

Section 11: **HY-8**

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Project Explorer	Welcome to HY-8 Image: Comparison of the second
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HY8 Culvert Design Software

HY8 is a Window interactive program with a DOS engine that allows the user to :

- 1. Design and analyze a culvert or a system of culvert
- 2. Consider and analyze roadway overtopping
- 3. Generate and route hydrographs through a culvert
- 4. Design and analyze energy dissipators



HY8 Example



Design Flow for Q25 = 100cfsCheck Flow for Q100 = 250cfs

Tailwater Data-Trapezoidal Channel

Side Slopes = 1.5:1Bottom Width = 3.5ft Channel Slope = 0.008ft/ft Channel Invert Elevation = 1342.6ft Manning's n value = 0.035Natural stream channel with gravel, cobbles, few boulders



HY8 Example

1. Open up the HY8 Input Generator

Microsoft Office Do Imaging Microsoft Office Our FileMaker Pro Calculator All Programs	 Trunes MGSSoftware Oman Systems Python 2.1 QuickTime Microsoft ActiveSync Mathsoft Apps Hydraulic Applications 	* * s * *	HY-8 v7.0 HDS 5 Documentation
	Log Off	0	Shut Down HY-8 7.0 Help
2. Create a ne Select Cont	w project tinue	V	Velcome to HY-8 Image: Comparison of the text of the text of the text of the text of tex
			Continue



HY8 Example

3. Add new culvert crossing

ossing Properties			Culvert Properties	Add Culvert		
Parameter	Value	Units		Duplicate Culvert		
🕜 DISCHARGE DATA				Delete Outwart		
Minimum Flow	0.00	cfs				
Design Flow	0.00	cfs	Parameter	Value	Units	
Maximum Flow	0.00	cfs	CULVERT DATA			
TAILWATER DATA			Name	Culvert 1		
Channel Type	Rectangular Channel	•	Shape	Circular	-	
Bottom Width	0.00	ft	Material	Concrete	-	
Channel Slope	0.0000	ft/ft	Diameter	0.00	ft	
Manning's n (channel)	0.0000	6	Manning's n	0.0120		
Channel Invert Elevation	0.00	ft	 Inlet Type 	Conventional	-	
Rating Curve	View		Inlet Edge Condition	Souare Edge with Headwall	•	
🕑 ROADWAY DATA			Inlet Depression?	No	•	
Roadway Profile Shape	Constant Roadway Elevation	•	I SITE DATA			
First Roadway Station	0.00	ft	Site Data Input Option	Culvert Invert Data	-	
Crest Length	0.00	ft	Inlet Station	0.00	ft	61
Crest Elevation	0.00	ft	Inlet Elevation	0.00	ft	
Roadway Surface	Paved	-	Outlet Station	0.00	ft	
Top Width	0.00	ft	Outlet Elevation	0.00	ft	
			Number of Barrels	1		~



HY8 Example

4. Enter the following "Discharge Data" into the Crossing Data

Minimum Flow	0.0 cfs
Design Flow	100.0 cfs
Maximum Flow	250.0 cfs

5. Enter the following "Tailwater Data" into the Crossing Data window

Channel Type	Trapezoidal Channel
Bottom Width	3.5 ft
Side Slope (H:V)	1.5:1
Channel Slope	0.008 ft/ft
Manning's n (channel)	0.035
Channel Invert Elevation	1345.0 ft



HY8 Example

6. Click "View" button to see the Rating Curve

rossing Properties			Culvert Properties			
Jame: Crossing 1			Culvert 1	Add Culvert		
Parameter	Value	Units		Duplicate Culvert		
OISCHARGE DATA				Delete Culuert		
Minimum Flow	0.00	cfs				
Design Flow	100.00	cfs	Parameter	Value	Units	5
Maximum Flow	250.00	cfs	CULVERT DATA			2
🕜 TAILWATER DATA			Name	Culvert 1		
Channel Type	Trapezoidal Channel	•	Shape	Circular	-	
Bottom Width	3.50	ft	Material	Concrete	-	
Side Slope (H:V)	1.50	_:1	Diameter	0.00	ft	
Channel Slope	0.0080	ft/ft	Manning's n	0.0120		
Manning's n (channel)	0.0350		Inlet Type	Conventional	-	
Channel Invert Elevation	1345.00	ft	Inlet Edge Condition	Square Edge with Headwall	-	
Rating Curve	View	\supset	Inlet Depression?	No	-	
ROADWAY DATA			I SITE DATA			
Roadway Profile Shape	Constant Roadway Elevation	•	Site Data Input Option	Culvert Invert Data	-	
First Roadway Station	0.00	ft	Inlet Station	0.00	ft	
Crest Length	0.00	ft	Inlet Elevation	0.00	ft	
Crest Elevation	0.00	ft	Outlet Station	0.00	ft	
Roadway Surface	Paved	•	Outlet Elevation	0.00	ft	
Top Width	0.00	ft	Number of Barrels	1	10000	



HY8 Example

7. Plot the Rating Curve, but when finished, close the plot window and choose "OK" in the Rating Curve window.





HY8 Example

8. Enter the following "Roadway Data" into the Crossing Data

Roadway Profile Shape	Constant Roadway Elev.
First Roadway Station	0.0 ft
Crest Length	100.0 ft
Crest Elevation	110.0 ft
Roadway Surface	Paved
Top Width	150.0 ft



HY8 Example

9. Enter the following "Culvert Data" into the Crossing Data

Name	Example 1
Shape	Circular
Material	Concrete
Diameter	4.0 ft
Manning's n	0.012
Inlet Type	Conventional
Inlet Edge Condition	Grooved End Projection
Inlet Depression?	No



HY8 Example

10. Enter the following "Site Data" into the Crossing Data

Site Data Input Option	Culvert Invert Data
Inlet Station	100.0 ft
Inlet Elevation	1345.0 ft
Outlet Station	400.0 ft
Outlet Elevation	1342.6 ft
Number of Barrels	1.0



HY8 Example

11. Select the *Analyze Crossing* button. This runs the analysis, but does not save the information.

lame: Crossing 1		
Parameter	Value	Units
O DISCHARGE DATA		
Minimum Flow	0.00	cfs
Design Flow	100.00	cfs
Maximum Flow	250.00	cfs
🕜 TAILWATER DATA		
Channel Type	Trapezoidal Channel	-
Bottom Width	3.50	ft
Side Slope (H:V)	1.50	_:1
Channel Slope	0.0080	ft/ft
Manning's n (channel)	0.0350	
Channel Invert Elevation	1345.00	ft
Rating Curve	View	
ROADWAY DATA		
Roadway Profile Shape	Constant Roadway Elevation	-
First Roadway Station	0.00	ft
Crest Length	50.00	ft
Crest Elevation	1360.00	ft
Roadway Surface	Paved	-
Top Width	40.00	ft

Example 1	Add Culvert		
	Duplicate Culvert		
	Delete Culvert		
Parameter	Value	Units	^
CULVERT DATA			
Name	Example 1		
Shape	Circular	-	
Material	Concrete	•	
Diameter	4.00	ft	
Manning's n	0.0120		
🕑 Inlet Type	Conventional	•	
🥑 Inlet Edge Condition	Grooved End Projecting	-	=
Inlet Depression?	No	-	
SITE DATA			
Site Data Input Option	Culvert Invert Data	•	
Inlet Station	100.00	ft	
Inlet Elevation	1345.00	ft	
Outlet Station	400.00	ft	
Outlet Elevation	1342.60	ft	
Number of Barrels	1		~

Click on any 🕜 icon for help on a specific

Analyze Crossing

OK

Cancel



HY8 Example

12. Select the Crossing Rating Curve button.

leadwater	Total	Example 1	Roadway	Iterations				
Elevation	Discharge	Discharge	Discharge					
(ff) 1345.00	<u>(cts)</u> 0.00	0.00	<u>(cts)</u> 0.00	1				
1347.02	25.00	25.00	0.00	1				
1348.03	50.00	50.00	0.00	1				
1348.86	75.00	75.00	0.00	1				
1350.07	100.00	100.00	0.00	1				
1351.73	125.00	125.00	0.00	1				
1353.65	150.00	150.00	0.00	1				
1355.85	175.00	175.00	0.00	1				
1358.34	200.00	200.00	0.00	1				
1360.15	225.00	216.03	8.92	8				
1360.37	250.00	216.25	33.67	6				
1360.00	215.32	215.32	0.00	Overtopping				
						_		
)isplay —					Geometry	1045.00.0		at a share
Crossin	g Summary	Table			Inter Elevation:	1345.00 ft	Crossing Rating C	urve
Culvert	Summary T	abl Examp	de 1	~	Outlet Elevation:	1342.60 ft		
🔿 Water :	Surface Profi	iles			Culvert Length:	300.01 ft	Culvert Performance	a Curve
	ed Inlet Tabl	e			Culvert Slope:	0.0080		
Contor	ined Table	0.00	See 1		Inlet Crest;	0.00 ft	Selected Water Pr	ofile
Custor	iized Table	Opti	uns		Inlet Throat;	0.00 ft		





HY8 Example

13. A plot of the rating curve (Headwater Elevation vs. Discharge) will appear. After viewing, close plot window.





HY8 Example

14. Select Culvert Summary Table option in the Display box.

Culvert Summary Table - Example 1

											1
Total	Culvert	leadwate	Inlet	Outlet	Flow	Normal	Critical	Outlet	Tailwater	Outlet	Tailwater
Discharge	Discharge	Elevation	Control	Control	Type	Depth	Depth	Depth	Depth	Velocity	Velocity
		(fft)	Denth(ft)	Denth(ft)	1 N 1	(ff)	(ft)	(fft)	(ff)	(ft/s)	(ft/s)
0.00	0.00	1345.00	0.00	0.00	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
25.00	25.00	1347.02	2.02	2.02	1-S2n	1.14	1.47	1.15	1.32	8.38	3.47
50.00	50.00	1348.03	3.03	3.03	1-S1f	1.65	2.11	2.11	1.89	7.42	4.19
75.00	75.00	1348.86	3.86	3.86	5-S1f	2.09	2.61	2.61	2.31	8.64	4.66
100.00	100.00	1350.07	4.76	5.07	4-FFf	2.51	3.02	4.00	2.66	7.96	5.02
125.00	125.00	1351.73	5.87	6.73	4-FFf	2.97	3.33	4.00	2.96	9.95	5.32
150.00	150.00	1353.65	7.25	8.65	4-FFf	4.00	3.59	4.00	3.23	11.94	5.57
175.00	175.00	1355.85	8.91	10.85	4-FFf	4.00	3.85	4.00	3,47	13.93	5.80
200.00	200.00	1358.34	10.82	13.34	4-FFf	4.00	4.00	4.00	3.69	15.92	5.99
225.00	216.03	1360.15	12.18	15.15	4-FFf	4.00	4.00	4.00	3.90	17.19	6.18
250.00	216.25	1360.37	12.21	15.37	4-FFf	4.00	4.00	4.00	4.09	17.21	6.34

0	Culvert Su	immary Tabl	Example 1	-
C	Water Sur	face Profiles		
C	Improved	Inlet Table		
C	Customize	d Table	Options,	

Outlet Control:	Profiles	
Inlet Throat:	0.00 ft	
Inlet Crest:	0.00 ft	Selected
Culvert Slope:	0.0080	
Culvert Length:	300.01 ft	Culvert Pe
Outlet Elevation:	1342.60 ft	Ci USSI I
Inlet Elevation:	1345.00 ft	Crossin
Geometry		Plot

	Crossing Rating Curve
Cu	lvert Performance Curve
	Selected Water Profile

Close



HY8 Example

15. Select the Culvert Performance Curve button.

Culvert Summary Table - Example 1

Total Discharge	Culvert Discharge	leadwate Elevation	Inlet Control	Outlet Control	Flow Type	Normal Depth	Critical Depth	Outlet Depth	Tailwater Depth	Outlet Velocity	Tailwater Velocity
0.00	0.00	1345.00	0.00	0.00	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
25.00	25.00	1347.02	2.02	2.02	1-S2n	1.14	1.47	1.15	1.32	8.38	3.47
50.00	50.00	1348.03	3.03	3.03	1-S1f	1.65	2.11	2.11	1.89	7.42	4.19
75.00	75.00	1348.86	3.86	3.86	5-S1f	2.09	2.61	2.61	2.31	8.64	4.66
100.00	100.00	1350.07	4.76	5.07	4-FFf	2.51	3.02	4.00	2.66	7.96	5.02
125.00	125.00	1351.73	5.87	6.73	4-FFf	2.97	3.33	4.00	2.96	9.95	5.32
150.00	150.00	1353.65	7.25	8.65	4-FFf	4.00	3.59	4.00	3.23	11.94	5.57
175.00	175.00	1355.85	8.91	10.85	4-FFf	4.00	3.85	4.00	3.47	13.93	5.80
200.00	200.00	1358.34	10.82	13.34	4-FFf	4.00	4.00	4.00	3.69	15.92	5.99
225.00	216.03	1360.15	12.18	15.15	4-FFf	4.00	4.00	4.00	3.90	17.19	6.18
250.00	216.25	1360.37	12.21	15.37	4-FFf	4.00	4.00	4.00	4.09	17.21	6.34
Display –	sing Summa	ary Table				- Geome Inlet E	etry levation:	1345.00	Dft Dft	-Plot	Crossing F
Culve	ert Summar	y Tabl 🛛 🛛 🛛	xample 1		-	Outlet	Elevation:	1342.60	μ		
C Wate	er Surface P	rofiles				Culver	t Slone :	0 0020	it.	\leq	Culvert Perfo
C Impr	oved Inlet T	able				Inlet C	roet:	0.0000			
C Custo	omized Tab	le [Options			Inlet T	'hroat:	0.00 ft			Selected \
Help	Flov	v Types	Edit Inp	out Data		Outlet	Control:	Profiles			





HY8 Example

16. A plot of the performace curve (Inlet/Outlet Control Headwater Elevation vs. Discharge) will appear. After viewing, close window.





HY8 Example

17. Select the Water Surface Profiles option in the Display box.

Water Surface Profile Table - Example 1 Total Culvert leadwate Inlet Outlet Flow Lenath Lenath Last Mean First Last Discharge Discharge Elevation Control Control Type Full Free Sten Slope Denth Depth (θ) Denth(ft) Denth(ft) (\mathbf{ff}) (\mathbf{ff}) (fft) (96) (fft) (H) 25.00 1347.02 2.02 2.02 1-S2n 0.00 25.00 300.01 1160.13 0.81 1.47 1.15 50.00 50.00 1348.03 3.03 3.03 1-S1f 35.67 185.24 5.71 0.25 4.00 2.20 75.00 75.00 1348.86 3.86 3.86 5-S1f 88.85 134.89 6.45 0.32 4.00 2.70 100.00 100.00 1350.07 4.76 5.07 4-FFf 300.01 0.00 0.00 0.00 4.00 4.00 300.01 125.00 125.00 1351.73 5.87 6.73 4-FFf 0.00 0.00 0.00 4.00 4.00 150.00 150.00 4-FFf 1353.65 7.25 8.65 300.01 0.00 0.00 0.00 4.00 4.00 175.00 175.00 10.85 4-FFf 300.01 0.00 0.00 0.00 4.00 1355.85 8.91 4.00 200.00 200.00 1358.34 10.82 13.34 4-FFf 300.01 0.00 4.00 0.00 0.00 4.00 225.00 216.03 1360.15 12.18 15.15 4-FFf 300.01 0.00 0.00 0.00 4.00 4.00 250.00 216.25 1360.37 12.21 15.37 4-FFf 300.01 0.00 0.00 0.00 4.00 4.00 Display Geometry Plot Inlet Elevation: 1345.00 ft C Crossing Summary Table Outlet Elevation: 1342.60 ft C Culvert Summary Tabl Example 1 -Culvert Length: 300.01 ft Water Surface Profiles Culvert Slope: 0.0080 C Improved Inlet Table 0.00 ft Selected Water Profile Customized Table 0.00 ft Flow Types... Edit Input Data... Help Close Outlet Control: Profiles



HY8 Example

18. Select the 100 cfs profile (fourth from the top) and select the Selected Water Profile button.

Total scharge	Culvert Discharge	leadwate Elevation (ft)	Inlet Control Denth(ft)	Outlet Control Denth(ft)	Flow Type	Length Full (ft)	Length Free (ft)	Last Step (ft)	Mean Slope (%)	First Depth (ft)	Last Depth (ft)	
0.00	0.00	1345.00	0.00	0.00	0-NF	0.00	0.00	0.00	0.00	0.00	0.00	
25.00	25.00	1347.02	2.02	2.02	1-S2n	0.00	300.01	1160.13	0.81	1.47	1.15	
50.00	50.00	1348.03	3.03	3.03	1-S1f	35.67	185.24	5.71	0.25	4.00	2.20	
75.00	75.00	1348.86	3.86	3.86	5-S1f	88.85	134.89	6.45	0.32	4.00	2.70	
100.00	100.00	1350.07	4.76	5.07	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	ki.
125.00	125.00	1351.73	5.87	6.73	4-FFt	300.01	0.00	0.00	0.00	4.00	4.00	
150.00	150.00	1353.65	7.25	8.65	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
175.00	175.00	1355.85	8.91	10.85	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
200.00	200.00	1358.34	10.82	13.34	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
225.00	216.03	1360.15	12.18	15.15	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
250.00	216.25	1360.37	12.21	15.37	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
)ienlav —						Ceome	atry					
C Croce	ing Summ:	ary Tabla				Inlet Elevation: 1345.00 ft			ft	1 IOC		
C 0 1	. o				Outlet Elevation: 1342.60 ft			ft	Crossing Rating Curve			
Culvert Summary Tabl Example 1						Culver	t Lenath:	300.01 ft		3		
Water Surface Profiles					Culver	t Slope:	0.0080		C	ulvert Perfo	rmance Curve	
C Impro	oved Inlet T	able				Inlet C	rest:	0.00 ft		-		
C Customized Table Options						Inlet T	broat	0.00.0		5	Selected W	/ater Profile





HY8 Example

19. A plot of the curve profile (for the selected discharge of 100 cfs) will appear. After viewing, close window.





HY8 Example

20. Select the Close button on the Analysis window.

Water Surface Profile Table - Example 1

Jischarge	Discharge	Elevation	Inlet Control Denth(ft)	Outlet Control Denth(ft)	Flow Type	Length Full (ft)	Length Free (ft)	Last Step (ft)	Mean Slope (%)	First Depth (ff)	Last Depth (ft)	
0.00	0.00	1345.00	0.00	0.00	0-NF	0.00	0.00	0.00	0.00	0.00	0.00	
25.00	25.00	1347.02	2.02	2.02	1-S2n	0.00	300.01	1160.13	0.81	1.47	1.15	
50.00	50.00	1348.03	3.03	3.03	1-S1f	35.67	185.24	5.71	0.25	4.00	2.20	
75.00	75.00	1348.86	3.86	3.86	5-S1f	88.85	134.89	6.45	0.32	4.00	2.70	
100.00	100.00	1350.07	4.76	5.07	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
125.00	125.00	1351.73	5.87	6.73	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
150.00	150.00	1353.65	7.25	8.65	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
175.00	175.00	1355.85	8.91	10.85	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
200.00	200.00	1358.34	10.82	13.34	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
225.00	216.03	1360.15	12.18	15.15	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
250.00	216.25	1360.37	12.21	15.37	4-FFf	300.01	0.00	0.00	0.00	4.00	4.00	
Display –					-	Geome	etry		1	_Plot		
C Cross	sing Summa	ary Table				Inlet E	Elevation:	1345.00	ft	-		
C Culve	ert Summar	v Tabl	xample 1		•	Outlet	Elevation:	1342.60	ft		Crossing H	lating Curve
G Wate	r Surfaco P	rofilee			-	Culver	rt Length:	300.01 f	t		uluart Darfe	rmanco Curv
C I		- L L				Culver	rt Slope :	0.0080				innance curvi
(Impr	oved inlet T	able		-		Inlet (Crest:	0.00 ft			Selected V	Vater Profile
C Custo	omized Tab	le _	Options			Inlet 7	hroat:	0.00 ft			20102104	
11-1-	1			t Data	1		I	D 01		-		0



HY8 Example

21. Select the "Example 1" culvert in the project explorer to show the culvert profile for the design discharge in the main window.







HY8 Example Optional: Defining View

FV-1. Select the Front View icon. A message will appear in the Main window describing the requirement to define lateral culvert sections. Right click to do so.







HY8 Example

FV-2. A message will appear. Select "Define Roadway Culvert Stations.

🚰 HY-8 - [Culvert Stations]		
Eile Display Culvert Win	ndow Help	-8×
🔋 🗋 🗃 🛃 🎒 🞯 🕴 U.S. Customa	ary L 🔹 📔 Outlet Control: Profi 🔹 🔋 🥥 📧 🧐 🗹 🗎 🕴 🖨 💽 🖏 🌘 🕼 🎲 🍘 🎦	
Project Explorer	Culvert Stations	
Project Crossing 1	Front view of crossing will not be displayed until lateral culvert stations are defined. Right-click in this window to define stations. Define Roadway Culvert Stations	



HY8 Example

FV-3. The Roadway Profile window appears. Notice that the roadway station data (0.00 ft and 50.00 ft) entered in step 7 are in this window. Click on Example 1 Station field (currently the default is zero.

Roadway Profile Culv	ert S 🔳 🗖 🗙
Roadway Data First Roadway Station: Roadway Crest Length:	0.00 ft 50.00 ft
Culvert Stations	Station (ft)
Example 1	0.00
ОК	Cancel



HY8 Example

FV-4. Enter the station of the centerline of the culvert system. For this example, let's assume that this is at roadway station 25.0 ft (or halfway between the roadway section acting as a weir.

Roadway Profile Culv	ert S 🔳 🗖 🔀
Roadway Data First Roadway Station: Roadway Crest Length:	0.00 ft 50.00 ft
Culvert Stations	Station (ft)
Example 1	25.00
ОК	Cancel



HY8 Example

FV-5. Choose "OK" and the Main Window presents the Front View of the crossing.







HY8 Example

Saving the Project File

22. Select the *Save As* option from the *File* menu. When prompted, call the project file *TrainingClass*. The program will automatically add the .HY8 extension to this file.



HY8 Example

Viewing Report 23. Select the *Create Report* option from the *Culvert* menu.





HY8 Example

24. The *Report Generator* window will appear:

Choose crossing(s) to include — Crossing 1	Format Report Type: File File	Standard Report]] []
Report Content Choose fields to include. Available Fields: Project Notes Project Units Project Outlet Control Option Crossing Notes Crossing Summary Table Crossing Rating Curve Plot Crossing Front View Plot Culvert Notes Culvert Summary Tables Culvert Surface Profile Plot Site Data Culvert Data Tailwater Data Tailwater Rating Curve Plot Roadway Data	> < Include All >> << Remove All	Move fields up or down. Included Fields: Crossing Summary Table Crossing Rating Curve Plot Culvert Summary Tables Culvert Performance Plot Water Surface Profile Plot Site Data Culvert Data Tailwater Data Roadway Data	Up Down



HY8 Example

25. Select "OK" to export the data in the *Included fields* window to a report file. Additional data could be exported by selecting some or all items in the *Available fields* window and using the right arrow (>) to copy the fields from the available fields to the included fields window.

26. After selecting "OK", a rich text (RTF) file is exported and opened in Microsoft Word or whatever application is assigned to open RTF files (possibly Wordpad if you do not have Microsoft Word installed). The report could have been exported in PDF format by selecting PDF for the *File Format* in the *Report Generator* window.





HY8 Optional Editing HY8 Report

ED-1. If you have Microsoft Word, you should see the following view after exporting the report:





L

Section 11

HY8 Optional Editing HY8 Report

ED-2. Scroll down to the following page. You should see the following table:

Table 1 - Summary of Culvert Flows	s at Crossing: Crossing 1
------------------------------------	---------------------------

+			U		
	Headwater Elevation (ft)	Total Discharge (cfs)	Example 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
	1345.00	0.00	0.00	0.00	1
	1347.02	25.00	25.00	0.00	1
	1348.03	50.00	50.00	0.00	1
	1348.86	75.00	75.00	0.00	1
	1350.07	100.00	100.00	0.00	1
	1351.73	125.00	125.00	0.00	1
	1353.65	150.00	150.00	0.00	1
	1355.85	175.00	175.00	0.00	1
	1358.34	200.00	200.00	0.00	1
	1360.15	225.00	216.03	8.92	8
	1360.37	250.00	216.25	33.67	6





HY8 Optional Editing HY8 Report

ED-3. Click within the table so the border appears around the table. Then right-click on the border of the table and select the *Format Frame* option as shown below:

Table 1 - Summary of Culvert Flows at Crossing: Crossing 1

¥ {	leadwater Elevation	ŏ	Cu <u>t</u> Copy Paste		mple 1 Discharge	Roadway Discharge (cfs)	Iterations
	(ft)				(cfs)		
1/2	1345.00				0.00	0.00	1
8	1347.02		Daudaus and Chading		25.00	0.00	1
1	1348.03		Borders and Shading		50.00	0.00	1
	1348.86		Format Fra <u>m</u> e		75.00	0.00	1
	1350.07		100.00		100.00	0.00	1
//	1351.73		125.00		125.00	0.00	1
	1353.65		150.00		150.00	0.00	1
	1355.85		175.00		175.00	0.00	1
	1358.34		200.00		200.00	0.00	1
//	1360.15		225.00		216.03	8.92	8
// L	1360.37		250.00		216.25	33.67	6





HY8 Optional Editing HY8 Report

ED-4. In the Frame window, select the Remove Frame button:

Frame					
Text wrappi	ng				
			Around		
Size					
<u>W</u> idth:	Auto	*	<u>A</u> t:		÷
Height:	Auto	~	A <u>t</u> :		÷
Horizontal -					
Po <u>s</u> ition:	0.6"	~	Re <u>l</u> ative to:	Page	~
		Distar	nce from te <u>x</u> t:	0"	
Vertical					
Pos <u>i</u> tion:	1.07"	~	R <u>e</u> lative to:	Page	~
		Distar	nce from text:	0"	
Move v	vith text				
✓ Lock ar	nchor				
Remove	e Frame	DC	ОК	Canc	el



HY8 Optional Editing HY8 Report

ED-5. Scroll down to the next page. You should see the following graph:





HY8 Optional Editing HY8 Report

ED-6. Right-click on this graph and select the *Format Picture* option: Rating Curve Plot for Crossing: Crossing 1







HY8 Optional Editing HY8 Report

ED-7. In the *Format Picture* window, select the *Layout* tab, select the *In line with text* option, and select OK.

Format Picture					
Colors and Lines	Size	yout Picture	Text Box	Web	
Wrapping style			-	1	
	7		*	3	-
					1
In line with text	Sguare	Tight	<u>B</u> ehind tex	t In front	oftext
Horizontal alignme	nt				
<u>∫</u> Left	O <u>C</u> enter	O <u>R</u> ight) <u>O</u> ther		
				<u>A</u> dvanced	
			ОК		ancel





HY8 Optional Editing HY8 Report

ED-8. Continue editing all your tables and graphs as described in the steps above by locking the anchor on all the tables and setting the graphs so they are all in line with the text.

ED-9. Select the *View / Normal* menu item. Finish formatting your report document by removing all the unwanted page breaks and adding any additional information you wish to add to the report. After you are done editing, you can select the *View / Print Layout* menu item to see what the report will look like when it is printed.



Wrap Up of Day 2

That Ends our training course on HY8

Questions?