

U-HAUL - D'FALLON  
 Disk File: J:\data\9811260\9811260.VOL  
 Planimeter scale 1 inch = 1 ft.

Elevation (ft)	Planimeter (sq. in.)	Area (sq. ft)	A1-A2*sq(A1/A2) (sq. ft)	Volume (cubic-ft)	Volume Sum (cubic-ft)
576.23	0.00	0	0	0	0
576.50	340.00	340	340	31	31
577.00	1,771.00	1,771	2,887	481	512
577.50	5,049.00	5,049	9,810	1,635	2,147
578.00	5,767.00	5,767	16,812	2,702	4,849
578.50	6,440.00	6,440	18,301	3,050	7,899
579.00	7,128.00	7,128	20,343	3,391	11,290
579.50	7,832.00	7,832	22,432	3,739	15,028
580.00	8,552.00	8,552	24,568	4,095	19,123

Incremental volume computed by the Conic Method for Reservoir Volumes.  
 Volume = (1/3) \* (EL2-EL1) \* (Area1 + Area2 + sq.r.(Area1\*Area2))  
 where: EL1, EL2 = Lower and upper elevations of the increment  
 Area1, Area2 = Areas computed for EL1, EL2, respectively  
 Volume = Incremental volume between EL1 and EL2

Outlet Structure File: 9811260.STR

U-HAUL - D'FALLON

Elevation (ft)	Q (cfs)	Contributing Structures
576.23	0.0	
576.43	0.1	1
576.63	0.4	1
576.83	0.6	1
577.03	1.0	1
577.23	1.4	1
577.43	1.8	1
577.63	2.3	1
577.83	2.8	1
578.01	3.3	2+1
578.03	3.4	2+1
578.23	4.0	2+1
578.43	4.8	2+1
578.63	5.7	2+1
578.83	6.6	2+1
579.03	7.6	2+1
579.23	8.9	3+2+1
579.43	13.8	3+2+1
579.63	21.1	3+2+1
579.83	28.5	6+3+4
580.00	32.4	6+3+4

COMPOSITE OUTFLOW SUMMARY

Elevation (ft)	Q (cfs)	Contributing Structures
576.23	0.0	
576.43	0.1	1
576.63	0.4	1
576.83	0.6	1
577.03	1.0	1
577.23	1.4	1
577.43	1.8	1
577.63	2.3	1
577.83	2.8	1
578.01	3.3	2+1
578.03	3.4	2+1
578.23	4.0	2+1
578.43	4.8	2+1
578.63	5.7	2+1
578.83	6.6	2+1
579.03	7.6	2+1
579.23	8.9	3+2+1
579.43	13.8	3+2+1
579.63	21.1	3+2+1
579.83	28.5	6+3+4
580.00	32.4	6+3+4

Min. Elev. (ft) = 576.23 Max. Elev. (ft) = 580.00 Incr. (ft) = .2

SYSTEM CONNECTIVITY

Structure No.	Q Table	Q Table
DRIFICE	6	→ 6
DRIFICE	5	→ 4
DRIFICE	4	→ 3
WEIR-VR	3	→ 2
WEIR-VR	2	→ 1
WEIR-VR	1	→ 1

RETURN FREQ. 2 YEARS

U-HAUL - D'FALLON

ROUTING COMPUTATIONS

TIME (min)	INFLOW (cfs)	11+12 (cfs)	2S/t - 0 (cfs)	2S/t + 0 (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
1.0	6.06	0.0	0.0	0.0	576.23	
2.0	6.06	12.1	10.7	12.1	576.88	
3.0	6.06	12.1	20.7	22.8	577.06	
4.0	6.06	12.1	30.2	32.8	577.27	
5.0	6.06	12.1	39.3	42.3	577.42	
6.0	6.06	12.1	48.2	51.3	577.53	
7.0	6.06	12.1	56.8	60.3	577.61	
8.0	6.06	12.1	65.1	68.9	577.67	
9.0	6.06	12.1	73.2	77.2	577.72	
10.0	6.06	12.1	81.0	85.3	577.75	
11.0	6.06	12.1	88.6	93.1	577.77	
12.0	6.06	12.1	96.0	100.8	577.78	
13.0	6.06	12.1	103.2	108.1	577.78	
14.0	6.06	12.1	110.2	115.3	577.77	
15.0	6.06	12.1	117.0	122.3	577.74	
16.0	6.06	12.1	123.6	129.1	577.70	
17.0	6.06	12.1	130.0	135.7	577.65	
18.0	6.06	12.1	136.3	142.2	577.59	
19.0	6.06	12.1	142.3	148.4	577.53	
20.0	6.06	12.1	148.2	154.5	577.47	
21.0	0.00	6.1	148.0	154.3	577.44	
22.0	0.00	0.0	130.4	136.1	577.38	
23.0	0.00	0.0	117.0	122.3	577.32	
24.0	0.00	0.0	103.2	108.1	577.27	
25.0	0.00	0.0	89.0	93.1	577.22	
26.0	0.00	0.0	74.6	77.2	577.17	
27.0	0.00	0.0	60.0	60.3	577.12	
28.0	0.00	0.0	45.3	42.3	577.07	
29.0	0.00	0.0	30.2	32.8	577.02	
30.0	0.00	0.0	15.3	16.8	576.97	
31.0	0.00	0.0	0.0	0.0	576.92	
32.0	0.00	0.0	0.0	0.0	576.87	

Summary of Peak Outflow and Peak Elevation

Peak Inflow = 6.06 cfs  
 Peak Outflow = 3.12 cfs  
 Peak Elevation = 577.95 ft

Summary of Approximate Peak Storage

Initial Storage = 0 cu-ft  
 Peak Storage From Storm = 4,540 cu-ft  
 Total Storage in Pond = 4,540 cu-ft

Warning: Inflow hydrograph truncated on left side.

U-HAUL - D'FALLON

Structure No. 1

WEIR-VR  
 Weir - Vertical Rectangular

E1 elev. (ft)? 576.23  
 E2 elev. (ft)? 579.70  
 Weir coefficient? 3.3  
 Weir elev. (ft)? 576.23  
 Length (ft)? .42  
 Contracted/Suppressed (C/S)? S

U-HAUL - D'FALLON

Structure No. 2

WEIR-VR  
 Weir - Vertical Rectangular

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Weir coefficient? .6  
 Invert elev. (ft)? 579.20  
 Datum elev. (ft)? 579.45  
 Drifice area (sq ft)? .561

U-HAUL - D'FALLON

Structure No. 3

WEIR-VR  
 Weir - Vertical Rectangular

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Weir coefficient? .6  
 Invert elev. (ft)? 579.20  
 Datum elev. (ft)? 579.45  
 Drifice area (sq ft)? 5.458

U-HAUL - D'FALLON

Structure No. 4

DRIFICE  
 Drifice - Based on Area and Datum Elevation

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Drifice coeff.? .6  
 Invert elev. (ft)? 576.23  
 Datum elev. (ft)? 577.965  
 Drifice area (sq ft)? 1.457

U-HAUL - D'FALLON

Structure No. 5

DRIFICE  
 Drifice - Based on Area and Datum Elevation

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Drifice coeff.? .6  
 Invert elev. (ft)? 576.23  
 Datum elev. (ft)? 579.45  
 Drifice area (sq ft)? .561

U-HAUL - D'FALLON

Structure No. 6

DRIFICE  
 Drifice - Based on Area and Datum Elevation

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Drifice coeff.? .6  
 Invert elev. (ft)? 579.20  
 Datum elev. (ft)? 579.45  
 Drifice area (sq ft)? 5.458

INITIAL CONDITIONS

Elevation = 576.23 ft  
 Outflow = 0.00 cfs  
 Storage = 0.00 cu-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (cu-ft)
576.23	0.0	0.0
576.43	0.1	1.0
576.63	0.4	1.0
576.83	0.6	264.1
577.03	1.0	567.1
577.23	1.4	1,062.1
577.43	1.8	1,813.1
577.63	2.3	2,815.1
577.83	2.8	3,894.5
578.01	3.3	4,907.1
578.03	3.4	5,022.1
578.23	4.0	5,210.1
578.43	4.8	7,451.1
578.63	5.7	8,748.1
578.83	6.6	9,960.1
579.03	7.6	10,998.1
579.23	8.9	12,966.1
579.43	13.8	14,488.1
579.63	21.1	16,058.1
579.83	28.5	17,690.1
580.00	32.4	19,123.1

RETURN FREQ. 25 YEARS

U-HAUL - D'FALLON

ROUTING COMPUTATIONS

TIME (min)	INFLOW (cfs)	11+12 (cfs)	2S/t - 0 (cfs)	2S/t + 0 (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
1.0	9.76	0.0	0.0	0.0	576.23	
2.0	9.76	19.5	17.6	19.5	577.02	
3.0	9.76	19.5	34.3	37.1	577.23	
4.0	9.76	19.5	50.4	53.8	577.36	
5.0	9.76	19.5	66.1	70.0	577.48	
6.0	9.76	19.5	81.4	85.7	577.57	
7.0	9.76	19.5	96.2	100.9	577.66	
8.0	9.76	19.5	110.5	115.7	577.74	
9.0	9.76	19.5	124.5	129.9	577.81	
10.0	9.76	19.5	138.1	144.0	577.89	
11.0	9.76	19.5	151.3	157.6	577.96	
12.0	9.76	19.5	164.0	170.8	578.03	
13.0	9.76	19.5	176.2	183.5	578.09	
14.0	9.76	19.5	188.3	195.9	578.15	
15.0	9.76	19.5	199.9	207.8	578.21	
16.0	9.76	19.5	211.1	219.5	578.27	
17.0	9.76	19.5	221.9	230.7	578.32	
18.0	9.76	19.5	232.3	241.4	578.37	
19.0	9.76	19.5	242.3	251.8	578.42	
20.0	9.76	19.5	251.8	261.8	578.47	
21.0	0.00	9.8	242.1	251.6	578.42	
22.0	0.00	0.0	232.9	242.1	578.38	
23.0	0.00	0.0	224.1	232.9	578.33	
24.0	0.00	0.0	215.6	224.1	578.29	
25.0	0.00	0.0	207.4	215.6	578.25	
26.0	0.00	0.0	199.5	207.4	578.21	
27.0	0.00	0.0	191.9	199.5	578.17	
28.0	0.00	0.0	184.4	191.9	578.13	
29.0	0.00	0.0	177.2	184.4	578.10	
30.0	0.00	0.0	170.2	177.2	578.06	
31.0	0.00	0.0	163.5	170.2	578.03	
32.0	0.00	0.0	163.5	170.2	578.03	

Summary of Peak Outflow and Peak Elevation

Peak Inflow = 9.76 cfs  
 Peak Outflow = 4.98 cfs  
 Peak Elevation = 578.47 ft

Summary of Approximate Peak Storage

Initial Storage = 0 cu-ft  
 Peak Storage From Storm = 7,704 cu-ft  
 Total Storage in Pond = 7,704 cu-ft

Warning: Inflow hydrograph truncated on left side.

U-HAUL - D'FALLON

Structure No. 1

WEIR-VR  
 Weir - Vertical Rectangular

E1 elev. (ft)? 579.20  
 E2 elev. (ft)? 579.70  
 Weir coefficient? 3.3  
 Weir elev. (ft)? 579.20  
 Length (ft)? 10.916  
 Contracted/Suppressed (C/S)? S

U-HAUL - D'FALLON

Structure No. 2

WEIR-VR  
 Weir - Vertical Rectangular

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Weir coefficient? .6  
 Invert elev. (ft)? 579.20  
 Datum elev. (ft)? 579.45  
 Drifice area (sq ft)? 5.458

U-HAUL - D'FALLON

Structure No. 3

WEIR-VR  
 Weir - Vertical Rectangular

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Weir coefficient? .6  
 Invert elev. (ft)? 579.20  
 Datum elev. (ft)? 579.45  
 Drifice area (sq ft)? 5.458

U-HAUL - D'FALLON

Structure No. 4

DRIFICE  
 Drifice - Based on Area and Datum Elevation

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Drifice coeff.? .6  
 Invert elev. (ft)? 576.23  
 Datum elev. (ft)? 577.965  
 Drifice area (sq ft)? 1.457

U-HAUL - D'FALLON

Structure No. 5

DRIFICE  
 Drifice - Based on Area and Datum Elevation

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Drifice coeff.? .6  
 Invert elev. (ft)? 576.23  
 Datum elev. (ft)? 579.45  
 Drifice area (sq ft)? .561

U-HAUL - D'FALLON

Structure No. 6

DRIFICE  
 Drifice - Based on Area and Datum Elevation

E1 elev. (ft)? 579.70  
 E2 elev. (ft)? 580.00  
 Drifice coeff.? .6  
 Invert elev. (ft)? 579.20  
 Datum elev. (ft)? 579.45  
 Drifice area (sq ft)? 5.458

INITIAL CONDITIONS

Elevation = 576.23 ft  
 Outflow = 0.00 cfs  
 Storage = 0.00 cu-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (cu-ft)
576.23	0.0	0.0
576.43	0.1	1.0
576.63	0.4	1.0
576.83	0.6	264.1
577.03	1.0	567.1
577.23	1.4	1,062.1
577.43	1.8	1,813.1
577.63	2.3	2,815.1
577.83	2.8	3,894.5
578.01	3.3	4,907.1
578.03	3.4	5,022.1
578.23	4.0	5,210.1
578.43	4.8	7,451.1
578.63	5.7	8,748.1
578.83	6.6	9,960.1
579.03	7.6	10,998.1
579.23	8.9	12,966.1
579.43	13.8	14,488.1
579.63	21.1	16,058.1
579.83	28.5	17,690.1
580.00	32.4	19,123.1

RETURN FREQ. 25 YEARS

U-HAUL - D'FALLON

ROUTING COMPUTATIONS

TIME (min)	INFLOW (cfs)	11+12 (cfs)	2S/t - 0 (cfs)	2S/t + 0 (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
1.0	12.05	0.0	0.0	0.0	576.23	
2.0	12.05	24.1	21.9	24.1	577.08	
3.0	12.05	24.1	42.9	46.0	577.30	
4.0	12.05	24.1	63.3	67.0	577.46	
5.0	12.05	24.1	82.0	87.4	577.58	
6.0	12.05	24.1	102.2	107.1	577.69	
7.0	12.05	24.1	120.9	126.3	577.80	
8.0	12.05	24.1	139.0	145.0	577.90	
9.0	12.05	24.1	156.6	163.1	577.99	
10.0	12.05					