WinSLAMM v 9.4
User's Guide

Output

Start-Up Hints

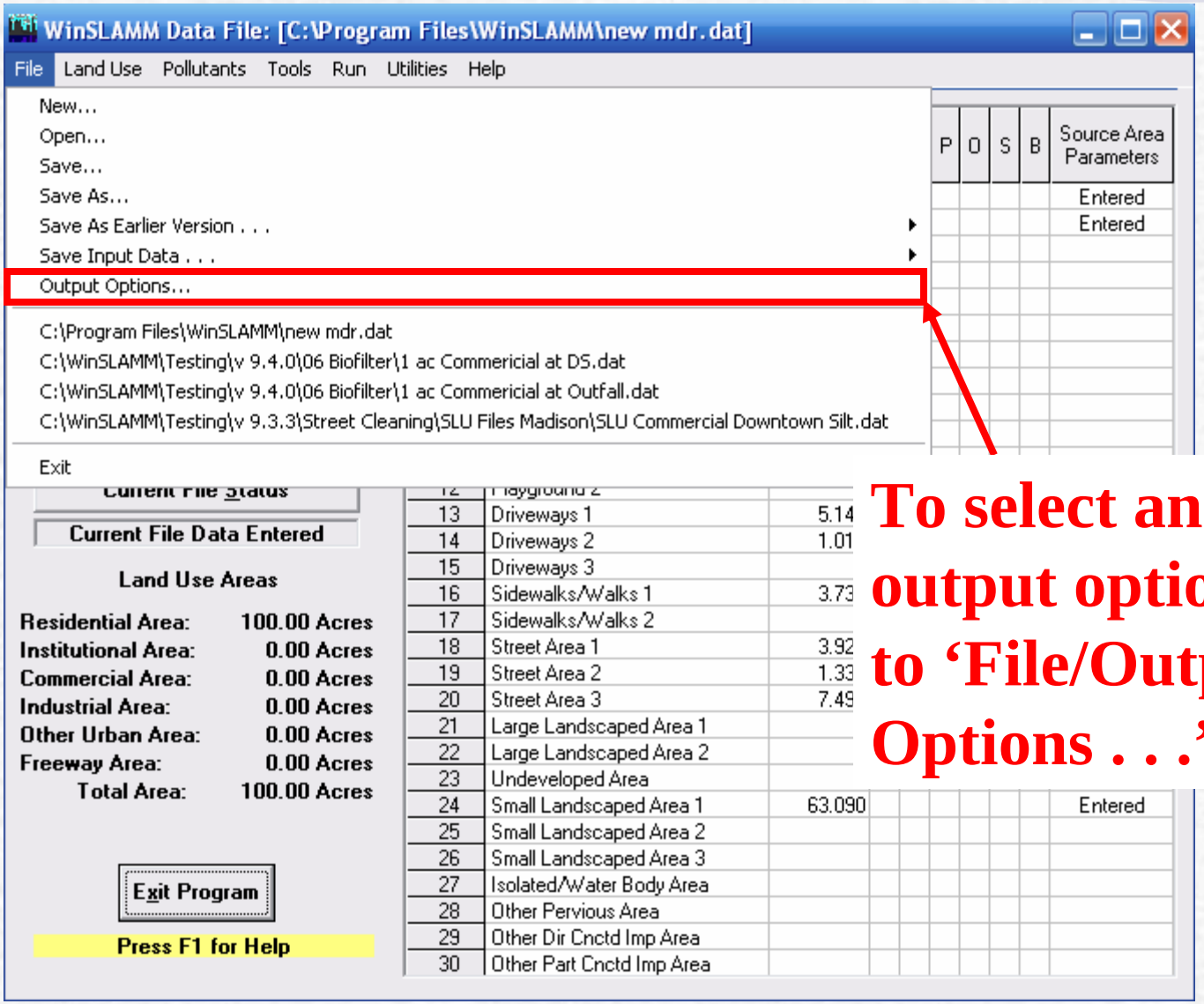
Press F1 on any screen within the program to see the corresponding Help File Topic

Throughout this User's Guide, the text in red walks you through the program

The User may need to press Enter in various input screens to activate the next data input

Reading the Output

File/Output Options



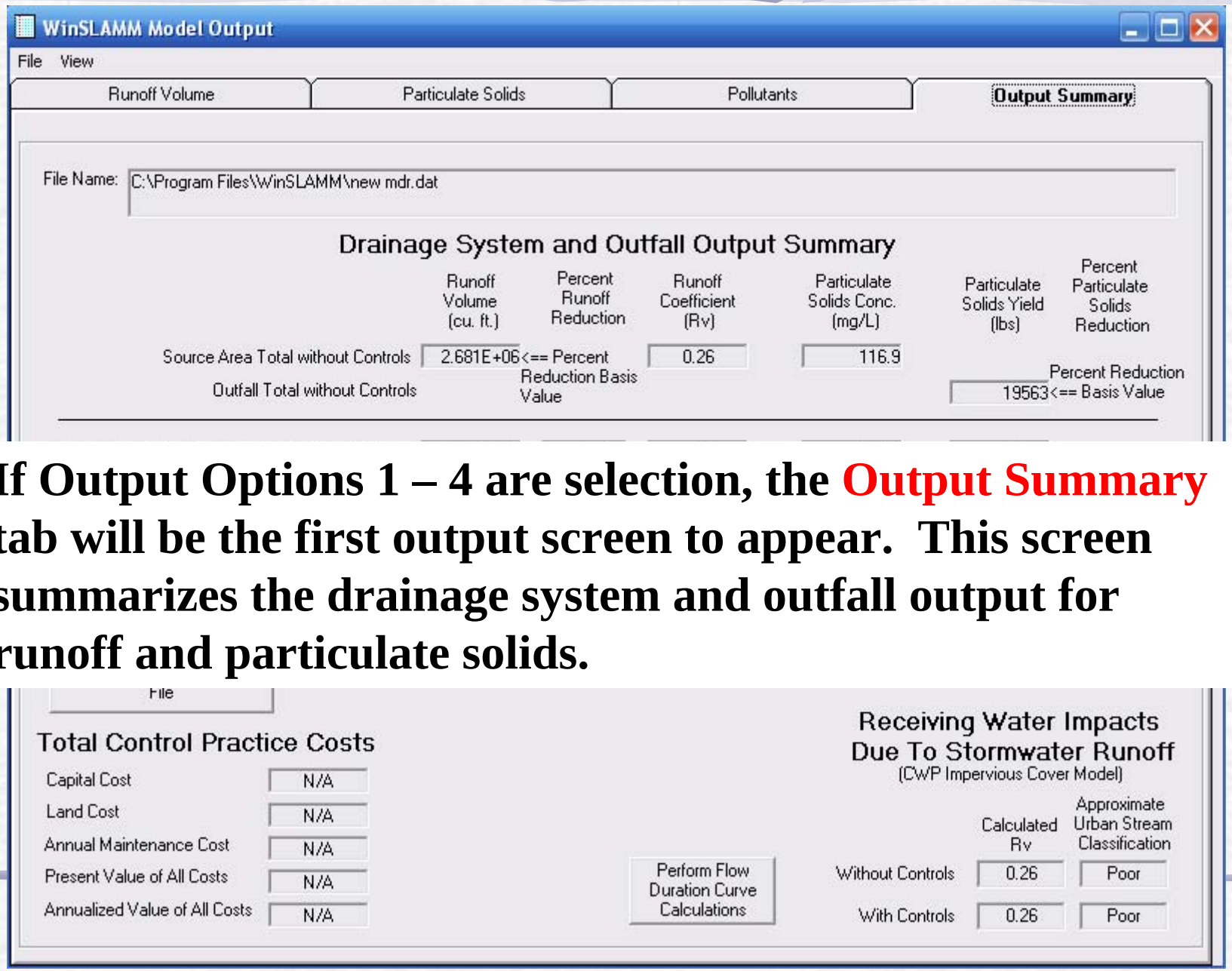
To select an output option, go to 'File/Output Options . . .'

Output Format Options

There are Eight Output Options, as well as:

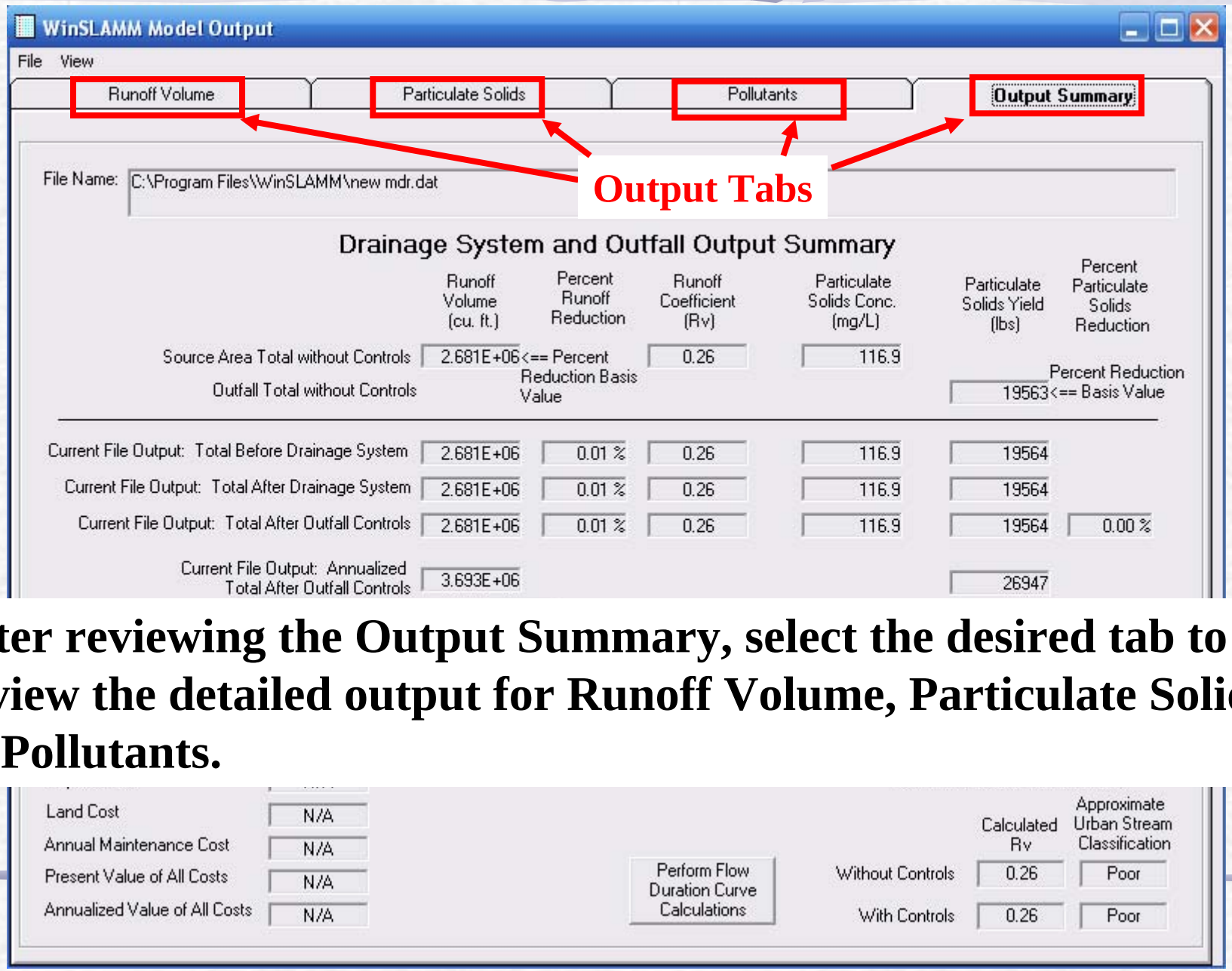
- **Additional information about wet detention pond performance,**
- **An option to create input data for a WinDETPOND analysis, and**
- **An option to save the model output for input into the CE-QUAL-RIV1 model.**

Output Summary



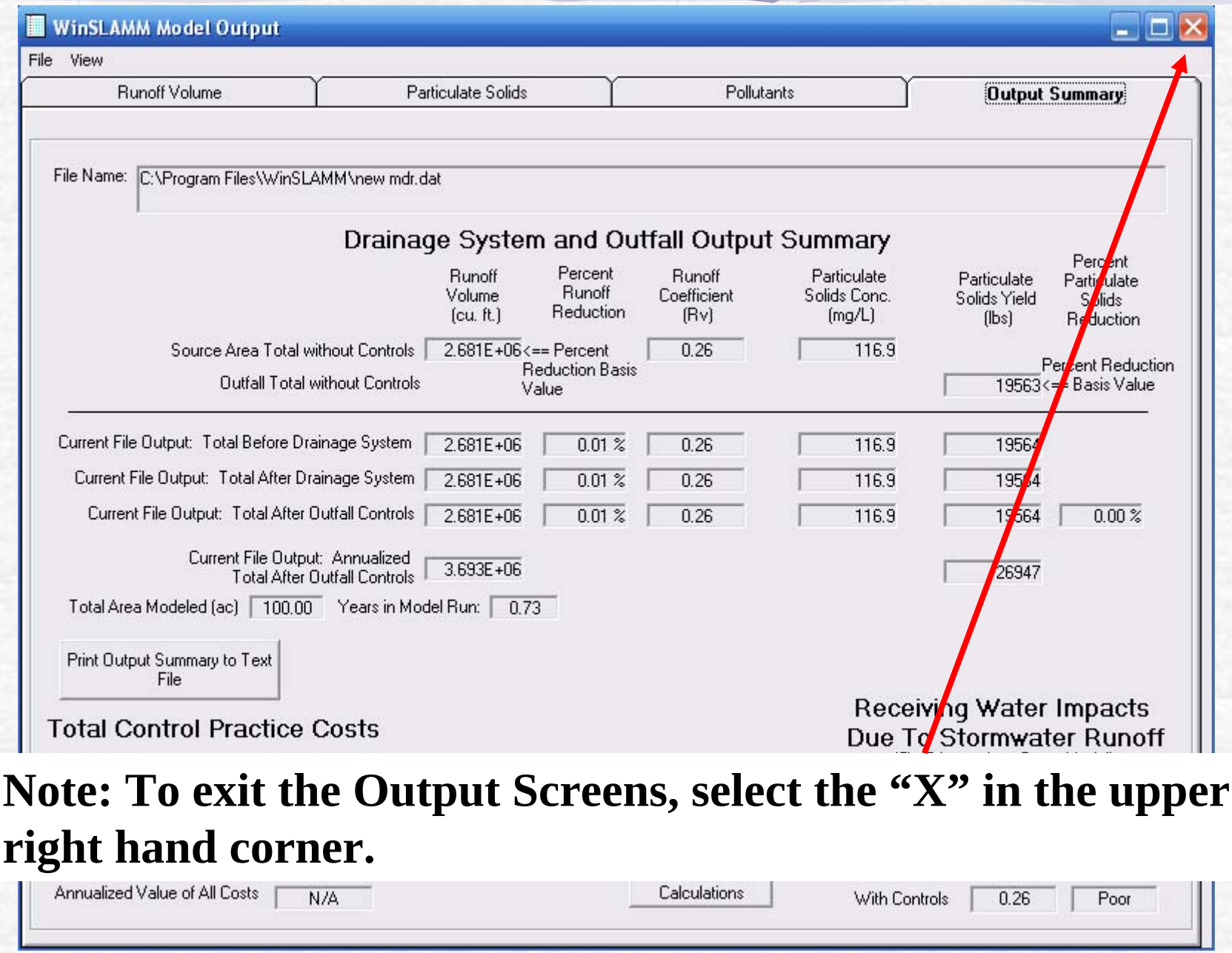
If Output Options 1 – 4 are selection, the Output Summary tab will be the first output screen to appear. This screen summarizes the drainage system and outfall output for runoff and particulate solids.

Output Summary



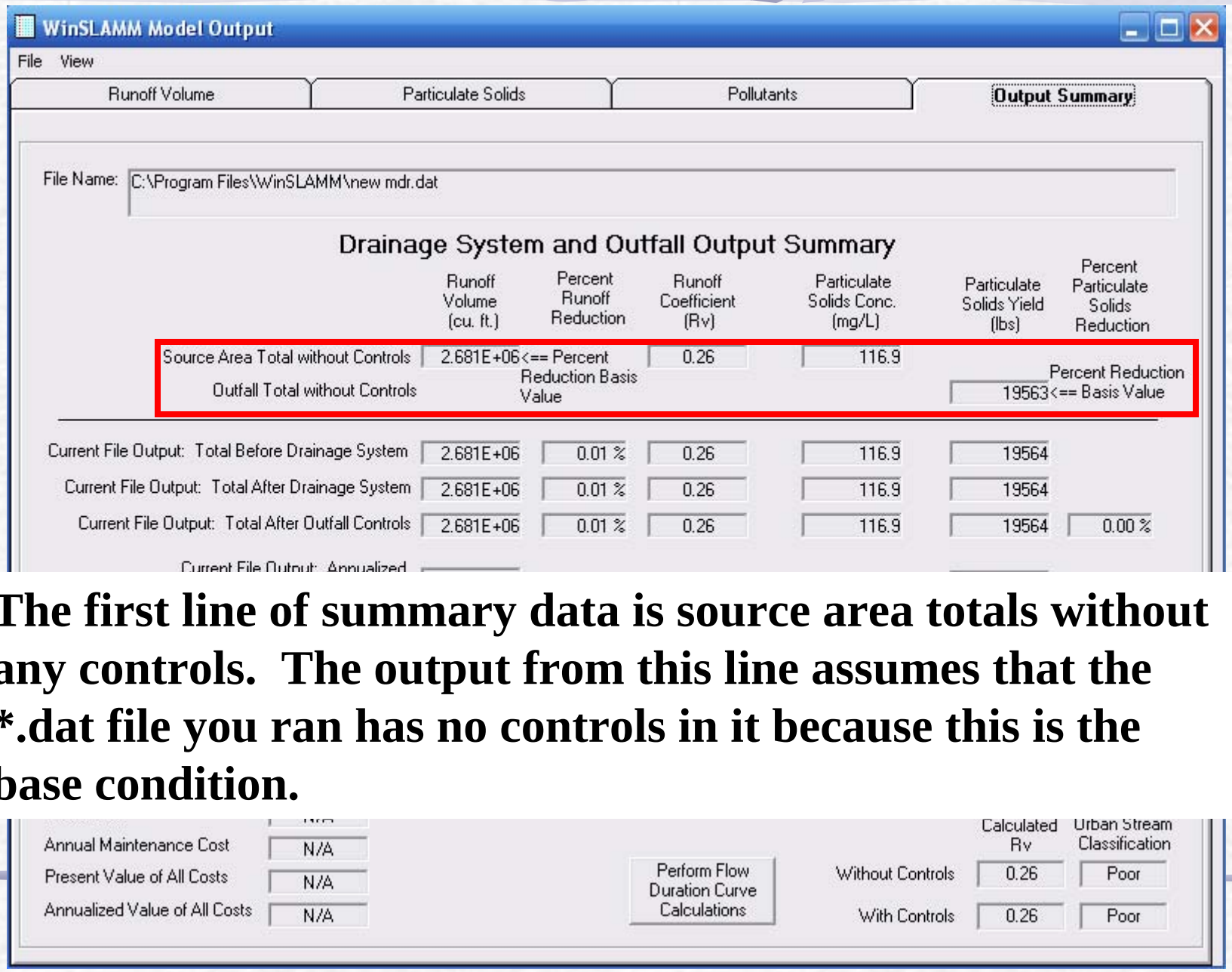
After reviewing the Output Summary, select the desired tab to review the detailed output for Runoff Volume, Particulate Solids, or Pollutants.

Output Summary



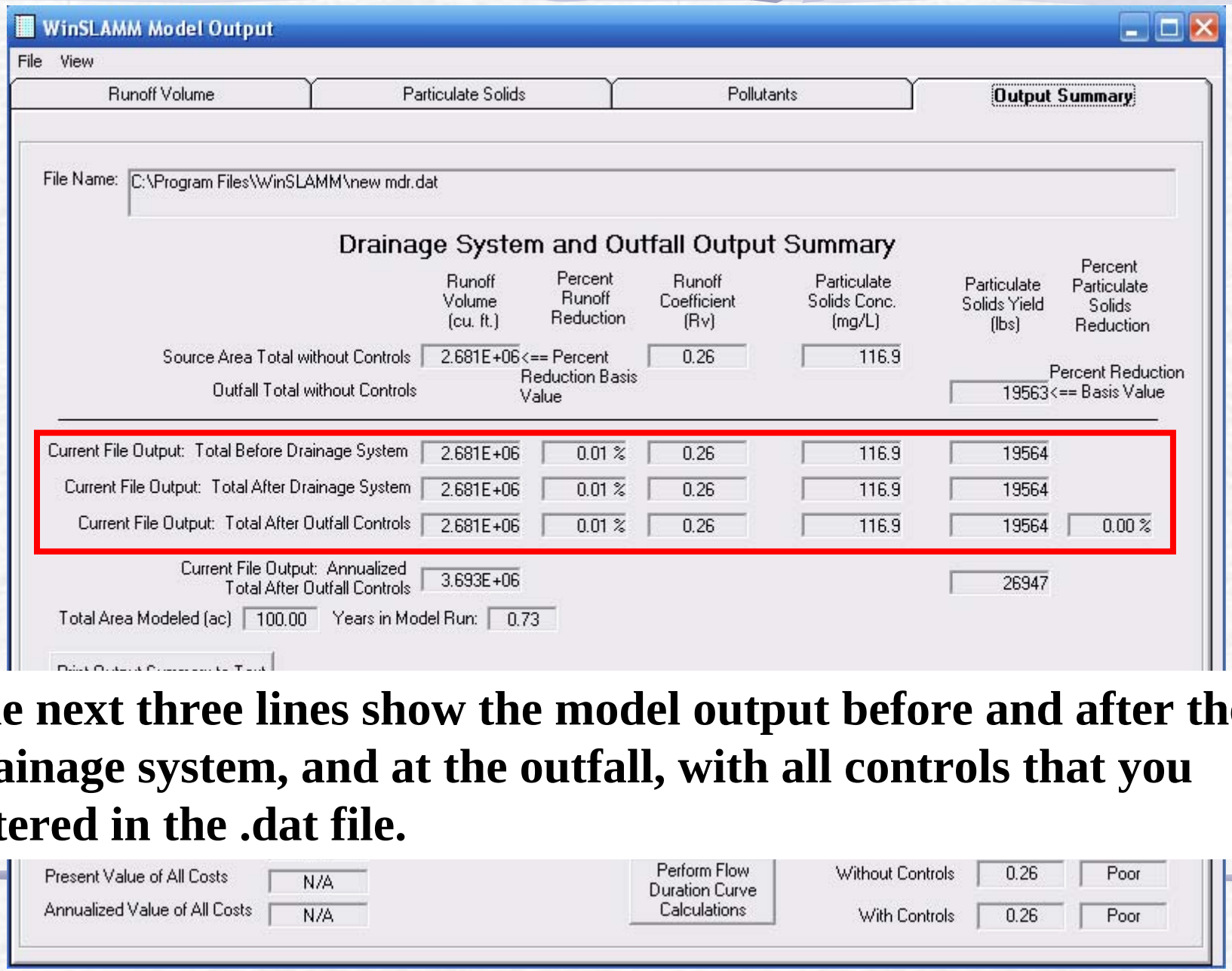
Note: To exit the Output Screens, select the "X" in the upper right hand corner.

Output Summary



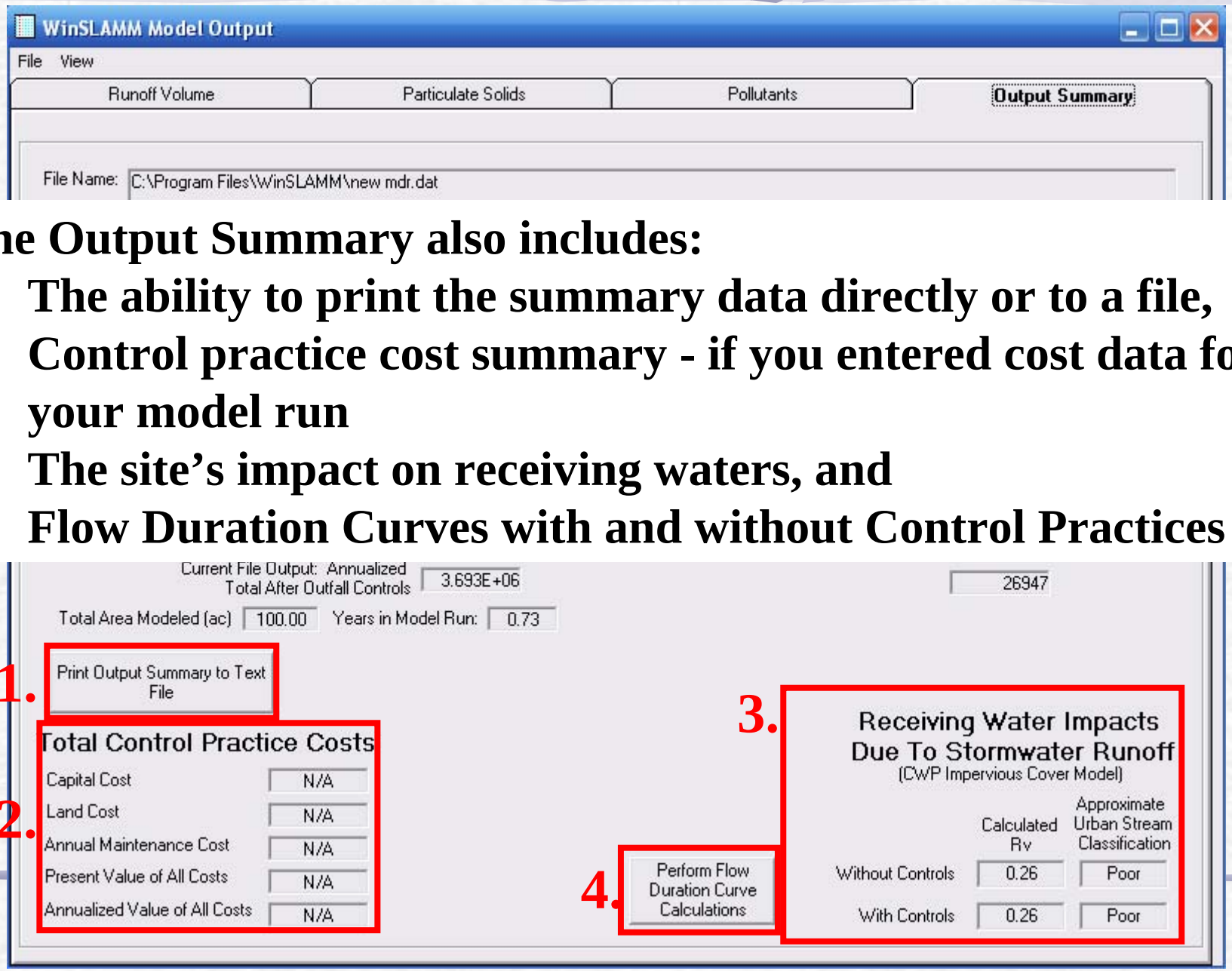
The first line of summary data is source area totals without any controls. The output from this line assumes that the *.dat file you ran has no controls in it because this is the base condition.

Output Summary



The next three lines show the model output before and after the drainage system, and at the outfall, with all controls that you entered in the .dat file.

Output Summary

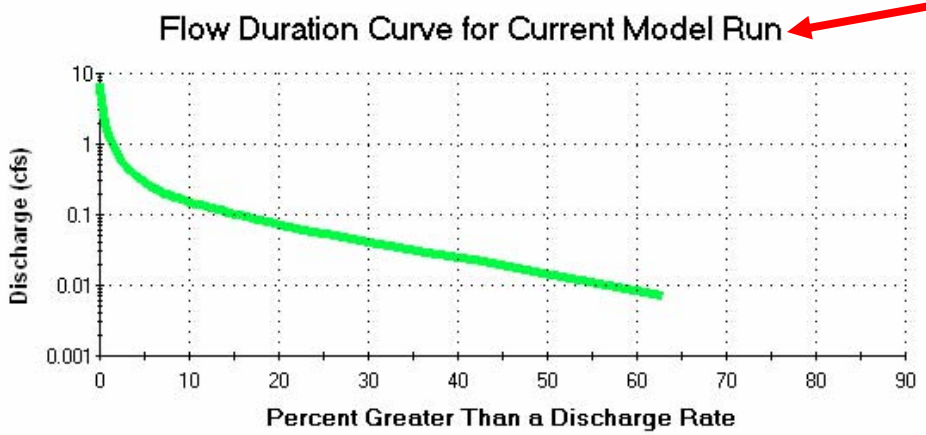


The Output Summary also includes:

1. **The ability to print the summary data directly or to a file,**
2. **Control practice cost summary - if you entered cost data for your model run**
3. **The site's impact on receiving waters, and**
4. **Flow Duration Curves with and without Control Practices**

Flow Duration Curves

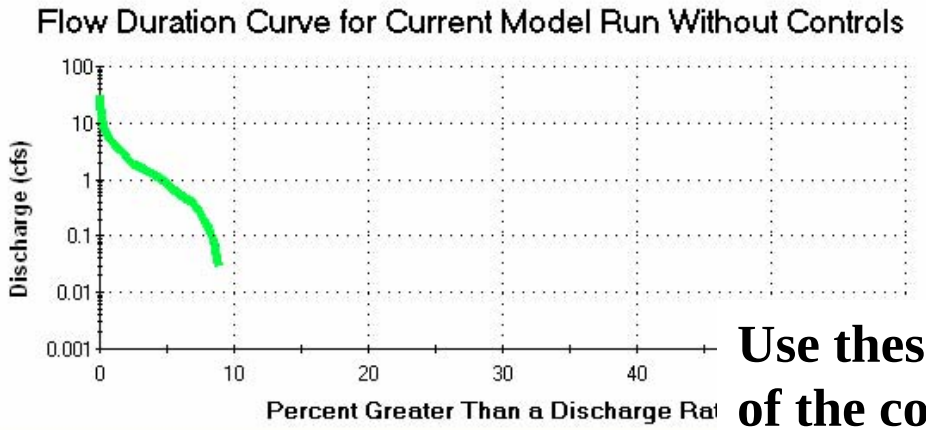
Flow Duration Curves



This shows a flow duration curve for a wet detention pond.

Flow Duration Data

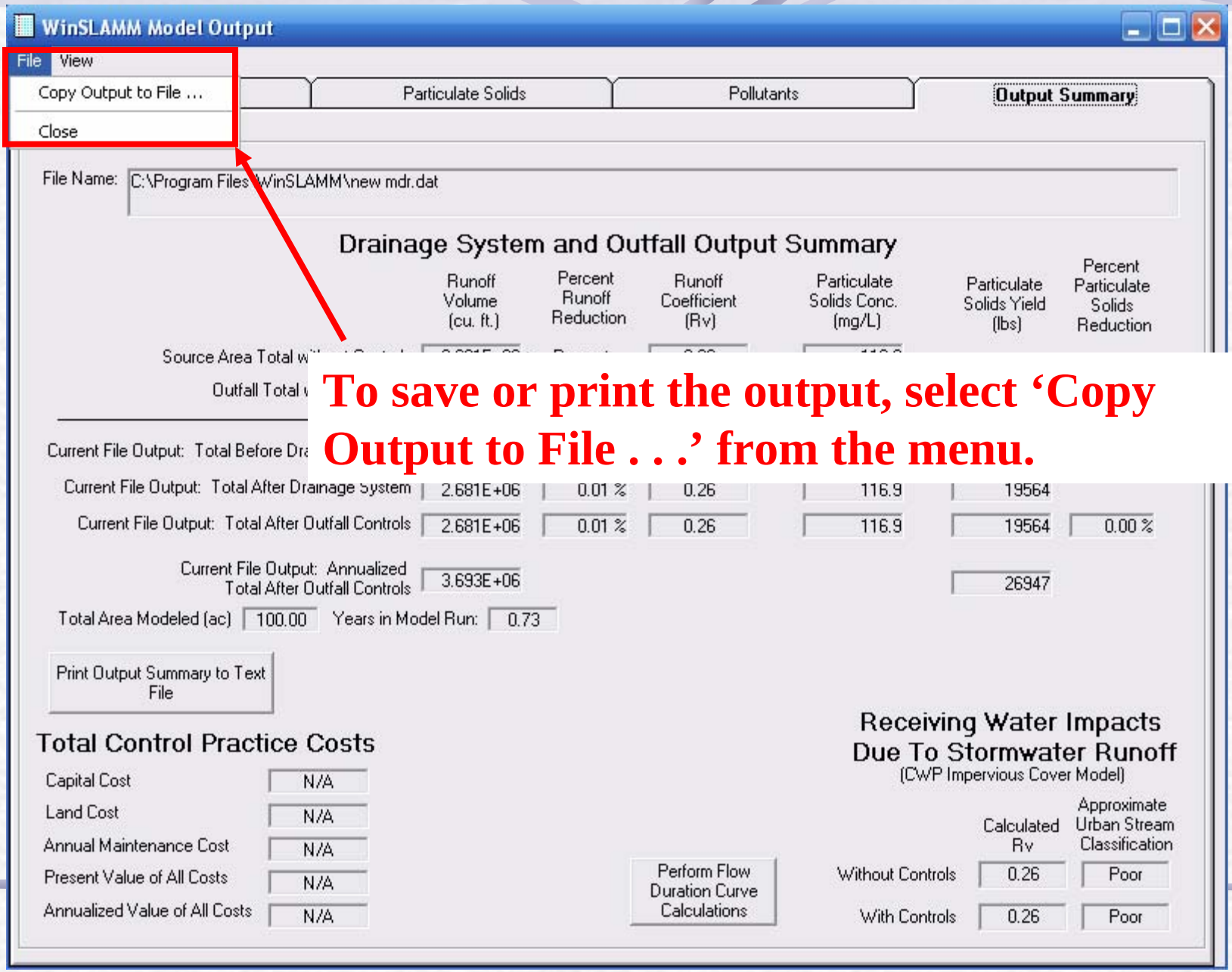
Discharge Greater Than Percent	Flow Rate (cfs) for Current Model Run	Flow Rate (cfs) Without Controls
0	7.196	29.54
0.1	5.045	14.89
1	1.317	4.284
3	0.4678	1.654
5	0.2878	0.8568
10	0.1511	0
20	0.07196	0
30	0.03598	0
40	0.02159	0
50	0.01439	0
60	0.007196	0
70	0	0
80	0	0



This shows a flow duration curve For the same .dat file without the wet detention pond.

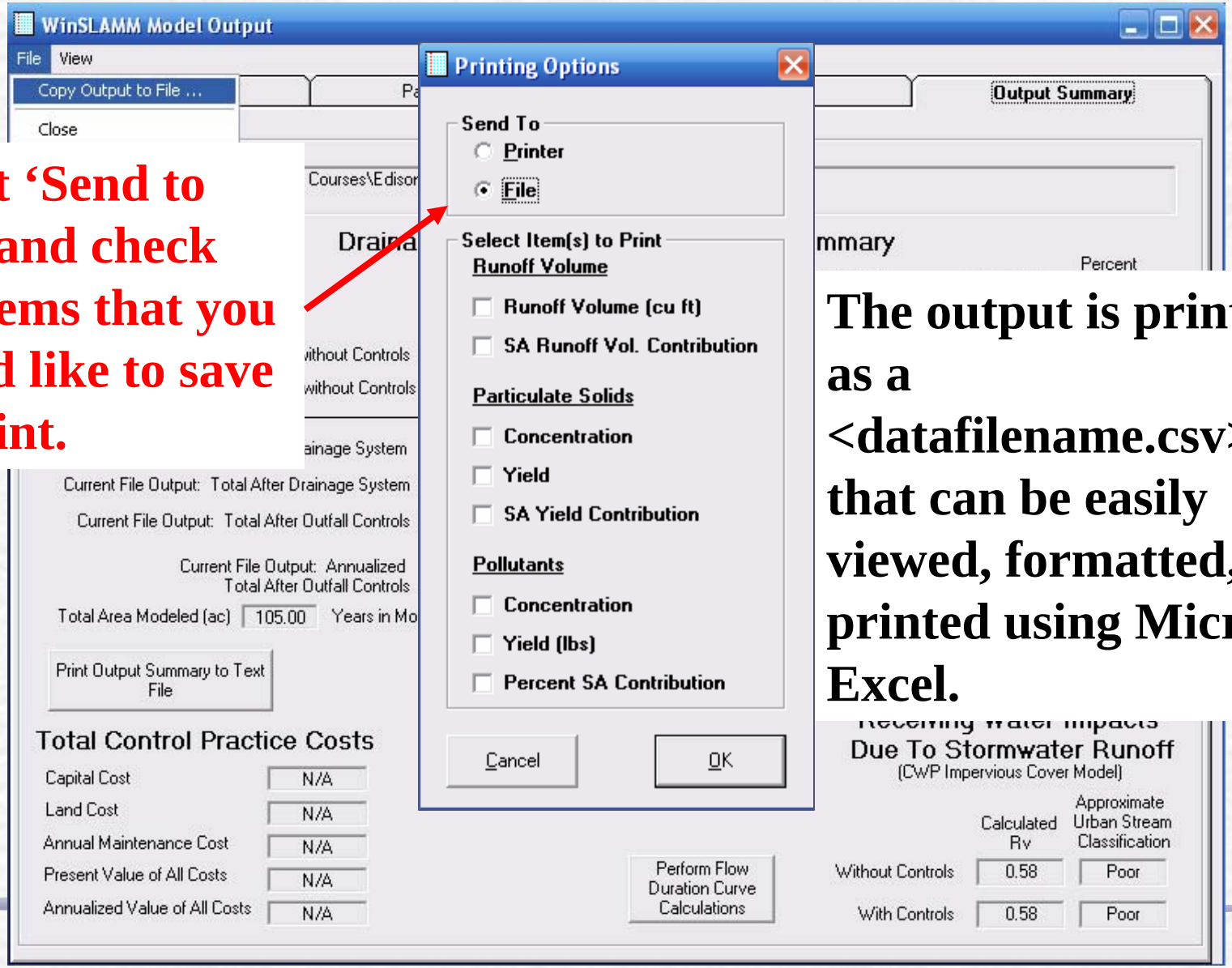
Use these curves to compare the attenuation of the control practices at the outfall to a no controls condition. See the Flow Duration Curves Help File Topic for more information.

Saving/Printing the Output



To save or print the output, select 'Copy Output to File . . .' from the menu.

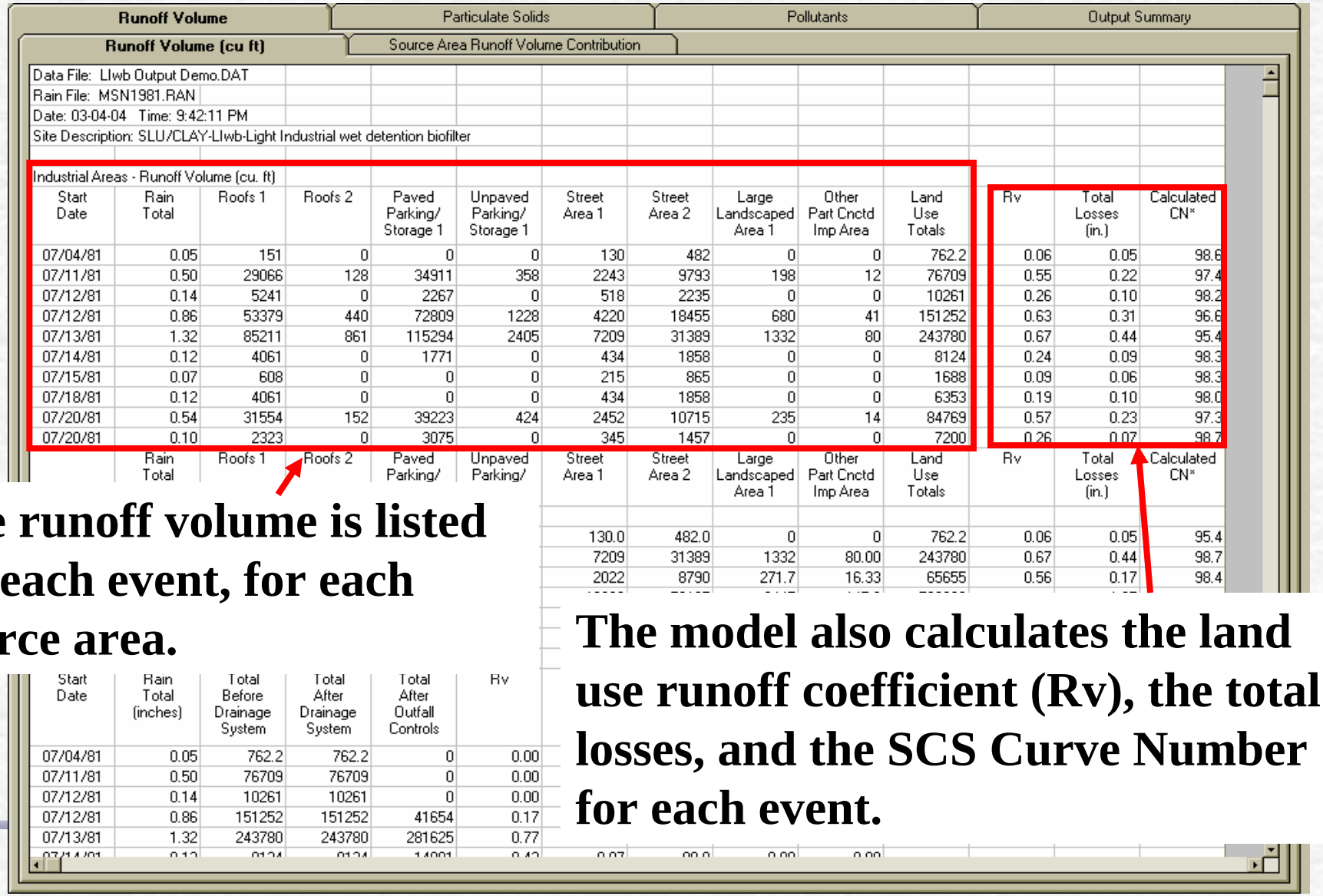
Saving/Printing the Output



Select 'Send to File' and check the items that you would like to save or print.

The output is printed as a <datafilename.csv> file that can be easily viewed, formatted, and printed using Microsoft Excel.

Output Option 1
Runoff Volume Tab - Source Areas



The runoff volume is listed for each event, for each source area.

The model also calculates the land use runoff coefficient (Rv), the total losses, and the SCS Curve Number for each event.

Output Option 1
Runoff Volume Tab - Source Areas

Runoff Volume | Particulate Solids | Pollutants | Output Summary

Runoff Volume (cu ft) | Source Area Runoff Volume Contribution

Data File: LIwb Output Demo.DAT
Rain File: MSN1981.RAN
Date: 03-04-04 Time: 9:42:11 PM
Site Description: SLU/CLAY-LIwb-Light Industrial wet detention biofilter

Industrial Areas - Runoff Volume (cu. ft)

Start Date	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1								
07/04/81	0.05	151	0	0	0								
07/11/81	0.50	29066	128	34911	358								
07/12/81	0.14	5241	0	2267	0								
07/12/81	0.86	53379	440	72809	1228								
07/13/81	1.32	85211	861	115294	2405								
07/14/81	0.12	4061	0	1771	0	434	1858	0	0	8124	0.24	0.09	98.3
07/15/81	0.07	608	0	0	0	215	865	0	0	1688	0.09	0.06	98.3
07/18/81	0.12	4061	0	0	0	434	1858	0	0	6353	0.19	0.10	98.0
07/20/81	0.54	31554	152	39223	424	2452	10715	235	14	84769	0.57	0.23	97.3
07/20/81	0.10	2323	0	3075	0	345	1457	0	0	7200	0.26	0.07	98.7

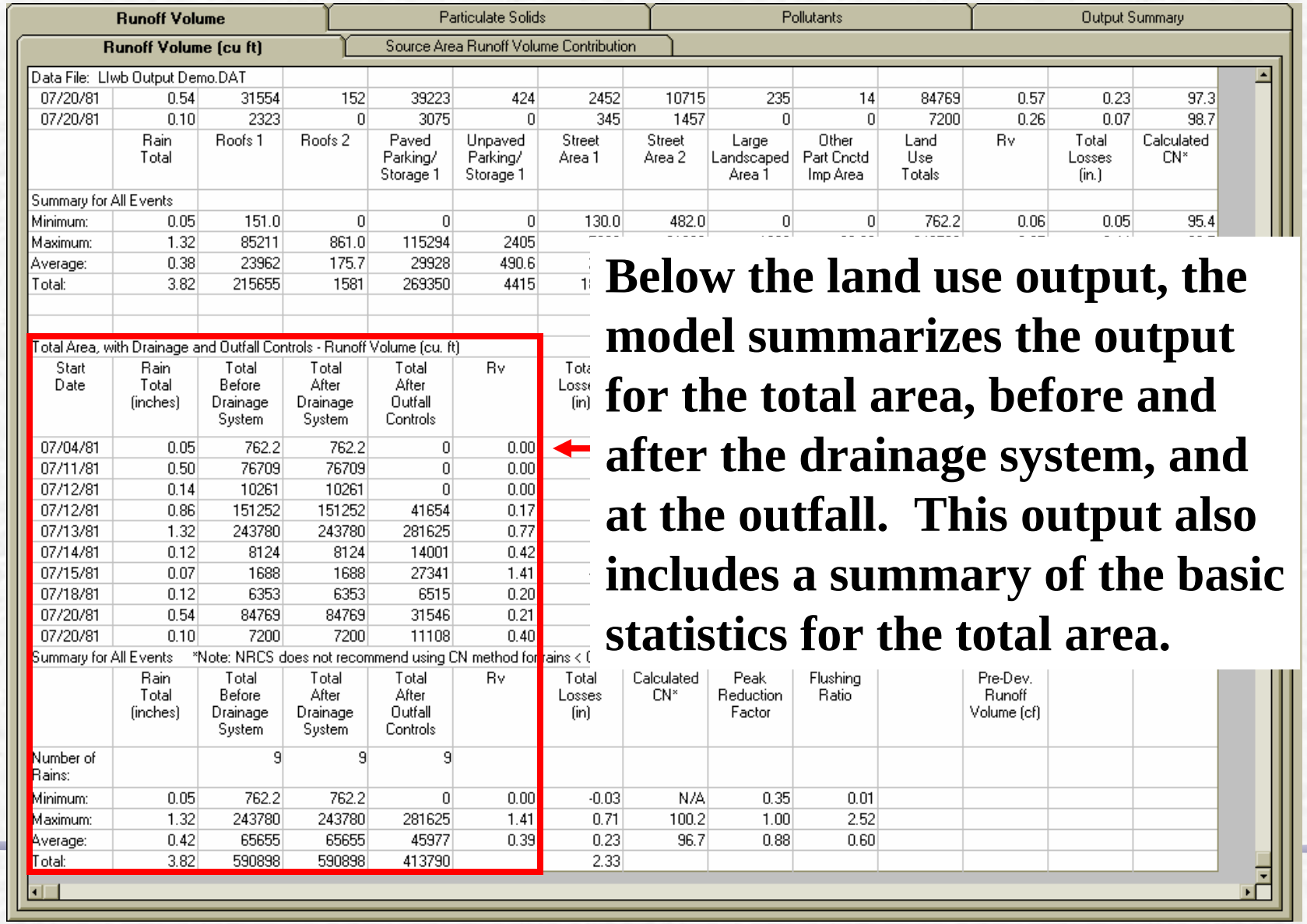
	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals	Rv	Total Losses (in.)	Calculated CN*
Summary for All Events													
Minimum:	0.05	151.0	0	0	0	130.0	482.0	0	0	762.2	0.06	0.05	95.4
Maximum:	1.32	85211	861.0	115294	2405	7209	31389	1332	80.00	243780	0.67	0.44	98.7
Average:	0.38	23962	175.7	29928	490.6	2022	8790	271.7	16.33	65655	0.56	0.17	98.4
Total:	3.82	215655	1581	269350	4415	18200	79107	2445	147.0	590898		1.67	

Total Area, with Drainage and Outfall Controls - Runoff Volume (cu. ft)

Start Date	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Total After Outfall Controls	Rv	Total Losses (in)	Calculated CN*	Peak Reduction Factor	Flushing Ratio	Det. Basin Out. Struct. Failed (l.u. #-src. area #)	Pre-Dev. Runoff Volume (cf)		
07/04/81	0.05	762.2	762.2	0	0.00	0.05	N/A	1.00	0.01				
07/11/81	0.50	76709	76709	0	0.00	0.50	N/A	1.00	0.79				
07/12/81	0.14	10261	10261	0	0.00	0.14	N/A	1.00	0.11				
07/12/81	0.86	151252	151252	41654	0.17	0.71	86.9	0.99	1.41				
07/13/81	1.32	243780	243780	281625	0.77	0.30	97.1	0.83	2.52	Outfall			
07/14/81	0.12	9124	9124	14991	0.42	0.07	99.0	0.99	0.99				

The runoff statistics - minimum, maximum, average, and total - are summarized for each source area below the event-by-event list.

Output Option 1
Runoff Volume Tab - Outfall



Runoff Volume | Particulate Solids | Pollutants | Output Summary

Runoff Volume (cu ft) | Source Area Runoff Volume Contribution

Data File: LIwb Output Demo.DAT

07/20/81	0.54	31554	152	39223	424	2452	10715	235	14	84769	0.57	0.23	97.3
07/20/81	0.10	2323	0	3075	0	345	1457	0	0	7200	0.26	0.07	98.7

	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals	Rv	Total Losses (in.)	Calculated CN*
Summary for All Events													
Minimum:	0.05	151.0	0	0	0	130.0	482.0	0	0	762.2	0.06	0.05	95.4
Maximum:	1.32	85211	861.0	115294	2405								
Average:	0.38	23962	175.7	29928	490.6								
Total:	3.82	215655	1581	269350	4415	1							

Total Area, with Drainage and Outfall Controls - Runoff Volume (cu. ft)

Start Date	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Total After Outfall Controls	Rv	Tota Loss (in)
07/04/81	0.05	762.2	762.2	0	0.00	
07/11/81	0.50	76709	76709	0	0.00	
07/12/81	0.14	10261	10261	0	0.00	
07/12/81	0.86	151252	151252	41654	0.17	
07/13/81	1.32	243780	243780	281625	0.77	
07/14/81	0.12	8124	8124	14001	0.42	
07/15/81	0.07	1688	1688	27341	1.41	
07/18/81	0.12	6353	6353	6515	0.20	
07/20/81	0.54	84769	84769	31546	0.21	
07/20/81	0.10	7200	7200	11108	0.40	

Summary for All Events *Note: NRCS does not recommend using CN method for rains < (

	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Total After Outfall Controls	Rv	Total Losses (in)	Calculated CN*	Peak Reduction Factor	Flushing Ratio		Pre-Dev. Runoff Volume (cf)		
Number of Rains:		9	9	9									
Minimum:	0.05	762.2	762.2	0	0.00	-0.03	N/A	0.35	0.01				
Maximum:	1.32	243780	243780	281625	1.41	0.71	100.2	1.00	2.52				
Average:	0.42	65655	65655	45977	0.39	0.23	96.7	0.88	0.60				
Total:	3.82	590898	590898	413790		2.33							

Below the land use output, the model summarizes the output for the total area, before and after the drainage system, and at the outfall. This output also includes a summary of the basic statistics for the total area.

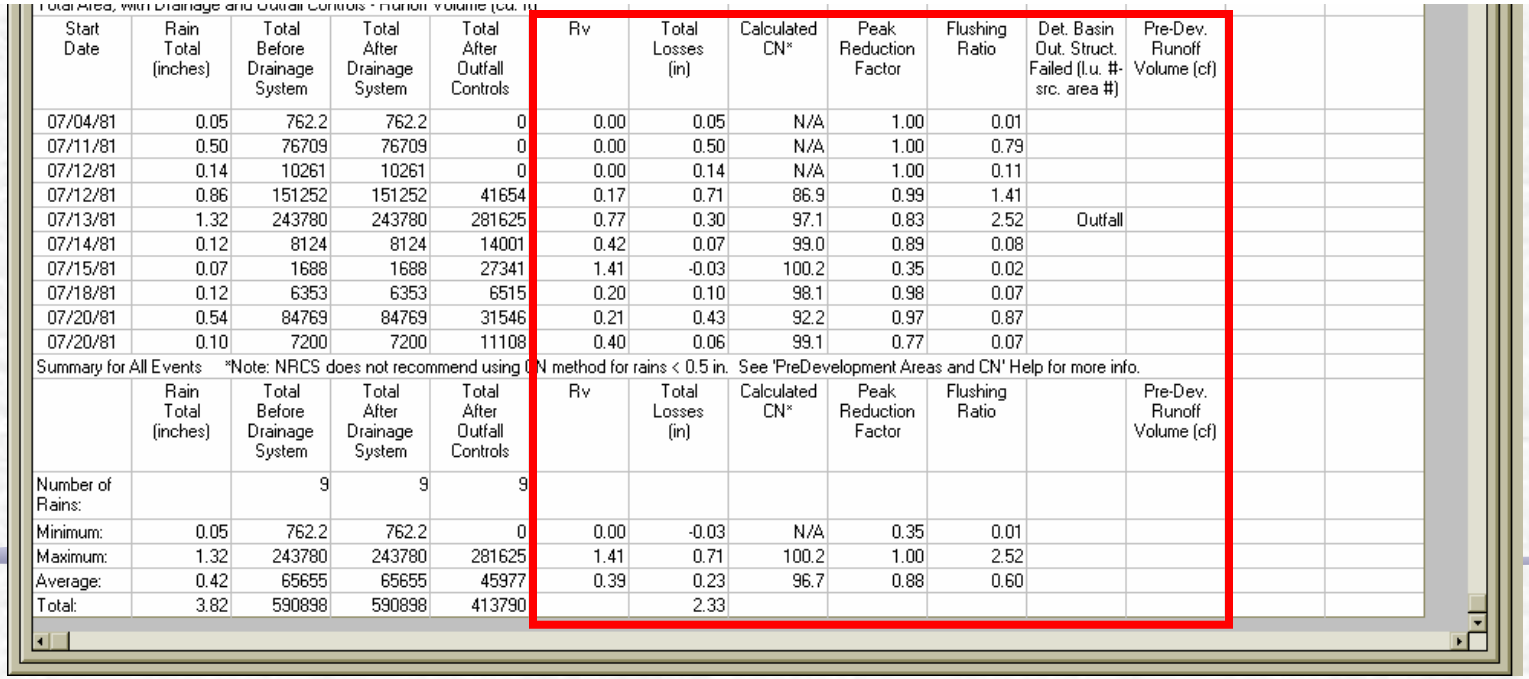
Output Option 1
Runoff Volume Tab - Outfall

The output also includes the

1. **Land Use Runoff Coefficient (Rv),**
2. **Total Losses, and**
3. **SCS Curve Number for each event.**

If there was a detention pond in the outfall, the output will also include:

1. **Event data and summary statistics for the Peak Reduction Factor,**
2. **The pond Flushing Ratio, and**
3. **Note if the outlet structure has failed for each event.**

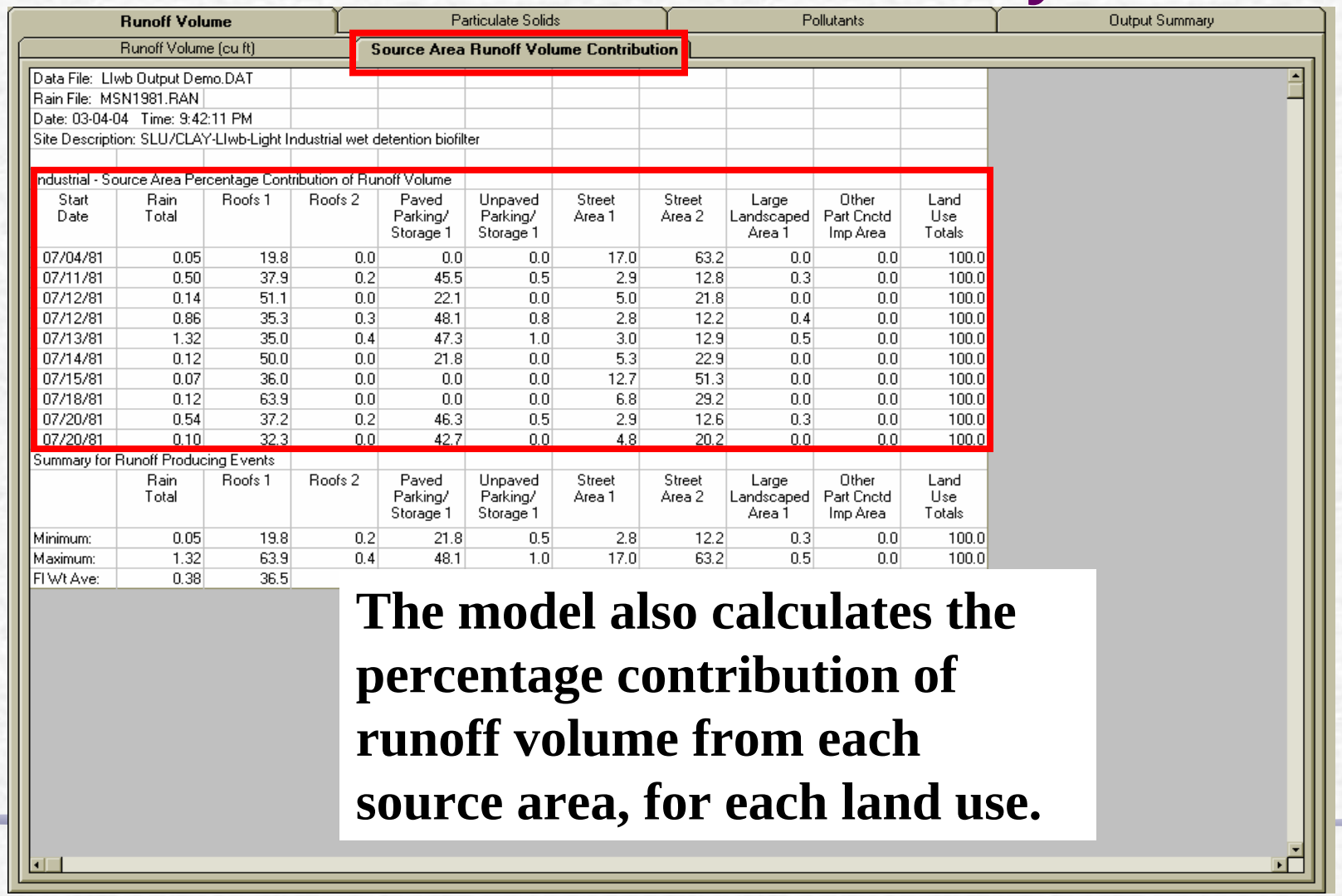


Start Date	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Total After Outfall Controls	Rv	Total Losses (in)	Calculated CN*	Peak Reduction Factor	Flushing Ratio	Det. Basin Out. Struct. Failed (l.u. #-src. area #)	Pre-Dev. Runoff Volume (cf)
07/04/81	0.05	762.2	762.2	0	0.00	0.05	N/A	1.00	0.01		
07/11/81	0.50	76709	76709	0	0.00	0.50	N/A	1.00	0.79		
07/12/81	0.14	10261	10261	0	0.00	0.14	N/A	1.00	0.11		
07/12/81	0.86	151252	151252	41654	0.17	0.71	86.9	0.99	1.41		
07/13/81	1.32	243780	243780	281625	0.77	0.30	97.1	0.83	2.52	Outfall	
07/14/81	0.12	8124	8124	14001	0.42	0.07	99.0	0.89	0.08		
07/15/81	0.07	1688	1688	27341	1.41	-0.03	100.2	0.35	0.02		
07/18/81	0.12	6353	6353	6515	0.20	0.10	98.1	0.98	0.07		
07/20/81	0.54	84769	84769	31546	0.21	0.43	92.2	0.97	0.87		
07/20/81	0.10	7200	7200	11108	0.40	0.06	99.1	0.77	0.07		

Summary for All Events *Note: NRCS does not recommend using CN method for rains < 0.5 in. See 'PreDevelopment Areas and CN' Help for more info.

	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Total After Outfall Controls	Rv	Total Losses (in)	Calculated CN*	Peak Reduction Factor	Flushing Ratio		Pre-Dev. Runoff Volume (cf)
Number of Rains:		9	9	9							
Minimum:	0.05	762.2	762.2	0	0.00	-0.03	N/A	0.35	0.01		
Maximum:	1.32	243780	243780	281625	1.41	0.71	100.2	1.00	2.52		
Average:	0.42	65655	65655	45977	0.39	0.23	96.7	0.88	0.60		
Total:	3.82	590898	590898	413790		2.33					

Output Option 1
Runoff Volume Source Area Percent Contribution Summary



Runoff Volume | Particulate Solids | Pollutants | Output Summary

Runoff Volume (cu ft) | Source Area Runoff Volume Contribution

Data File: LIwb Output Demo.DAT
Rain File: MSN1981.RAN
Date: 03-04-04 Time: 9:42:11 PM
Site Description: SLU/CLAY-LIwb-Light Industrial wet detention biofilter

ndustrial - Source Area Percentage Contribution of Runoff Volume

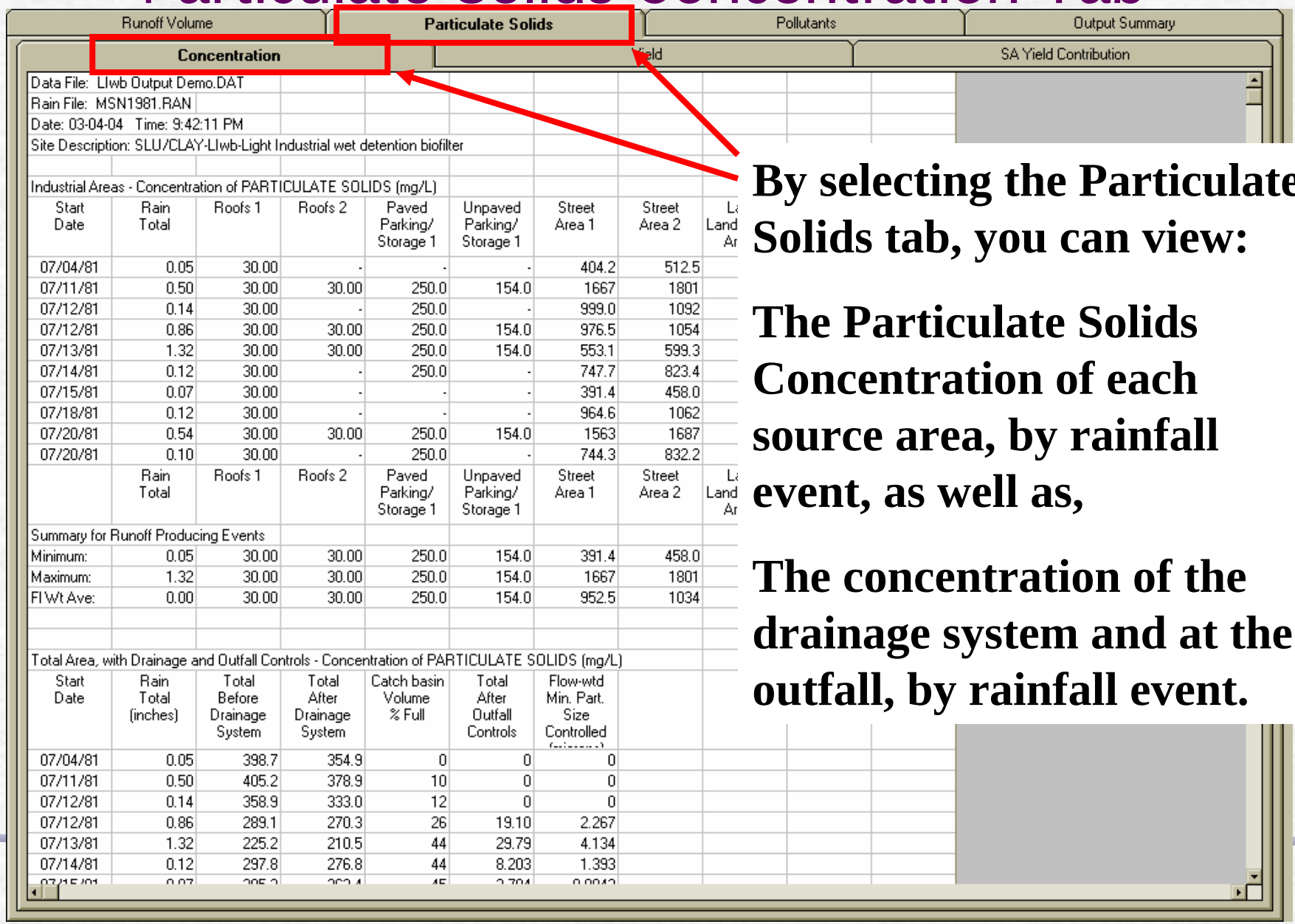
Start Date	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals
07/04/81	0.05	19.8	0.0	0.0	0.0	17.0	63.2	0.0	0.0	100.0
07/11/81	0.50	37.9	0.2	45.5	0.5	2.9	12.8	0.3	0.0	100.0
07/12/81	0.14	51.1	0.0	22.1	0.0	5.0	21.8	0.0	0.0	100.0
07/12/81	0.86	35.3	0.3	48.1	0.8	2.8	12.2	0.4	0.0	100.0
07/13/81	1.32	35.0	0.4	47.3	1.0	3.0	12.9	0.5	0.0	100.0
07/14/81	0.12	50.0	0.0	21.8	0.0	5.3	22.9	0.0	0.0	100.0
07/15/81	0.07	36.0	0.0	0.0	0.0	12.7	51.3	0.0	0.0	100.0
07/18/81	0.12	63.9	0.0	0.0	0.0	6.8	29.2	0.0	0.0	100.0
07/20/81	0.54	37.2	0.2	46.3	0.5	2.9	12.6	0.3	0.0	100.0
07/20/81	0.10	32.3	0.0	42.7	0.0	4.8	20.2	0.0	0.0	100.0

Summary for Runoff Producing Events

	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals
Minimum:	0.05	19.8	0.2	21.8	0.5	2.8	12.2	0.3	0.0	100.0
Maximum:	1.32	63.9	0.4	48.1	1.0	17.0	63.2	0.5	0.0	100.0
Fl Wt Ave:	0.38	36.5								

The model also calculates the percentage contribution of runoff volume from each source area, for each land use.

Output Option 1
Particulate Solids Concentration Tab



Runoff Volume | **Particulate Solids** | Pollutants | Output Summary

Concentration | ield | SA Yield Contribution

Data File: LIwb Output Demo.DAT
Rain File: MSN1981.RAN
Date: 03-04-04 Time: 9:42:11 PM
Site Description: SLU/CLAY-LIwb-Light Industrial wet detention biofilter

Industrial Areas - Concentration of PARTICULATE SOLIDS (mg/L)

Start Date	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	La Land Ar
07/04/81	0.05	30.00	-	-	-	404.2	512.5	
07/11/81	0.50	30.00	30.00	250.0	154.0	1667	1801	
07/12/81	0.14	30.00	-	250.0	-	999.0	1092	
07/12/81	0.86	30.00	30.00	250.0	154.0	976.5	1054	
07/13/81	1.32	30.00	30.00	250.0	154.0	553.1	599.3	
07/14/81	0.12	30.00	-	250.0	-	747.7	823.4	
07/15/81	0.07	30.00	-	-	-	391.4	458.0	
07/18/81	0.12	30.00	-	-	-	964.6	1062	
07/20/81	0.54	30.00	30.00	250.0	154.0	1563	1687	
07/20/81	0.10	30.00	-	250.0	-	744.3	832.2	
	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	La Land Ar
Summary for Runoff Producing Events								
Minimum:	0.05	30.00	30.00	250.0	154.0	391.4	458.0	
Maximum:	1.32	30.00	30.00	250.0	154.0	1667	1801	
Fl Wt Ave:	0.00	30.00	30.00	250.0	154.0	952.5	1034	

Total Area, with Drainage and Outfall Controls - Concentration of PARTICULATE SOLIDS (mg/L)

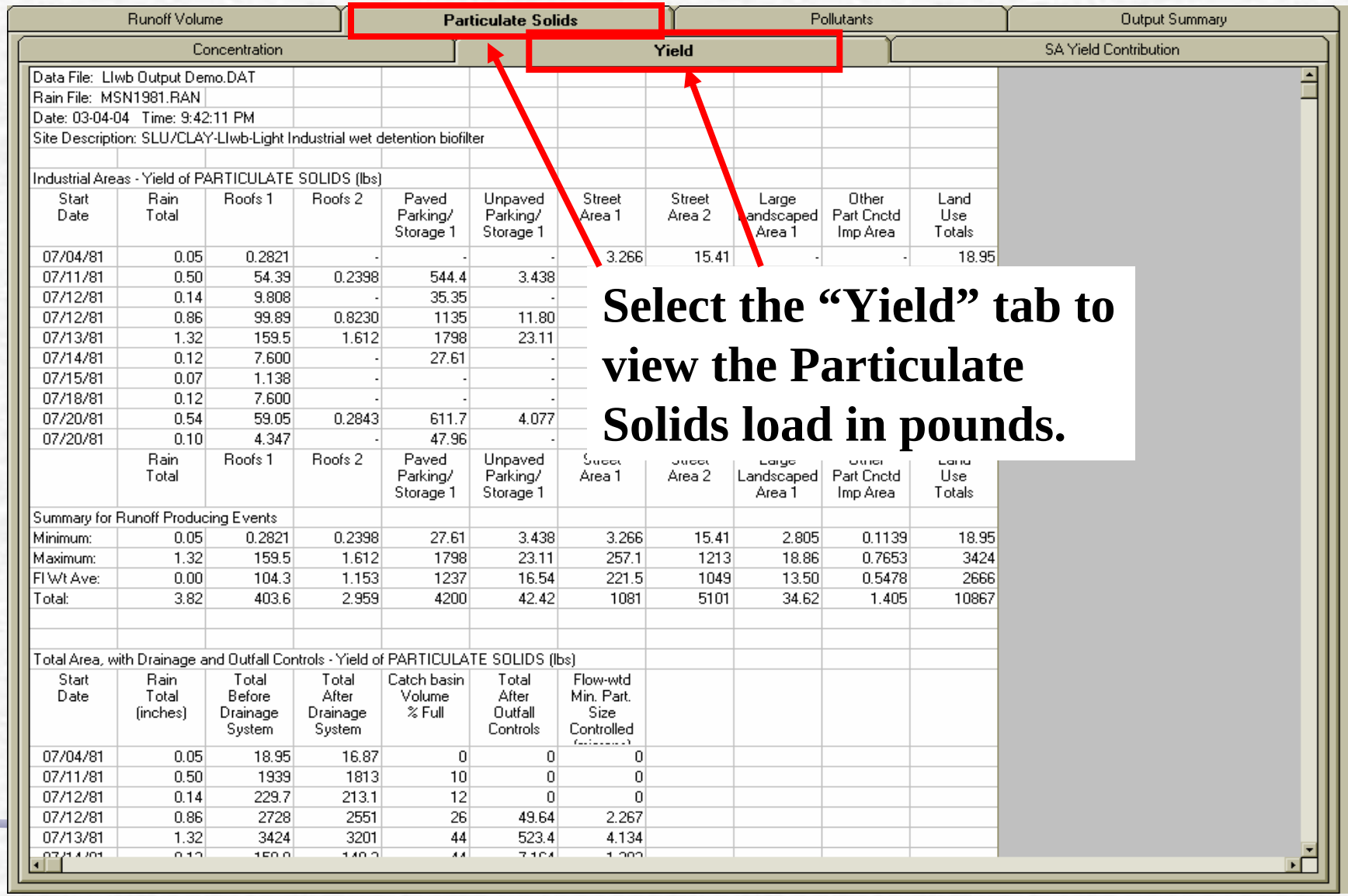
Start Date	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Catch basin Volume % Full	Total After Outfall Controls	Flow-wtd Min. Part. Size Controlled
07/04/81	0.05	398.7	354.9	0	0	0
07/11/81	0.50	405.2	378.9	10	0	0
07/12/81	0.14	358.9	333.0	12	0	0
07/12/81	0.86	289.1	270.3	26	19.10	2.267
07/13/81	1.32	225.2	210.5	44	29.79	4.134
07/14/81	0.12	297.8	276.8	44	8.203	1.393

By selecting the Particulate Solids tab, you can view:

The Particulate Solids Concentration of each source area, by rainfall event, as well as,

The concentration of the drainage system and at the outfall, by rainfall event.

Output Option 1
Particulate Solids Yield Tab



Data File: LIwb Output Demo.DAT
Rain File: MSN1981.RAN
Date: 03-04-04 Time: 9:42:11 PM
Site Description: SLU/CLAY-LIwb-Light Industrial wet detention biofilter

Industrial Areas - Yield of PARTICULATE SOLIDS (lbs)

Start Date	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals
07/04/81	0.05	0.2821	-	-	-	3.266	15.41	-	-	18.95
07/11/81	0.50	54.39	0.2398	544.4	3.438					
07/12/81	0.14	9.808	-	35.35	-					
07/12/81	0.86	99.89	0.8230	1135	11.80					
07/13/81	1.32	159.5	1.612	1798	23.11					
07/14/81	0.12	7.600	-	27.61	-					
07/15/81	0.07	1.138	-	-	-					
07/18/81	0.12	7.600	-	-	-					
07/20/81	0.54	59.05	0.2843	611.7	4.077					
07/20/81	0.10	4.347	-	47.96	-					

	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals
Summary for Runoff Producing Events										
Minimum:	0.05	0.2821	0.2398	27.61	3.438	3.266	15.41	2.805	0.1139	18.95
Maximum:	1.32	159.5	1.612	1798	23.11	257.1	1213	18.86	0.7653	3424
Fl Wt Ave:	0.00	104.3	1.153	1237	16.54	221.5	1049	13.50	0.5478	2666
Total:	3.82	403.6	2.959	4200	42.42	1081	5101	34.62	1.405	10867

Total Area, with Drainage and Outfall Controls - Yield of PARTICULATE SOLIDS (lbs)

Start Date	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Catch basin Volume % Full	Total After Outfall Controls	Flow-wtd Min. Part. Size Controlled
07/04/81	0.05	18.95	16.87	0	0	0
07/11/81	0.50	1939	1813	10	0	0
07/12/81	0.14	229.7	213.1	12	0	0
07/12/81	0.86	2728	2551	26	49.64	2.267
07/13/81	1.32	3424	3201	44	523.4	4.134

Output Option 1
Particulate Solids Yield Tab - Outfall

Runoff Volume | **Particulate Solids** | Pollutants | Output Summary

Concentration | **Yield** | SA Yield Contribution

Data File: LIwb Output Demo.DAT

07/20/81	0.54	59.05	0.2843	611.7	4.077	239.1	1128	3.327	0.1350	2045
07/20/81	0.10	4.347	-	47.96	-	16.03	75.64	-	-	144.0
	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals
Summary for Runoff Producing Events										
Minimum:	0.05	0.2821	0.2398	27.61	3.438	3.266	15.41	2.805	0.1139	18.95
Maximum:	1.32	159.5	1.612	1798	23.11	257.1	1213	18.86	0.7653	3424
Fl Wt Ave:	0.00	104.3	1.153	1237	16.54	221.5	1049	13.50	0.5478	2666
Total:	3.82	403.6	2.959	4200	42.42	1081	5101	34.62	1.405	10867

Total Area, with Drainage and Outfall Controls - Yield of PARTICULATE SOLIDS (lbs)

Start Date	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Catch basin Volume % Full	Total After Outfall Controls	Flow-wtd Min. Part. Size Controlled (microns)
07/04/81	0.05	18.95	16.87	0	0	0
07/11/81	0.50	1939	1813	10	0	0
07/12/81	0.14	229.7	213.1	12	0	0
07/12/81	0.86	2728	2551	26	49.64	2.267
07/13/81	1.32	3424	3201	44	523.4	4.134
07/14/81	0.12	150.9	140.3	44	7.164	1.393
07/15/81	0.07	31.09	27.73	45	4.765	0.8842
07/18/81	0.12	156.8	144.6	46	0.8732	0.5886
07/20/81	0.54	2045	1912	56	45.03	2.085
07/20/81	0.10	144.0	133.3	57	11.79	1.947
Summary for Runoff Producing Events						
	Rain Total (inches)	Total Before Drainage System	Total After Drainage System	Catch basin Volume % Full	Total After Outfall Controls	Flow-wtd Min. Part. Size Controlled (microns)
Minimum:	0.05	18.95	16.87	10.00	0.87	0.59
Maximum:	1.32	3424	3201	57.00	523.40	4.13
Fl Wt Ave:		2666	2492		365.5	3.368
Total:	3.82	10867	10153		642.66	

Note: The Particulate Solids Yield summary at the outfall also includes the Flow-Weighted Minimum Particle Size (in microns) controlled by the outfall pond, if there was one.

Output Option 1
Particulate Solids Yield Source Area Percent Contribution Summary

Runoff Volume | **Particulate Solids** | Pollutants | Output Summary

Concentration | Yield | **SA Yield Contribution**

Data File: LIwb Output Demo.DAT
Rain File: MSN1981.RAN
Date: 03-04-04 Time: 9:42:11 PM
Site Description: SLU/CLAY-LIwb-Light Industrial wet detention biofilter

Industrial - Source Area Percentage Contribution of Particulate Solids Yield

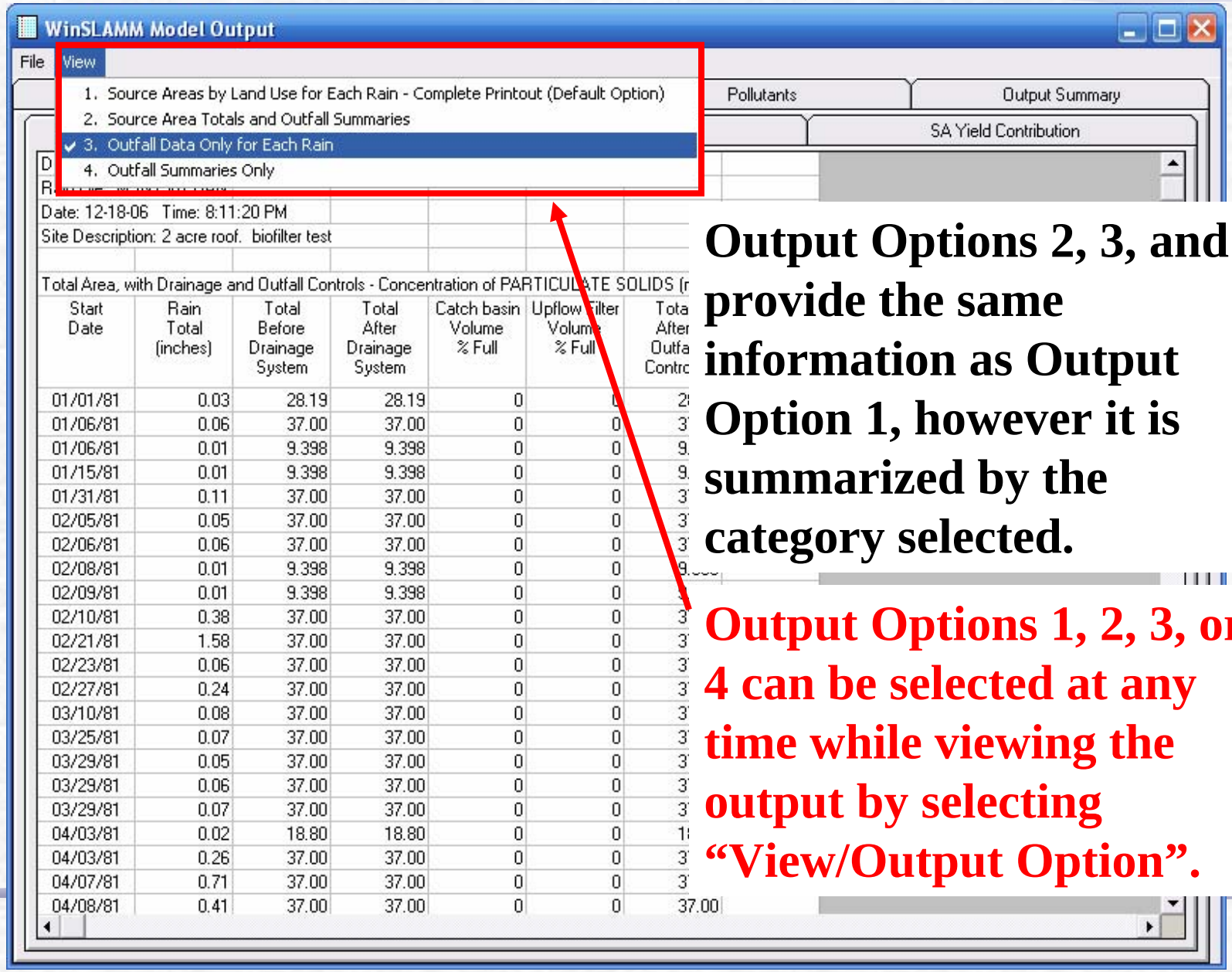
Start Date	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals
07/04/81	0.05	1.5	0.0	0.0	0.0	17.2	81.3	0.0	0.0	100.0
07/11/81	0.50	2.8	0.0	28.1	0.2	12.0	56.7	0.1	0.0	100.0
07/12/81	0.14	4.3	0.0	15.4	0.0	14.1	66.3	0.0	0.0	100.0
07/12/81	0.86	3.7	0.0	41.6	0.4	9.4	44.5	0.4	0.0	100.0
07/13/81	1.32	4.7	0.0	52.5	0.7	7.3	34.3	0.6	0.0	100.0
07/14/81	0.12	5.0	0.0	18.3	0.0	13.4	63.3	0.0	0.0	100.0
07/15/81	0.07	3.7	0.0	0.0	0.0	16.8	79.5	0.0	0.0	100.0
07/18/81	0.12	4.8	0.0	0.0	0.0	16.6	78.5	0.0	0.0	100.0
07/20/81	0.54	2.9	0.0	29.9	0.2	11.7	55.1	0.2	0.0	100.0
07/20/81	0.10	3.0	0.0	33.3	0.0	11.1	52.5	0.0	0.0	100.0

Summary for Runoff Producing Events

	Rain Total	Roofs 1	Roofs 2	Paved Parking/ Storage 1	Unpaved Parking/ Storage 1	Street Area 1	Street Area 2	Large Landscaped Area 1	Other Part Cnctd Imp Area	Land Use Totals
Minimum:	0.05	1.5	0.0	15.4	0.2	7.3	34.3	0.1	0.0	100.0
Maximum:	1.32	5.0	0.0	52.5	0.7	17.2	81.3	0.6	0.0	100.0
Fl Wt Ave:	0.38	3.7	0.0	38.7	0.4	9.9	46.9	0.3	0.0	100.0

The model also calculates the percentage contribution of particulate solids from each source area, for each land use.

Output Options 2-4



Output Options 2, 3, and 4 provide the same information as Output Option 1, however it is summarized by the category selected.

Output Options 1, 2, 3, or 4 can be selected at any time while viewing the output by selecting "View/Output Option".

Output Option 5
One Line per Event Summary

Event Number	Rain Start Date	Rain Start Time	Julian Start Date & Time	Rain Duration (hrs)	Rain Interevent Period(days)	Runoff Duration (hrs)	Rain Depth (in)	Runoff Volume (cf)	R sub v
52	07/04/81	13:00	10,777.54	1.99	6.92	2.39	0.05	0	0.00
53	07/11/81	13:00	10,784.54	1.99	0.42	2.39	0.50	0	0.00
54	07/12/81	01:00	10,785.04	2.99	0.50	3.59	0.14	0	0.00
55	07/12/81	16:00	10,785.67	0.99	0.33	1.19	0.86	41,654	0.17
56	07/13/81	01:00	10,786.04	1.99	1.46	2.39	1.32	281,625	0.77
57	07/14/81	14:00	10,787.58	2.01	0.46	2.41	0.12	14,001	0.42
58	07/15/81	03:00	10,788.12	4.00	3.25	4.80	0.07	27,341	1.41
59	07/18/81	13:00	10,791.54	1.99	1.50	2.39	0.12	6,515	0.20
60	07/20/81	03:00	10,793.12	2.00	0.37	2.40	0.54	31,546	0.21
61	07/20/81	14:00	10,793.58	2.01	0.00	2.41	0.10	11,108	0.40

Summary Statistics	Rain Duration (hrs)	Rain Interevent Period(days)	Runoff Duration (hrs)	Rain Depth (in)	Runoff Volume (cf)	R sub v
Number of Events	9	9	7	9	7	7
Total	21.97	15.21	17.99	3.820	413791	n/a
Equivalent Annual Total	499.9	346.1	409.4	86.92	9.415E+06	n/a
Minimum	0.9922	0	1.191	1.000E+07	6515	0.1749
Maximum	4.000	6.917	4.800	1.320	281625	1.410
Average of All Events	2.197	1.521	2.570	0.3820	59113	0.5121
Median	1.992	0.4583	2.400	0.1200	27341	0.4010
Stnd. Deviation	0.7897	2.122	1.082	0.4256	98904	0.4469
COV	0.3595	1.395	0.4209	1.114	1.673	0.8727

First Rain Date: 07/04/81
Last Rain Date: 07/20/81
Total 1

Output Option 5 provides a summary of the outfall results. The results are summarized based on the output option selected.

Scroll to the right to see the balance of the output.

Exit

Output Option 5
One Line per Event Summary - Continued

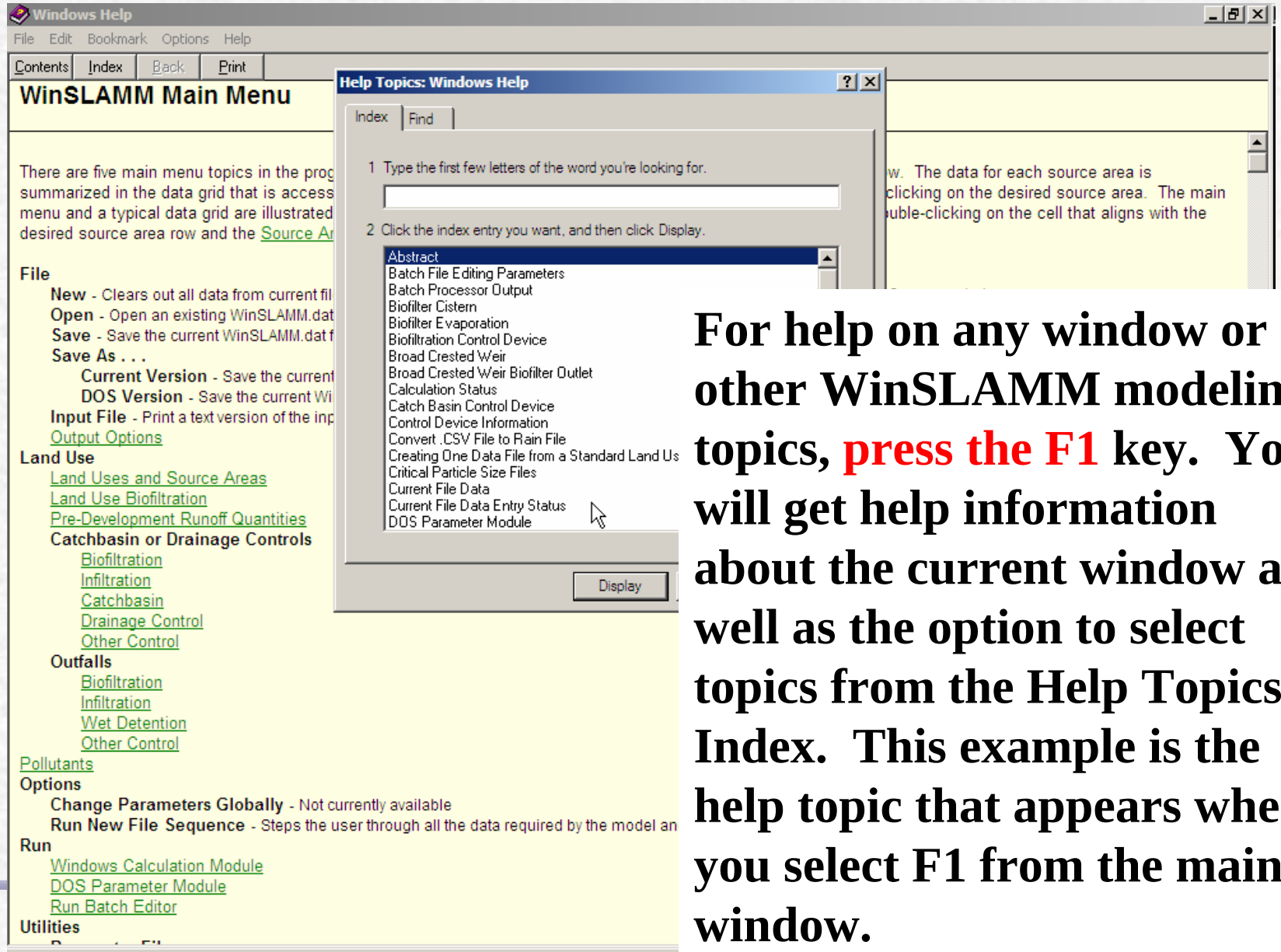
n	Runoff Duration (hrs)	Rain Depth (in)	Runoff Volume (cf)	R sub v	Average Flow (cfs)	Peak Flow (cfs)	Suspended Solids Conc(mg/L)	Suspended Solids Mass(lbs)	Pre-Develop. Runoff Volume (cf)
2	2.39	0.05	0	0.00	0.00	0.00	0	0	
2	2.39	0.50	0	0.00	0.00	0.00	0	0	
0	3.59	0.14	0	0.00	0.00	0.00	0	0	
3	1.19	0.86	41,654	0.17	368.30	1.68	19	50	
5	2.39	1.32	281,625	0.77	9.91	18.60	30	523	
5	2.41	0.12	14,001	0.42	0.31	0.39	8	7	
5	4.80	0.07	27,341	1.41	0.10	0.24	3	5	
0	2.39	0.12	6,515	0.20	0.05	0.07	2	1	
7	2.40	0.54	31,546	0.21	0.83	1.19	23	45	
0	2.41	0.10	11,108	0.40	0.67	0.72	17	12	

n	Runoff Duration (hrs)	Rain Depth (in)	Runoff Volume (cf)	R sub v	Average Flow (cfs)	Peak Flow (cfs)	Suspended Solids Conc(mg/L)	Suspended Solids Mass(lbs)	Pre-Develop. Runoff Volume (cf)
9	7	9	7	7	7	7	7	7	Number of Events
1	17.99	3.820	413791	n/a	n/a	n/a	n/a	642.6	Total
1	409.4	86.92	9.415E+06	n/a	n/a	n/a	n/a	14623	Equivalent Annual Total
0	1.191	1.000E+07	6515	0.1749	0.04983	0.06632	2.149	0.8732	Minimum
7	4.800	1.320	281625	1.410	368.3	18.60	29.79	523.4	Maximum
1	2.570	0.3820	59113	0.5121	54.31	3.268	14.56	91.81	Average of All Events
3	2.400	0.1200	27341	0.4010	0.6691	0.7176	17.02	11.79	Median
2	1.082	0.4256	98904	0.4469	138.5	6.782	10.50	191.3	Stnd. Deviation
5	0.4209	1.114	1.673	0.8727	2.550	2.075	0.7207	2.084	COV

Exit

For Additional Information See . . .

The Context-Sensitive Help in the Program



For help on any window or on other WinSLAMM modeling topics, press the F1 key. You will get help information about the current window as well as the option to select topics from the Help Topics Index. This example is the help topic that appears when you select F1 from the main window.

Model Documentation Included on the CD

- WinSLAMM Introduction and Basics
- Integration of Water Quality and Design Objectives
- Sources of Stormwater Pollutants
- Stormwater Quality Controls in WinSLAMM
- Using SLAMM
- Biofiltration Example
- Detention Pond Design
- National Stormwater Quality Database (NSQD, version 1.1)