

Advanced Chapter 4 - Results

File/s needed:

Click to download [Advanced \[US Units\] tutorial model files.](#)

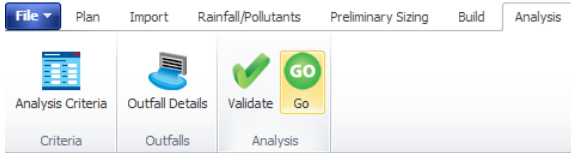


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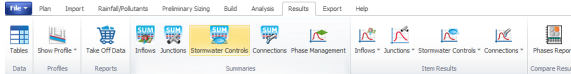
Section Pages

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- [Advanced Chapter 5 - Sizing of Treatment System](#)

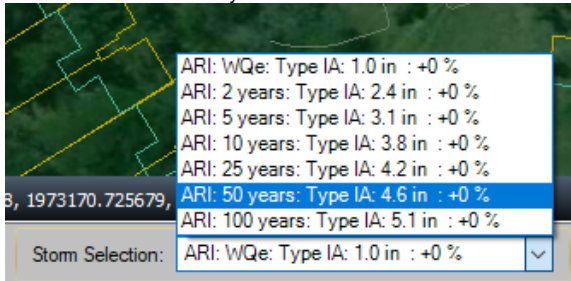
1. Open the file *XPD_US_Advanced_Tutorial_Start.xpd* and switch to the **Sizing of Treatment** phase if the prior chapters are not completed or continue working from your previous file. If results are not available, **Run** the simulation by selecting **Go** under the **Analysis** tab.



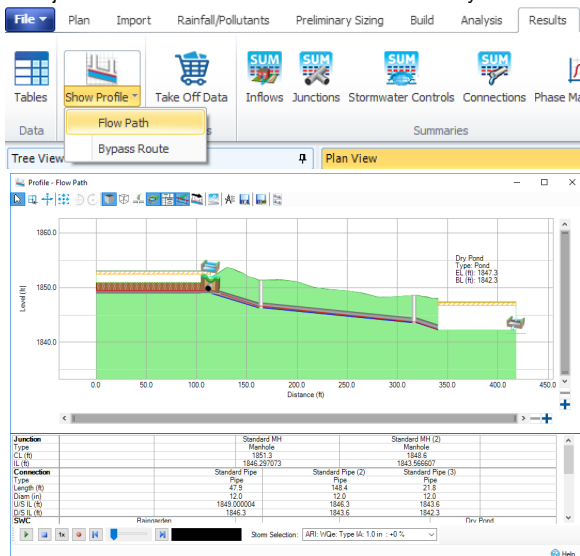
2. The **Stormwater Controls Summary** result table appears automatically after an analysis has been run. These results indicate at a glance how over sized or how close to over-topping a SWC may be. If the summary is not open, select the **Stormwater Controls Summary** result table from the **Summaries** section in the **Results** ribbon.



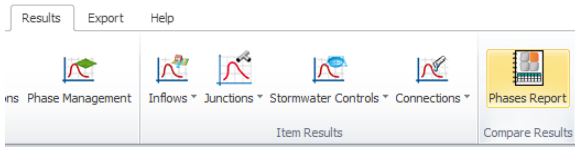
The different storm events simulated can be selected by using the **Storm Selection** list at the bottom of the screen or on the **Results** ribbon. Note the Percentage Available volume in the SWCs and if there are any Flood Risk or Flooded status for each storm.



3. Viewing a long section profile of the entire Treatment Train is often the easiest way to check the volume performance on a site. The **Show Profile > Flow Path** can be selected under the **Results** ribbon. The profile animation playback is located at the bottom of the **Profile** view. Note that all objects shown in the **Profile** view can be edited by double-clicking an individual item.



4. A quantified comparison between the **Existing** and **Developed** phases can be made using the **Phases Report** option under the **Results** ribbon.



- Set up the selection below to make a simple comparison between the **Existing** and **Developed** phases. Select the **Update Preview** option in the lower left hand corner of the **Phases Report** dialog to provide both tabular and graphical comparisons. By scrolling down through the three storm events, you will find whether or not the **Developed** conditions design meets or exceeds the **Existing** site discharge. Depending on how the initial Treatment Train was laid out, small differences between the comparison shown below may be observed.

Phases Report

Comparison | Phases

Selection

- Phases
 - Existing
 - Developed
 - Storm of Treatment
 - Completed Design
- Storms
 - SCS ARI 1.0 year Type IA 1.0 in. Inflow
 - SCS ARI 2.0 years Type IA 2.4 in. Inflow
 - SCS ARI 5 years Type IA 3.1 in. Inflow
 - SCS ARI 10 years Type IA 3.8 in. Inflow
 - SCS ARI 20 years Type IA 4.2 in. Inflow
 - SCS ARI 50 years Type IA 4.8 in. Inflow
 - SCS ARI 100 years Type IA 5.1 in. Inflow

Output

- Results
 - Max Inflow
 - Total Inflow Volume
 - Max Reservoir Volume
 - Total Lost Volume
 - Max Outflow
 - Total Outflow Volume
 - Graphs

Update Preview
Export

Results

SCS ARI 1.0 year Type IA 1.0 in. Increase Rainfall (1) cfs

Phase	Name	Max Inflow (cfs)	Max Outflow (cfs)
Existing	TOTAL	0.0160990	0.0160990
Developed	Dry Pond	-	0.2909291
Developed	TOTAL	0.7263385	0.2909291

SCS ARI 5 years Type IA 3.1 in. Increase Rainfall (2) cfs

Phase	Name	Max Inflow (cfs)	Max Outflow (cfs)
Existing	TOTAL	1.05241040	1.05241040
Developed	Dry Pond	-	1.7421140
Developed	TOTAL	4.04807744	1.7421140

SCS ARI 100 years Type IA 5.1 in. Increase Rainfall (3) cfs

Phase	Name	Max Inflow (cfs)	Max Outflow (cfs)
Existing	TOTAL	3.47919397	3.47919397
Developed	Dry Pond	-	3.9065163
Developed	TOTAL	7.2949614	3.9065163

- As shown with Stormwater Control Summary and the **Phases Report** comparison, the **Developed** phase is not discharging flow close to the **Existing** phase and there is some flooding occurring. Facility sizing and further outlet configuration is required to adequately reduce offsite impacts.