Appendix F RQ Calculations

September 21, 2007

Aquatic RQ Calculations for prometon (Barton Springs Salamander)
(PDB 04/12/07)

	means NOAEC from chronic study
blue	means confidence interval estimate
red	means exceedence of LOC
[1]	not applicable except in case of obligate relationship

FW Fish (All units in ppm)

Estimate	Peak EEC	LC50	RQ	60-day EEC	NOAEC	RQ	RQ
Background	0.000010	12	0.00		9.5		
Spring EEC 100% ROW treated (50/50)	2.72	12	0.23	0.08434	9.5	8.88E-03	0.009
Spring EEC 50% ROW treated (50/50)	1.34	12	0.11	0.03497	9.5	3.68E-03	0.004
Spring EEC 25% ROW treated (50/50)	1.25	12	0.10	0.03213	9.5	3.38E-03	0.003
Spring EEC 10% ROW treated (50/50)	0.59	12	0.05	0.0272	9.5	2.86E-03	0.003
Spring EEC 1% ROW treated (50/50)	0.07	12	0.01	0.00158	9.5	1.66E-04	0.000
Spring EEC clearance 1.25% ROW (50/50)	0.08	12	0.01	0.00193	9.5	2.03E-04	0.000
Spring EEC clearance 1% recharge zone treated (50/50)	0.07	12	0.01	0.00312	9.5	3.28E-04	0.000
Spring EEC clearance 0.75% contributing zone treated (50/50)	0.05	12	0.00	0.00118	9.5	1.24E-04	0.000

FW Aquatic Invertebrates (All units in ppm)

Estimate	Peak EEC	LC50	RQ	21-day EEC	NOAEC	RQ	RQ
Background	0.000010	25.7	0.00		3.5		
Spring EEC 100% ROW treated (50/50)	2.72	25.7	0.11	0.23265	3.5	6.65E-02	0.066
Spring EEC 50% ROW treated (50/50)	1.34	25.7	0.05	0.08905	3.5	2.54E-02	0.025
Spring EEC 25% ROW treated (50/50)	1.25	25.7	0.05	0.08152	3.5	2.33E-02	0.023
Spring EEC 10% ROW treated (50/50)	0.59	25.7	0.02	0.03221	3.5	9.20E-03	0.009
Spring EEC 1% ROW treated (50/50)	0.07	25.7	0.00	0.00413	3.5	1.18E-03	0.001
Spring EEC clearance 1.25% ROW (50/50)	0.08	25.7	0.00	0.00506	3.5	1.45E-03	0.001
Spring EEC clearance 1% recharge zone treated (50/50)	0.07	25.7	0.00	0.00816	3.5	2.33E-03	0.002
Spring EEC clearance 0.75% contributing zone treated (50/50)	0.05	25.7	0.00	0.00311	3.5	8.89E-04	0.001

FW Alga (All units in ppm)

Estimate	Peak EEC	LC50	Acute RQ
Background	0.000010	0.098	0.00
Spring EEC 100% ROW treated (50/50)	2.72	0.098	27.76
Spring EEC 50% ROW treated (50/50)	1.34	0.098	13.69
Spring EEC 25% ROW treated (50/50)	1.25	0.098	12.71
Spring EEC 10% ROW treated (50/50)	0.59	0.098	6.05
Spring EEC 1% ROW treated (50/50)	0.07	0.098	0.66
Spring EEC clearance 1.25% ROW (50/50)	0.08	0.098	0.81
Spring EEC clearance 1% recharge zone treated (50/50)	0.07	0.098	0.67
Spring EEC clearance 0.75% contributing zone treated (50/50)	0.05	0.098	0.50

treated	Effects hectares	acres	lb ai
100%	4,443	10,978	220,006
50%	2,221	5,489	110,003
25%	1,111	2,745	55,001
10%	444	1,098	22,001
1%	44	110	2,200
1.25%	56	137	2,750
0.75%	33	82	1,650

FW Vascular Plant (All units in ppm)

Estimate	Peak EEC	LC50	Acute RQ
Background	0.000010	0.624	0.00
Spring EEC 100% ROW treated (50/50)	2.72	0.624	4.36
Spring EEC 50% ROW treated (50/50)	1.34	0.624	2.15
Spring EEC 25% ROW treated (50/50)	1.25	0.624	2.00
Spring EEC 10% ROW treated (50/50)	0.59	0.624	0.95
Spring EEC 1% ROW treated (50/50)	0.07	0.624	0.10
Spring EEC clearance 1.25% ROW (50/50)	0.08	0.624	0.13
Spring EEC clearance 1% recharge zone treated (50/50)	0.07	0.624	0.10
Spring EEC clearance 0.75% contributing zone treated (50/50)	0.05	0.624	0.08