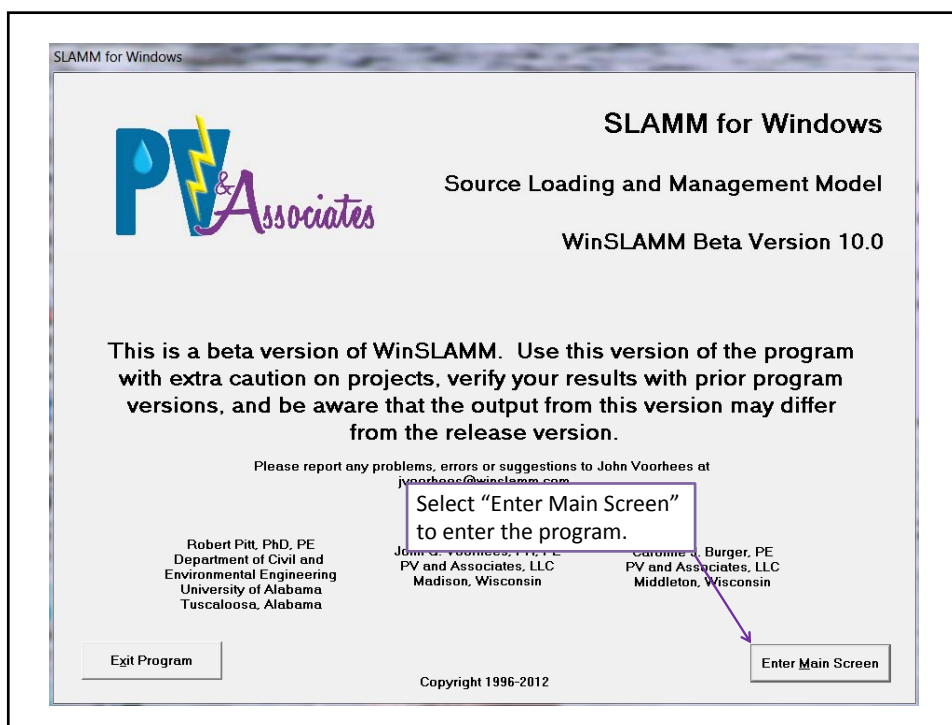
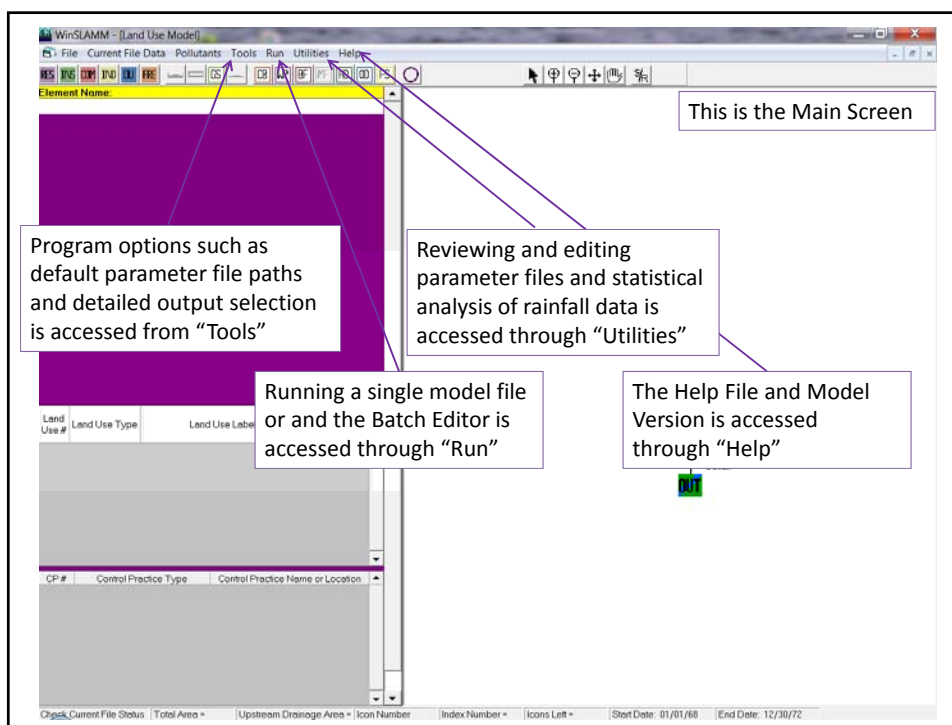
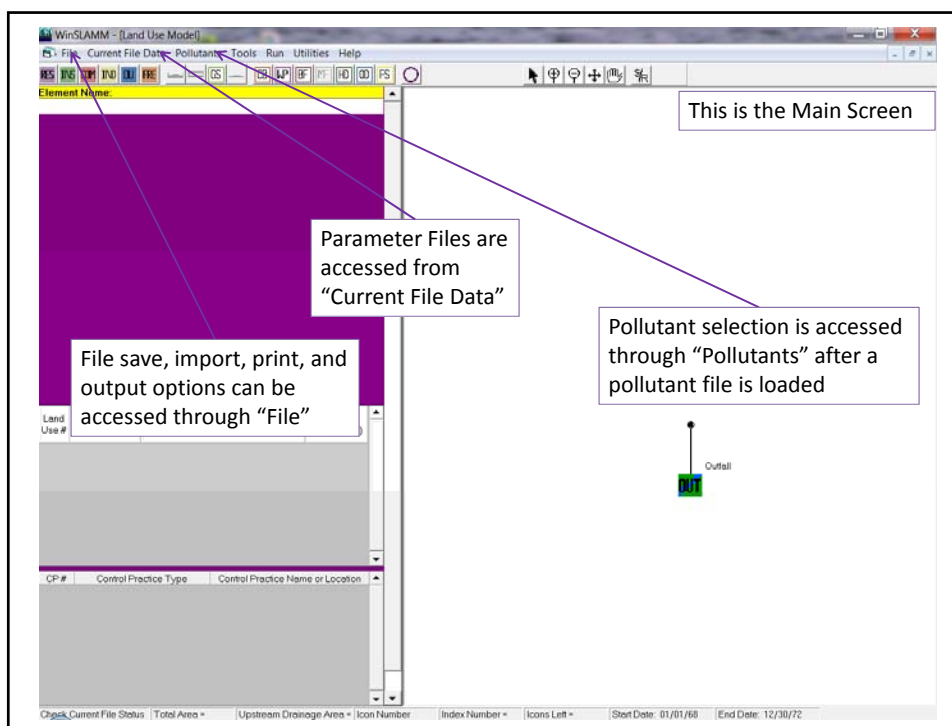


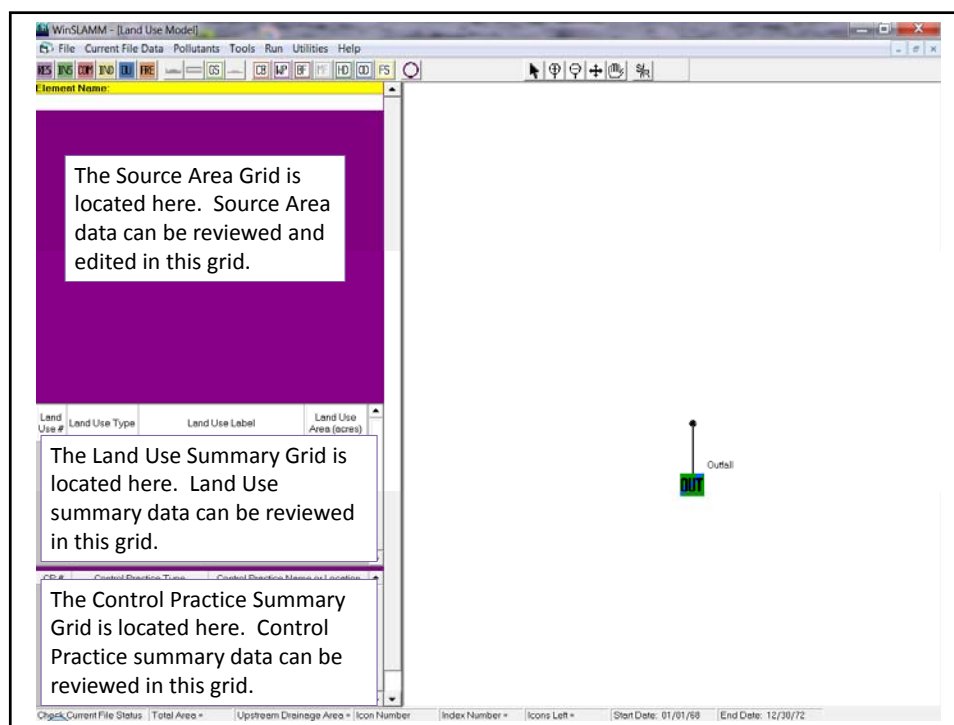
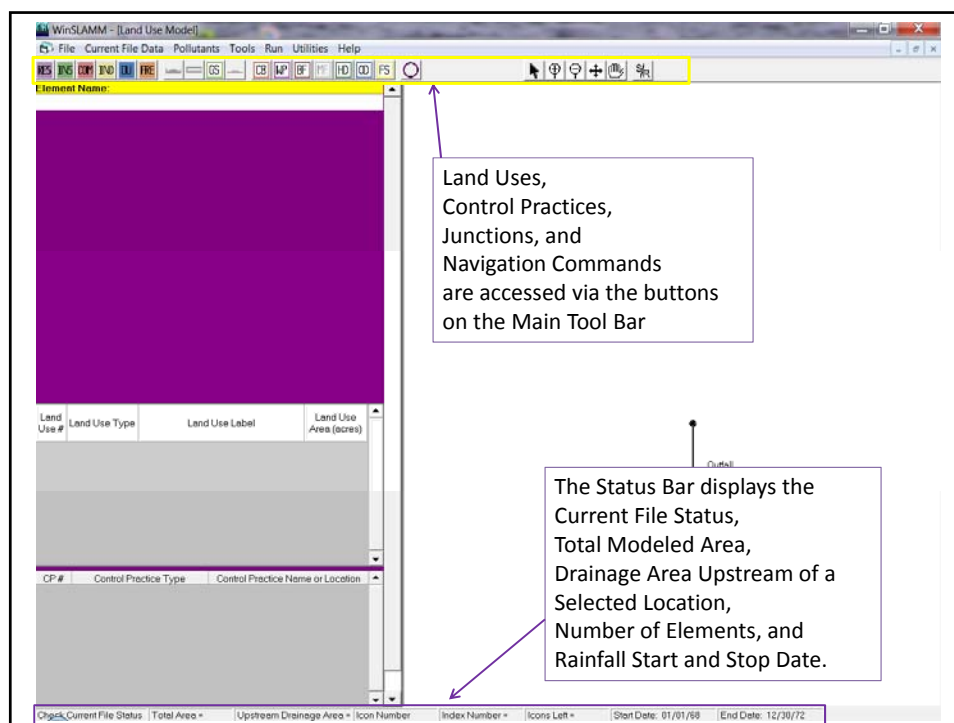
Introduction

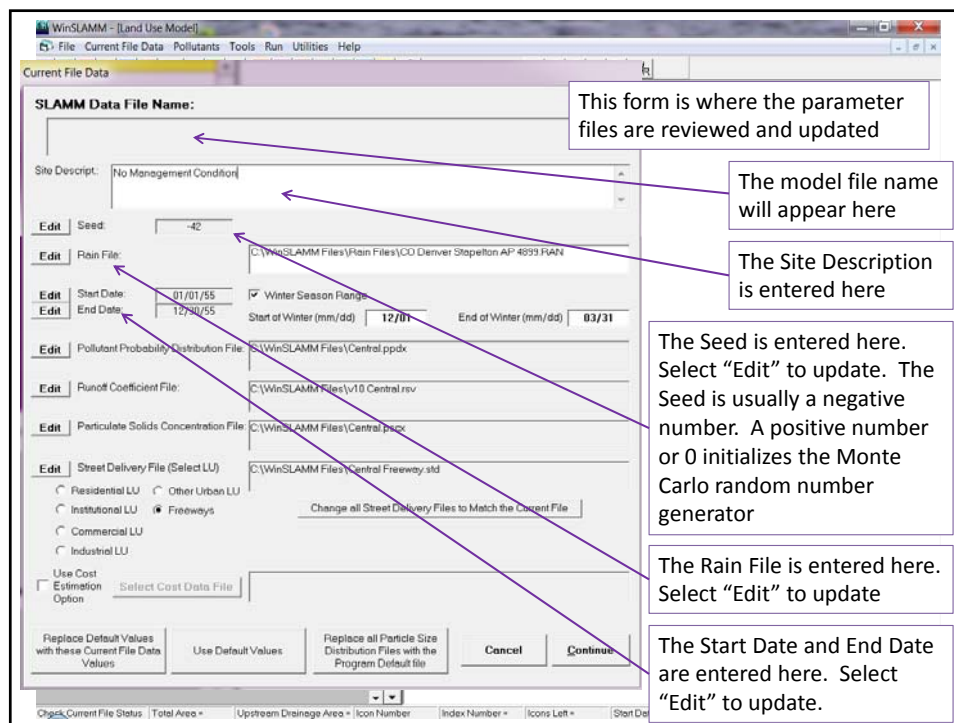
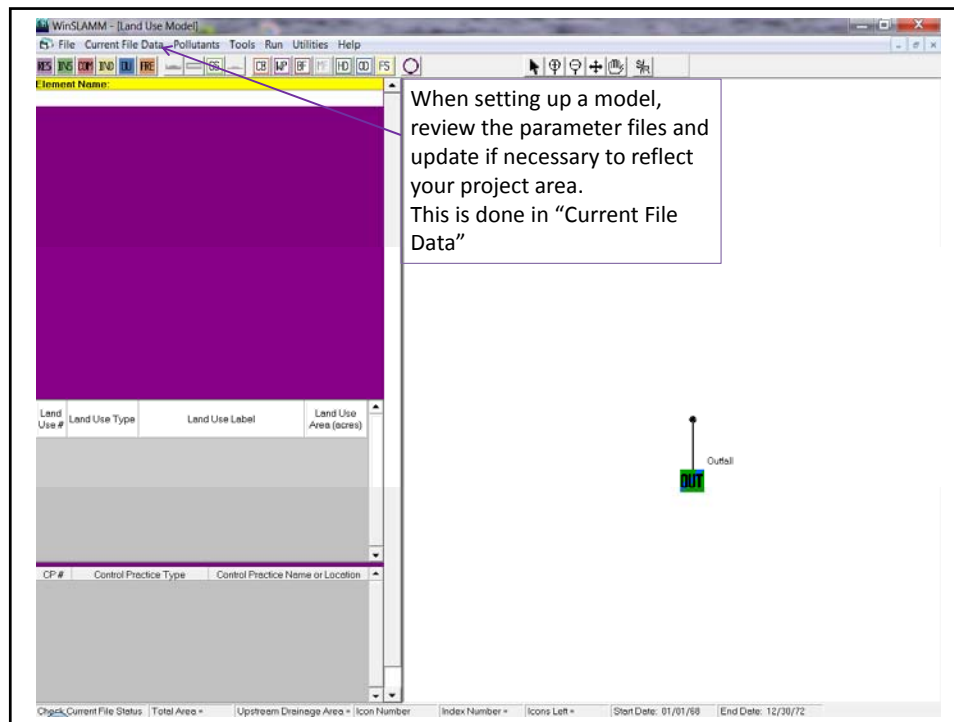
Modeling a No Management Condition

WinSLAMM v10.0









This form is where the parameter files are reviewed and updated

The Winter Season Date Range is entered here. Check the box and then enter the dates.

The Pollutant Probability Distribution File is entered here. Select "Edit" to update.

The Runoff Coefficient File is entered here. Select "Edit" to update.

The Particulate Solids Concentration File is entered here. Select "Edit" to update

SLAMM Data File Name:

Site Descript: No Management Condition

Edit Seed: -42

Edit Rain File: C:\WinSLAMM Files\Rain Files\CO Denver Stapleton AP 4999 RAIN

Edit Start Date: 01/01/55 ☒ Winter Season Range
 Edit End Date: 12/30/55 Start of Winter (mm/dd) 12/01 End of Winter (mm/dd) 03/31

Edit Pollutant Probability Distribution File: C:\WinSLAMM Files\Central ppx

Edit Runoff Coefficient File: C:\WinSLAMM Files\lv10 Central rsv

Edit Particulate Solids Concentration File: C:\WinSLAMM Files\Central pscx

Edit Street Delivery File (Select LU): C:\WinSLAMM Files\Central Freeway std
☐ Residential LU ☐ Other Urban LU
☐ Institutional LU ☒ Freeways
☐ Commercial LU
☐ Industrial LU
 Change all Street Delivery Files to Match the Current File

Use Cost Estimation Option: Select Cost Data File

Replace Default Values with these Current File Data Values Use Default Values Replace all Particle Size Distribution Files with the Program Default file Cancel Continue

Check Current File Status | Total Area = | Upstream Drainage Area = | Icon Number = | Element Number = | Icons Left = | Start Date: 01/01/55 | End Date: 12/30/55

This form is where the parameter files are reviewed and updated

The Street Delivery Files are entered here. Each land use has its own file. Select the radial button next to the land use and then select "Edit". This must be done for each land use.

If only one land use is being modeled, the "Change all Street Delivery Files..." can be selected. This will update all Street Delivery Files to be the one shown in the window.

If Costs are to be calculated for each Control Practice modeled, check the box and select "Select Cost Data File"

SLAMM Data File Name:

Site Descript: No Management Condition

Edit Seed: -42

Edit Rain File: C:\WinSLAMM Files\Rain Files\CO Denver Stapleton AP 4999 RAIN

Edit Start Date: 01/01/55 ☒ Winter Season Range
 Edit End Date: 12/30/55 Start of Winter (mm/dd) 12/01 End of Winter (mm/dd) 03/31

Edit Pollutant Probability Distribution File: C:\WinSLAMM Files\Central ppx

Edit Runoff Coefficient File: C:\WinSLAMM Files\lv10 Central rsv

Edit Particulate Solids Concentration File: C:\WinSLAMM Files\Central pscx

Edit Street Delivery File (Select LU): C:\WinSLAMM Files\Central Freeway std
☐ Residential LU ☐ Other Urban LU
☐ Institutional LU ☒ Freeways
☐ Commercial LU
☐ Industrial LU
 Change all Street Delivery Files to Match the Current File

Use Cost Estimation Option: Select Cost Data File

Replace Default Values with these Current File Data Values Use Default Values Replace all Particle Size Distribution Files with the Program Default file Cancel Continue

Check Current File Status | Total Area = | Upstream Drainage Area = | Icon Number = | Element Number = | Icons Left = | Start Date: 01/01/55 | End Date: 12/30/55

WinSLAMM - [Land Use Model]

Current File Data

SLAMM Data File Name:

Site Descript: No Management Condition

Edit Seed: -42

Edit Rain File: C:\WinSLAMM Files\Rain Files\CO Denver Stapleton A...

Edit Start Date: 01/01/55 ☒ Winter Season Range

Edit End Date: 12/30/55 Start of Winter (mm/dd): 12/01 End of Wint...

Edit Pollutant Probability Distribution File: C:\WinSLAMM Files\Central.ppx

Edit Runoff Coefficient File: C:\WinSLAMM Files\v10 Central.rsv

Edit Particulate Solids Concentration File: C:\WinSLAMM Files\Central.pscx

Edit Street Delivery File (Select LU): C:\WinSLAMM Files\Central.Freeway.std

☐ Residential LU ☐ Other Urban LU ☐ Institutional LU ☒ Freeways

☐ Commercial LU ☐ Industrial LU

Change all Street Delivery Files to M...

☐ Use Cost Estimation Option

Check Current File Status | Total Area = ... | Upstream Drainage Area = ... | Element Number = ... | Elements Left = ... | Start Date: 01/01/55 | End Date: 12/30/55

This form is where the parameter files are reviewed and updated

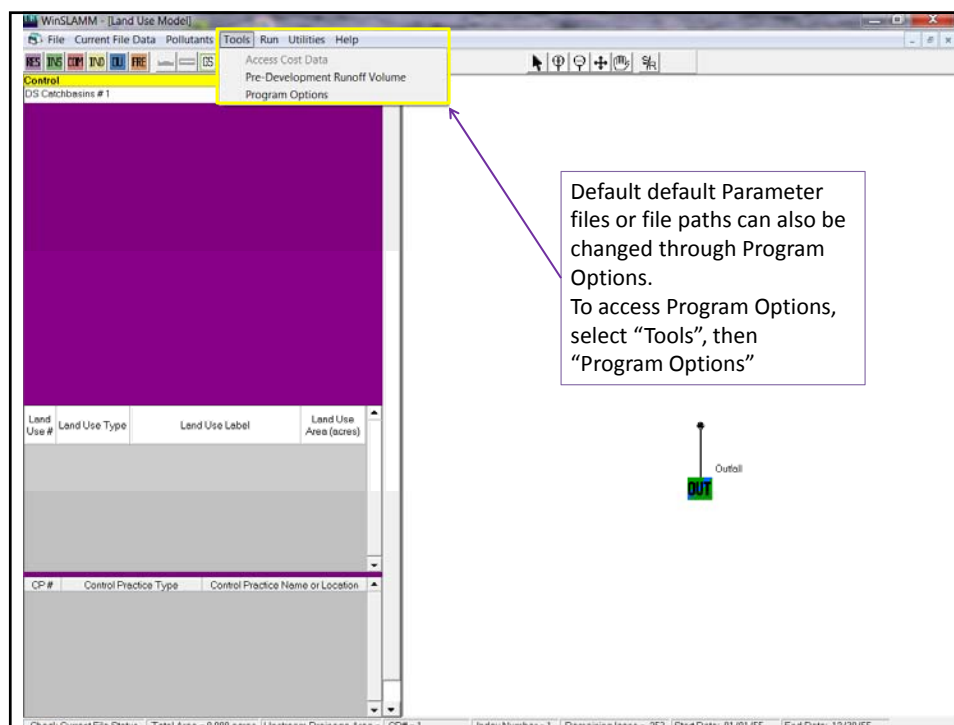
If you are using the same parameter files for several projects, after you've updated the parameter files in this form, you can select "Replace Program Default Values with these Current File Data values". This will make the files shown in the form your default values for future model runs.

If you are starting a new model, or you want to change the parameter files back to the default values, select "Use Default Values".

To use the default particle size distribution file, select "Replace all Particle Size Distribution Files with the Program Default file"

Select "Cancel" to leave the form without saving changes.

Select "Continue" to save changes and exit the form.



Default Current File Data

Rain File Name:

Rain File Dates
 Start Rain Date (mm/dd/yy) End Rain Date (mm/dd/yy)

Winter Season
☒ Activate Winter Season Option Start of Winter (mm/dd) End of Winter (mm/dd)

Parameter File Type
☒ Pollutant Probability Distribution (PPDx) ☐ Particulate Solids Concentration (PSCx)
☐ Runoff Coefficient (RSV) ☐ Particle Size Distribution (CPZ)

Street Delivery File Land Use
☒ Residential ☐ Institutional ☐ Commercial ☐ Industrial ☐ Other Urban ☐ Freeway

☐ Perform Cost Analysis

Check Current File Status: Total Area = 0.000 acres | Upstream Drainage Area = 1 | Index Number = 1 | Remaining Icons = 253 | Start Date: 01/01/55 | End Date: 12/30/55

Select the “Default Current File Data” tab. All default parameter files and file paths can be edited in the “Default Current File Data” form. Select “Select File” next to the parameter you wish to modify, navigate to the location the new one is stored on your computer, and select “Open”. After all changes are made, select “Save .INI File” to save the changes and leave the form. All new model files will use the default parameter files entered here.

Land Use

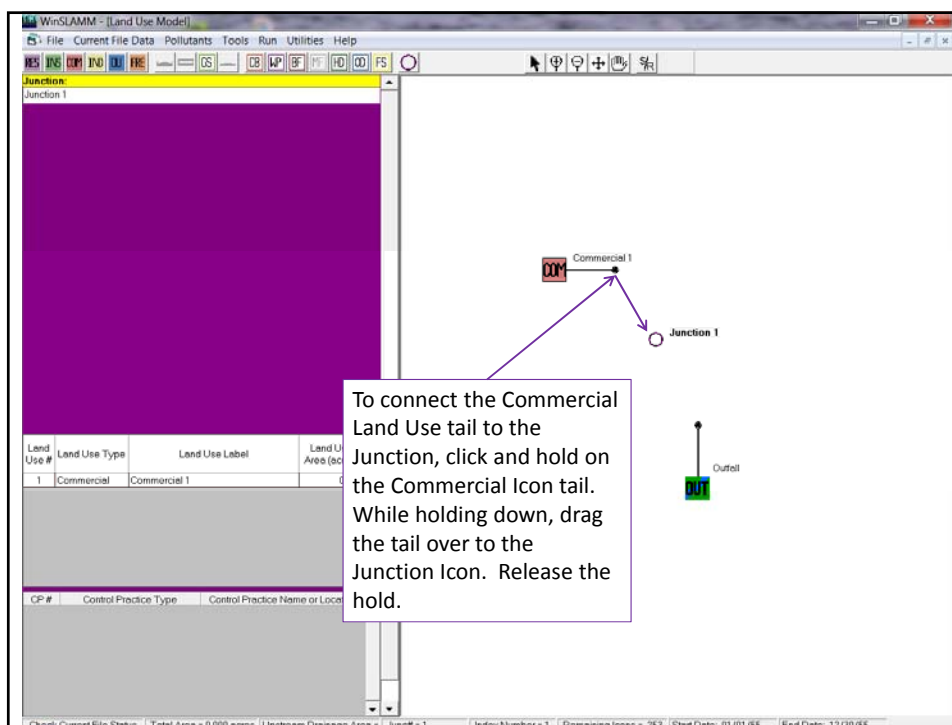
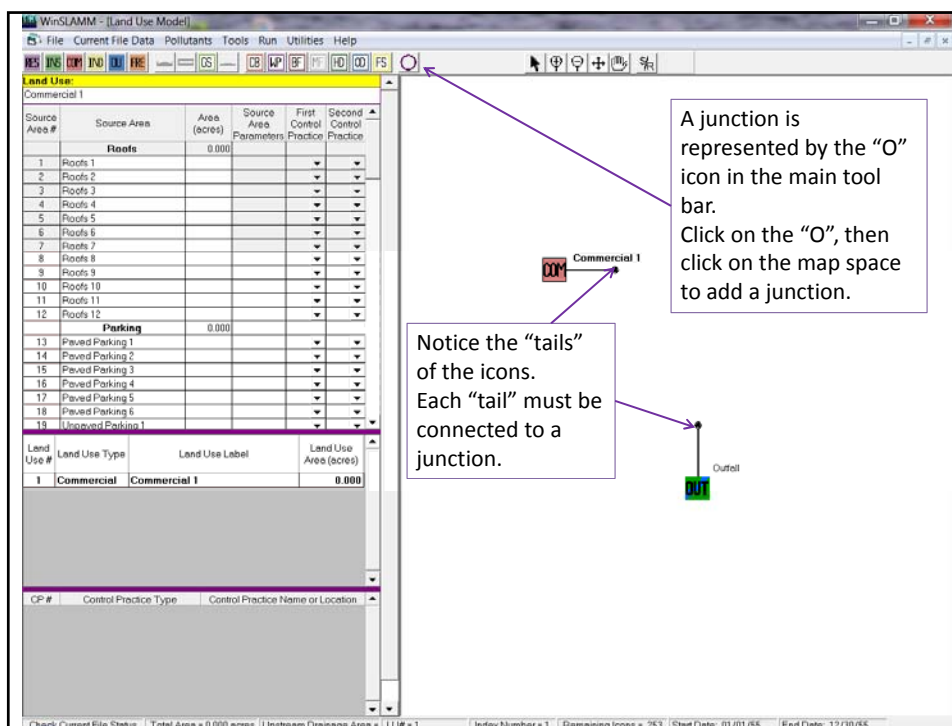
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
Roofs 0.000					
1	Roofs 1				
2	Roofs 2				
3	Roofs 3				
4	Roofs 4				
5	Roofs 5				
6	Roofs 6				
7	Roofs 7				
8	Roofs 8				
9	Roofs 9				
10	Roofs 10				
11	Roofs 11				
12	Roofs 12				
Parking 0.000					
13	Paved Parking 1				
14	Paved Parking 2				
15	Paved Parking 3				
16	Paved Parking 4				
17	Paved Parking 5				
18	Paved Parking 6				
19	Unpaved Parking 1				

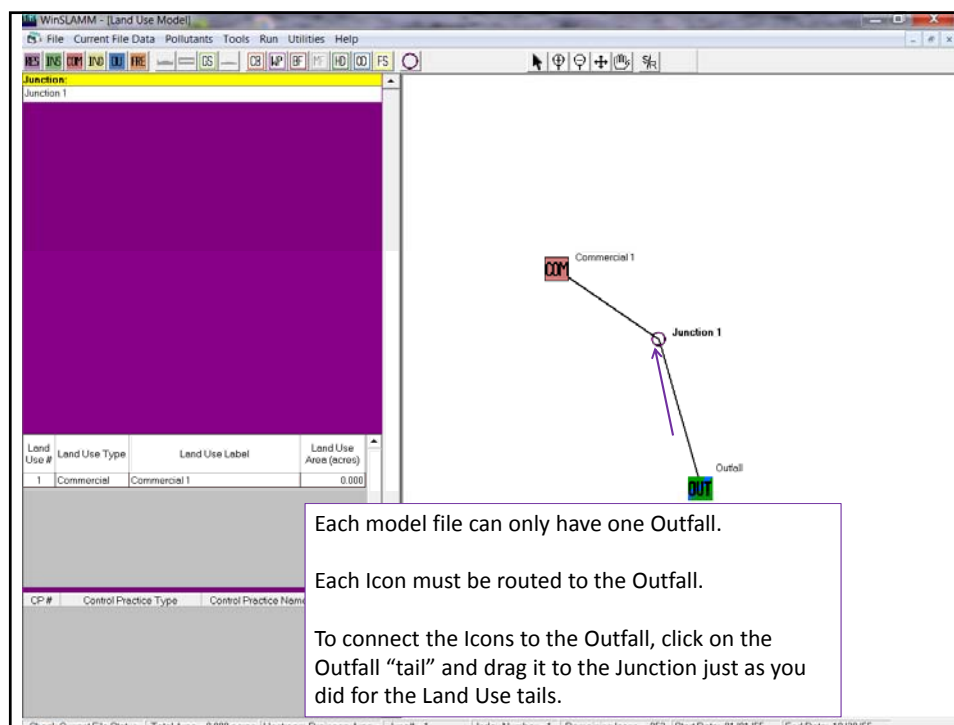
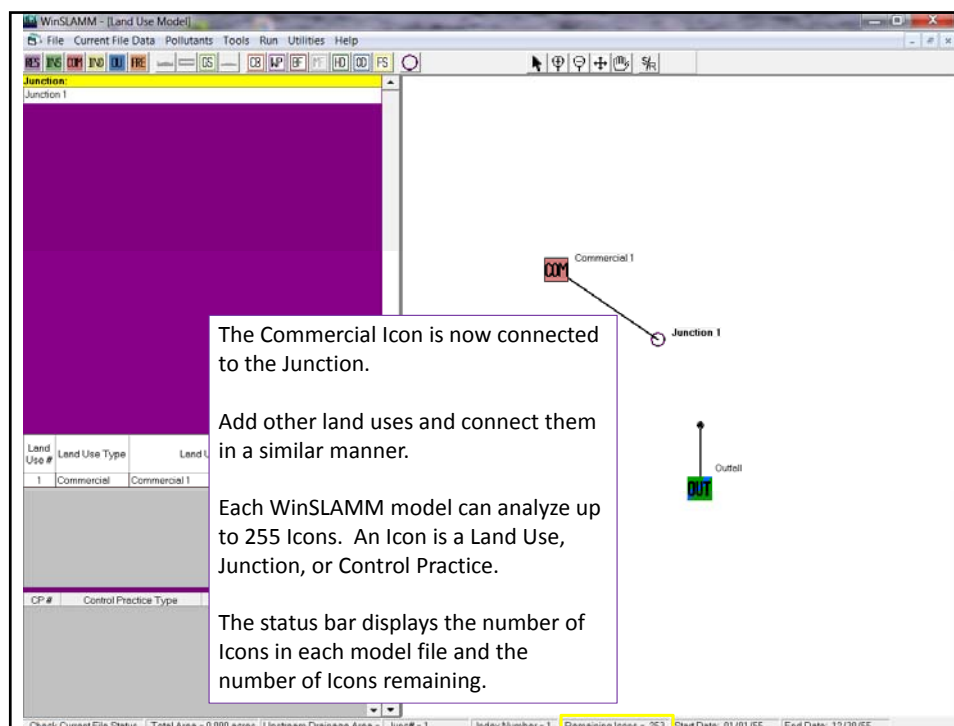
Land Use #	Land Use Type	Land Use Label	Land Use Area (acres)
1	Commercial	Commercial 1	0.000

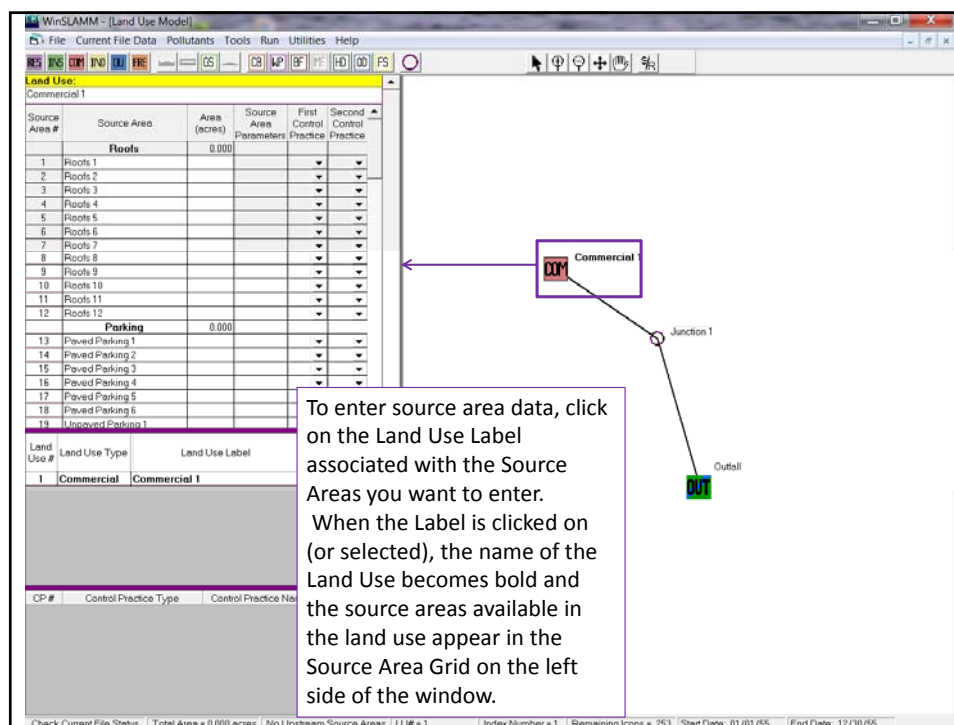
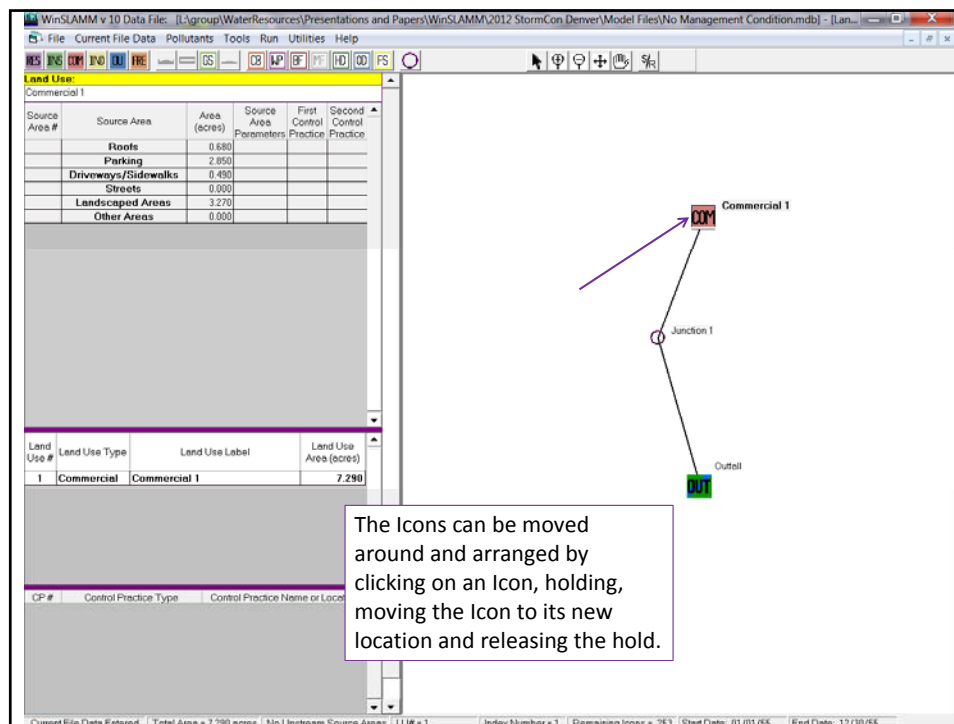
CP # Control Practice Type Control Practice Name or Location

Check Current File Status: Total Area = 0.000 acres | Upstream Drainage Area = 1 | Index Number = 1 | Remaining Icons = 253 | Start Date: 01/01/55 | End Date: 12/30/55

To enter model data, select the land use the modeled source area(s) are associated with.
 RES = Residential
 INS = Institutional
 COM = Commercial
 IND = Industrial
 OU = Other Urban
 FRE = Freeway
 For example, if the source area is commercial roof, click on the “COM” icon.
 Next, click anywhere on the white map space.
 The Commercial Icon will appear.







WinSLAMM - (Land Use Model)

File Current File Data Pollutants Tools Run Utilities Help

Land Use

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
Roofs					
1	Roofs 1	0.000			
2	Roofs 2				
3	Roofs 3				
4	Roofs 4				
5	Roofs 5				
6	Roofs 6				
7	Roofs 7				
8	Roofs 8				
9	Roofs 9				
10	Roofs 10				
11	Roofs 11				
12	Roofs 12				
Parking					
13	Paved Parking 1	0.000			
14	Paved Parking 2				
15	Paved Parking 3				
16	Paved Parking 4				
17	Paved Parking 5				
18	Paved Parking 6				
19	Unpaved Parking 1				

Land Use # Land Use Type Land Use Label Land Use Area

1	Commercial	Commercial 1	
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CP # Control Practice Type Control Practice Name or Location

Check Current File Status | Total Area = 0.000 acres | No Upstream Source Areas | LU# = 1 | Index Number = 1 | Remaining Icons = 253 | Start Date: 01/01/55 | End Date: 12/30/55

Diagram: Commercial 1 (Source Area) connects to Junction 1, which connects to Outfall.

First, enter the area of the Source Area. Select the cell that intersects the Source Area label and Area.

WinSLAMM v10 Data File: (I:\group\WaterResources\Presentations and Papers\WinSLAMM\2012 StormCon Denver\Model Files\No Management Condition.mdb) - (Land Use Model)

File Current File Data Pollutants Tools Run Utilities Help

Land Use

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
Roofs					
1	Roofs 1	0.680	Entered		
2	Roofs 2				
3	Roofs 3				
4	Roofs 4				
5	Roofs 5				
6	Roofs 6				
7	Roofs 7				
8	Roofs 8				
9	Roofs 9				
10	Roofs 10				
11	Roofs 11				
12	Roofs 12				
Parking					
13	Paved Parking 1	2.850	Entered		
14	Paved Parking 2				
15	Paved Parking 3				
16	Paved Parking 4				
17	Paved Parking 5				
18	Paved Parking 6				
19	Unpaved Parking 1				

Land Use # Land Use Type Land Use Label Land Use Area

1	Commercial	Commercial 1	7.290
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CP # Control Practice Type Control Practice Name or Location

Check Current File Status | Total Area = 7.290 acres | No Upstream Source Areas | LU# = 1 | Index Number = 1 | Remaining Icons = 253 | Start Date: 01/01/55 | End Date: 12/30/55

Diagram: Commercial 1 (Source Area) connects to Junction 1, which connects to Outfall.

Enter the area of the Source Area in acres.

Select "Enter" on your keyboard to move to the next cell under "Source Area Parameters".

Select "Enter" again to enter the Source Area Parameter data.

Enter the data that describes the source area. Select "Continue" to leave the form.

Source Area Parameters

Land Use: Commercial 1 Total Area: 0.680 acres
Source Area: Roof 1

Roofs: ☒ Flat Roof ☐ Pitched Roof

Is the Source Area:

- ☒ Directly Connected or Draining to a Directly Connected Area
- ☐ Draining to a Previous Area (partially connected impervious area)

Soil Type: ☐ Sandy ☐ Silty ☐ Clayey

Building Density: ☐ Low ☐ Medium or High

Alleys present: ☐ Yes ☐ No

Continue

Outfall

Check Current File Status: Total Area = 0.680 acres | No Unstream Source Areas | LUP = 1 | Index Number = 1 | Remaining Icons = 253 | Start Date: 01/01/55 | End Date: 12/31/55

Use the scroll bar to move up and down in the grid to add more data.

Land Use

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
Roofs 0.680					
1	Roofs 1	0.680	Entered	-	-
2	Roofs 2				
3	Roofs 3				
4	Roofs 4				
5	Roofs 5				
6	Roofs 6				
7	Roofs 7				
8	Roofs 8				
9	Roofs 9				
10	Roofs 10				
11	Roofs 11				
12	Roofs 12				
Parking 2.850					
13	Paved Parking 1	2.850	Entered	-	-
14	Paved Parking 2				
15	Paved Parking 3				
16	Paved Parking 4				
17	Paved Parking 5				
18	Paved Parking 6				
19	Unpaved Parking 1				

Land Use # Land Use Type Land Use Label Land Use Area (acres)

1 Commercial Commercial 1 7.290

CP # Control Practice Type Control Practice Name or Location

Commercial 1

Junction 1

Outfall

Check Current File Status: Total Area = 7.290 acres | No Unstream Source Areas | LUP = 1 | Index Number = 1 | Remaining Icons = 253 | Start Date: 01/01/55 | End Date: 12/31/55

The screenshot shows the WinSLAMM v10 Data File interface. The 'Land Use' tab is active, displaying a table of land use areas. The table is divided into two sections: 'Roofs' and 'Parking'. The 'Roofs' section lists 12 sources, with 'Roofs 1' having an area of 0.680 acres. The 'Parking' section lists 7 sources, with 'Paved Parking 1' having an area of 2.850 acres. The total area for 'Commercial 1' is 7.290 acres. A diagram on the right shows a network of land use areas: 'Commercial 1' (red square) connected to 'Junction 1' (blue circle), which is connected to 'Outfall' (green square). A callout box points to the 'Area' column in the 'Roofs' section, stating: 'Notice the Source Area Total Areas, Land Use Area, and Total Model Area are updated with the information entered. These totals will automatically update as more information is added.'

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
Roofs					
1	Roofs 1	0.680	Entered	-	-
2	Roofs 2				
3	Roofs 3				
4	Roofs 4				
5	Roofs 5				
6	Roofs 6				
7	Roofs 7				
8	Roofs 8				
9	Roofs 9				
10	Roofs 10				
11	Roofs 11				
12	Roofs 12				
Parking					
13	Paved Parking 1	2.850	Entered	-	-
14	Paved Parking 2				
15	Paved Parking 3				
16	Paved Parking 4				
17	Paved Parking 5				
18	Paved Parking 6				
19	Unpaved Parking 1				

Land Use # | Land Use Type | Land Use Label | Land Use Area (acres)

1 | Commercial | Commercial 1 | 7.290

CP # | Control Practice Type | Control Practice Name or Location

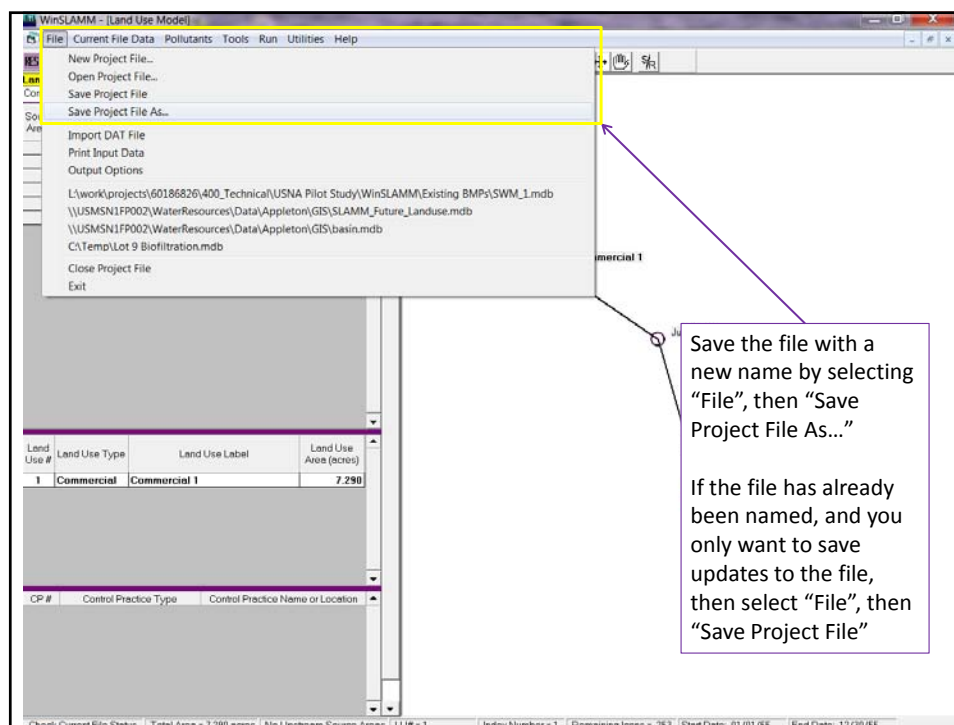
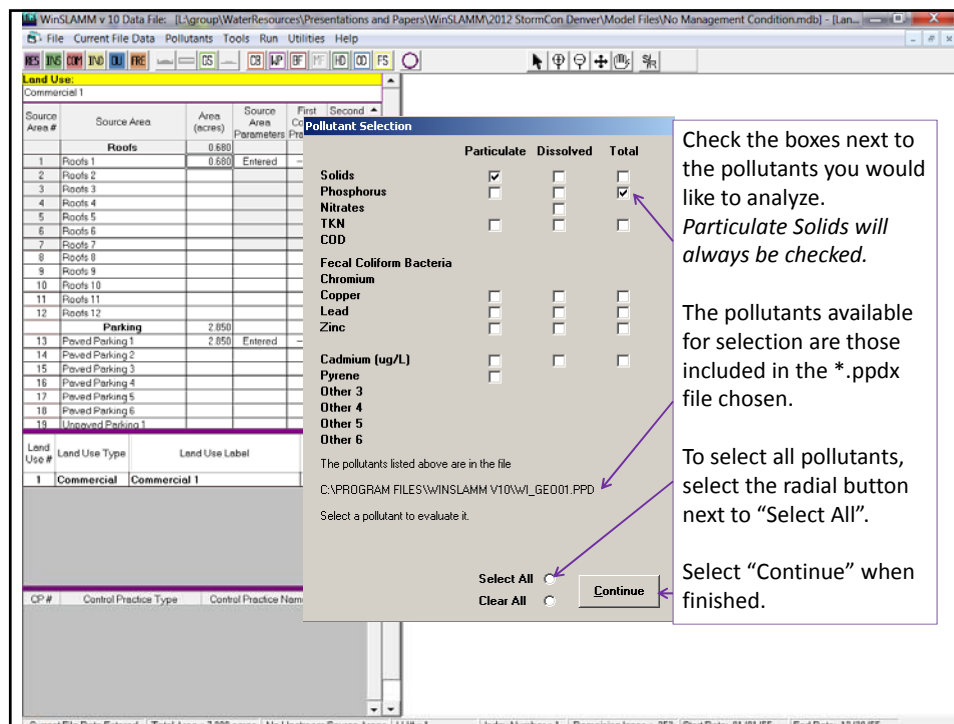
The screenshot shows the WinSLAMM v10 Data File interface. The 'Land Use' tab is active, displaying a table of land use areas. The table is divided into two sections: 'Roofs' and 'Parking'. The 'Roofs' section lists 12 sources, with 'Roofs 1' having an area of 0.680 acres. The 'Parking' section lists 7 sources, with 'Paved Parking 1' having an area of 2.850 acres. The total area for 'Commercial 1' is 7.290 acres. A diagram on the right shows a network of land use areas: 'Commercial 1' (red square) connected to 'Junction 1' (blue circle), which is connected to 'Outfall' (green square). A callout box points to the 'Pollutants' tab in the top menu bar, stating: 'To view or add Pollutants to be analyzed, select "Pollutants".'

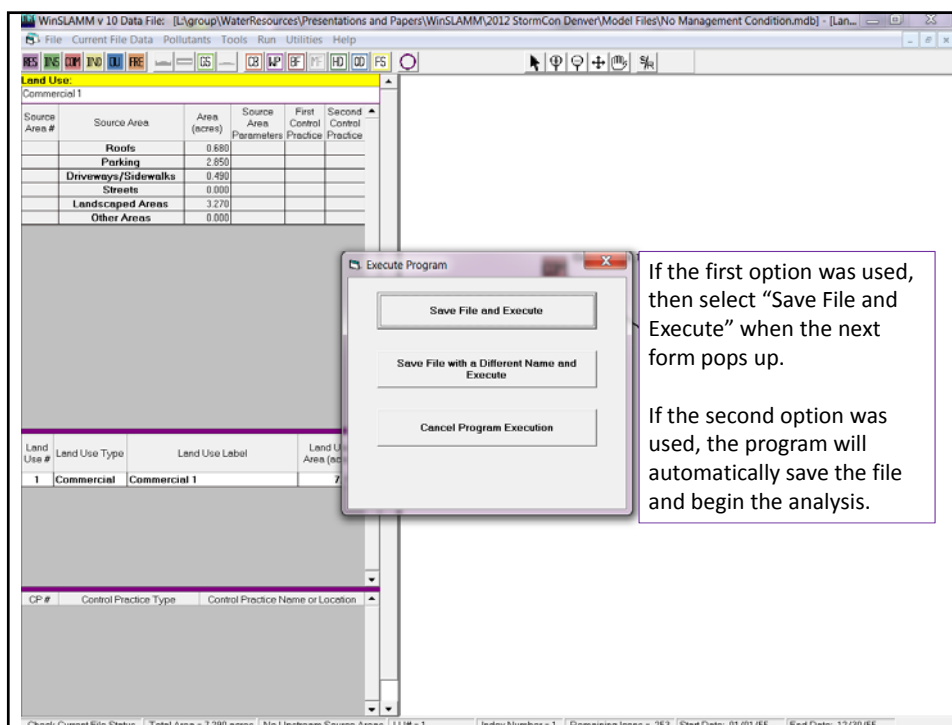
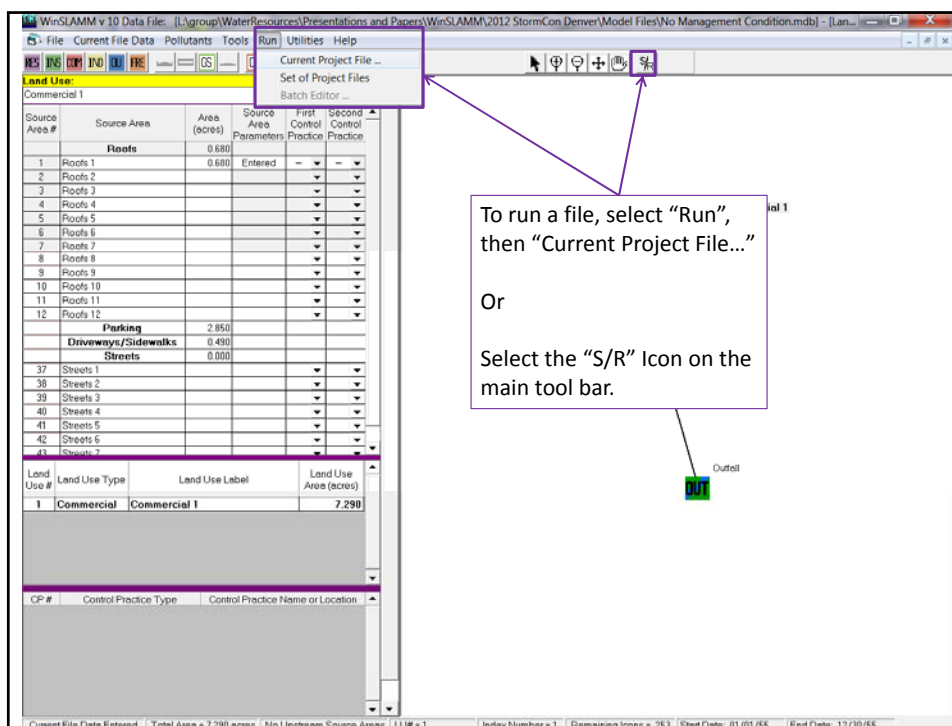
Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
Roofs					
1	Roofs 1	0.680	Entered	-	-
2	Roofs 2				
3	Roofs 3				
4	Roofs 4				
5	Roofs 5				
6	Roofs 6				
7	Roofs 7				
8	Roofs 8				
9	Roofs 9				
10	Roofs 10				
11	Roofs 11				
12	Roofs 12				
Parking					
13	Paved Parking 1	2.850	Entered	-	-
14	Paved Parking 2				
15	Paved Parking 3				
16	Paved Parking 4				
17	Paved Parking 5				
18	Paved Parking 6				
19	Unpaved Parking 1				

Land Use # | Land Use Type | Land Use Label | Land Use Area (acres)

1 | Commercial | Commercial 1 | 7.290

CP # | Control Practice Type | Control Practice Name or Location





Output is summarized at many locations within the modeled network. Use the tabs to select the desired output.

To exit the Output forms, select the lower "X".

Output is not saved, therefore, if you exit and want to look at the output again, you will need to re-run the model file.

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	144333		0.34	520.8	4692	
Outfall Total with Controls	144335	0.00%	0.34	520.8	4692	0.00%
Current File Output: Annualized Total After Outfall Controls	156681		0.91		5153	

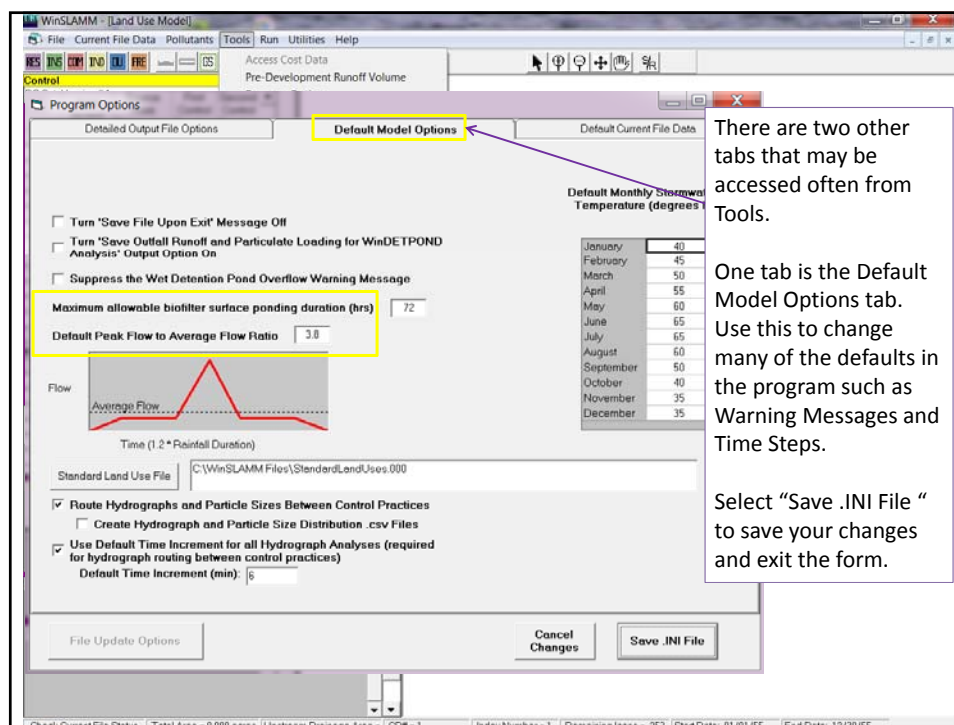
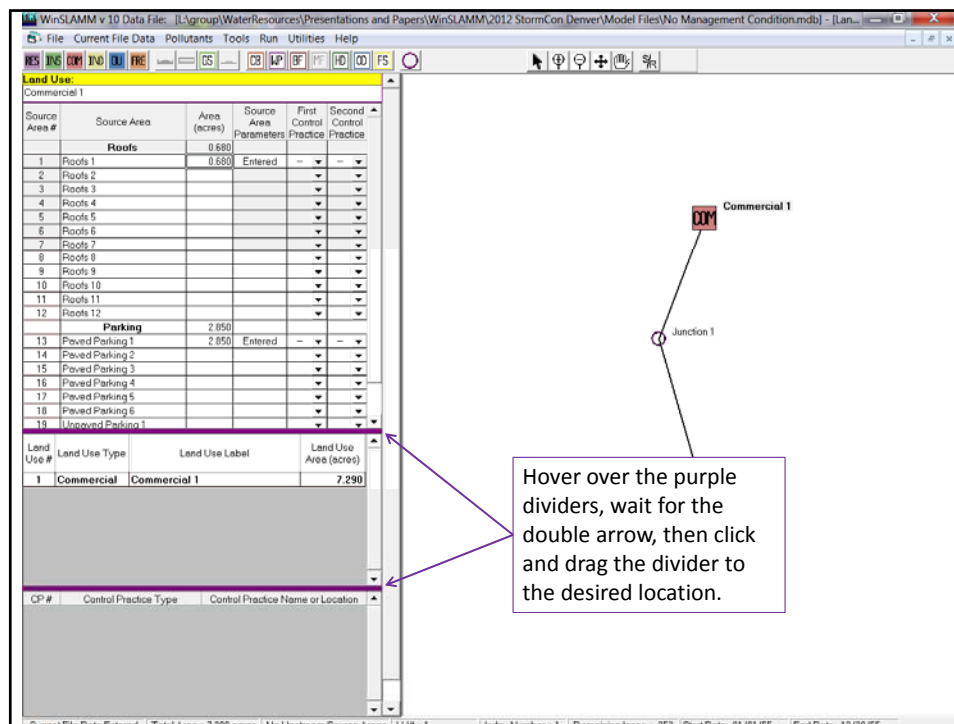
Pollutant	Concentration - No Controls	Concentration - With Controls	Concentration Units	Pollutant Yield - No Controls	Pollutant Yield - With Controls	Pollutant Yield Units	Percent Yield Reduction
Total Phosphorus	0.7338	0.7338 mg/L		6.612	6.612 lbs		0%

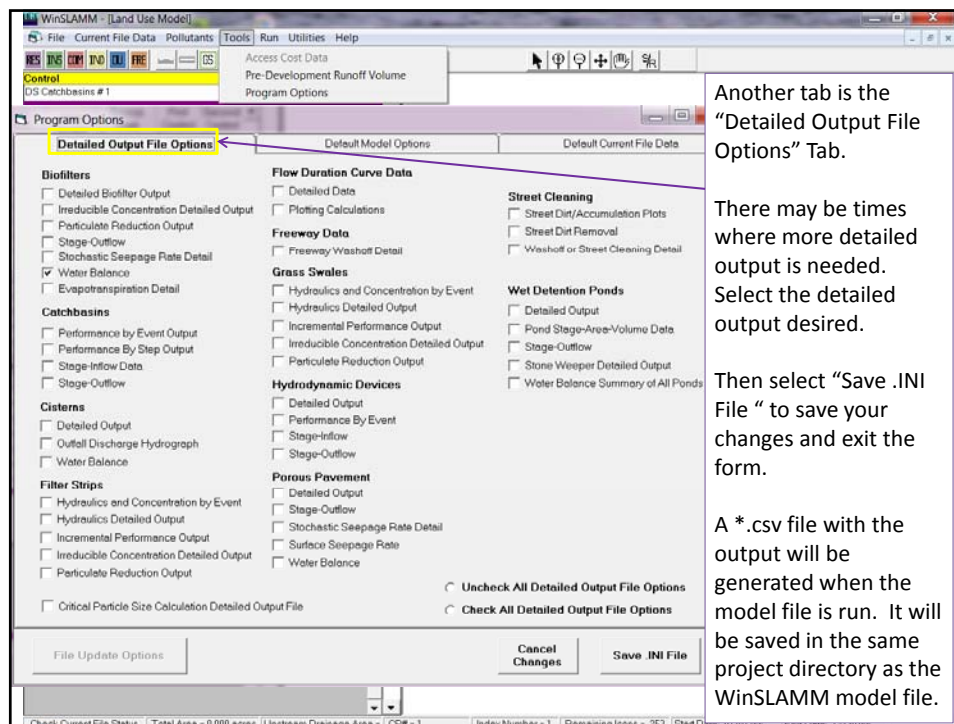
Certain aspects of the Main Window can be customized to allow for easier viewing of entered data.

To collapse or expand the Source Area data:

- Right click on the grid and select the appropriate command, or
- Double click on the Source Area major headings.

Source Area #	Source Area	Area (acres)	Source Area Parameters	First Control Practice	Second Control Practice
1	Roofs 1	0.680	Entered		
2	Roofs 2				
3	Roofs 3				
4	Roofs 4				
5	Roofs 5				
6	Roofs 6				
7	Roofs 7				
8	Roofs 8				
9	Roofs 9				
10	Roofs 10				
11	Roofs 11				
12	Roofs 12				
	Parking	2.850			
	Driveways/Sidewalks	0.490			
	Streets	0.000			
37	Streets 1				
38	Streets 2				
39	Streets 3				
40	Streets 4				
41	Streets 5				





Remember to Press the "F1" to access the Help File