

No-Name West Diversion **10-year, 24-hour rainfall event**

Routes runoff into No-Name #4

Jim Mattern

General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	1.400 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Channel	#1	==>	End	0.000	0.000	No Name West Diversion

#1 Chan'

Structure Summary:

	Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1	27.300	27.300	10.86	1.01

Structure Detail:

Structure #1 (Erodible Channel)

No Name West Diversion

Trapezoidal Erodible Channel Inputs:

Material: Graded loam to cobbles when noncolloidal

Bottom Width (ft)	Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Manning's n	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)	Limiting Velocity (fps)
5.00	2.0:1	2.0:1	3.6	0.0300	1.00			5.0

Erodible Channel Results:

	w/o Freeboard	w/ Freeboard
Design Discharge:	10.86 cfs	
Depth:	0.40 ft	1.40 ft
Top Width:	6.61 ft	10.61 ft
Velocity:	4.63 fps	
X-Section Area:	2.34 sq ft	
Hydraulic Radius:	0.344 ft	
Froude Number:	1.37	

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	27.300	0.228	0.000	0.000	87.000	F	10.86	1.010
Σ		27.300						10.86	1.010

Subwatershed Time of Concentration Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	5. Nearly bare and untilled, and alluvial valley fans	3.71	50.00	1,348.00	1.920	0.195
		8. Large gullies, diversions, and low flowing streams	4.10	30.00	731.00	6.070	0.033
#1	1	Time of Concentration:					0.228