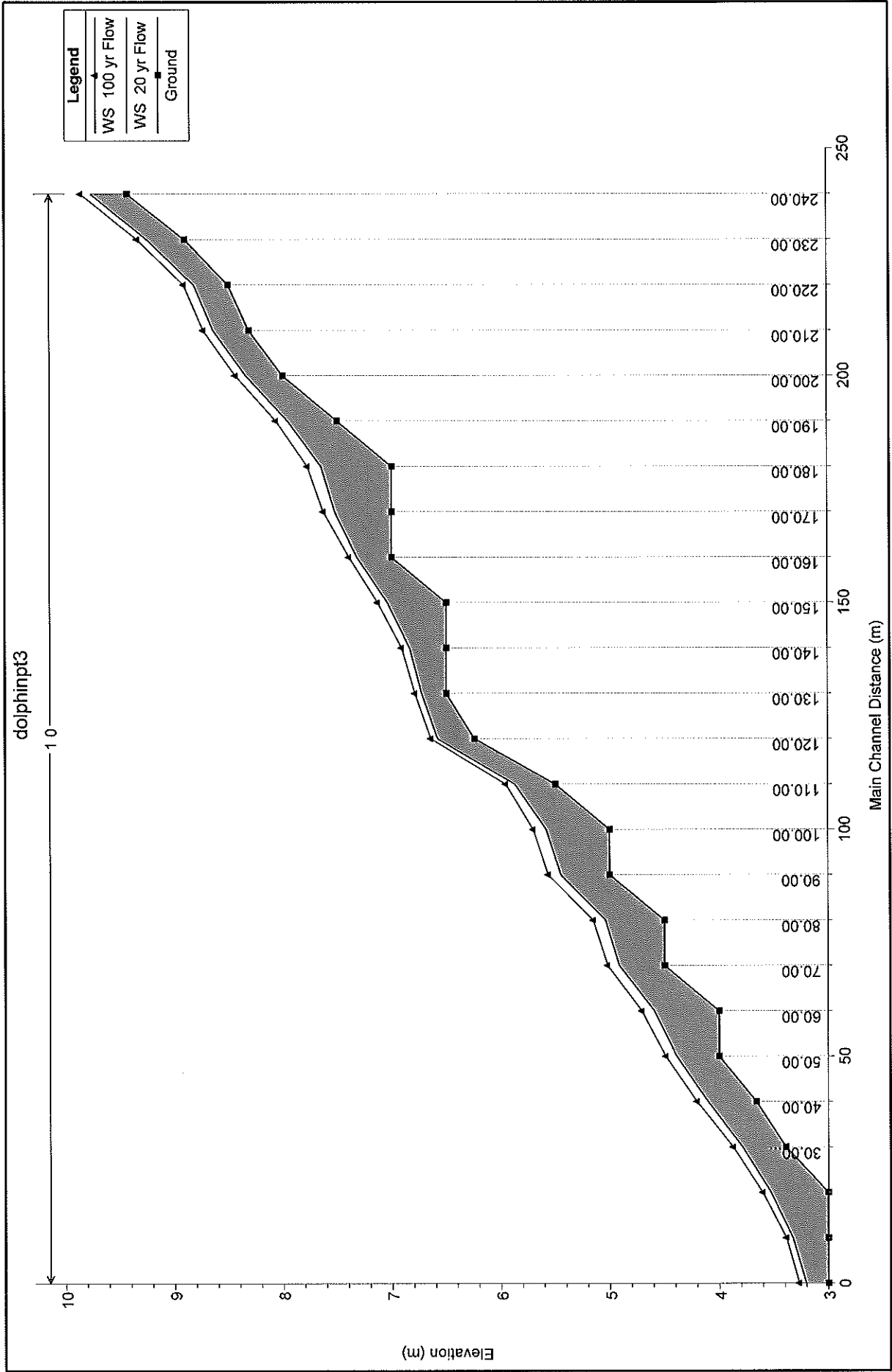
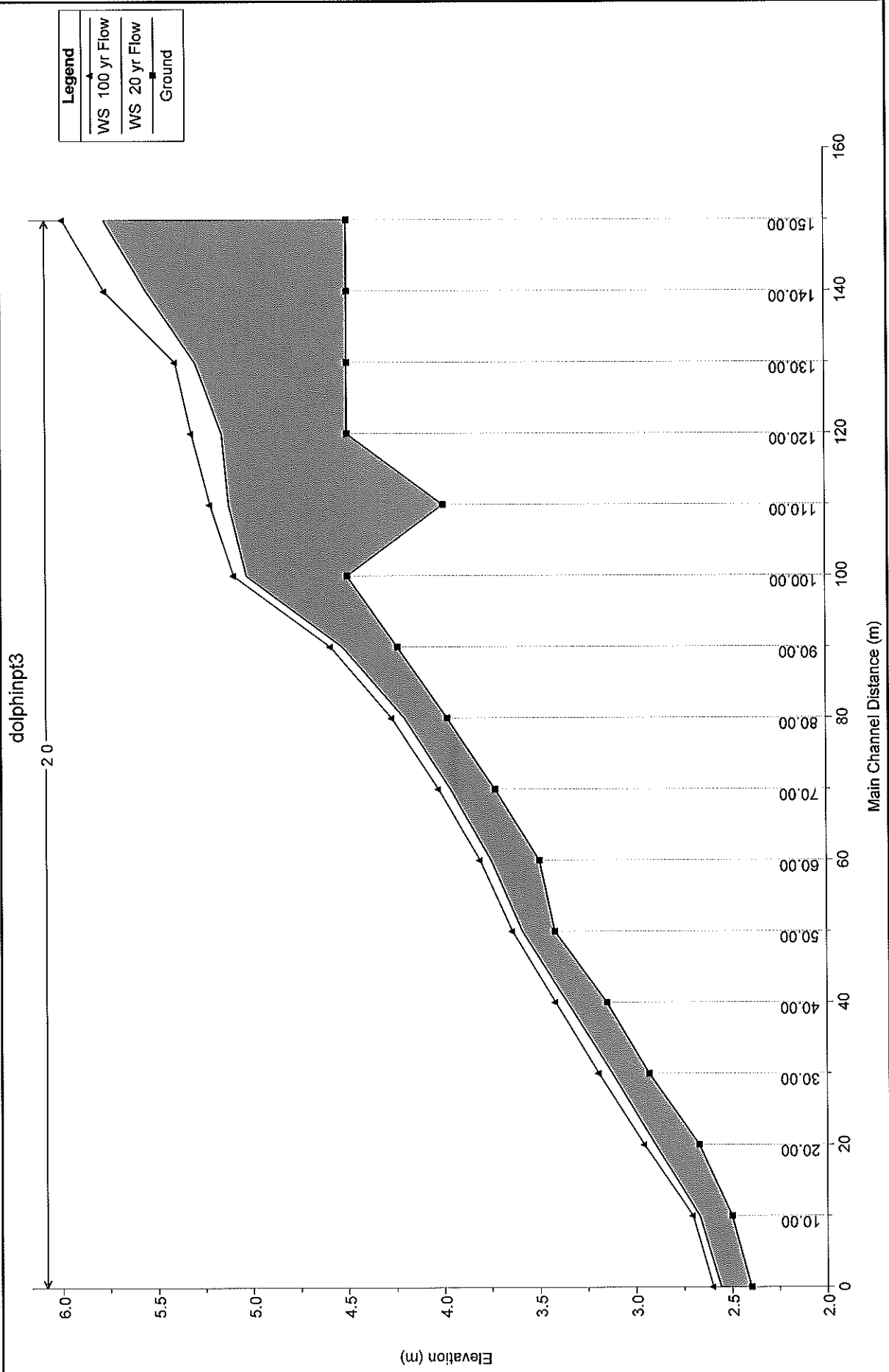

APPENDIX C

HEC-RAS MODEL RESULTS

Creek 1



Creek 2



HEC-RAS Plan: Plan 01 River: 1 Reach: 0

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
0	240.00	20 yr Flow	7.10	9.43	9.76	9.76	9.89	0.012741	1.69	5.26	21.01	0.88
0	240.00	100 yr Flow	11.00	9.43	9.85	9.85	10.02	0.012292	1.97	7.14	21.73	1.01
0	230.00	20 yr Flow	7.10	8.80	9.25	9.25	9.38	0.013530	1.61	4.86	21.24	0.99
0	230.00	100 yr Flow	11.00	8.80	9.34	9.34	9.50	0.012114	1.84	6.60	22.61	0.99
0	220.00	20 yr Flow	7.10	8.50	8.82	8.82	8.95	0.012660	1.61	4.71	20.46	0.97
0	220.00	100 yr Flow	11.00	8.50	8.91	8.91	9.08	0.011463	1.84	6.71	23.64	0.97
0	210.00	20 yr Flow	7.10	8.31	8.64	8.64	8.76	0.013041	1.59	5.11	24.50	0.98
0	210.00	100 yr Flow	11.00	8.31	8.73	8.73	8.88	0.011261	1.79	7.48	28.37	0.95
0	200.00	20 yr Flow	7.10	8.00	8.34	8.34	8.47	0.011651	1.64	5.17	23.18	0.94
0	200.00	100 yr Flow	11.00	8.00	8.43	8.43	8.59	0.010425	1.86	7.61	27.73	0.93
0	190.00	20 yr Flow	7.10	7.50	7.96	7.96	8.10	0.010754	1.72	4.93	21.29	0.93
0	190.00	100 yr Flow	11.00	7.50	8.06	8.06	8.24	0.009831	1.94	7.43	25.77	0.92
0	180.00	20 yr Flow	7.10	7.00	7.65	7.65	7.81	0.012174	1.79	4.27	16.93	0.88
0	180.00	100 yr Flow	11.00	7.00	7.77	7.77	7.96	0.009669	1.96	6.76	23.57	0.92
0	170.00	20 yr Flow	7.10	7.00	7.52	7.52	7.65	0.010915	1.63	5.20	25.20	0.92
0	170.00	100 yr Flow	11.00	7.00	7.63	7.63	7.78	0.009183	1.80	8.37	34.91	0.88
0	160.00	20 yr Flow	7.10	7.00	7.32	7.32	7.42	0.012381	1.44	5.96	34.20	0.93
0	160.00	100 yr Flow	11.00	7.00	7.39	7.39	7.51	0.011449	1.65	8.51	37.26	0.94
0	150.00	20 yr Flow	7.10	6.50	7.04	7.04	7.16	0.010340	1.55	5.64	30.13	0.89
0	150.00	100 yr Flow	11.00	6.50	7.13	7.13	7.27	0.009461	1.75	8.49	35.15	0.89
0	140.00	20 yr Flow	7.10	6.50	6.84		6.89	0.004931	1.07	7.17	28.51	0.61
0	140.00	100 yr Flow	11.00	6.50	6.91		7.00	0.005747	1.33	9.30	31.42	0.69
0	130.00	20 yr Flow	7.10	6.50	6.73	6.72	6.81	0.014094	1.31	6.41	28.24	0.96
0	130.00	100 yr Flow	11.00	6.50	6.79	6.79	6.91	0.013332	1.53	7.34	34.68	0.98
0	120.00	20 yr Flow	7.10	6.24	6.58	6.58	6.67	0.015175	1.30	5.90	36.91	0.98
0	120.00	100 yr Flow	11.00	6.24	6.64	6.64	6.75	0.013842	1.50	8.14	39.52	0.98
0	110.00	20 yr Flow	7.10	5.50	5.87	5.87	5.99	0.015012	1.48	4.81	22.11	1.01
0	110.00	100 yr Flow	11.00	5.50	5.96	5.96	6.09	0.013862	1.63	6.76	25.98	1.01
0	100.00	20 yr Flow	7.10	5.00	5.59	5.59	5.75	0.012506	1.79	4.03	13.88	0.99
0	100.00	100 yr Flow	11.00	5.00	5.70	6.70	5.91	0.010755	2.01	5.93	18.53	0.96
0	90.00	20 yr Flow	7.10	5.00	5.45	5.45	5.60	0.012191	1.74	4.31	16.92	0.97
0	90.00	100 yr Flow	11.00	5.00	5.57	5.57	5.75	0.010083	1.93	6.59	23.08	0.93
0	80.00	20 yr Flow	7.10	4.50	5.04	5.04	5.20	0.013178	1.74	4.12	15.17	1.00
0	80.00	100 yr Flow	11.00	4.50	5.15	5.15	5.34	0.011005	1.95	6.07	20.00	0.96
0	70.00	20 yr Flow	7.10	4.50	4.91	4.91	5.06	0.010856	1.73	5.04	21.48	0.93
0	70.00	100 yr Flow	11.00	4.50	5.02	5.02	5.19	0.009805	1.95	7.56	26.14	0.92
0	60.00	20 yr Flow	7.10	4.00	4.59	4.59	4.74	0.010524	1.76	4.79	20.54	0.92
0	60.00	100 yr Flow	11.00	4.00	4.71	4.71	4.89	0.009154	1.96	7.43	25.75	0.90
0	50.00	20 yr Flow	7.10	4.00	4.39	4.39	4.52	0.010521	1.66	5.42	24.97	0.91
0	50.00	100 yr Flow	11.00	4.00	4.49	4.49	4.65	0.009514	1.88	8.19	30.88	0.90
0	40.00	20 yr Flow	7.10	3.66	4.11	4.11	4.24	0.010690	1.67	5.17	23.74	0.92
0	40.00	100 yr Flow	11.00	3.66	4.20	4.20	4.37	0.008661	1.90	7.74	28.88	0.92
0	30.00	20 yr Flow	7.10	3.39	3.79	3.79	3.91	0.015267	1.53	4.91	24.67	1.03
0	30.00	100 yr Flow	11.00	3.39	3.87	3.87	4.02	0.012365	1.70	7.13	28.31	0.97
0	20.00	20 yr Flow	7.10	3.00	3.53	3.53	3.64	0.015794	1.49	4.76	22.42	1.03
0	20.00	100 yr Flow	11.00	3.00	3.61	3.61	3.75	0.013689	1.69	6.60	26.00	1.01
0	10.00	20 yr Flow	7.10	3.00	3.33	3.31	3.42	0.011270	1.35	5.45	26.93	0.89
0	10.00	100 yr Flow	11.00	3.00	3.39	3.39	3.53	0.012605	1.68	7.15	30.93	0.97
0	0.00	20 yr Flow	7.10	3.00	3.21	3.21	3.30	0.013948	1.35	5.98	37.17	0.96
0	0.00	100 yr Flow	11.00	3.00	3.27	3.27	3.38	0.013130	1.56	8.36	40.98	0.97

Creek 2

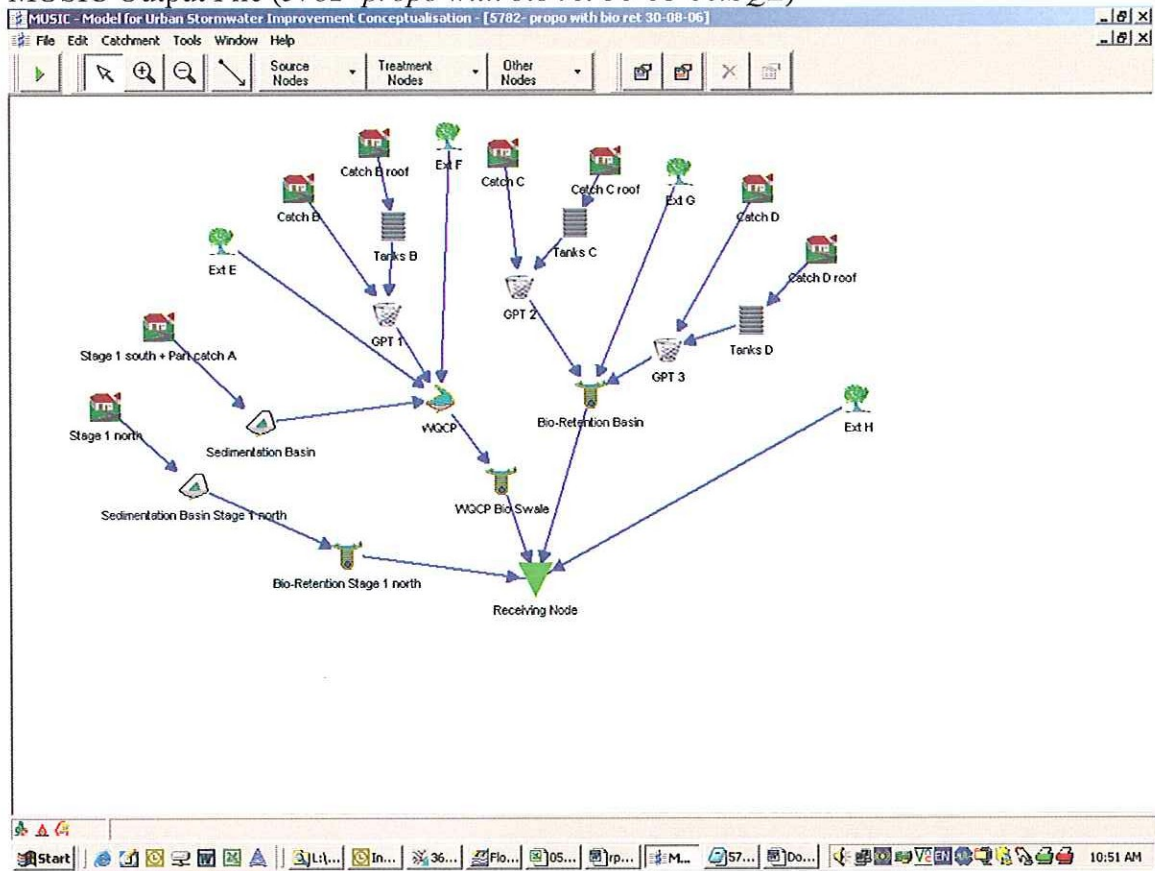
HEC-RAS Plan: Plan 01 River: 2 Reach: 0

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
0	150.00	20 yr Flow	4.90	4.50	5.77		5.89	0.004463	1.51	3.24	5.16	0.61
0	150.00	100 yr Flow	7.90	4.50	5.99		6.15	0.005010	1.77	4.45	6.14	0.66
0	140.00	20 yr Flow	4.90	4.50	5.55	5.55	5.81	0.013050	2.24	2.19	4.37	1.01
0	140.00	100 yr Flow	7.90	4.50	5.77	5.77	6.06	0.012445	2.38	3.32	5.91	1.01
0	130.00	20 yr Flow	4.90	4.50	5.30		5.43	0.005783	1.62	3.03	5.48	0.69
0	130.00	100 yr Flow	7.90	4.50	5.40	5.34	5.64	0.009276	2.18	3.62	5.92	0.89
0	120.00	20 yr Flow	4.90	4.50	5.16	5.16	5.34	0.013103	1.90	2.58	7.20	1.01
0	120.00	100 yr Flow	7.90	4.50	5.32	5.32	5.53	0.012277	2.03	3.88	9.30	1.01
0	110.00	20 yr Flow	4.90	4.00	5.12		5.15	0.001346	0.71	6.89	15.34	0.34
0	110.00	100 yr Flow	7.90	4.00	5.22		5.26	0.002299	0.93	8.53	19.15	0.44
0	100.00	20 yr Flow	4.90	4.50	5.03	5.03	5.11	0.011822	1.31	4.36	27.32	0.80
0	100.00	100 yr Flow	7.90	4.50	5.09	5.09	5.21	0.011875	1.57	6.30	31.94	0.84
0	90.00	20 yr Flow	4.90	4.24	4.53	4.53	4.61	0.014867	1.28	3.97	25.37	0.97
0	90.00	100 yr Flow	7.90	4.24	4.59	4.59	4.70	0.013798	1.51	5.62	27.61	0.98
0	80.00	20 yr Flow	4.90	3.98	4.20	4.20	4.29	0.015954	1.29	3.79	22.30	1.00
0	80.00	100 yr Flow	7.90	3.98	4.27	4.27	4.38	0.014895	1.48	5.33	24.69	1.01
0	70.00	20 yr Flow	4.90	3.73	3.96	3.96	4.04	0.016855	1.21	4.12	31.69	1.01
0	70.00	100 yr Flow	7.90	3.73	4.03	4.03	4.12	0.013211	1.36	6.28	37.55	0.94
0	60.00	20 yr Flow	4.90	3.50	3.75	3.75	3.82	0.015422	1.16	4.32	33.28	0.98
0	60.00	100 yr Flow	7.90	3.50	3.81	3.81	3.90	0.013109	1.33	6.41	39.69	0.94
0	50.00	20 yr Flow	4.90	3.42	3.59	3.59	3.68	0.016818	1.16	4.62	39.14	0.99
0	50.00	100 yr Flow	7.90	3.42	3.64	3.64	3.73	0.015156	1.35	6.66	43.08	0.99
0	40.00	20 yr Flow	4.90	3.15	3.36	3.36	3.43	0.014399	1.22	4.61	35.27	0.95
0	40.00	100 yr Flow	7.90	3.15	3.42	3.42	3.51	0.012828	1.41	6.90	41.82	0.94
0	30.00	20 yr Flow	4.90	2.93	3.12	3.12	3.20	0.015047	1.25	4.56	36.94	0.97
0	30.00	100 yr Flow	7.90	2.93	3.19	3.19	3.27	0.010656	1.32	8.23	58.91	0.86
0	20.00	20 yr Flow	4.90	2.67	2.90	2.90	2.97	0.015739	1.19	4.38	35.81	0.98
0	20.00	100 yr Flow	7.90	2.67	2.96	2.96	3.05	0.013501	1.36	6.61	42.91	0.95
0	10.00	20 yr Flow	4.90	2.50	2.67	2.66	2.71	0.011404	0.99	6.80	56.63	0.83
0	10.00	100 yr Flow	7.90	2.50	2.70	2.70	2.77	0.013604	1.25	8.83	58.72	0.93
0	0.00	20 yr Flow	4.90	2.40	2.56	2.53	2.59	0.010001	0.83	6.83	63.27	0.75
0	0.00	100 yr Flow	7.90	2.40	2.60	2.59	2.64	0.010016	1.00	9.37	68.23	0.79

APPENDIX D

MUSIC MODEL RESULTS

MUSIC Output File (5782- propo with bio ret 30-08-06.SQZ)



Flow (ML/yr)	458	430	6.1
Total Suspended Solids (kg/yr)	48.2E3	12.4E3	74.3
Total Phosphorus (kg/yr)	91.4	36.7	59.8
Total Nitrogen (kg/yr)	750	451	39.8
Gross Pollutants (kg/yr)	6.52E3	535	91.8

Source nodes

Location, Ext E, Ext G, Ext F, Ext H, Stage 1 north, Catch D, Catch B, Catch C, Stage 1 south + Part catch A, Catch B roof, Catch C roof, Catch D roof

ID, 2, 3, 4, 5, 7, 8, 9, 10, 11, 19, 20, 21

Node

Type, ForestSourceNode, ForestSourceNode, ForestSourceNode, ForestSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode, UrbanSourceNode

Total Area (ha), 5.74, 5.05, 24.98, 22.79, 0.6, 3.66, 5.48, 5.73, 6.8, 1.16, 1.22, 0.78

Area Impervious

(ha), 0.276426315789473, 0.243197368421052, 1.20298421052631, 1.09751842105263, 0.331894736842105, 2.02455789473684, 3.0070298245614, 3.14421184210526, 3.73135087719298, 1.15486140350877, 1.21459561403509, 0.776544736842105

Area Pervious

(ha), 5.46357368421053, 4.80680263157895, 23.7770157894737, 21.6924815789474, 0.268105263157895, 1.63544210526316, 2.4729701754386, 2.58578815789474, 3.06864912280702, 0.00513859649122828, 0.00540438596491244, 0.00345526315789479

Field Capacity (mm), 80, 80, 80, 80, 80, 80, 80, 80, 80, 80, 80, 80

OUT - Gross Pollutant Mean Annual Load

(kg/yr),135,119,586,535,116,710,1.06E3,1.11E3,1.32E3,305,321,205

No Imported Data Source nodes

USTM treatment nodes

Location,WQCP, WQCP Bio Swale,Sedimentation Basin Stage 1 north,Bio-Retention Stage 1 north,Sedimentation Basin, Tanks B,Tanks D,Tanks C,Bio-Retention Basin
ID,6,12,13,14,18,22,23,24,25

Node

Type,PondNode,BioRetentionNode,SedimentationBasinNode,BioRetentionNode,SedimentationBasinNode
,RainWaterTankNode,RainWaterTankNode,RainWaterTankNode,BioRetentionNode

Lo-flow bypass rate (cum/sec),0,0,0,0,0,0,0,0

Hi-flow bypass rate (cum/sec),100,100,100,100,100,100,100,100,100

Inlet pond volume,0, ,0, ,0,0,0,0,

Area (sqm),12500,30,50,90,945,0.1,0.1,0.1,1100

Extended detention depth (m),0.25,0.3,0.1,0.3,0.1,0.01,0.01,0.01,0.3

Permanent pool volume (cum),6250, ,50, ,945,232,156,244,

Proportion vegetated,0.1, ,0, ,0,0,0,0,

Equivalent pipe diameter (mm),300, ,100, ,300,50,50,50,

Overflow weir width (m),2,2,2,2,10,10,10,5

Notional Detention Time (hrs),8.28, ,0.189, ,0.396,477E-6,477E-6,477E-6,

Orifice discharge coefficient,0.6, ,0.6, ,0.6,0.6,0.6,0.6,

Weir coefficient,1.7,1.7,1.7,1.7,1.7,1.7,1.7,1.7

Number of CSTR cells,2,3,1,3,1,2,2,2,3

Total Suspended Solids k (m/yr),400,1000,15000,1000,15000,400,400,400,1000

Total Suspended Solids C* (mg/L),13,8,30,12,30,12,12,12,8

Total Suspended Solids C** (mg/L),12, ,30, ,30,12,12,12,

Total Phosphorus k (m/yr),300,500,12000,500,12000,300,300,300,500

Total Phosphorus C* (mg/L),0.07,0.04,0.18,0.13,0.18,0.13,0.13,0.13,0.04

Total Phosphorus C** (mg/L),0.09, ,0.18, ,0.18,0.13,0.13,0.13,

Total Nitrogen k (m/yr),40,50,1000,50,1000,40,40,40,50

Total Nitrogen C* (mg/L),0.55,0.4,1.7,1.3,1.7,1.4,1.4,1.4,0.4

Total Nitrogen C** (mg/L),1, ,1.7, ,1.7,1.4,1.4,1.4,

Threshold hydraulic loading for C** (m/yr),3500, ,3500, ,3500,3500,3500,3500,

Extraction for Re-use,Off,Off,Off,Off,Off,On,On,On,Off

Annual Re-use Demand - scaled by daily PET (ML), , , , ,0,0,0,

Constant Daily Re-use Demand (kL), , , , ,22.7,15.3,23.9,

User-defined Annual Re-use Demand (ML), , , , ,0,0,0,

Percentage of User-defined Annual Re-use Demand Jan, , , , ,

,8.33333333333333,8.33333333333333,8.33333333333333,

Percentage of User-defined Annual Re-use Demand Feb, , , , ,

,8.33333333333333,8.33333333333333,8.33333333333333,

Percentage of User-defined Annual Re-use Demand Mar, , , , ,

,8.33333333333333,8.33333333333333,8.33333333333333,

Percentage of User-defined Annual Re-use Demand Apr, , , , ,

,8.33333333333333,8.33333333333333,8.33333333333333,

Percentage of User-defined Annual Re-use Demand May, , , , ,

,8.33333333333333,8.33333333333333,8.33333333333333,

Percentage of User-defined Annual Re-use Demand Jun, , , , ,

,8.33333333333333,8.33333333333333,8.33333333333333,

Percentage of User-defined Annual Re-use Demand Jul, , , , ,

,8.33333333333333,8.33333333333333,8.33333333333333,

Percentage of User-defined Annual Re-use Demand Aug, , , , ,

,8.33333333333333,8.33333333333333,8.33333333333333,

Input (cum/sec), , ,
Output (cum/sec), , ,
Input (cum/sec), , ,
Output (cum/sec), , ,
Gross Pollutant Transfer Function
Input (kg/ML),0,0,0
Output (kg/ML),0,0,0
Input (kg/ML),15,15,15
Output (kg/ML),15,15,15
Input (kg/ML), , ,
Output (kg/ML), , ,
Input (kg/ML), , ,
Output (kg/ML), , ,
Input (kg/ML), , ,
Output (kg/ML), , ,
Input (kg/ML), , ,
Output (kg/ML), , ,
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Output (kg/ML), , ,
Input (kg/ML), , ,
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Input (kg/ML), , ,
Output (kg/ML), , ,
Input (kg/ML), , ,
Output (kg/ML), , ,
Total Nitrogen Transfer Function
Input (mg/L),0,0,0
Output (mg/L),0,0,0
Input (mg/L),100,100,100
Output (mg/L),87,87,87
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Output (mg/L), , ,
Input (mg/L), , ,
Output (mg/L), , ,
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Output (mg/L), , ,
Input (mg/L), , ,
Output (mg/L), , ,
Total Phosphorus Transfer Function
Input (mg/L),0,0,0
Output (mg/L),0,0,0
Input (mg/L),100,100,100
Output (mg/L),70,70,70
Input (mg/L), , ,
Output (mg/L), , ,
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Output (mg/L), , ,
Input (mg/L), , ,

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 Output (mg/L), , ,
 Input (mg/L), , ,
 Output (mg/L), , ,
 Total Suspended Solids Transfer Function
 Input (mg/L),0,0,0
 Output (mg/L),0,0,0
 Input (mg/L),1000,1000,1000
 Output (mg/L),300,300,300
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 Output (mg/L), , ,
 Input (mg/L), , ,
 Output (mg/L), , ,
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 Output (mg/L), , ,
 Input (mg/L), , ,
 Output (mg/L), , ,
 Input (mg/L), , ,
 Output (mg/L), , ,
 Input (mg/L), , ,
 Output (mg/L), , ,
 IN - Mean Annual Flow (ML/yr),50.4,52.8,33.7
 IN - TSS Mean Annual Load (kg/yr),7.88E3,8.25E3,5.27E3
 IN - TP Mean Annual Load (kg/yr),17.4,18.2,11.6
 IN - TN Mean Annual Load (kg/yr),129,135,86.5
 IN - Gross Pollutant Mean Annual Load (kg/yr),1.06E3,1.11E3,710
 OUT - Mean Annual Flow (ML/yr),50.4,52.8,33.7
 OUT - TSS Mean Annual Load (kg/yr),2.36E3,2.47E3,1.58E3
 OUT - TP Mean Annual Load (kg/yr),12.1,12.7,8.12
 OUT - TN Mean Annual Load (kg/yr),113,118,75.3
 OUT - Gross Pollutant Mean Annual Load (kg/yr),1.06E3,1.11E3,710

Other nodes

Location,Receiving Node
 ID,1
 Node Type,ReceivingNode
 IN - Mean Annual Flow (ML/yr),430
 IN - TSS Mean Annual Load (kg/yr),12.4E3
 IN - TP Mean Annual Load (kg/yr),36.7
 IN - TN Mean Annual Load (kg/yr),451
 IN - Gross Pollutant Mean Annual Load (kg/yr),535
 OUT - Mean Annual Flow (ML/yr),0.00
 OUT - TSS Mean Annual Load (kg/yr),0.00
 OUT - TP Mean Annual Load (kg/yr),0.00
 OUT - TN Mean Annual Load (kg/yr),0.00

APPENDIX E

SEDIMENT BASIN SIZING CALCULATIONS

Dolphin Pont

Site Information

Stage 2

Total Site Area	75000 sq.m	(Estimation of half the site disturbed during construction)
Roof Area	0 sq.m	(by Autocad)
Basin Catchment Area	75000 sq.m	
Percentage Impervious	0 %	(estimated)
1year ARI Intensity (tc=5min)	101 mm/hr	(from AUS-IFD)
C'(10)	0.61	(by ARR '87 Methodology, p.307)
C(10)	0.61	
C(1)	0.49	
1year ARI Flow	1.03 cu.m/s	
3 month ARI Flow	0.257 cu.m/s	

RUSLE Soil Loss

R	5500	(using the equation in the Blue Book)
K	0.003	silty clay type soils
LS	2.04	(80m @ 1%)
P	1.3	(compacted and smooth)
C	1	(no cover)
Annual Soil Loss	33.7 cu.m/ha/yr	
3 month Soil Loss	63.1 cu.m	

Type C Sizing

Adopted Particle Size	0.02 mm	(recommended in the Blue Book)
Particle Settling Velocity	0.00029 m/s	(from the Blue Book)
Basin Surface Area	885 sq.m	
Basin Dimensions	17.2 m	x 51.5 m
Settling Zone Depth	0.6 m	(recommended in the Blue Book)
Settling Zone Volume	531.1 cu.m	
Storage Zone Volume	531.1 cu.m	(equals the settling zone volume, as recommended in the Blue Book)
Total Volume	1062 cu.m	

Type D Sizing

Cv	0.5	(adopting 0.9 for impervious areas)
R	52.4 mm	(adopting 90th percentile for Batemans Bay)
Settling Zone Volume (90%)	1965 cu.m	
Storage Zone Volume (90%)	590 cu.m	(30% of the settling zone capacity)
Total Volume (90%)	2555 cu.m	
R	28 mm	(adopting 80th percentile for Batemans Bay)
Settling Zone Volume (80%)	1050 cu.m	
Storage Zone Volume (80%)	315 cu.m	(30% of the settling zone capacity)
Total Volume (80%)	1365 cu.m	
R	22.1 mm	(adopting 75th percentile for Batemans Bay)
Settling Zone Volume (75%)	829 cu.m	
Storage Zone Volume (75%)	249 cu.m	(30% of the settling zone capacity)
Total Volume (75%)	1077 cu.m	

Dolphin Pont

Site Information

Stage 3

Total Site Area	25000 sq.m	(Estimation of half the site disturbed during construction)
Roof Area	0 sq.m	(by Autocad)
Basin Catchment Area	25000 sq.m	
Percentage Impervious	0 %	(estimated)
1year ARI Intensity (tc=5min)	101 mm/hr	(from AUS-IFD)
C'(10)	0.61	(by ARR '87 Methodology, p.307)
C(10)	0.61	
C(1)	0.49	
1year ARI Flow	0.34 cu.m/s	
3 month ARI Flow	0.086 cu.m/s	

RUSLE Soil Loss

R	5500	(using the equation in the Blue Book)
K	0.003	silty clay type soils
LS	2.04	(80m @ 1%)
P	1.3	(compacted and smooth)
C	1	(no cover)
Annual Soil Loss	33.7 cu.m/ha/yr	
3 month Soil Loss	21.0 cu.m	

Type C Sizing

Adopted Particle Size	0.02 mm	(recommended in the Blue Book)
Particle Settling Velocity	0.00029 m/s	(from the Blue Book)
Basin Surface Area	295 sq.m	
Basin Dimensions	9.9 m	x 29.8 m
Settling Zone Depth	0.6 m	(recommended in the Blue Book)
Settling Zone Volume	177.0 cu.m	
Storage Zone Volume	177.0 cu.m	(equals the settling zone volume, as recommended in the Blue Book)
Total Volume	354 cu.m	

Type D Sizing

Cv	0.5	(adopting 0.9 for impervious areas)
R	52.4 mm	(adopting 90th percentile for Batemans Bay)
Settling Zone Volume (90%)	655 cu.m	
Storage Zone Volume (90%)	197 cu.m	(30% of the settling zone capacity)
Total Volume (90%)	852 cu.m	
R	28 mm	(adopting 80th percentile for Batemans Bay)
Settling Zone Volume (80%)	350 cu.m	
Storage Zone Volume (80%)	105 cu.m	(30% of the settling zone capacity)
Total Volume (80%)	455 cu.m	
R	22.1 mm	(adopting 75th percentile for Batemans Bay)
Settling Zone Volume (75%)	276 cu.m	
Storage Zone Volume (75%)	83 cu.m	(30% of the settling zone capacity)
Total Volume (75%)	359 cu.m	