



BACKWATER CALCULATION SHEET

Select the greater elevation

Pipe Segment CB to CB	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	Q (cfs)	Length (ft)	Pipe Size	On/O Value	Outlet Elev (ft)	Inlet Elev (ft)	Barrel Area (sqft)	Barrel Vel (ft/s)	Barrel Vel Head (ft)	TV Elev (ft)	Fri- tion Loss (ft)	Entr HGL Elev (ft)	Entr Head Loss (ft)	Exit Head Loss (ft)	Outlet Contr Elev (ft)	Inlet Contr Elev (ft)	Appr Vel Head (ft)	Bend Head Loss (ft)	Junc Head Loss (ft)	HW Elev (ft)
Out full	1	10	180	0.012	100.00	100.50	1.77	5.66	0.50	102.00	0.62	102.62	0.25	0.50	103.37	102.75	-0.18	0.002	0.07	103.28
1	2	6	180	0.012	100.50	101.50	1.77	3.39	0.18	103.26	0.31	103.57	0.08	0.18	103.84	102.95	-0.18	0.24	0.0	103.90
2	Inlet	6	180	0.024	101.50	104.00	1.77	3.39	0.18	103.90	1.00	104.90	0.18	0.18	105.84	105.60	-0.0	0.0	0.0	105.84



Figure F.6. Backwater Pipe Calculation Example