slide 18

Brownfields/Land Re-use Site Tool

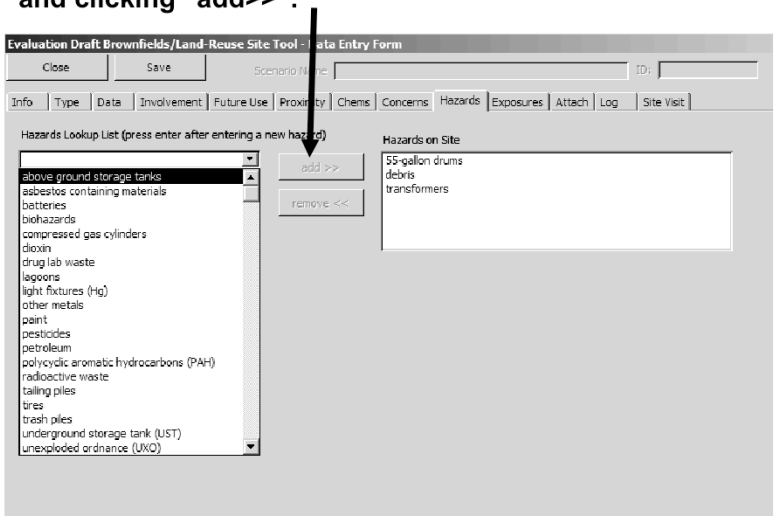
Enter health and other concerns by selecting from the list and clicking "add>>".



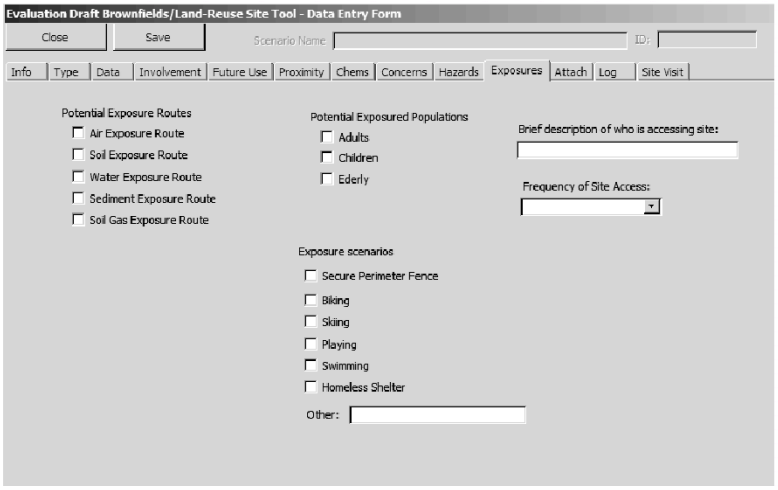
Slide 19

Brownfields/Land Re-use Site Tool

Enter information on this page labeled "Hazards" then click the next "page". The hazards are entered by selecting from the list and clicking "add>>".



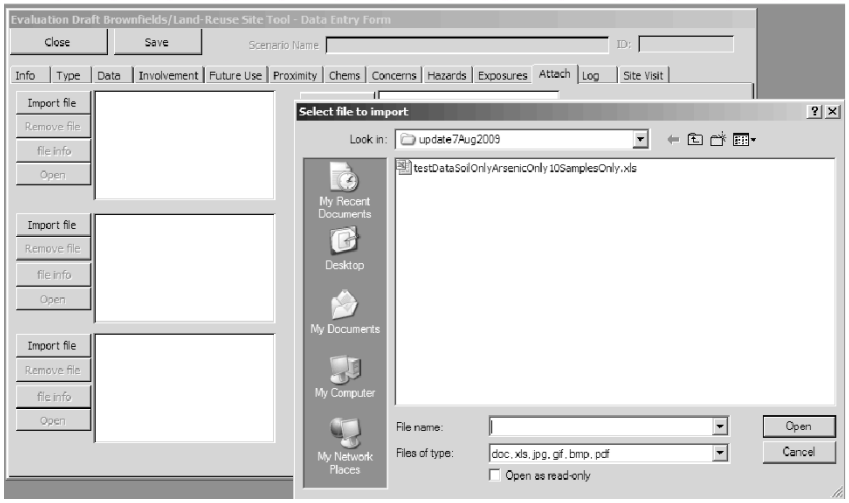
Enter information on this page labeled "Exposure". Then click on the tab labeled "Attach."



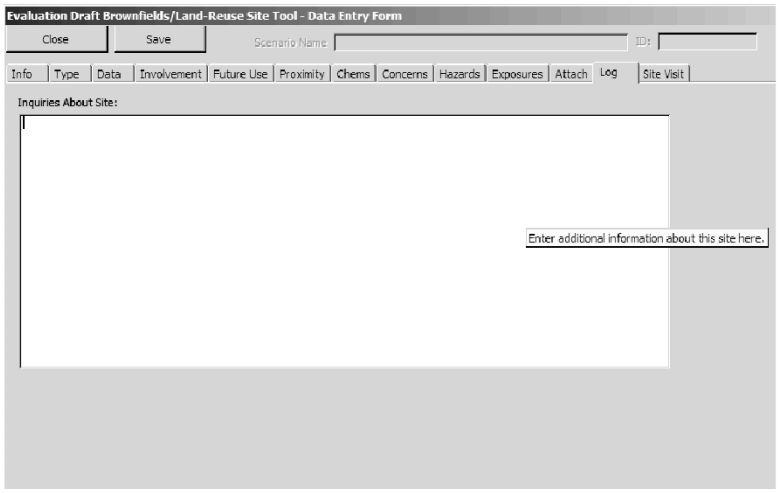
Slide 21

Brownfields/Land Re-use Site Tool

You may attach up to 5 files (documents, spreadsheets, image files or PDF files).



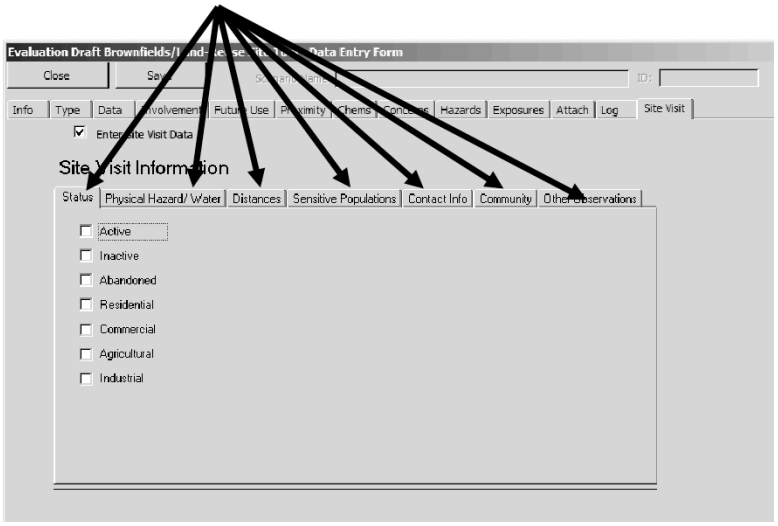
Enter additional information about the site here.



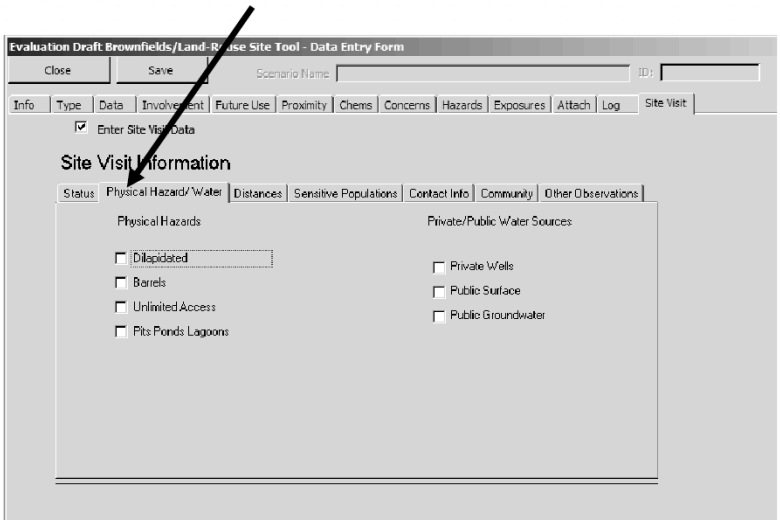
Slide 23

Brownfields/Land Re-use Site Tool

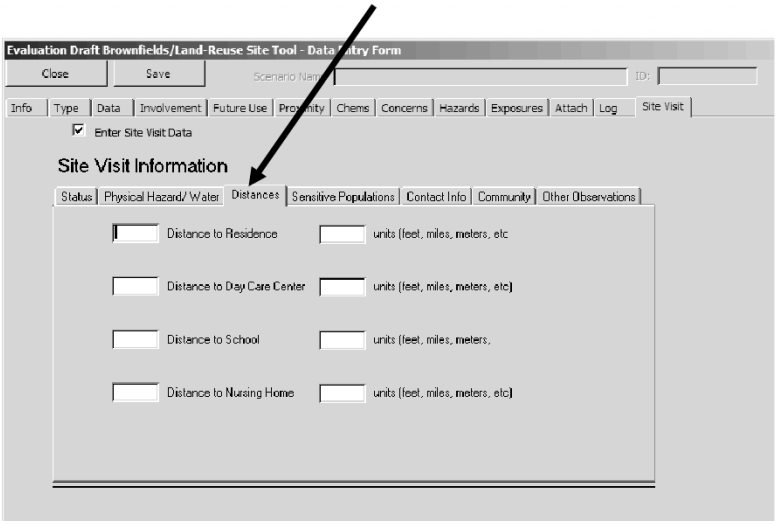
Site visit information (if available) can be entered on this page and sub-pages.



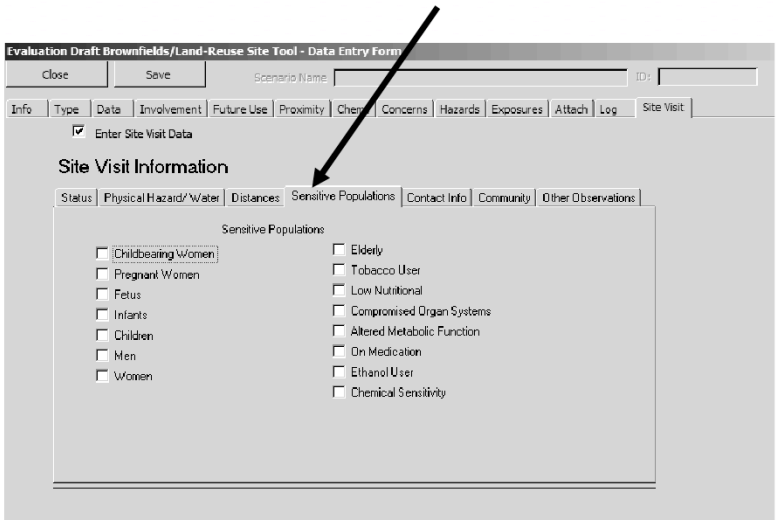
Site Visit sub-pages: Physical Hazard/Water



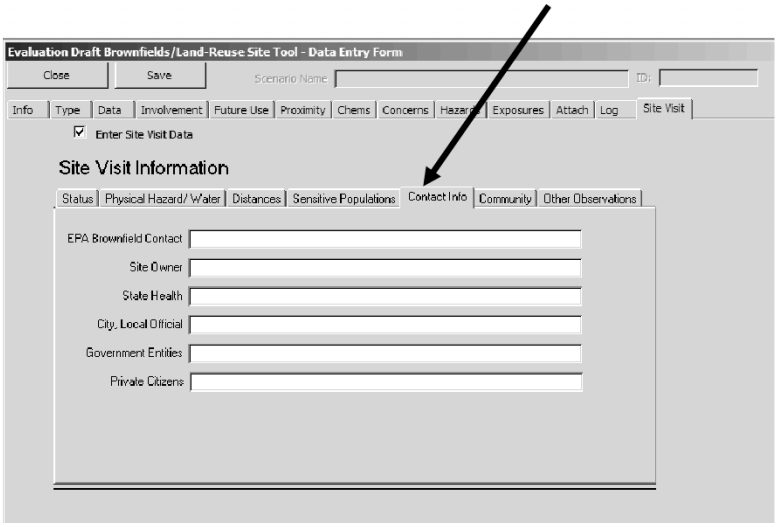
Site Visit sub-pages: Distances



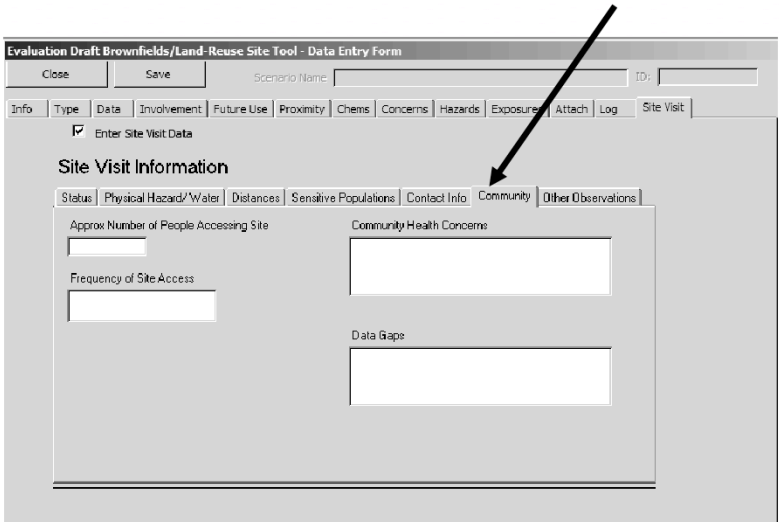
Site Visit sub-pages: Sensitive Populations



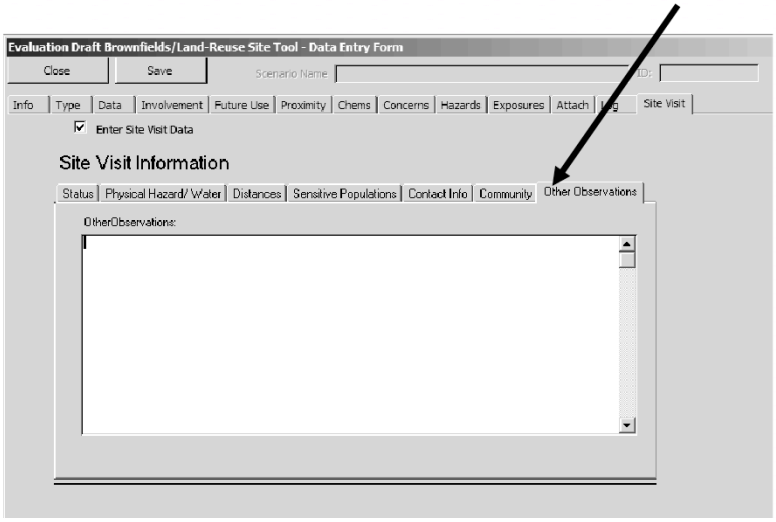
Site Visit sub-pages: Contact Info



Site Visit sub-pages: Community



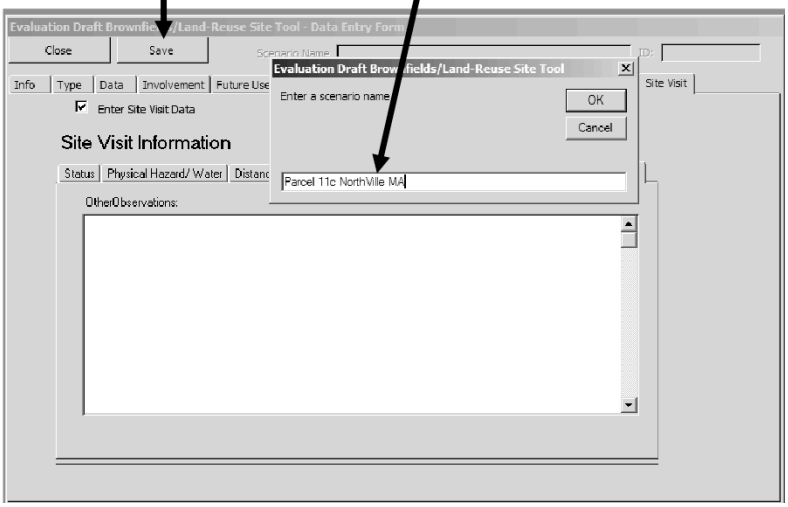
Site Visit sub-pages: Other Observations



Slide 30

Brownfields/Land Re-use Site Tool

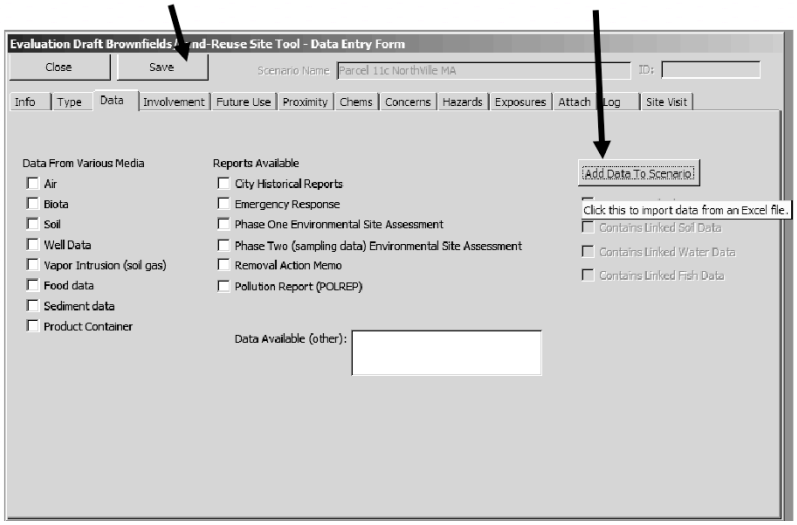
Click on Save, then enter a scenario name.



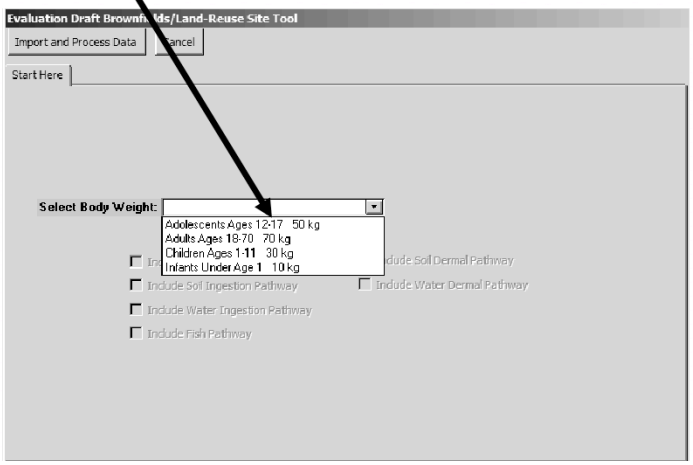
Slide 31

Brownfields/Land Re-use Site Tool

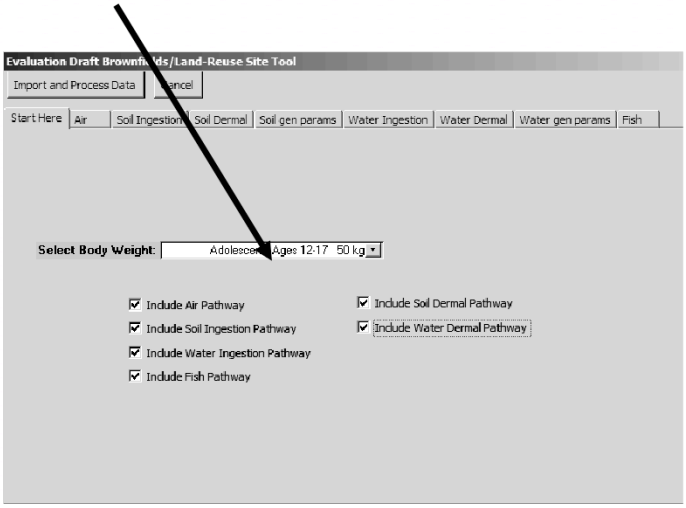
Importing analytical data. Click on the "Data" page, then click on "Add Data To Scenario".



Select body weight for the dose calculations that will be conducted on the imported data.

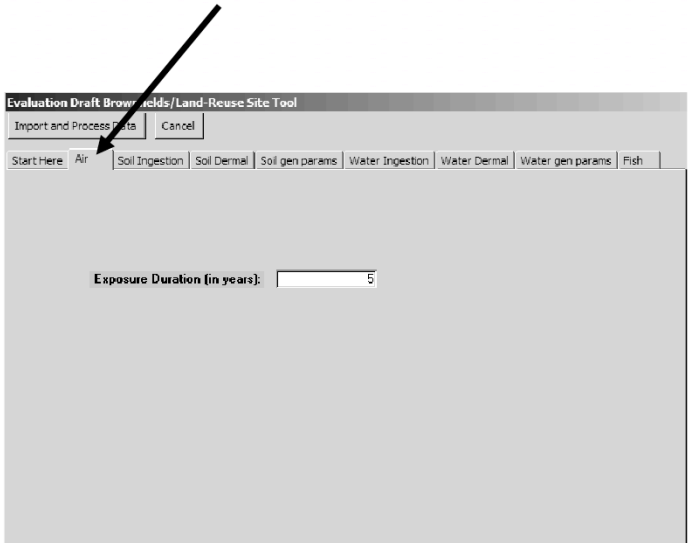


Then select the pathways to analyze. The database will check for each pathway in the datafile.



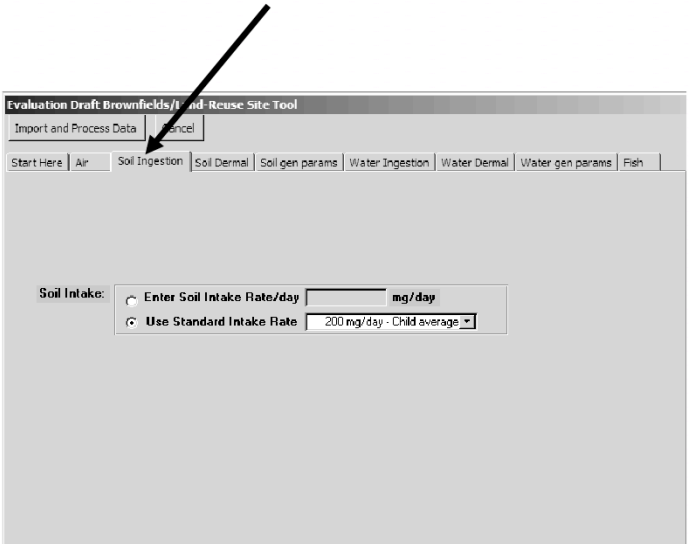
Brownfields/Land Re-use Site Tool

Enter the pathway-specific parameters.

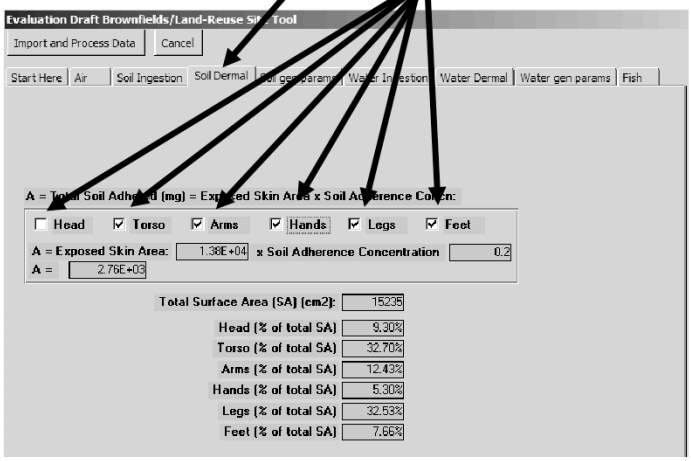


Slide 35

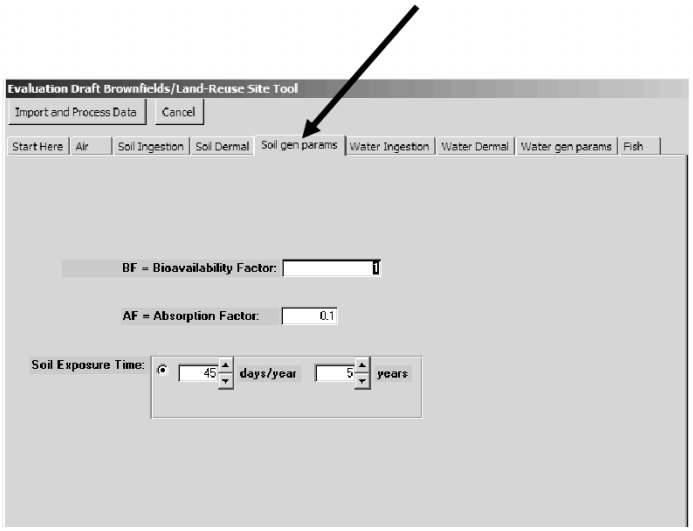
Enter the pathway-specific parameters.



Enter the pathway-specific parameters. (Select areas exposed to contaminants).



Enter the pathway-specific parameters.



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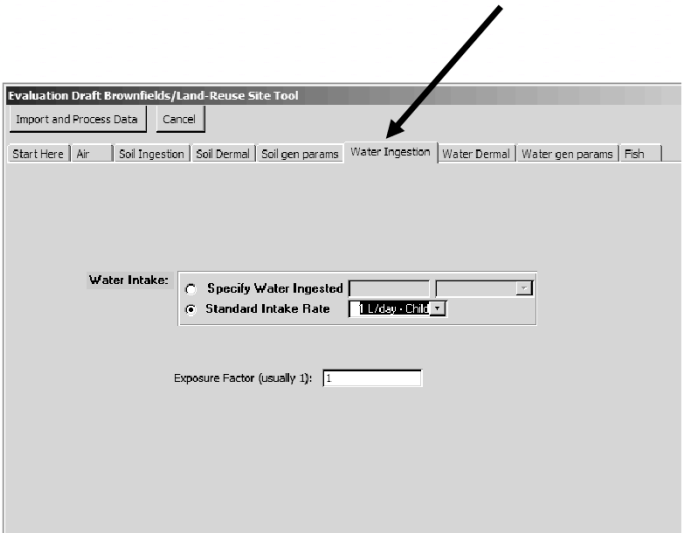
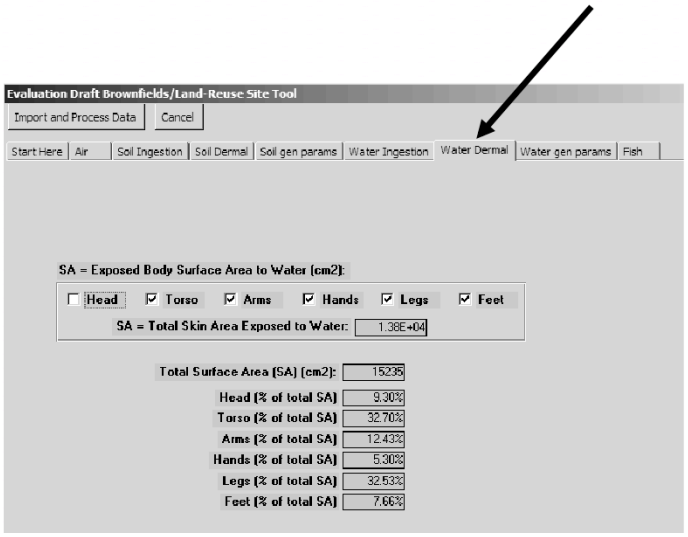
Brownfields/Land Re-use Site Tool

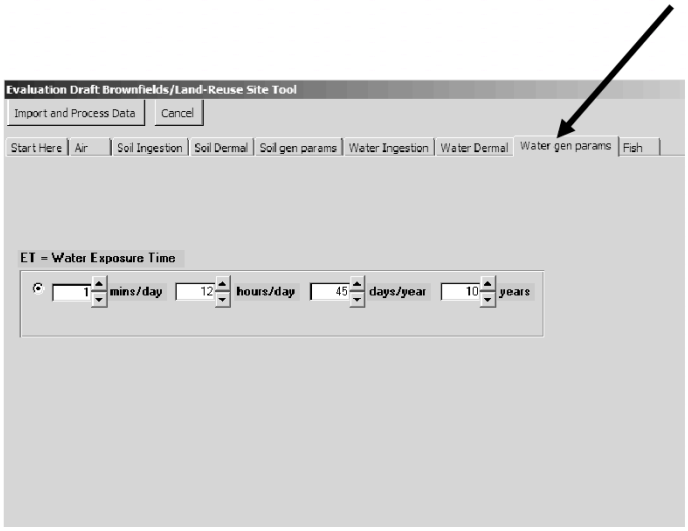
Enter the pathway-specific parameters.



Enter the pathway-specific parameters.

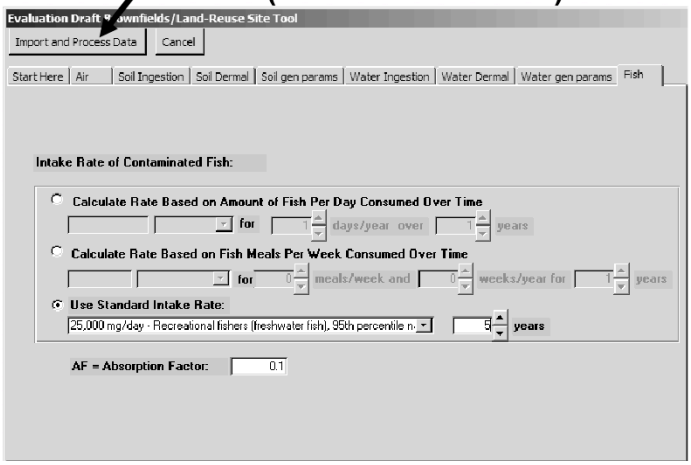


Enter the pathway-specific parameters.



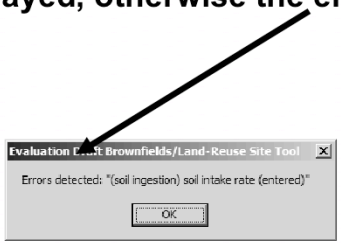
Enter the pathway-specific parameters.

Click on "Import and Process Data". The data will be imported from a previously formatted file. The data must be formatted using the companion tool "Data Conversion Tool" (see next 12 slides).

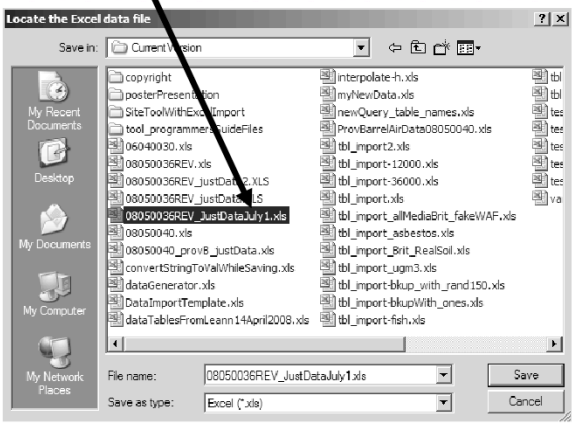


Brownfields/Land Re-use Site Tool

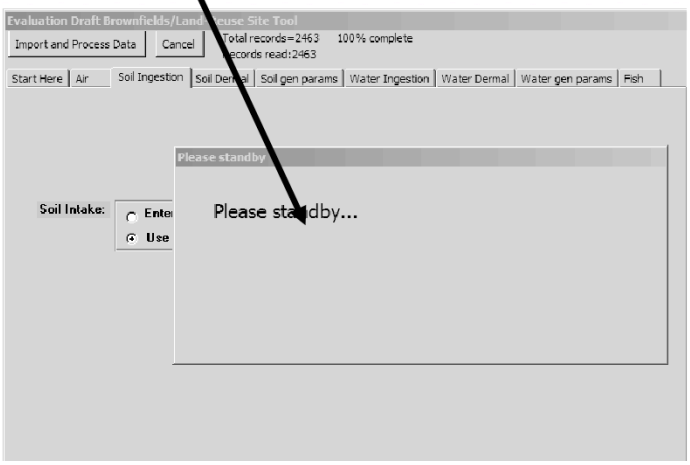
If there are no errors in the exposure parameters the following dialog will be displayed, otherwise the error(s) will be identified.



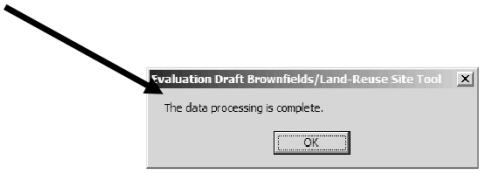
Locate the spreadsheet then click save. This system is only able to import xls files.



The number of records will be display along with the percent of all records read.



If there are any errors in the data (missing heading file, incorrect media, etc) they will be displayed. Otherwise, the dialog listed below will be displayed.



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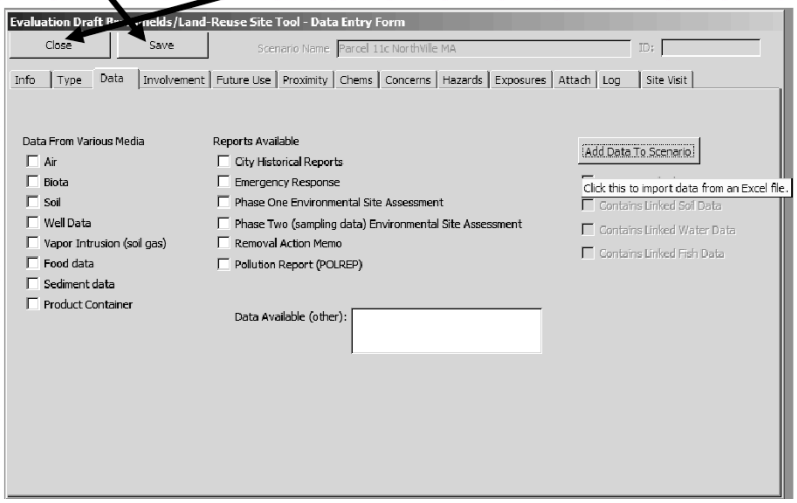
Brownfields/Land Re-use Site Tool

Save the data, then click on Close.



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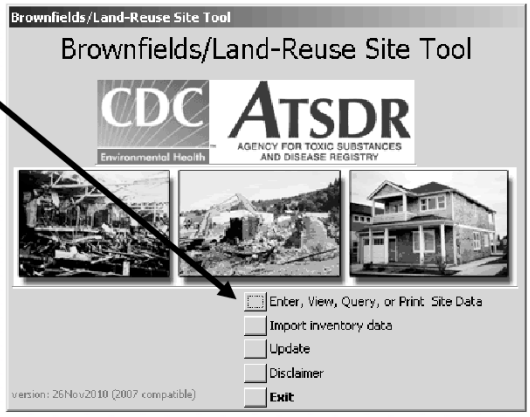
Brownfields/Land Re-use Site Tool

To view and print the processed data, click on the top button.



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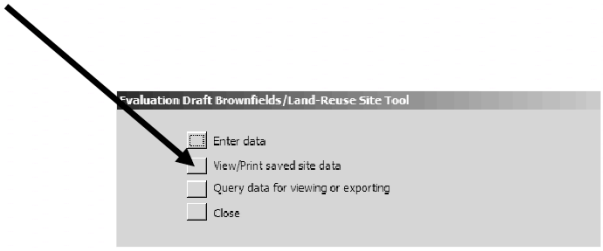
Brownfields/Land Re-use Site Tool

Click on View/Print site data



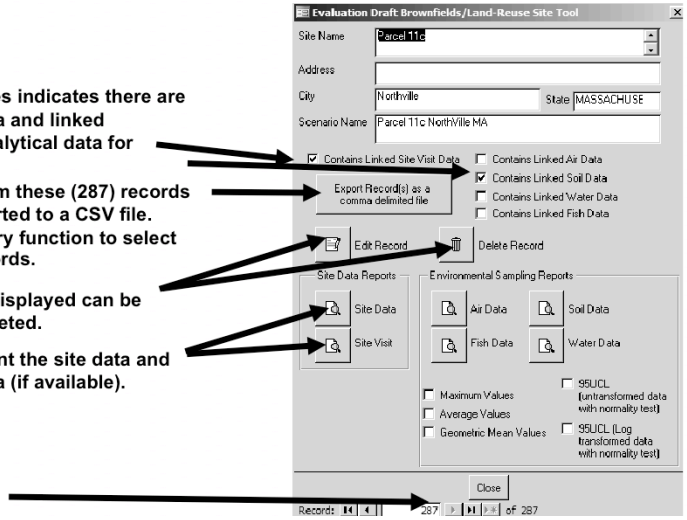
The most recent site will be the last record. Use the query function to search for a specific record.

A checkboxes indicates there are site visit data and linked imported analytical data for viewing

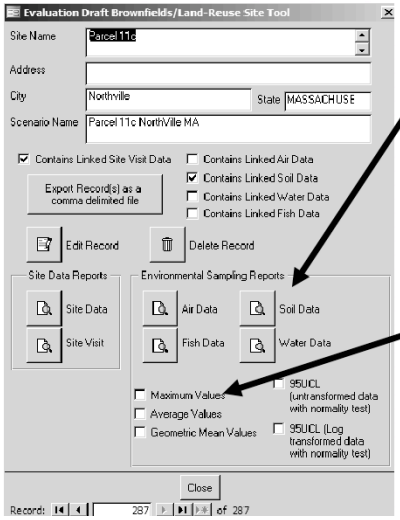
The data from these (287) records can be exported to a CSV file. Use the Query function to select specific records.

The record displayed can be edited or deleted.

View and print the site data and site visit data (if available).



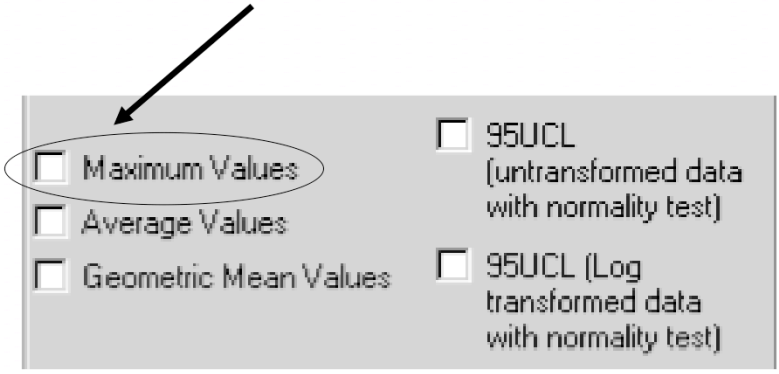
The most recent site will be the last record. Use the query function to search for a specific record.



View and print the analytical dose calculations report for available media

View and print various reports. The dose calculation in each report is based on the statistical parameter in the report name (e.g., view the dose calculation based on the Maximum).

Reports – Maximum Values



Reports – Maximum values used in the calculations

Soil-Results based on the maximum values.

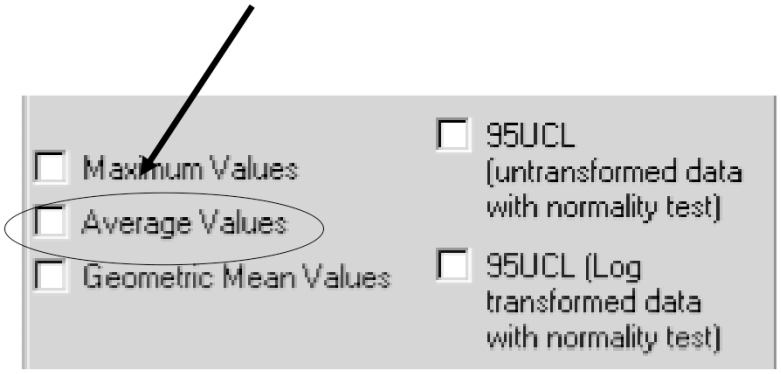
bw: 5.00E+01 *IR:* 2.00E+02 *A:* 0.00E+00 *BF:* 1.00E+00 *SA:* 0.00E+00
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:*

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*MXConc*	*IngDose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Arsenic	007440-38-2	ppm	Soil CREG	5E-01	Y	11	0	11	1.9E+01	7.6E-05		8.1E-06	

acute MRL: 5.E-03
int MRL: n/a
chr MRL: 3.E-04

```
min=2.7E+0, Q1=4.5E+0, median=6.5E+0, arithmetic mean=7.8E+0, Q3=1.0E+1, max=1.9E+1, range=1.6E+1
MN.....Q1.....Q2.....Q3.....MX
CV.....
```

Reports – Average Values



Reports – Average (arithmetic mean) values used in the calculations

Soil-Results based on the arithmetic mean.

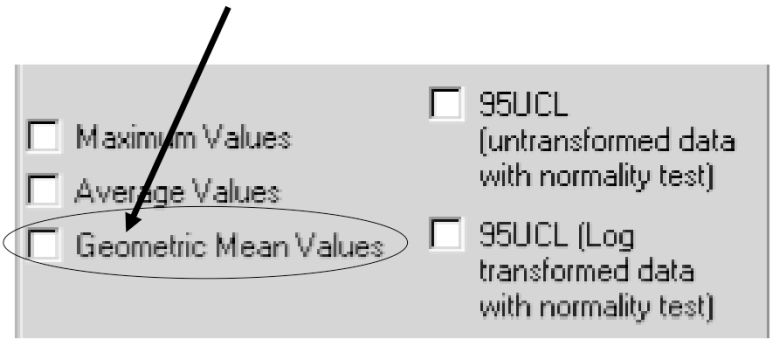
bw: 5.00E+01 *IR:* 2.00E+02 *A:* 0.00E+00 *BF:* 1.00E+00 *SA:* 0.00E+00
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:*

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND*	*>CV*	*AvgConc*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.														
Arsenic	007440-38-2	ppm	Soil CREG	5E-01		Y	11	0	11	7.8E+00	3.1E-05		3.3E-08	

acute MRL: 5.E-03
int MRL: n/a
chr MRL: 3.E-04

```
min=2.7E+0, Q1=4.5E+0, median=6.5E+0, arithmetic mean=7.8E+0, Q3=1.0E+1, max=1.9E+1, range=1.6E+1
MN.....Q1.....Q2.....Q3.....MX
CV.....
```

Reports – Geometric Mean Values



Reports – Geometric Mean values used in the calculations

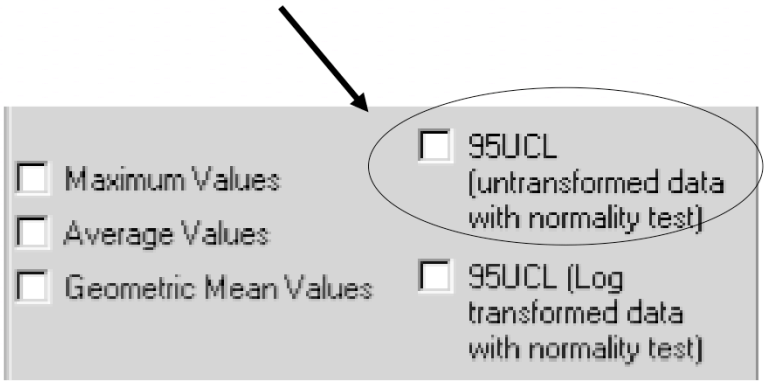
Soil-Results based on the geometric mean.

bw: 5.00E+01 *IR:* 2.00E+02 *A:* 0.00E+00 *BF:* 1.00E+00 *SA:* 0.00E+00
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:*

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*GMConc*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Arsenic	007440-38-2	ppm	Soil CREG	5E-01	Y	11	0	11	6.8E+00	2.7E-05		2.9E-06	
									acute MRL: 5.E-03 int MRL: n/a chr MRL: 3.E-04				

```
min=2.7E+0, Q1=4.5E+0, median=6.5E+0, arithmetic mean=7.5E+0, Q3=1.0E+1, max=1.9E+1, range=1.6E+1
MN.....Q1.....Q2.....Q3.....MX
CV.
```

Reports – 95 UCL (untransformed data)



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Reports –95 UCL (untransformed data) values used in the calculations

Soil-Results based on the 95% UCL of the arithmetic mean values.

bw: 5.00E+01 *IR:* 2.00E+02 *A:* 0.00E+00 *BF:* 1.00E+00 *SA:* 0.00E+00
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:*

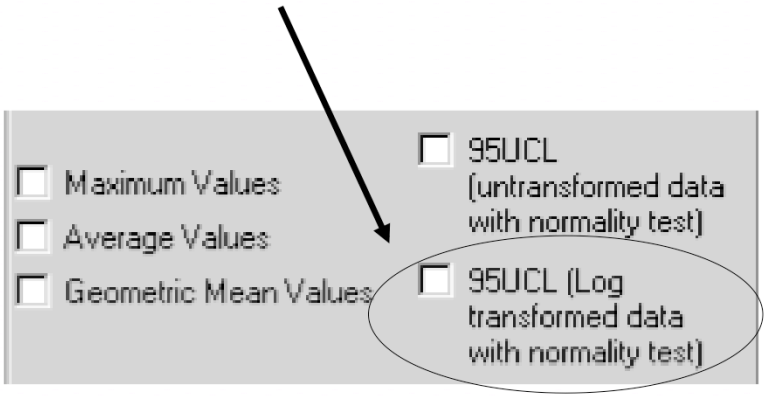
Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*UCL*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Benzo(a)anthracene	000056-55-3	ppm	PRG ResSoil	1E-01	Y	12	0	12	2.0E+01	8.1E-05			

acute MRL: n/a
int MRL: n/a
chr MRL: n/a

min=1.2E+0, Q1=2.1E+0, median=3.E+0, arithmetic mean=9.E+0, Q3=7.E+0, max=6.5E+1, range=6.4E+1
MM2Q2..Q3.....MX
CV.....

W-Stat=4.5e-1 p-value=8.2e-6 * p-value is < 0.05. These data are not normally distributed.

Reports – 95 UCL (Log transformed data)



Reports –95 UCL (Log transformed data) values used in the calculations

Soil-Results based on the 95% UCL of the Log transformed values.

bw: 5.00E+01 *IR:* 2.00E+02 *A:* 0.00E+00 *BF:* 1.00E+00 *SA:* 0.00E+00
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:*

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*UCL_log*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Arsenic	007440-38-2	ppm	Soil CREG	5E-01	Y	11	0	11	1.2E+01	4.6E-05		5.0E-06	
									acute MRL: 5.E-03 int MRL: n/a chr MRL: 3.E-04				

min=2.7E+0, Q1=4.5E+0, median=6.5E+0, arithmetic mean=7.8E+0, Q3=1.0E+1, max=1.9E+1, range=1.6E+1
MN.....Q1.....Q2.....Q3.....MX
CV.....

W-Stat=9.7e-1 p-value=8.4e-1 These data are Log- normally distributed.

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Dose report - interpretation Key 1 of 5

"CV"= comparison value
">CV"= Number of data points above the comparison value
"N"= Number of data points
"#ND"= Number of data points that are non detect
"#non ND>CV"= Number of data points that contained a value that was above the CV
"MXConc"= Maximum concentration
"Ing Dose"= Ingestion dose based on the Maximum Concentration
"DermalDose"= Dermal dose based on the Maximum Concentration
"IngestCa"= Ingestion cancer risk based on exposure parameters using the Maximum Concentration
"DermCa"= Dermal cancer risk based on exposure parameters using the Maximum Concentration

Soil-Results based on the maximum values.

bw: 5.00E+01 *IR:* 2.00E+02 *A:* 2.76E+03 *BF:* 1.00E+00 *SA:* 1.38E+04
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:* torso,arms,hands,legs,feet.

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*MXConc*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Arsenic	007440-38-2	ppm	Soil CREG	5E-01	Y	16	0	16	3.1E+01	1.2E-04	2.1E-05	1.3E-05	2.3E-06
									acute MRL: 5.E-03 int MRL: n/a chr MRL: 3.E-04				
					min=1.7E+0, Q1=4.6E+0, median=8.1E+0, arithmetic mean=7.8E+0, Q3=8.7E+0, max=3.1E+1, range=2.7E+1 MNQ1Q2.....Q3.....MX CV.....				
Benzo(a)anthracene	000056-55-3	ppm	PRG ResSoil	1E-01	Y	16	14	2	8.3E-01	3.3E-06	5.7E-07		
									acute MRL: n/a int MRL: n/a chr MRL: n/a				

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Dose report - interpretation Key 2 of 5

"bw"= Body weight (kg)
"AF"= Absorption fraction (unitless)
"IR"= Ingestion rate (mg/day)
"EF"=Exposure factor (unitless)
"ED_yrs"=Exposure duration (yrs)
"BF"=Bioavailability factor (unitless)
"SA"=Surface Area (cm^2)
"A"= Total soil adhered (exposed skin * soil adherence concentration) (mg)
"limbs"=Areas of the body that were selected for the exposure scenario

Soil-Results based on the maximum values.

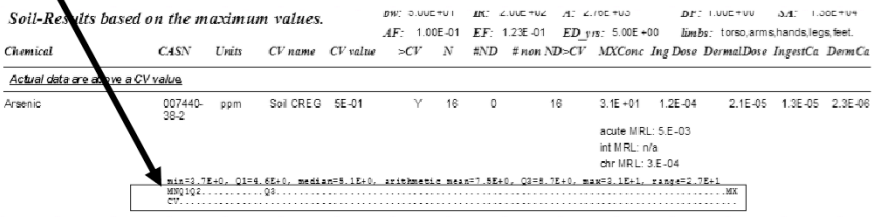
bw: 5.00E+01 *IR:* 2.00E+02 *A:* 2.76E+03 *BF:* 1.00E+00 *SA:* 1.38E+04
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:* torso,arms,hands,legs,feet.

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*MXConc*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Arsenic	007440-38-2	ppm	Soil CREG	5E-01	Y	16	0	16	3.1E+01	1.2E-04	2.1E-05	1.3E-05	2.3E-06
									acute MRL: 5.E-03 int MRL: n/a chr MRL: 3.E-04				
					min=2.7E+0, Q1=4.6E+0, median=8.1E+0, arithmetic mean=7.8E+0, Q3=8.7E+0, max=3.1E+1, range=2.7E+1 MMQ1Q2.....Q3.....MX CV.....				
Benzo(a)anthracene	000056-55-3	ppm	PRG ResSoil	1E-01	Y	16	14	2	8.3E-01	3.3E-06	5.7E-07		
									acute MRL: n/a int MRL: n/a chr MRL: n/a				

Dose report - interpretation Key 3 of 5

"acute MRL"= Acute MRL
"int MRL"= Intermediate MRL
"chr MRL"= Chronic MRL
"n/a"= not available
"5E-01"= Scientific notation for 0.5
"Y"=yes, used to indicate that at least one data point was above the CV
"min"= Minimum value
"Q1"= First quartile (25% of the data)
"Q2"= Second quartile (50% of the data)
"median"=Middle value, half of the data points are above this value, also known as the Q2
"arithmetic mean"= average value of the raw (non-transformed) data
"Q3"= Third quartile (75% of the data)
"max"= Maximum value
"range"=Maximum minus the minimum

The two lines below graphically depict the spread (distribution of the data relative to the comparison value (see next slide for an enlarged version).



Soil-Results based on the maximum values.

BW: 3.00E+01 *IR:* 2.00E+02 *AT:* 2.75E+03 *DF:* 1.00E+00 *SA:* 1.30E+04
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:* torso,arms,hands,legs,feet.

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*MXConc*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Arsenic	007440-38-2	ppm	Soil CREG	5E-01	Y	18	0	18	3.1E+01	1.2E-04	2.1E-05	1.3E-05	2.3E-06

acute MRL: 5.E-03
int MRL: n/a
chr MRL: 3.E-04

min=3.7E+0, Q1=9.6E+0, median=8.1E+0, arithmetic mean=7.8E+0, Q3=8.7E+0, max=3.1E+1, range=2.7E+1
MMQ1Q2.....Q3.....MX
CV.....

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Brownfields/Land Re-use Site Tool

Dose report - interpretation Key 4 of 5

There are 100 dots from the minimum to the maximum. Each dot represents the range/100. This is an arbitrary depiction of the data , and is used to provide a general visual picture of how the data are distributed.

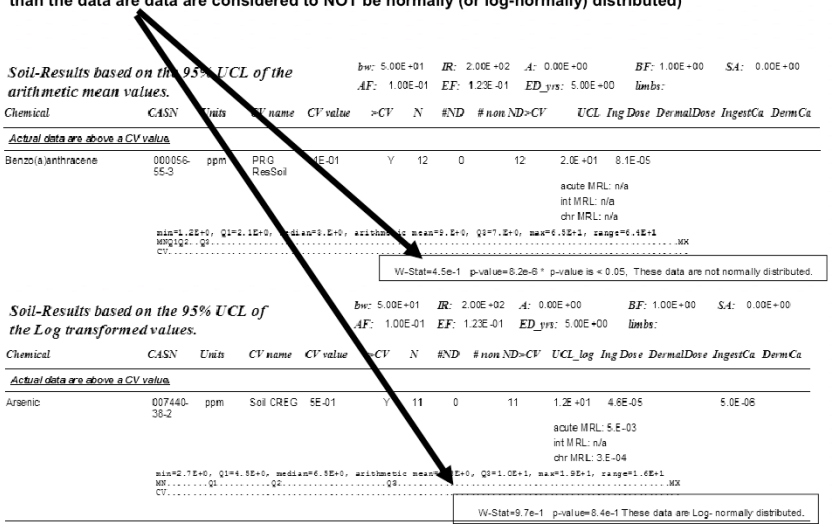
```
min=3.7E+0, Q1=4.6E+0, median=5.1E+0, arithmetic mean=7.5E+0, Q3=8.7E+0, max=3.1E+1, range=2.7E+1
MNQ1Q2...........Q3.......................................................................MX
CV.........................................................................................
```

Dose report - interpretation Key 5 of 5

The 95% UCL of the Log transformed data and the 95% UCL of the un transformed reports contain an additional line of information.

"WL"= shapiro-wilk W statistic for normality

"p-value"= the probability that the data are normally (or log-normally) distributed. If this value is less than 0.05 than the data are data are considered to NOT be normally (or log-normally) distributed)



Soil-Results based on the 95% UCL of the arithmetic mean values.

bw: 5.00E+01 *IR:* 2.00E+02 *A:* 0.00E+00 *BF:* 1.00E+00 *SA:* 0.00E+00
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:*

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*UCL*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Benzo(a)anthracene	000056-55-3	ppm	PRG ResSoil	1E-01	Y	12	0	12	2.0E+01	8.1E-05			

acute MRL: n/a
int MRL: n/a
chr MRL: n/a

min=1.2E+0, Q1=2.1E+0, median=3.E+0, arithmetic mean=9.E+0, Q3=7.E+0, max=6.5E+1, range=6.4E+1
MN.....Q1.....Q2.....Q3.....MX
CV

W-Stat=4.5e-1 p-value=8.2e-6 * p-value is < 0.05, These data are not normally distributed.

Soil-Results based on the 95% UCL of the Log transformed values.

bw: 5.00E+01 *IR:* 2.00E+02 *A:* 0.00E+00 *BF:* 1.00E+00 *SA:* 0.00E+00
AF: 1.00E-01 *EF:* 1.23E-01 *ED_yrs:* 5.00E+00 *limbs:*

Chemical	*CASN*	*Units*	*CV name*	*CV value*	*>CV*	*N*	*#ND*	*# non ND>CV*	*UCL_log*	*Ing Dose*	*DermalDose*	*IngestCa*	*DermCa*
Actual data are above a CV value.													
Arsenic	007440-38-2	ppm	Soil CREG	5E-01	Y	11	0	11	1.2E+01	4.6E-05		5.0E-06	

acute MRL: 5.E-03
int MRL: n/a
chr MRL: 3.E-04

min=2.7E+0, Q1=4.5E+0, median=6.5E+0, arithmetic mean=7.E+0, Q3=1.0E+1, max=1.9E+1, range=1.6E+1
MN.....Q1.....Q2.....Q3.....MX
CV

W-Stat=9.7e-1 p-value=8.4e-1 These data are Log- normally distributed.

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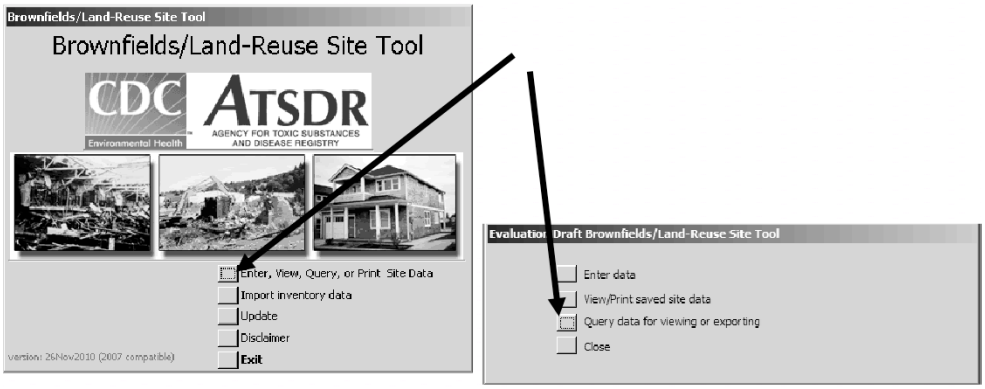
Brownfields/Land Re-use Site Tool

Query function

On the main screen, click "enter, View, Query, or Print Site Data". Then click on "Query data for viewing or exporting



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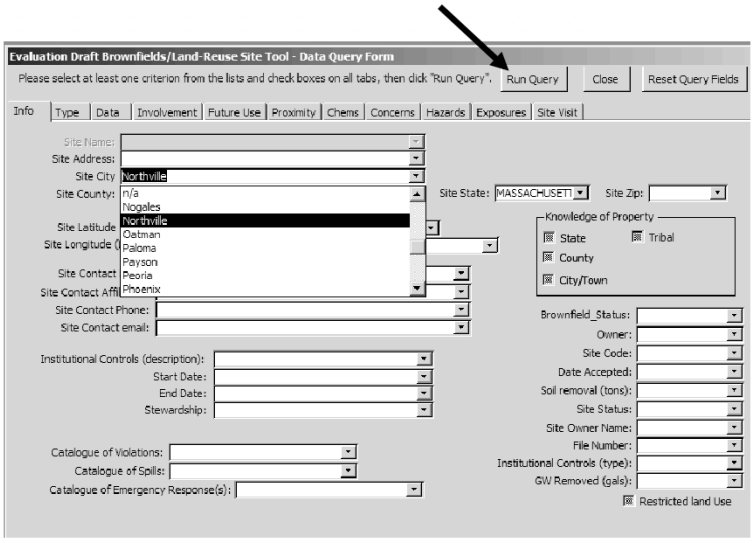
Brownfields/Land Re-use Site Tool

Query function

Select the criteria of the record(s) you are trying to locate then click "Run Query"



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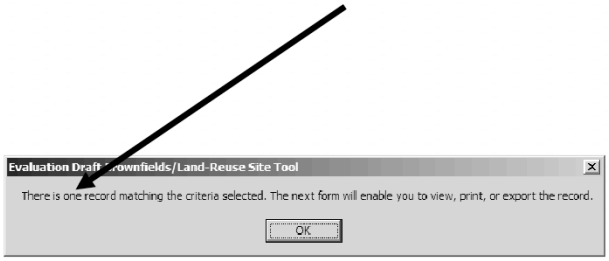
Query function

The number of record(s) matching the criteria are listed in the dialog box.



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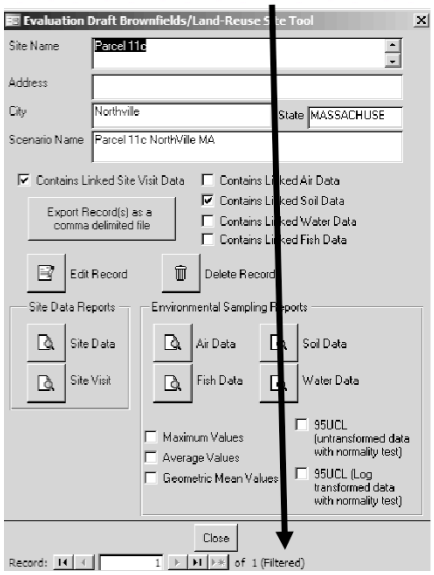
Query function

The record(s) matching the criteria are listed in the form below. (note the queried data are filtered and represent a subset of the entire data.)



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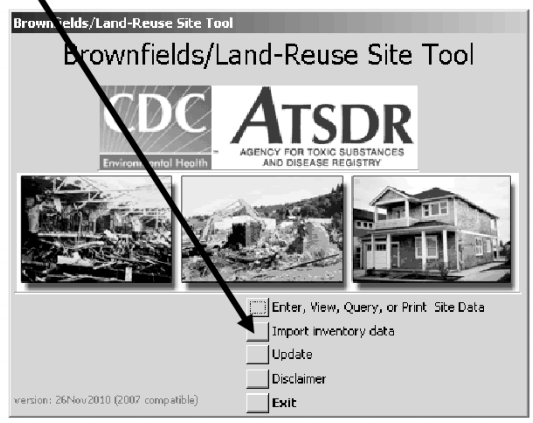
Brownfields/Land Re-use Site Tool

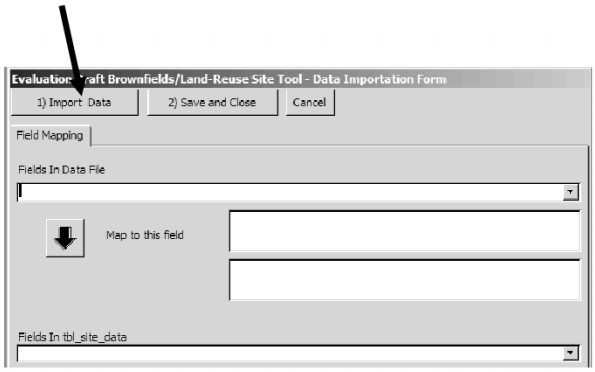
Import Inventory Data Function

Existing site data (not analytical data) can be imported by clicking on "Import inventory data."



Import Inventory Data Function

Click on "1) Import data"



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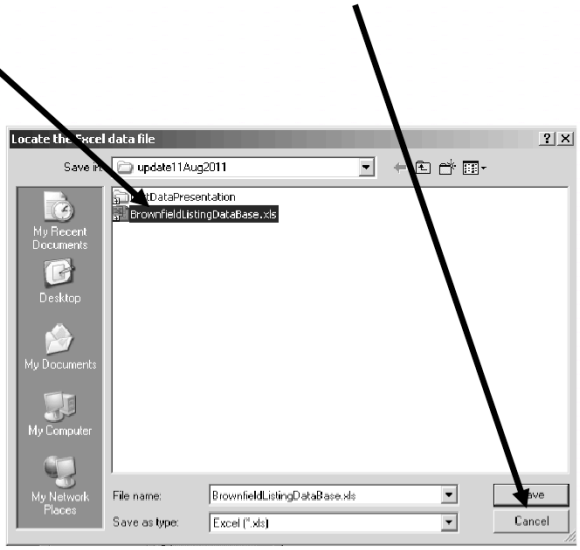
Brownfields/Land Re-use Site Tool

Import Inventory Data Function

Locate the date file containing Inventory Data, then click Save.



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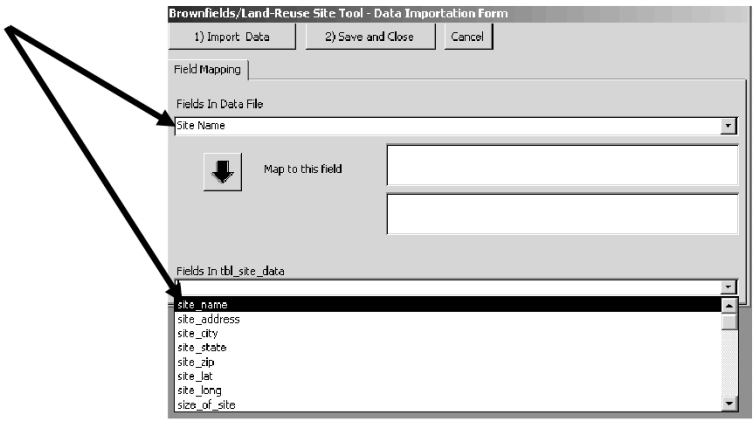
Brownfields/Land Re-use Site Tool

Import Inventory Data Function

Match fields in the imported data to the fields in the tool.



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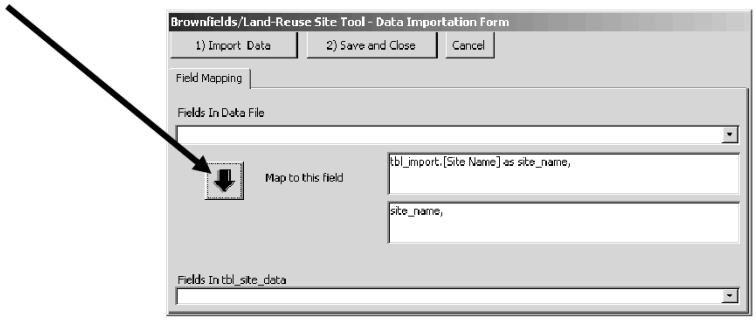
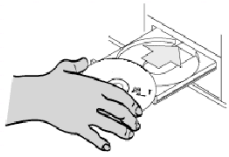
Import Inventory Data Function

Match each field in the data file to the fields in the table containing site data.

1) **Select the field from the top list (which contain the fields in the data file)**
2) **Select the matching field from the second list**
3) **Click on the Large Black Down Arrow.**
4) **When finished, click on Save and Close**
5) **Note: each record must contain a unique field that must be matched up with "scenario" in the bottom list.**



- **Updates distributed on CD**
- **Evaluating tablet platform**
- **Suggestions always welcome**



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For more information

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  US Public Health Service
  ATSDR Region 1

  gap6@cdc.gov

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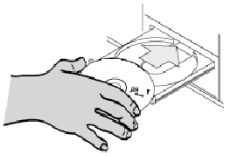
ATSDR Dose Calculator
quick guide



1) Insert the CD.

2) Copy the file named "DoseCalculatorNov2010WithImport.mde" from the CD to your computer.

3) The Dose Calculator requires Microsoft Office 2003 Professional with Service Pack_2. If your computer lacks Service Pack_2 you will not be able to run the Dose Calculator, and the following error is often displayed:

> Visual Basic for Applications (VBA) encountered a problem while attempting to access a property or method. The problem may be one of the following:
> A reference is missing.
> For help restoring missing references, see the Microsoft Knowledge Base article 283806.
>
> An Expression is misspelled.

4) Double click the file named "DoseCalculatorNov2010WithImport.mde" to run.

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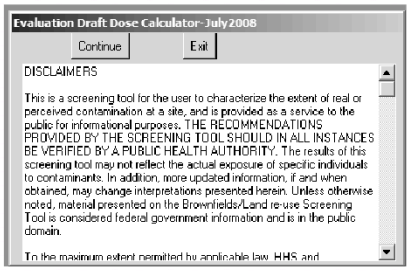
Disclaimer Screen



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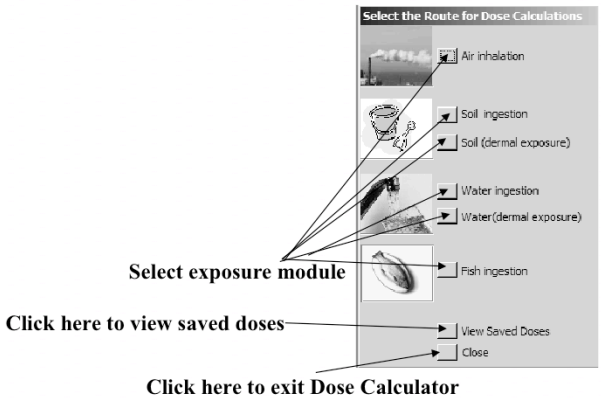
Exposure Module Selection Screen



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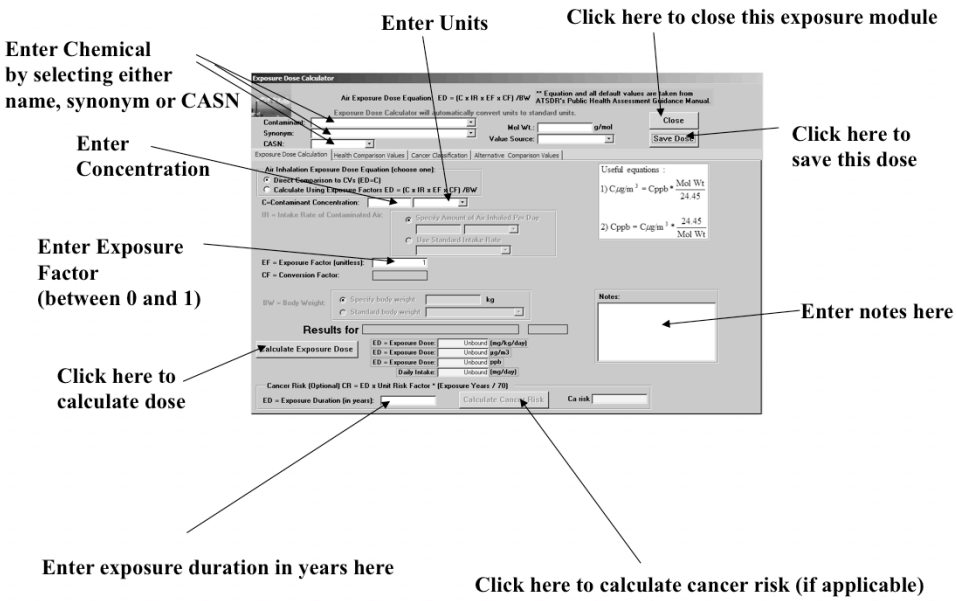
Air Exposure Module (example)



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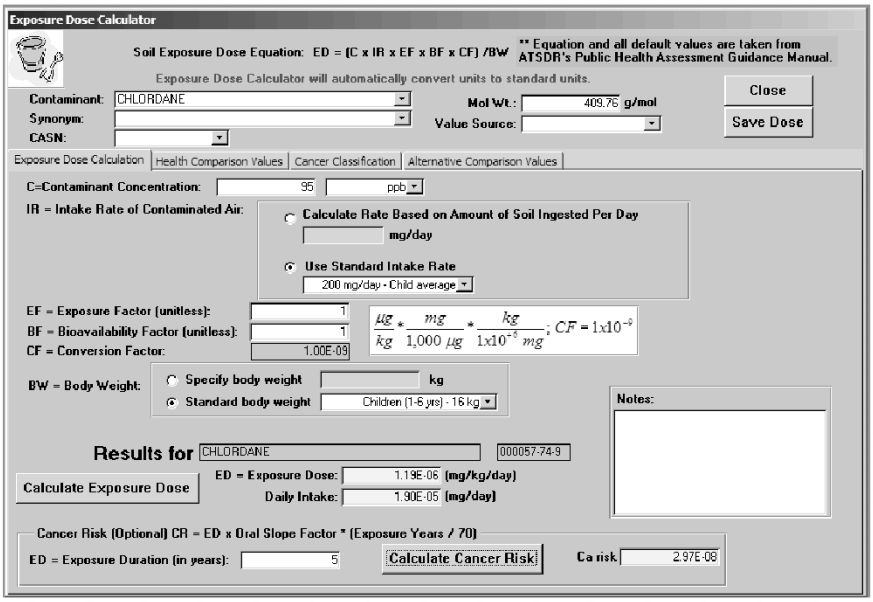
Soil Ingestion Exposure Module (example)



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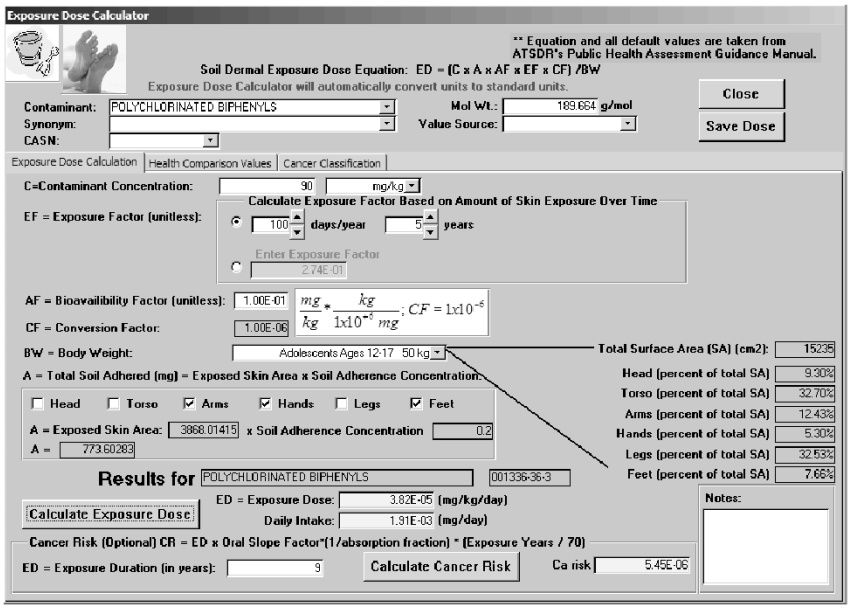
Soil Dermal Exposure Module (example)



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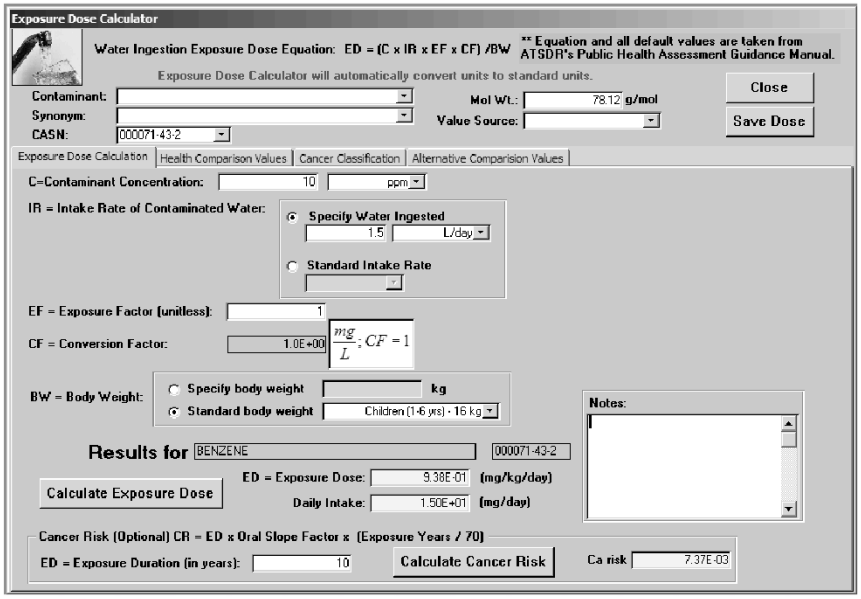
Water Ingestion Exposure Module (example)



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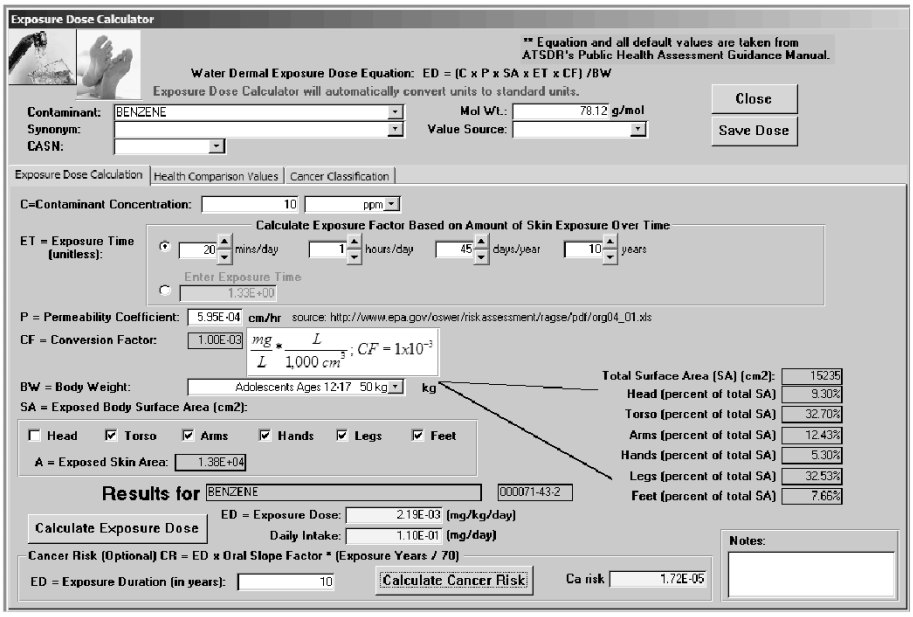
Water Dermal Exposure Module (example)



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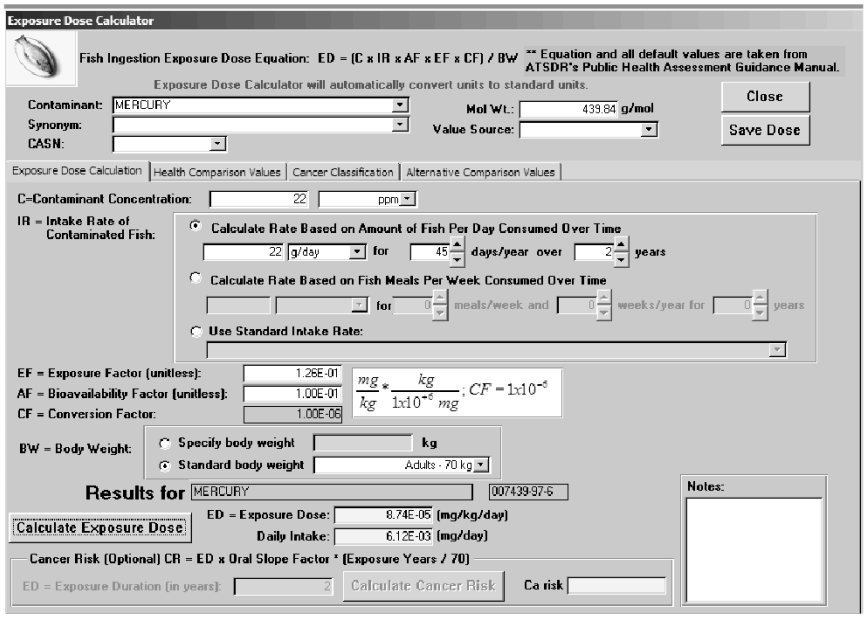
Fish Ingestion Exposure Module (example)



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Resources & Feedback

- To view a complete list of resources for this seminar, please visit the **Additional Resources**
- Please complete the **Feedback Form** to help ensure events like this are offered in the future

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Fill out the feedback form and check box for confirmation email.

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