Prairie Dog Creek Site PD1
Load Duration Curve Calculations for *E. coli* bacteria

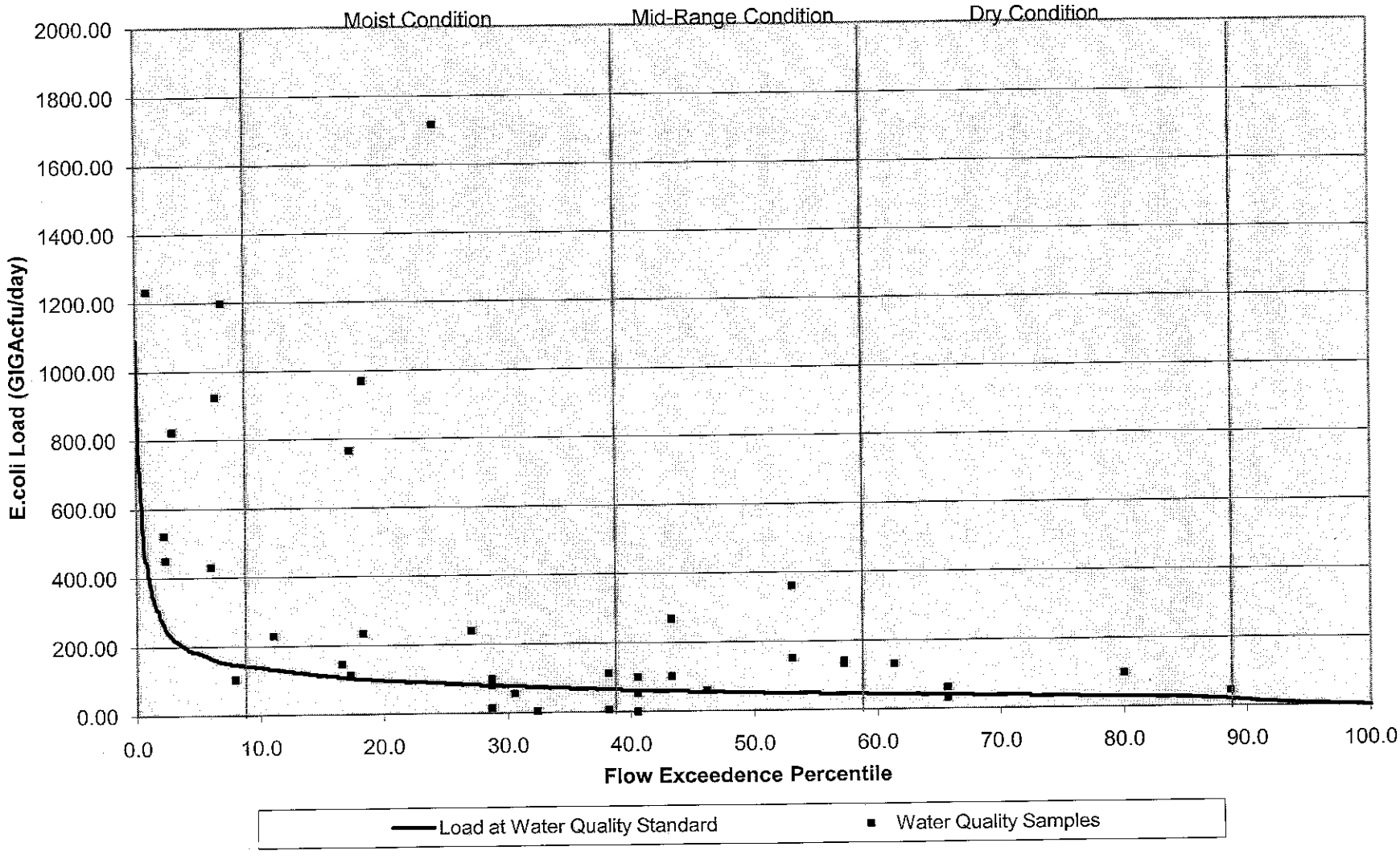
Primary Contact Standard Daily Load Capacity (GIGAcfu/day) =
[126 (cfu/100 ml)* measured flow (cfs) * 24465525 mL*s/ft^3*day]/1,000,000,000
Sampled Load (GIGAcfu/day) =
[Sampled E.Coli (cfu/100ml) * measured flow (cfs) * 24465525 mL*s/ft3*day]/1,000,000,000

Measured Flow (cfs)	E. coli Sampled (cfu/100ml)	Percent of Time Flows Exceed Measured Flow (%)	Load Capacity at Primary Contact Standard (GIGAcfu/day)	E. coli Load Sampled (GIGAcfu/day)	
351	11200	0	1082.01	***96178.87***	*
138	365	0.9	425.41	1232.33	
112	980	1.3	345.26	***2685.34***	*
86	248	2.2	265.11	521.80	
84	219	2.3	258.94	450.07	
73	461	2.9	225.03	823.34	
54	326	6	166.46	430.69	
52	727	6.4	160.30	924.89	
50	980	6.9	154.13	1198.81	
48	89	7.95	147.97	104.52	
43	219	11.05	132.55	230.39	
35	172	16.6	107.89	147.28	
34	921	17.3	104.81	766.11	
34	138	17.3	104.81	114.79	
33	1200	18.35	101.73	968.83	
33	291	18.35	101.73	234.94	
29	2420	24.2	89.40	1716.99	
27	365	27.05	83.23	241.11	
26	155	28.7	80.15	98.60	
26	126	28.7	80.15	80.15	
26	23	28.7	80.15	14.63	
25	91	30.55	77.07	55.66	
24	8	32.4	73.98	4.70	
21	219	38.2	64.74	112.52	
21	13	38.2	64.74	6.68	
20	206	40.55	61.65	100.80	
20	110	40.55	61.65	53.82	
20	0.05	40.55	61.65	0.02	
19	579	43.3	58.57	269.15	
19	219	43.3	58.57	101.80	
18	137	46.15	55.49	60.33	
16	387	53.05	49.32	151.49	
16	921	53.05	49.32	360.52	
15	365	57.25	46.24	133.95	
15	387	57.25	46.24	142.02	
14	387	61.35	43.16	132.55	
13	194	65.7	40.07	61.70	
13	99	65.7	40.07	31.49	
9.9	411	80	30.52	99.55	
6.5	285	88.65	20.04	45.32	

* Instantaneous *E. coli* loads not displayed on curve.

Note: Data for the initial flow duration curve is not presented here. Data from USGS station 06306250 for the period of 2000-2007 was used.

Prairie Dog Creek Site PD1
2007-2008 *E. coli* bacteria Load Duration Curve

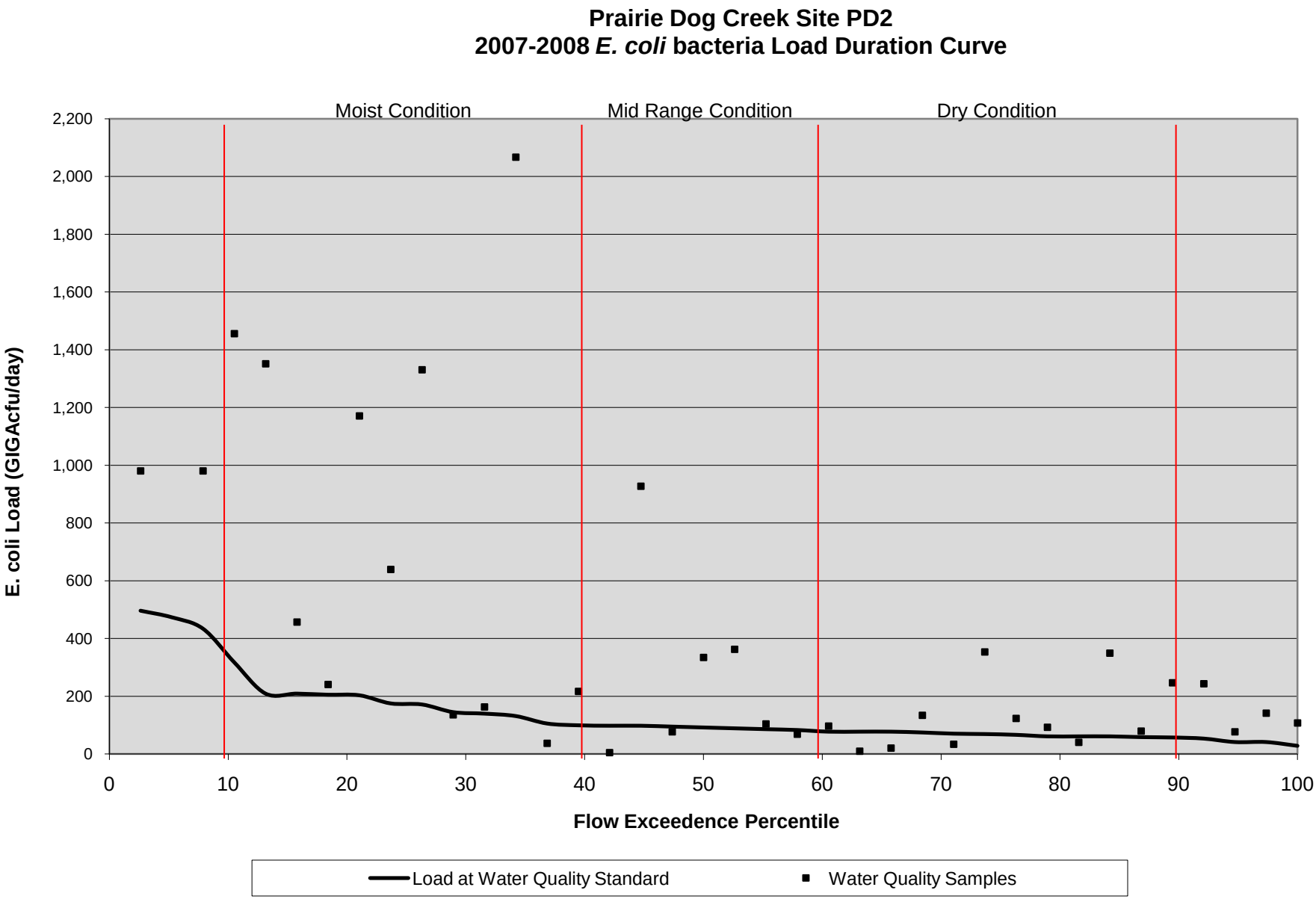


Prairie Dog Creek Site PD2
Load Duration Curve Calculations for *E. coli* bacteria

Primary Contact Standard Daily Load Capacity (GIGAcfu/day) =
[126 (cfu/100 ml)* measured flow (cfs) * 24465525 mL*s/ft^3*day]/1,000,000,000
Sampled Load (GIGAcfu/day) =
[Sampled E.Coli (cfu/100ml) * measured flow (cfs) * 24465525 mL*s/ft3*day]/1,000,000,000

Measured Flow (cfs)	E. coli Sampled (cfu/100ml)	Percent of Time Flows Exceed Measured Flow (%)	Load Capacity at Primary Contact Standard (GIGAcfu/day)	E. coli Load Sampled (GIGAcfu/day)	
160.90	249	2.6	496.01	980.20	
153.50	980	5.3	473.18	***3680.32***	*
140.61	285	7.9	433.47	980.46	
102.77	579	10.5	316.81	1455.80	
67.68	816	13.2	208.64	1351.21	
67.68	276	15.8	208.64	457.03	
66.43	148	18.4	204.78	240.53	
65.80	727	21.1	202.85	1170.43	
56.67	461	23.7	174.70	639.18	
55.49	980	26.3	171.05	1330.37	
46.86	118	28.9	144.46	135.29	
45.19	147	31.6	139.32	162.54	
42.46	1990	34.2	130.88	2067.10	
34.08	44	36.8	105.04	36.68	
32.07	276	39.5	98.87	216.58	
31.58	6	42.1	97.35	4.64	
31.58	1200	44.7	97.35	927.12	
30.60	102	47.4	94.32	76.36	
29.63	461	50.0	91.33	334.14	
28.66	517	52.6	88.36	362.57	
27.71	153	55.3	85.43	103.74	
26.77	104	57.9	82.53	68.12	
24.92	158	60.5	76.83	96.34	
24.92	16	63.2	76.83	9.76	
24.92	33	65.8	76.83	20.12	
24.01	228	68.4	74.02	133.95	
22.67	61	71.1	69.88	33.83	
22.23	649	73.7	68.52	352.92	
21.35	236	76.3	65.82	123.28	
19.63	192	78.9	60.52	92.22	
19.63	84	81.6	60.52	40.35	
19.63	727	84.2	60.52	349.19	
18.79	172	86.8	57.92	79.07	
18.37	548	89.5	56.64	246.34	
17.14	579	92.1	52.85	242.84	
13.24	236	94.7	40.82	76.46	
13.24	435	97.4	40.82	140.92	
9.01	488	100.0	27.77	107.56	

*Instantaneous *E. coli* loads not displayed on curve.


Prairie Dog Creek Site PD2
2007-2008 E. coli bacteria Load Duration Curve
Moist Condition
Mid Range Condition
Dry Condition
E. coli Load (GIGAcful/day)
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
0
10
20
30
40
50
60
70
80
90
100
Flow Exceedence Percentile
Load at Water Quality Standard
Water Quality Samples