Table 4.8-3. Diversion ditch sizing.

Diversion	Peak Flow (cfs)(1)	b (ft)(2)	D (ft)(3)	Slope (ft/ft)	v fps(4)
Far East Buzzard No. 1	0.7	0	0.44	0.02	1.5
East Pyeatt No. 1	51.0	17.0	0.45	0.05	6.3
South No. 3	0.1	1.1	0.05	0.07	1.7
South No. 4	8.2	1.0	0.66	0.04	5.3
No Name No. 1*	N/A	0	0.25	0.03	N/A
No Name No. 2*	N/A	0	0.25	0.02	N/A
West Pyeatt No. 1	72.0	12	0.43	0.156	13.04
West Flume No. 2	14.9	0	1.17 (5)	0.04	3.5
Horse	1.0	0	0.47	0.096	2.2
East Middle Flume A98-3**	--	--	--	--	.08
East Flume***	--	--	--	--	--
Deal #2 Pond Diversion	9.41	12	1.24	0.07	5.86
Grouse Diversion to E. Pyeatt	33.36	15	0.49	0.028	4.22
No Name East	4.70	5.0	0.25	0.036	3.46
No Name West	10.86	5.0	0.40	0.036	4.63
Johnson Stockpile West	5.17	0.0	0.68	0.026	3.8
Johnson Stockpile East	3.25	0.0	0.64	0.014	2.7
N Pit*****	74.90	20	0.61	0.020	6.1
Coyote West	6.90	5.0	0.26	0.03	3.73
East C Pit	0.39	0	0.26	0.057	2.83
J Pit Diversion	0.82	0	0.42	0.022	2.37

* Diversion carrying runoff from undisturbed areas.

**Diversion constructed using typical ditch design, (APP Q XVII).

***Diversion not constructed at this time.

****Deal Diversion model within Deal Pond model, (APP Q XXXVI).

*****Designed for a 25 year, 24 hour precipitation event.

(1) Peak flow for 10-year, 24-hour precipitation event (1.4" of rain)

(2) Diversion bottom width

(3) Flow depth $D = \left(\frac{Qn}{Ks^{1/2}}\right)^{0.375}$ (Manning's n = 0.03)

(4) Flow velocity v = Q/A

(5) Manning's n = 0.06

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