APPENDIX BRAFTS MODEL RESULTS

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 720.
RETURN PERIOD (YRS) = 1.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 78.35
TOTAL OF SECOND SUB-AREAS (km2) = 4.12
TOTAL OF ALL SUB-AREAS (km2) = 82.47

Link	MARY OF C Catch.	Area	slo	ope	% Impe	rvious		rn "	В "з	Link
Label No.	#1	#2	#1	#2	#1	#2	#1	#2	#1 #2	
140.	(ha)		(%	%)		(%)				
CatE		0.2900	4.700	4.700		99.00	.060	.015 .	0536 .0004	ļ
1.000	F 600	0 2000	6 700	6 700	1000	00 00	.035	.015 .	0311 .0003	,
CatA 1.001	5.000	0.2900	6.700	6.700	. 1000	99.00	.055	.013 .	0311 .0003	•
CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015 .	1019 .0007	7
2.000										
CatB	6.310	0.3300	4.800	4.800	1.000	99.00	.035	.015 .	0375 .0004	ŀ
2.001 CatG	4 790	0.2500	5.600	5.600	1.000	99.00	.060	.015 .	0459 .0003	1
3.000	41130	0.2300	3.000	3.000	1.000	33.00	.000	.025	0133 1000.	•
CatC	6.600	0.3500	4.800	4.800	1.000	99.00	.035	.035	0384 .0010)
3.001	21 650	1 140	2 000	2 000	1 000	00 00	060	015	1205 000)
CatH 4.000	21.650	1.140	3.900	3.900	T.000	99.00	.060	.015 .	1205 .0008	•
CatD	4,220	0.2200	6.400	6.400	1.000	99.00	.035	.015 .	0263 .0003	3
4.001										
Outlet	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	0021 0.000)
1.002										
Link	_Average	Init.		Cont.		Excess	Rain	_Peak	Time	Link
Label	Intensity (mm/h)	/ #1 (mm	#2	#1 (mm/	#2 h)	#1 (mn	#2	Inflow (m^3/s		Lag nins
CatE	7.225			1.500		18.130				
CULL	, , , , ,		.500	11300						
CatA	7.225	25.00 2	.500	1.500	0.000	18.130	42.555	0.614	0 400.0 (0.000
CatF	7 225	25.00 2	500	1.500	0 000	18.130	42 555	1.09	9 400.0 (000
Catr	7.223	23.00 2	.300	1.300	0.000	10.130	46.333	1.09	9 400.0 (7.000
CatB	7.225	25.00 2	.500	1.500	0.000	18.130	42.555	1.46	7 400.0 (0.000
	7 225	25 00 2	F00 '	1 500	0 000	10 130	40 555		C 400 0 4	
CatG	7.225	25.00 2	.500	1.500	0.000	18.130	42.555	0.253	6 400.0 (1.000
CatC	7.225	25.00 2	.500	1.500	0.000	18.130	42.555	0.639	3 400.0	0.000
CatH	7.225	25.00 2	.500	1.500	0.000	18.130	42.555	0.840	8 400.0 (0.000
CatD	7 225	25.00 2	500	1.500	0.000	18.130	42 555	1.10	2 400.0 (000
Cath	1.443	23.00 2	. 500	1.500	0.000	-0.130	T 6. 1 3 3 3		- 1 00.0 (,,,,,,,
Outlet	7.225	25.00 0	.000	1.500	0.000	18.130	0.000	3.82	2 400.0 (0.000

```
LINK CatE
                           1.000
ESTIMATED VOLUME (CU METRES*10**3) =
                                                      2.528
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                                (CUMECS) =
                                                  0.39
                                    (MINS) =
                                                 420.00
                           1.001
LINK CatA
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) ESTIMATED TIME TO PEAK (MINS)
                                                     4.933
                                (CUMECS) =
                                                  0.84
                                    (MINS) =
                                                 420.00
                           2.000
LINK CatF
ESTIMATED VOLUME (CU METRES*10**3) =
                                                      11.28
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                                  1.57
                                (CUMECS) =
                                                 420.00
                                    (MINS) =
                           2.001
LINK CatB
 ESTIMATED VOLUME (CU METRES*10**3) =
                                                      14.04
                                (CUMECS) =
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                                  2.08
                                                 420.00
                                    (MINS) =
                           3.000
LINK CatG
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS)
                                                      2.182
                                (CUMECS) =
                                                  0.3\bar{5}
ESTIMATED TIME TO PEAK
                                    (MINS) =
                                                 420.00
                           3.001
 LINK CatC
 ESTIMATED VOLUME (CU METRES*10**3) =
                                                      5.081
                                                  0.88
 ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                (CUMECS) =
                                    (MINS) =
                                                 420.00
                           4.000
 LINK Cath
 ESTIMATED VOLUME (CU METRES*10**3) =
                                                      10.53
 ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                             (CUMECS) =
                                                  1.29
                                    (MINS) =
                                                 420.00
 LINK CatD
                           4.001
 ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS)
                                                      12.33
                                (CUMECS) =
                                                  1.63^{-}
                                    (MINS) =
 ESTIMATED TIME TO PEAK
                                                 420.00
                           1.002
 LINK Outlet
 ESTIMATED VOLUME (CU METRES*10**3) =
                                                      36.39
                                                   5.43
 ESTIMATED PEAK FLOW
                                (CUMECS) =
 ESTIMATED TIME TO PEAK
                                    (MINS) =
                                                 420.00
#######
Doplhin Point - Existing
                            2 of
Continuous run: block
Results for period from 6:40.0 1/1/1990
to 13:20.0 1/1/1990
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Page 2

SUI Link Label	MMARY OF C Catch. #1			RAINFA ppe #2	LL DATA % Impe #1	rvious #2	Pei #1	rn #2 #	В 1 #2	Link
No.	<u> </u>		-			CO/3				
CatE	(ha) 5.450	0.2900	4.700	ሄ) 4.700		(%) 99.00	.060	.015 .05	36 .00	04
1.000										
CatA	5.600	0.2900	6.700	6.700	.1000	99.00	.035	.015 .03	11 .00	03
1.001 CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015 .10	19 .00	07
2.000	6 240	0 2200	4 000	4 000	1 000	00 00	025	015 02	75 .00	04
CatB 2.001	6.310	0.3300	4.800	4.800	T.000	99.00	.035	.015 .03	75 .00	U 4
CatG	4.790	0.2500	5.600	5.600	1.000	99.00	.060	.015 .04	59 .00	03
3.000 CatC	6 600	0.3500	4 800	4.800	1 000	99.00	.035	035 -03	84 .00	10
3.001		0.5500								
Cath	21.650	1.140	3.900	3.900	1.000	99.00	.060	.015 .12	05 .00	08
4.000 CatD	4.220	0.2200	6.400	6.400	1.000	99.00	.035	.015 .02	63 .00	03
4.001			0010			0 000	025		.21 0 0	00
Outlet 1.002	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00 .00	21 0.0	00
11001										
Link	Average	Init.	1055	Cont.	LOSS	Excess	Rain	Peak	Time	Link
Label	Intensity	/ #1	#2	#1	#2	#1	#2	Inflow	to	Lag
Cate	(mm/h)	0.000 0) . 000	/mm) 1.500	'h) O 000	(mn 34.421		(m^3/s) 0.3879	Peak 420.0	mins 0.000
CatE	7.223	0.000 0	.000	1.300	0.000					
CatA	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	0.8399	420.0	0.000
CatF	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	1.575	420.0	0.000
CatB	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	2.077	420.0	0.000
CatG	7.225	0.000	.000	1.500	0.000	34.421	41.645	0.3532	420.0	0.000
CatC	7.225	0.000	.000	1.500	0.000	34.421	41.645	0.8800	420.0	0.000
CatH	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	1.291	420.0	0.000
CatD	7.225	0.000	.000	1.500	0.000	34.421	41.645	1.633	420.0	0.000
Outlet	7.225	0.000 0	.000	1.500	0.000	34.421	0.000	5.430	420.0	0.000

Syr 270 min

Doplhin Point - Existing

ROUTING INCREMENT (MINS) =	0.50	
STORM DURATION (MINS) =	270.	
RETURN PERIOD (YRS) =	5.	
BX =	1.0000	
TOTAL OF FIRST SUB-AREAS (km2	2) =	78.35
TOTAL OF SECOND SUB-AREAS (km2	2) =	4.12
TOTAL OF ALL SUB-AREAS (km2)	=	82.47
•		

SUI Link Label No.	MMARY OF CATCHMEN Catch. Area #1 #2	IT AND RAINFA Slope #1 #2	LL DATA % Impervious #1 #2	Pern #1 #2	B #1 #2	Link
CatE	(ha) 5.450 0.2900	(%) 4.700 4.700	(%) 1.000 99.00	.060 .015	.0536 .0004	
1.000 CatA 1.001	5.600 0.2900	6.700 6.700	.1000 99.00	.035 .015	.0311 .0003	
CatF 2.000	23.730 1.250	6.000 6.000	1.000 99.00	.060 .015	.1019 .0007	•
CatB	6.310 0.3300	4.800 4.800	1.000 99.00	.035 .015	.0375 .0004	;
2.001 CatG	4.790 0.2500	5.600 5.600	1.000 99.00	.060 .015	.0459 .0003	
3.000 CatC	6.600 0.3500	4.800 4.800	1.000 99.00	.035 .035	.0384 .0010)
3.001 CatH	21.650 1.140	3.900 3.900	1.000 99.00	.060 .015	.1205 .0008	;
4.000 CatD	4.220 0.2200	6.400 6.400	1.000 99.00	.035 .015	.0263 .0003	}
4.001 Outlet 1.002	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000)
Link Label	Average Init. Intensity #1 (mm/h) (mm/h)	#2 #1 n) (mm/	#2 #1 h) (mi	s Rain Pea #2 Infl m) (m^3	ow to /s) Peak n	Link Lag
CatE	24.225 25.00				3863 90.00 (
CatA	24.225 25.00	2.500 1.500	0.000 69.003		887 90.00 (
CatF	24.225 25.00	2.500 1.500	0.000 69.003	95.103 3.	172 90.00 (0.000
CatB	24.225 25.00	2.500 1.500	0.000 69.003	95.103 4.	317 90.00 (0.000
CatG	24.225 25.00	2.500 1.500	0.000 69.003	95.103 0.8	3281 90.00 (0.000
CatC	24.225 25.00	2.500 1.500	0.000 69.003	95.103 2.	031 88.50 (0.000
CatH	24.225 25.00	2.500 1.500	0.000 69.003	95.103 2	380 90.00 (0.000
CatD	24.225 25.00	2.500 1.500	0.000 69.003	95.103 3	127 90.00	0.000
Outlet	24.225 25.00	0.000 1.500	0.000 69.003	0.000 11	360 90.00 (0.000

```
1.000
LINK CatE
ESTIMATED VOLUME (CU METRES*10**3) =
                                            0.9730
                                           0.23
                       (CUMECS) =
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                               (MINS) =
                                          200.50
LINK CatA
                      1.001
ESTIMATED VOLUME (CU METRES*10**3) =
                                             1.785
                        (CUMECS) =
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                           0.44
                               (MINS) =
                                          200.50
                       2.000
LINK CatF
ESTIMATED VOLUME (CU METRES*10**3) =
                                              4.596
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                            (CUMECS) =
                                           1.04
                               (MINS) =
                                          200.50
                       2.001
LINK CatB
ESTIMATED VOLUME (CU METRES*10**3) =
                                              5.558
                          (CUMECS) =
                                           1.28
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                               (MINS) =
                                          200.50
LINK CatG
                       3.000
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) = ESTIMATED TIME TO PEAK (MINS)
                                           0.8108
0.20
                        (CUMECS) =
                               (MINS) =
                                          200.50
                       3.001
LINK CatC
ESTIMATED VOLUME (CU METRES*10**3) =
                                              1.822
                            (CUMECS) =
                                           0.45
ESTIMATED PEAK FLOW
                               (MINS) =
                                          200.50
ESTIMATED TIME TO PEAK
                       4.000
LINK Cath
ESTIMATED VOLUME (CU METRES*10**3) =
                                              4.640
                            (CUMECS) =
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                                           1.00
                                          200.50
                               (MINS) =
                       4.001
LINK CatD
ESTIMATED VOLUME (CU METRES*10**3) =
                                              5.236
                        (CUMECS) =
                                           1.15
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                               (MINS) =
                                          200.50
                       1.002
LINK Outlet
ESTIMATED VOLUME (CU METRES*10**3) =
                                              14.40
                                           3.33
                            (CUMECS) =
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                               (MINS) =
                                          200.50
Doplhin Point - Existing
                    k 2 of 2
rom 3:20.0 1/1/1990
to 6:40.0 1/1/1990
Continuous run: block
Results for period from
#######
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SUMMARY OF CATCHMENT AND RAINFALL DATA									
Link_	Catch. Area			Pern "E					
Label	#1 #2	#1. #2	#1 #2 #1	#2 #1	#2				
No.		d= 15	a-ch						
	(ha)	(%)	(%)						
CatE	5.450 0.2900	4.700 4.700 1	.000 99.00 .06	0 .015 .0536	.0004				
1.000									
CatA	5.600 0.2900	6.700 6.700 .3	1000 99.00 .03	5 .015 .031	L .0003				
1.001	3.000 0.2500	311.00 311.00							
CatF	23.730 1.250	6.000 6.000 1	.000 99.00 .06	0 .015 .1019	.0007				
2.000	23.730 1.230	0.000 0.000 1	.000 33.00 100	0 1015 1101	, 10001				
	6 310 0 3300	4 900 4 900 1	.000 99.00 .03	5 .015 .037	.0004				
CatB	6.310 0.3300	4.800 4.800 1	.000 99.00 .03	2 'OT2 'O31'	, .000 1				
2.001	4	E 600 E 600 1	000 00 00 00	0 015 0450	· 0002				
CatG	4.790 0.2500	5.600 5.600 1	.000 99.00 .06	0 .015 .0459	€ .0003				
3.000									
CatC	6.600 0.3500	4.800 4.800 1	.000 99.00 .03	5 .035 .0384	1.0010				
3.001									
CatH	21.650 1.140	3.900 3.900 1	.000 99.00 .06	0 .015 .120!	5 .0008				
4.000									
CatD	4,220 0.2200	6.400 6.400 1	.000 99.00 .03	5 .015 .0263	3 .0003				
4.001	4.220 0.2200	0.400 0.400 1	.000 55.00 .05	5 1015 1010.	, 10005				
	.00001 0.000	.0010 0.000 0	.000 0.000 .02	5 0.00 .0023	1 0.000				
Outlet	.00001 0.000	.0010 0.000 0	.000 0.000 .02	J 0.00 .002.	1 0.000				
1.002									
					-1 r 2la				
Link	Average Init.				Time Link				
Label	Intensity #1	#2 #1 #2	#1 #2		to Lag				
	(mm/h) (mm	n) (mm/h)	(mm)		Peak mins				
CatE	24.225 0.000 (00 9.660 11.4	10 0.2296	200.5 0.000				
CatA	24.225 0.000 (0.000 1.500 0.0	00 9.660 11.4	10 0.4430	200.5 0.000				
Cuch	24.225 0.000 (1.500 0.0	J. J						
CatF	24.225 0.000 (0.000 1.500 0.0	00 9.660 11.4	10 1.039	200.5 0.000				
Calr	24.223 0.000 (7.000 1.300 0.0	00 9.000 11.4	10 1.055	200.3 0.000				
	24 225 0 000 4	000 1 500 0 0	00 9.660 11.4	10 1.283	200.5 0.000				
CatB	24.225 0.000 (0.000 1.500 0.0	UU 9.660 II.4	TO T'502	200.3 0.000				
CatG	24.225 0.000 (0.000 1.500 0.0	00 9.660 11.4	10 0.1955	200.5 0.000				
CatC	24.225 0.000 (0.000 1.500 0.0	00 9.660 11.4	10 0.4520	200.5 0.000				
CatH	24.225 0.000 (0.000 1.500 0.0	00 9.660 11.4	10 0.9953	200.5 0.000				
CULII	L-71225 01000 V	1.500 010	J. J						
CatD	24.225 0.000 (0.000 1.500 0.0	00 9.660 11.4	10 1.155	200.5 0.000				
Calb	24.223 0.000 (7.000 1.300 0.0	00 9.000 II.4						
A	24 225 0 000 4	1.500 0.0	00 9.660 0.0	00 3.333	200.5 0.000				
Outlet	24.225 0.000 (7.000 T.200 O.0	0.0 9.000 0.0	VV 3.333	20017 0:000				

Untitled ###### Doplhin Point - Existing

ROUTING INCREMENT (MINS)	=	0.20	
STORM DURATION (MINS)	==	120.	
	=	20.	
BX		1.0000	
TOTAL OF FIRST SUB-AREAS	(km2)	=	78.35
TOTAL OF SECOND SUB-AREAS	5 (km2)	=	4.12
TOTAL OF ALL SUB-AREAS (km2)	=	82.47

SUM Link Label No.		TCHMENT AND R Area Slo #2 #1	RAINFALI ppe 9 #2	L DATA % Impe #1	vious #2	Per #1	n #2 #:	B L #2	Link
CatE 1.000	(ha) 5.450 O.	.2900 4.700	6) 4.700		(%) 99.00	.060 .	015 .05	36 .0004	ŀ
CatA	5.600 0.	.2900 6.700	6.700	.1000	99.00	.035	015 .03	11 .0003	}
1.001 CatF 2.000	23.730	1.250 6.000	6.000	1.000	99.00	.060 .	015 .10	19 .0007	•
CatB	6.310 0	.3300 4.800	4.800	1.000	99.00	.035	015 .03	75 .0004	,
2.001 CatG	4.790 0	.2500 5.600	5.600	1.000	99.00	.060 .	015 .04	59 .0003	}
3.000 CatC	6.600 0	.3500 4.800	4.800	1.000	99.00	.035	.035 .03	84 .0010)
3.001 CatH	21.650	1.140 3.900	3.900	1.000	99.00	.060	.015 .12	05 .0008	3
4.000 CatD	4.220 0	.2200 6.400	6.400	1.000	99.00	.035	.015 .02	63 .0003	3
4.001 Outlet 1.002	.00001	0.000 .0010	0.000	0.000	0.000	.025 (0.00 .00	21 0.000)
Link Label	Intensity	#1 #2		#2	Excess #1	#2	Peak Inflow	Time to	Link Lag
CatE	(mm/h) 54.449 2:	(mm) 5.00 2.500 :	mm/h) 1.500 0		(mm 70.406		(m^3/s) 1.384		nins).000
CatA	54.449 2	5.00 2.500	1.500 0	.000	70.406	94.311	3.648	40.00	0.000
CatF	54.449 2	5.00 2.500	1.500 0	.000	70.406	94.311	4.948	56.80	0.000
CatB	54.449 2	5.00 2.500	1.500 0	.000	70.406	94.311	6.803	45.00	0.000
CatG	54.449 2	5.00 2.500	1.500 0	.000	70.406	94.311	1.382	45.00	0.000
CatC	54.449 2	5.00 2.500	1.500 0	.000	70.406	94.311	3.731	43.60	0.000
CatH	54.449 2	5.00 2.500	1.500 0	.000	70.406	94.311	4.074	65.00	0.000
CatD	54.449 2	5.00 2.500	1.500 0	.000	70.406	94.311	4.939	40.00	0.000
Outlet	54.449 2	5.00 0.000	1.500 0	.000	70.406	0.000	18.719	40.00	0.000

```
1.000
LINK CatE
ESTIMATED VOLUME (CU METRES*10**3) =
                                                  1.404
                                               0.70
                        (CUMECS) =
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                               80.20
                                 (MINS) =
                         1.001
LINK CatA
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) : ESTIMATED TIME TO PEAK (MINS)
                                                  2.520
                              (CUMECS) =
                                               1.31
                                 (MINS) =
                                               80.20
                         2.000
LINK CatF
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) = ESTIMATED TIME TO PEAK (MINS) =
                                                  7.026
                                               3.44
                              (CUMECS) =
                                               80.20
                                 (MINS) =
                         2.001
LINK CatB
ESTIMATED VOLUME (CU METRES*10**3) =
                                                  8.359
                                               4.16
ESTIMATED PEAK FLOW
                           (CUMECS) =
                                  (MINS) =
                                               80.20
ESTIMATED TIME TO PEAK
LINK CatG
                         3.000
ESTIMATED VOLUME (CU METRES*10**3) =
                                                  1.157
                                               0.58
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                           (CUMECS) =
                                 (MINS) =
                                               80.20
LINK CatC
                         3.001
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) = ESTIMATED TIME TO PEAK (MINS) =
                                                   2.560
                              (CUMECS) =
                                                1.33
                                                80.20
                                  (MINS) =
                         4.000
LINK Cath
 ESTIMATED VOLUME (CU METRES*10**3) =
                                                   7.315
                                                3.37
                               (CUMECS) =
 ESTIMATED PEAK FLOW
                                  (MINS) =
                                                80.20
 ESTIMATED TIME TO PEAK
                         4.001
LINK CatD
 ESTIMATED VOLUME (CU METRES*10**3) =
                                                  8.138
                                                3.83
                          (CUMECS) =
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                                80.20
                                  (MINS) =
                         1.002
 LINK Outlet
 ESTIMATED VOLUME (CU METRES*10**3) =
                                                   21.58
                               (CUMECS) =
                                               10.63
 ESTIMATED PEAK FLOW
                                  (MINS) =
                                                80.20
 ESTIMATED TIME TO PEAK
Doplhin Point - Existing
                         2 of 2
1:20.0 1/1/1990
2:40.0 1/1/1990
Continuous run: block
Results for period from
                      to
#######
```

	MARY OF CATCHMI	ENT AND RAINFA	LL DATA	Down	B Link
Link Label	Catch. Area #1 #2	\$lope #1 #2	% Impervious #1 #2	Pern #1 #2	#1 #2
No.		(0/2	(0/)		
CatE	(ha) 5.450 0.290	(%) 4.700 4.700	(%) 1.000 99.00	.060 .015	.0536 .0004
1.000					0311 0003
CatA 1.001	5.600 0.290	6.700 6.700	.1000 99.00	.035 .015	.0311 .0003
CatF	23.730 1.250	6.000 6.000	1.000 99.00	.060 .015	.1019 .0007
2.000	6.310 0.330	4.800 4.800	1.000 99.00	.035 .015	.0375 .0004
CatB 2.001	0.210 0.220	7 4.600 4.600			
CatG	4.790 0.250	5.600 5.600	1.000 99.00	.060 .015	.0459 .0003
3.000 CatC	6.600 0.350	4.800 4.800	1.000 99.00	.035 .035	.0384 .0010
3.001					
CatH 4.000	21.650 1.14	3.900 3.900	1.000 99.00	.060 .015	.1205 .0008
CatD	4.220 0.220	6.400 6.400	1.000 99.00	.035 .015	.0263 .0003
4.001	00001 0 00	0 .0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
Outlet 1.002	.00001 0.00	J .0010 0.000	0.000 0.000	.023 0.00	.0021 0.000
Link	Average Init	. Loss Cont.	Loss Excess		
Label	Intensity #1	#2 #1	#2 #1	#2 Infl	
CatE		mm) (mm/ 0.000 1.500			982 80.20 0.000
	_				212 00 20 0 000
CatA	54.449 0.000	0.000 1.500	0.000 11.032	12.027 1.	312 80.20 0.000
CatF	54.449 0.000	0.000 1.500	0.000 11.032	12.027 3.	445 80.20 0.000
CatB	54.449 0.000	0.000 1.500	0.000 11.032	12.027 4.	157 80.20 0.000
CatG	54.449 0.000	0.000 1.500	0.000 11.032	12.027 0.5	805 80.20 0.000
CatC	54.449 0.000	0.000 1.500	0.000 11.032	12.027 1.	329 80.20 0.000
CatH	54.449 0.000	0.000 1.500	0.000 11.032	12.027 3.	368 80.20 0.000
CatD	54.449 0.000	0.000 1.500	0.000 11.032	12.027 3.	829 80.20 0.000
Outlet	54.449 0.000	0.000 1.500	0.000 11.032	0.000 10.	626 80.20 0.000

######

Doplhin Point - Existing

ROUTING INCREMENT (MINS) STORM DURATION (MINS) RETURN PERIOD (YRS) BX	= 0.20 = 120. = 100. = 1.0000	
TOTAL OF FIRST SUB-AREAS	(km2) =	78.35
TOTAL OF SECOND SUB-AREA TOTAL OF ALL SUB-AREAS (S (km2) = km2) =	4.12 82.47

SU! Link Label No.	MMARY OF C Catch. #1			RAINFA ope #2	LL DATA % Impe #1	rvious #2	Per #1		В 1	#2	Link
CatE	(ha) 5.450	0.2900	4.700	ሄ) 4.700	1.000	(%) 99.00	.060	.015 .05	36 .	0004	
1.000 CatA	5.600	0.2900	6.700	6.700	.1000	99.00	.035	.015 .03	11 .	0003	
1.001 CatF 2.000	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015 .10	19 .	0007	,
CatB 2.001	6.310	0.3300	4.800	4.800	1.000	99.00	.035	.015 .03	75 .	0004	•
CatG 3.000	4.790	0.2500	5.600	5.600	1.000	99.00	.060	.015 .04	59 .	0003	1
CatC	6.600	0.3500	4.800	4.800	1.000	99.00	.035	.035 .03	84 .	0010)
3.001 Cath	21.650	1.140	3.900	3.900	1.000	99.00	.060	.015 .12	.05	.0008	}
4.000 CatD	4.220	0.2200	6.400	6.400	1.000	99.00	.035	.015 .02	63 .	.0003	}
4.001 Outlet 1.002	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00 .00	21 (000)
Link Label	Average Intensity		#2	Cont. #1	#2	Excess #1 (mn	#2	Peak Inflow (m^3/s)	Tin to Pea	_	Link Lag iins
CatE	(mm/h) 74.619	25.00 2	2.500	(mm/ 1.500	0.000	104.09	128.08	2.266			0.000
CatA	74.619	25.00 2	2.500	1.500	0.000	104.09	128.08	5.683	40	.00 (0.000
CatF	74.619	25.00 2	2.500	1.500	0.000	104.09	128.08	7.922	45	.00 (0.000
CatB	74.619	25.00 2	2.500	1.500	0.000	104.09	128.08	11.004	45	.00 (0.000
CatG	74.619	25.00 2	2.500	1.500	0.000	104.09	128.08	2.205	40	.00 (0.000
CatC	74.619	25.00 2	2.500	1.500	0.000	104.09	128.08	5.939	40	.00 (0.000
CatH	74.619	25.00 2	2.500	1.500	0.000	104.09	128.08	6.198	58	.20 (0.000
CatD	74.619	25.00 2	2.500	1.500	0.000	104.09	128.08	7.916	40	.00 (0.000
Outlet	74.619	25.00	0.000	1.500	0.000	104.09	0.000	30.398	40	.00 (0.000

```
1.000
LINK CatE
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS)
                                             2.000
                      (CUMECS) =
                                          0.96
                                           80.20
ESTIMATED TIME TO PEAK
                              (MINS) =
                      1.001
LINK CatA
ESTIMATED VOLUME (CU METRES*10**3) =
                                             3.636
                           (CUMECS) =
                                           1.83
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                              (MINS) =
                                           80.20
                      2.000
LINK CatF
ESTIMATED VOLUME (CU METRES*10**3) =
                                             9.837
                           (CUMECS) =
                                           4.57
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                           80.20
                              (MINS) =
                      2.001
LINK CatB
ESTIMATED VOLUME (CU METRES*10**3) =
                                              11.78
ESTIMATED PEAK FLOW
                           (CUMECS) =
                                           5.58
                                           80.20
ESTIMATED TIME TO PEAK
                              (MINS) =
                      3.000
LINK CatG
ESTIMATED VOLUME (CU METRES*10**3) =
                                             1.660
                           (CUMECS) =
                                           0.81
ESTIMATED PEAK FLOW
                                           80.20
ESTIMATED TIME TO PEAK
                              (MINS) =
                      3.001
LINK CatC
ESTIMATED VOLUME (CU METRES*10**3) =
                                              3.705
                           (CUMECS) =
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                           1.87
                              (MINS) =
                                           80.20
                      4,000
LINK Cath
ESTIMATED VOLUME (CU METRES*10**3) =
                                              10.13
                                           4.5\overline{4}
ESTIMATED PEAK FLOW
                           (CUMECS) =
                                           80.20
                              (MINS) =
ESTIMATED TIME TO PEAK
                       4.001
LINK CatD
ESTIMATED VOLUME (CU METRES*10**3) =
                                              11.33
                                           5.19
                            (CUMECS) =
ESTIMATED PEAK FLOW
                                           80.20
ESTIMATED TIME TO PEAK
                              (MINS) =
                       1.002
LINK Outlet
ESTIMATED VOLUME (CU METRES*10**3) =
                                              30.46
                            (CUMECS) =
                                          14.47
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                               (MINS) =
                                          80.20
#######
Doplhin Point - Existing
                        2 of
Continuous run: block
                   rom 1:20.0 1/ 1/1990
to 2:40.0 1/ 1/1990
Results for period from
```

SUI Link Label No.	MMARY OF CATCHME Catch. Area #1 #2	NT AND RAINFAL Slope #1 #2	L DATA % Impervious #1 #2	Pern #1 #2	B Link #1 #2
CatE	(ha) 5.450 0.2900	(%) 4.700 4.700	1.000 99.00	.060 .015	.0536 .0004
1.000 CatA 1.001	5.600 0.2900	6.700 6.700	.1000 99.00	.035 .015	.0311 .0003
CatF 2.000	23.730 1.250	6.000 6.000	1.000 99.00	.060 .015	.1019 .0007
CatB 2.001	6.310 0.3300	4.800 4.800	1.000 99.00	.035 .015	.0375 .0004
CatG	4.790 0.2500	5.600 5.600	1.000 99.00	.060 .015	.0459 .0003
3.000 CatC	6.600 0.3500	4.800 4.800	1.000 99.00	.035 .035	.0384 .0010
3.001 CatH	21.650 1.140	3.900 3.900	1.000 99.00	.060 .015	.1205 .0008
4.000 CatD	4.220 0.2200	6.400 6.400	1.000 99.00	.035 .015	.0263 .0003
4.001 Outlet 1.002	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
Link Label CatE	Average Init. Intensity #1 (mm/h) (m 74.619 0.000	#2 #1 n) (mm/h	#2 #1 n) (mn	#2 Infl	ow to Lag /s) Peak mins
CatA	74.619 0.000	0.000 1.500 (0.000 17.576	18.571 1.	827 80.20 0.000
CatF	74.619 0.000	0.000 1.500 (0.000 17.576	18.571 4.	571 80.20 0.000
CatB	74.619 0.000	0.000 1.500 (0.000 17.576	18.571 5.	577 80.20 0.000
CatG	74.619 0.000	0.000 1.500 (0.000 17.576	18.571 0.8	126 80.20 0.000
CatC	74.619 0.000	0.000 1.500 (0.000 17.576	18.571 1.	871 80.20 0.000
CatH	74.619 0.000	0.000 1.500 (0.000 17.576	18.571 4.	543 80.20 0.000
CatD	74.619 0.000	0.000 1.500 (0.000 17.576	18.571 5.	194 80.20 0.000
Outlet	74.619 0.000	0.000 1.500 (0.000 17.576	0.000 14.	468 80.20 0.000

lyr 720mm

Untitled #######
Doplhin Point - Existing Proposed.

ROUTING INCREMENT (MINS)	=	1.00	
STORM DURATION (MINS)	=	720.	
RETURN PERIOD (YRS)	=	1.	
BX	==	1.0000	
TOTAL OF FIRST SUB-AREAS	(km2)) =	66.39
TOTAL OF SECOND SUB-AREAS	s (km2)) =	16.08
TOTAL OF ALL SUB-AREAS (km2)	=	82.47

SUN Link Label No.	MMARY OF C Catch. #1		AND R 510 #1	RAINFA pe #2	% Impe #1	#2	Pe: #1		В #1 #	# 2	Link
CatE 1.000	(ha) 5.450	0.2900	9 4.700	6) 4.700	1.000	(%) 99.00	.060	.015 .0	536 .0	0004	
CatA	2.650	3.240	6.700	6.700	.1000	99.00	.035	.015 .0	211 .	0011	
1.001 CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015 .1	019 .0	0007	
2.000 CatB	2.990	3.650	4.800	4.800	1.000	99.00	.035	.015 .0	254 .0	0014	
2.001 CatG	4.790	0.2500	5.600	5.600	1.000	99.00	.060	.015 .0	459 .	0003	
3.000 CatC	3.130			4.800		99.00	.035	.035 .0	260 .	0035	
3.001						99.00			205 .0		
CatH 4.000	21.650			3.900							
CatD 4.001	2.000	2.440	6.400	6.400	1.000	99.00	.035	.015 .0	179 .	0010	
Outlet 1.002	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00 .0	021 0	.000	
Link Label	Average Intensity (mm/h)	Init. L / #1 (mm	#2	Cont. #1 (mm/	#2	Excess #1 (mm	#2	Peak Inflow (m^3/s)	Tim to Pea		Link Lag ins
CatE	7.225		500 :	1.500		18.130	42.555	0.2750		.0 0	.000
CatA	7.225	25.00 2.	500	1.500	0.000	18.130	42.555	0.7023	400	.0 0	.000
CatF	7.225	25.00 2.	500	1.500	0.000	18.130	42.555	1.099	400	.0 0	.000
CatB	7.225	25.00 2.	500	1.500	0.000	18.130	42.555	1.570	400	.0 0	.000
CatG	7.225	25.00 2.	500	1.500	0.000	18.130	42.555	0.2536	400	.0 0	.000
CatC	7.225	25.00 2.	500	1.500	0.000	18.130	42.555	0.7459	400	.0 0	.000
CatH	7.225	25.00 2.	500	1.500	0.000	18.130	42.555	0.8408	400	.0 0	.000
CatD	7.225	25.00 2.	500	1.500	0.000	18.130	42.555	1.168	400	.0 0	.000
Outlet	7.225	25.00 0.	000	1.500	0.000	18.130	0.000	4.187	400	.0 0	.000

```
1.000
LINK CatE
ESTIMATED VOLUME (CU METRES*10**3) =
ESTIMATED PEAK FLOW (CUMECS) =
ESTIMATED TIME TO PEAK (MINS) =
                                                       2.528
                                                   0.39
                                                   420.00
                                     (MINS) =
                           1.001
LINK CatA
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) =
                                                       4.937
                                                    0.86
ESTIMATED TIME TO PEAK
                                   (MINS) =
                                                   420.00
                           2.000
LINK CatF
ESTIMATED VOLUME (CU METRES*10**3) = 11
ESTIMATED PEAK FLOW (CUMECS) = 1.57
                                                        11.28
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                     (MINS) = 420.00
                           2.001
LINK CatB
ESTIMATED VOLUME (CU METRES*10**3) =
                                                        14.02
                             (CUMECS) =
                                                    2.1\bar{0}
ESTIMATED PEAK FLOW
                                     (MINS) =
ESTIMATED TIME TO PEAK
                                                   420.00
                            3.000
LINK CatG
                                                    2.182
0.35
ESTIMATED VOLUME (CU METRES*10**3) =
                                 (CUMECS) =
ESTIMATED PEAK FLOW
                                                   420.00
ESTIMATED TIME TO PEAK
                                    (MINS) =
                            3.001
LINK CatC
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) =
                                                        5.075
                                                    0.90
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                     (MINS) =
                                                   420.00
                            4.000
LINK Cath
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) =
                                                        10.53
                                                    1.29
                                     (MINS) =
                                                   420.00
 ESTIMATED TIME TO PEAK
                            4.001
 LINK CatD
ESTIMATED VOLUME (CU METRES*10**3) =
ESTIMATED PEAK FLOW (CUMECS) =
ESTIMATED TIME TO PEAK (MINS) =
                                                        12.34
                                                    1.65
                                                   420.00
 LINK Outlet
                            1.002
 ESTIMATED VOLUME (CU METRES*10**3) =
ESTIMATED PEAK FLOW (CUMECS) =
ESTIMATED TIME TO BEAK
                                                        36.37
                                                     5.51
 ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                     (MINS) =
                                                   420.00
Doplhin Point - Existing
Continuous run: block 2 of 2 Results for period from 6:40.0 1/ 1/1990 to 13:20.0 1/ 1/1990
#######
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	MMARY OF C					_					
Link_	Catch.			ope	% Impe			rn "	, В	"5	Link
Label	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
No.	41.5			~~		cn/2					
	_(ha)		0	%)		(%)		04.5	0506	0004	
CatE	5.450	0.2900	4.700	4.700	1.000	99.00	.060	.015	.0536	.0004	
1.000											
CatA	2.650	3.240	6.700	6.700	.1000	99.00	.035	.015	.0211	.0011	
1.001											
CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015	.1019	.0007	
2.000											
CatB	2.990	3.650	4.800	4.800	1.000	99.00	.035	.015	.0254	.0014	
2.001											
CatG	4.790	0.2500	5.600	5.600	1.000	99.00	.060	.015	.0459	.0003	
3.000	71750	0.2300	3.000	31000	2.000	33.00	.000	. 023	.0 .55		
CatC	3.130	3.820	4 800	4.800	1 000	99.00	.035	035	0260	.0035	
3.001	2.130	3.020	4.000	4.000	1.000	33.00	.033	.033	.0200	.0055	
	21 650	1.140	2 000	3.900	1 000	99.00	.060	015	1205	.0008	
Cath	21.650	1.140	3.900	3.900	1.000	99.00	.000	·OTO	. 1203	.0000	
4.000	3 000	3 440	C 400	6 400	1 000	00 00	A35	015	0170	0010	
CatD	2.000	2.440	0.400	6.400	1.000	99.00	.035	·OTO	.0T/A	.0010	
4.001	00001	0 000	0010			0 000	025		0031	0 000	
Outlet	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	· OOST	0.000	
1.002											
		-						(_		
Link_	Average	Init.		Cont.		Excess		Pea			Link
Label	Intensity		#2	#1	#2	#1	#2	Infl			Lag
	(mm/h)	(mm		(mm/		(mn		(m^3,	/s) P		ins
CatE	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	0.3	879 4	20.0 0	.000
CatA	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	0.8	575 4	20.0 0	.000
						_					
CatF	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	1.	575 4	20.0 0	.000
	,,,,,	0.000 0		,,	0.000	J			•••		
CatB	7 225	0.000 0	በበበ	1.500	0.000	34.421	41.645	2	101 4	20.0 0	.000
Cacb	7.223	0.000 0	.000	1.300	0.000	JTITEL	T.M. 0 T.		TOT "	20.0 0	.000
CatG	7 225	0.000 0	000	1.500	0.000	34.421	41 645	0.3	532 4	20.0 0	ሰሰሰ
Cate	7.223	0.000 0	.000	T. 200	0.000	34.421	41.043	0.5	JJ2 7	20.0 0	.000
C=+C	7 225	0 000 0	000	1 500	0.000	24 421	11 645	0.9	044 4	20.0 0	000
CatC	7.223	0.000 0	.000	1.500	0.000	34.421	41.043	0.9	U44 4.	20.0 0	.000
			000	4 500		24 424	44 645		201 4	~ ~ ~	000
CatH	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	Т.	291 4	20.0 0	.000
											000
CatD	7.225	0.000 0	.000	1.500	0.000	34.421	41.645	1.	646 4	20.0 0	.000
_											
Outlet	7.225	0.000 0	.000	1.500	0.000	34.421	0.000	5.	509 4	20.0 0	.000

Proposery Doplhin Point - Existing

ROUTING INCREMENT (MINS)	=	0.20	
STORM DURATION (MINS)	=	90.	
RETURN PERIOD (YRS)		5.	
BX	=	1.0000	
TOTAL OF FIRST SUB-AREAS	(km2)) =	66.39
TOTAL OF SECOND SUB-AREAS	s (km2)	=	16.08
TOTAL OF ALL SUB-AREAS (km2)	-	82.47

SUN	MARY OF C				LL DATA				_		
Link_	Catch.			pe	% Impe		Pel		"В	<i>#</i> 5	Link
∟abel	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
No.	<i>a</i> 1		60			20/3					
	(ha)		(9	۶)		(%)	0.00	045	0536	0004	
CatE	5.450	0.2900	4.700	4.700	1.000	99.00	.060	.OT2 .	U536	.0004	
1.000										0044	
CatA	2.650	3.240	6.700	6.700	.1000	99.00	.035	.015 .	0211	.0011	
1.001											
CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015 .	1019	.0007	
2.000											
CatB	2.990	3.650	4.800	4.800	1.000	99.00	.035	.015 .	0254	.0014	
2.001	2.000	5.000									
CatG	4 790	0.2500	5.600	5.600	1.000	99.00	.060	.015 .	0459	.0003	
3.000	7.750	0.2300	3.000	3.000	2.000	33.00					
CatC	3.130	3.820	4 800	4.800	1 000	99.00	.035	.035 .	0260	.0035	
	3.130	3.020	7.000	7,000	1.000	33.00	.055	.035 .	0 200		
3.001	21.650	1.140	2 000	3.900	1 000	99.00	.060	.015 .	1205	.0008	
Cath	21.030	1.140	3.900	3.900	1.000	33.00	.000	.013 .	TLUJ	10000	
4.000	2 000	2 440	6 400	6 400	1 000	99.00	.035	015	0170	.0010	
CatD	2.000	2.440	6.400	6.400	1.000	99.00	.055	.013 .	01/3	.0010	
4.001	00004	0 000	0010	0 000	0 000	0.000	025	0.00	0021	0.000	
outlet	.00001	0.000	·OOTO	0.000	0.000	0.000	.025	0.00 .	0021	0.000	
1.002											
				_					- .		ماسات
Link_	Average	Init.		Cont.		Excess		Peak		ime	Link
Label	Intensity		#2	#1	#2	#1	#2	Inflow			Lag
	(mm/h)	(mm	·)	(mm/	h)	(mn	1_)	$(m^3/s$			ins
CatE	47.375	25.00 2	.500	1.500	0.000	42.607	66.572	0.721	.8 4	5.00 0	.000
CatA	47.375	25.00 2	.500	1.500	0.000	42.607	66.572	2.68	32 3	0.00 0	0.000
CatF	47.375	25.00 2	.500	1.500	0.000	42.607	66.572	2.75	8 5	5.00 C	.000
Cuci		25.00 -									
CatB	47 375	25.00 2	500	1.500	0.000	42.607	66.572	4.22	6 3	0.000	0.000
Catb	77.373	23.00 2		1.500	0.000	121001	00.5				
C=+C	47 275	25.00 2	500	1.500	0.00	42.607	66 572	0.698	13 4	5.00 0	በበበ በ
CatG	47.373	23.00 2		1.300	0.000	72.007	00.372	0.030	,,	3.00	
- A	47 375	25 00 2	500	1 500	0.000	42.607	66 572	2.93	25 2	0.00 (000
CatC	47.375	25.00 2	. 500	1.500	0.000	42.007	00.372	2.93	,, ,	0.00 (,,000
				4 500	0.000	40 007	CC	2 10	11 6	0 00 0	
CatH	47.375	25.00 2	. 500	1.500	0.000	42.607	00.5/2	2.19	1 D	0.00 (,,000
							AA F=A	2 4 2			
CatD	47.375	25.00 2	2.500	1.500	0.000	42.607	00.5/2	3.12	25 3	0.00 (1.000
_								40.00			
Outlet	47.375	25.00 0	0.000	1.500	U.000	42.607	0.000	12.96	oo 3	0.00 (0.000

	011010101	
LINK CatE		
ESTIMATED VOLUME (CU N ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK	METRES*10**3) = (CUMECS) = ((MINS) =	0.6104 0.36 80.20
LINK CatA		
ESTIMATED VOLUME (CU N ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK	METRES*10**3) = (CUMECS) = ((MINS) =	0.8300 0.59 80.60
LINK CatF		
ESTIMATED VOLUME (CU MESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK	METRES*10**3) = (CUMECS) = ((MINS) =	3.202 1.76 80.20
LINK CatB		
ESTIMATED VOLUME (CU N ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK	METRES*10**3) = (CUMECS) = ((MINS) =	3.473 2.02 80.20
LINK CatG	3.000	
ESTIMATED VOLUME (CU I ESTIMATED PEAK FLOW ESTIMATED TIME TO PEA	METRES*10**3) = (CUMECS) = ((MINS) =	0.4822 0.31 80.20
LINK CatC		
ESTIMATED VOLUME (CU I ESTIMATED PEAK FLOW ESTIMATED TIME TO PEA		0.7799 0.59 80.20
LINK CatH		
ESTIMATED VOLUME (CU ESTIMATED PEAK FLOW ESTIMATED TIME TO PEA		3.520 1.72 80.20
LINK CatD	4.001	
ESTIMATED VOLUME (CU ESTIMATED PEAK FLOW ESTIMATED TIME TO PEA	(CUMECS) =	3.682 1.88 80.20
LINK Outlet	1.002	
ESTIMATED VOLUME (CU ESTIMATED PEAK FLOW ESTIMATED TIME TO PEA	(CUMECS) =	8.765 5.08 80.20
##################################### Doplhin Point - Existi		####################################
#######################	ი 2.40.0 1/1/1990	#######################################
######	Page 2	

	MMARY OF C	:ATCHMEN	T AND F	RAINFA	LL DATA				_		
Link	Catch.	Area		ope	% Imper		Pe		, В	"	Link
∟abel	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
No.											
	(ha)		C)	ሄ)	((%)					
CatE		0.2900	4 700	4.700		99.00	.060	.015	.0536	.0004	4
	3.730	0.2300	11100	11100	2.000						
1.000	2 650	2 240	C 700	6 700	1000	99.00	.035	015	0211	.001	1
CatA	2.650	3.240	6.700	0.700	. 1000	99.00	.055	.013	. 0211	.001.	L
1.001											-
CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015	.1019	.000	1
2.000											
CatB	2.990	3.650	4.800	4.800	1.000	99.00	.035	.015	.0254	.001	4
2,001	2.550	3.030									
	4 700	0.2500	E 600	5.600	1 000	99.00	.060	015	0459	.000	2
CatG	4.790	0.2300	3.600	3.000	1.000	99.00	.000	. 013	. 0733	.000	•
3.000					4 000		005	025	A266	003	-
CatC	3.130	3.820	4.800	4.800	1.000	99.00	.035	.035	.0260	.003	5
3.001											_
CatH	21.650	1.140	3.900	3.900	1.000	99.00	.060	.015	.1205	.000	8
4.000											
	2.000	2.440	6 400	6.400	1 000	99.00	.035	015	.0179	.001	D
CatD	2.000	2.440	0.400	0.700	1.000	33.00	.033	.013	. 0		•
4.001			0010			0.000	A)E	0.00	0021	0.00	^
Outlet	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.00	U
1.002											
Link	Average	Init.	LOSS	Cont.	Loss	Excess	Rain	Peak	Τ .	ime	Link
Label	Intensity		#2	#1	#2	#1	#2	Inflo		0	Lag
Lavei				"Ċmm/		"Ĉ mm	"	(m\3/			mins
	(mm/h)	(mn	1 /	1 FAA	0,000						0.000
CatE	47.375	0.0000	J. UUU .	1.500	0.000	1.708	1.953	0.50	144 0	0.20	0.000
CatA	47.375	0.0000	0.000	1.500	0.000	1.708	1.953	0.59	05 8	0.60	0.000
CatF	47 375	0.000 0	1 000	1.500	0.000	1.708	1.953	1.7	61 8	0.20	0.000
Catr	77.373	0.000		JUU	0.000	11700	1.555			•	
	47 275	0 000 0		1 500	0.000	1 700	1.953	2.0	2/ 8	0.20	በ በበበ
CatB	4/.3/5	0.000	0.000	1.500	0.000	1.708	T.300	2.0	/24 C	0.20	0.000
CatG	47.375	0.000 (0.000	1.500	0.000	1.708	1.953	0.30	185 B	0.20	0.000
	.,										
CatC	47 375	0.000 0	1000	1.500	0.000	1.708	1.953	0.58	61 8	0.20	0.000
Catt	77.373	0.000 (,,000	T. 300	0.000	11.00	,,,,	0.00		••	
	47 275	0 000 0		1 500	0.000	1 700	1.953	1.7	722 0	0 20	0.000
CatH	47.375	0.000	7.000	1.500	0.000	1.708	T.300) I./	2) (0.20	0.000
							-				0.000
CatD	47.375	0.000 (0.000	1.500	0.000	1.708	1.953	1.8	583 b	iU.2U	0.000
OUTIET	47.375	0.0000	0.000	1.500	0.000	1.708	0.000	5.0	080 8	30.20	0.000
Outlet	47.375	0.000	0.000	1.500	0.000	1.708	0.000	5.0	080 8	30.20	0.000

#######
Doplhin Point - Existing Proposed.

ROUTING INCREMENT (MINS)	=	0.20	
STORM DURATION (MINS)	=	90.	
RETURN PERIOD (YRS)	=	20.	
BX		1.0000	
TOTAL OF FIRST SUB-AREAS	(km2)	=	66.39
TOTAL OF SECOND SUB-AREAS	S (km2)	=	16.08
TOTAL OF ALL SUB-AREAS (km2)	222	82.47

SUN	MARY OF C	ATCHMEN			LL DATA	_					
Link_	catch.			ope	% Impe		" Pe		"B	42	Link
Label	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
No.			-			4h					
	(ha)		C	%)		(%)				0004	
CatE	5.450	0.2900	4.700	4.700	1.000	99.00	.060	.015	.0536	.0004	•
1.000											
CatA	2.650	3.240	6.700	6.700	.1000	99.00	.035	.015	.0211	.0011	•
1.001	2.030	J	000								
CatF	23.730	1.250	6 000	6.000	1 000	99.00	.060	. 015	. 1019	.0007	,
2.000	23.730	1.230	0.000	0.000	1.000	33.00		. •			
	2.990	3.650	4 900	4.800	1 000	99.00	.035	015	0254	.0014	l
CatB	2.990	3.030	4.000	4.000	1.000	33.00	.055	. 013	.023.	.002.	
2.001	4 700	0 3500	E COO	E C00	1 000	99.00	.060	015	0450	.0003	<u> </u>
CatG	4.790	0.2500	5.600	5.600	1.000	99.00	.000	.013	.0433	.0003	,
3.000				4 000	4 000	00 00	025	025	0260	0025	•
CatC	3.130	3.820	4.800	4.800	1.000	99.00	.035	.033	.0260	.0035	•
3.001	•								4005	0000	
CatH	21.650	1.140	3.900	3.900	1.000	99.00	.060	.015	.1205	.0008	5
4.000											
CatD	2.000	2.440	6.400	6.400	1.000	99.00	.035	.015	.0179	.0010)
4.001											
outlet	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000)
1.002											
1.002											
Link	Average	Init.	Inss	Cont.	1055	Excess	Rain	Pea	k T	ime	Link
		44	#2	#1	#2	#1	#2	Infl		0	Lag
Label	Intensity			"(mm/			n "j"	(m^3			กากร
e-1-5	(mm/h)	25 00 3	, E00	1.500	<u>''' </u>	67.625	01 720	1			0.000
CatE	04.022	25.00 2	. 500	1.300	0.000	07.023	91.720	т.	JU1 4	0.20 (,,,,,,,
	64 655	25 00 3		1 500	0.000	67 635	01 720		493 3	0.00	000
CatA	64.622	25.00 2	2.500	1.500	0.000	67.625	91.720	4.	490)	0.00 (7.000
						c= cor	01 700		740 4	F 00 (000
CatF	64.622	25.00 2	2.500	1.500	0.000	67.625	91.720	4.	742 4	5.00 (3.000
								_			
CatB	64.622	25.00 2	2.500	1.500	0.000	67.625	91.720	7.	389 3	0.00).000
CatG	64.622	25.00 2	2.500	1.500	0.000	67.625	91.720) 1.	268 3	9.80 (0.000
	0.10										
CatC	64 622	25.00 2	2.500	1.500	0.000	67.625	91.720) 4.	884 3	0.00 (0.000
Carc	04.022	23.00			0.000	0					
CatH	64 622	25.00 2	500	1.500	0.000	67.625	91.720	3.	760 5	5.00 (0.000
Cath	04.022	23.00 2	500	7.300	0.000	011025	J = 1 / L (, , ,			
C-+D	64 622	25.00 2) FAA	1.500	0.000	67.625	01 720	٦ ,	505 3	0.00	0.000
CatD	04.022	23.00 2	2.300	T.300	0.000	01.023	J1.12(, ,,	J J J	0.00	
A	64 622	25 00 0	1 000	1.500	0.000	67.625	0.000	יל ו	271 3	0.00	በ በበበ
Outlet	04.022	25.00	,,000	T.300	0.000	07.023	0.000	, ,,	~(V.00 (0.000

```
1.000
LINK CatE
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) =
                                                    0.7610
                                                   0.46
                                    (MINS) =
                                                   80.20
ESTIMATED TIME TO PEAK
                          1.001
LINK CatA
ESTIMATED VOLUME (CU METRES*10**3) =
                                                      1.049
                                (CUMECS) =
                                                   0.77
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                                  (MINS) =
                                                   80.80
                           2.000
LINK CatF
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) =
                                                      4.075
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                                   2.47
                                    (MINS) =
                                                   80.20
                           2.001
LINK CatB
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) ESTIMATED TIME TO PEAK (MINS)
                                                      4.431
                             (CUMECS) =
                                                   2.83
                                                   80.20
                                    (MINS) =
                           3.000
LINK CatG
                                                   0.6085
0.39
ESTIMATED VOLUME (CU METRES*10**3) =
                                (CUMECS) =
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                                   (MINS) =
                                                   80.20
                           3.001
LINK CatC
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) =
                                                     0.9986
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                                   0.77
                                    (MINS) =
                                                   80.20
                           4.000
LINK Cath
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) = ESTIMATED TIME TO PEAK (MINS) =
                                                       4.559
                                                   2.53
                                 (CUMECS) =
                                                   80.20
                                     (MINS) =
                           4.001
LINK CatD
 ESTIMATED VOLUME (CU METRES*10**3) =
                                                      4.768
                                 (CUMECS) =
                                                   2.76
 ESTIMATED PEAK FLOW
 ESTIMATED TIME TO PEAK
                                    (MINS) =
                                                   80.20
                           1.002
 LINK Outlet
ESTIMATED VOLUME (CU METRES*10**3) =
ESTIMATED PEAK FLOW (CUMECS) =
ESTIMATED TIME TO DEAK
                                                       11.25
                                                   7.13
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                     (MINS) =
                                                   80.20
*************************************
#######
Doplhin Point - Existing
Continuous run: block
                            2 of
Results for period from 1:20.0 1/1/1990
to 2:40.0 1/1/1990
#######
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	MMARY OF C	ATCHMEN'	T AND_I	RAINFA	LL DATA		_		_		
Link	Catch.			ope	% Imper		" Pe		B Ha	#2	Link
Label	#1	#2	#1.	#2	#1	#2	#1.	#2	#1	#2	
No.	41. 5				,	(0/)					
	_(ha)			لا)		(%)	000	015	0006	0004	
CatE	5.450	0.2900	4.700	4.700	1.000	99.00	.060	.013	.0330	.0004	•
1.000								045	0011	0011	
CatA	2.650	3.240	6.700	6.700	. 1000	99.00	.035	.015	OSTT	.0011	•
1.001											
CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015	.1019	.0007	•
2.000											
CatB	2.990	3.650	4.800	4.800	1.000	99.00	.035	.015	.0254	.0014	ļ
2,001	_,,,,,	•									
CatG	4 790	0.2500	5.600	5.600	1.000	99.00	.060	.015	.0459	.0003	
3.000	71.70	012300	5.000								
CatC	3.130	3.820	4 800	4.800	1 000	99.00	.035	-035	.0260	.0035	:)
	2.130	3.020	7.000	7.000	7.000	33.00	.033	.055			•
3.001	21 650	1.140	2 000	3.900	1 000	99.00	.060	015	. 1205	.0008	ł
CatH	21.650	1.140	3.300	3.300	1.000	99.00	.000	.013	. TEO3	.0000	•
4.000	3 000	2 440	C 400	6 400	1 000	99.00	.035	015	0170	.0010	١
CatD	2.000	2.440	0.400	6.400	1.000	99.00	.055	.013	. 017 9	.0010	,
4.001			0010			0.000	035	0 00	0071	0.000	`
Outlet	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	,
1.002											
		_						1.	_		ما مداد
Link	Average	Init.		Cont.			Rain	Peak		ime	Link
Label	Intensity	/ #1	#2	#1	#2	#1	#2	Inflo			Ļag
	(mm/h)	(mm)	(mm/		(mm)	(m/3/			nins
CatE	64.622	0.0000	.000	1.500	0.000	2.419	2.664	0.46	10 8	0.20 (0.000
		-									
CatA	64,622	0.000 0	.000	1.500	0.000	2.419	2.664	0.77	26 8	0.80 (0.000
	011044										
CatF	64 622	0.000 0	. 000	1.500	0.000	2.419	2.664	2.4	74 8	0.20 (0.000
Catr	07.022	0.000 0	.000	1.300	0.000						
Catp	64 622	0.000 0	000	1.500	0.000	2.419	2.664	2.8	33 8	0.20	0.000
CatB	04.022	0.000 0	.000	T. 300	0.000	21713	2.00	2.0	<i></i>	U.LU \	
	64 622	0 000 0	000	1.500	0.000	2.419	2.664	0.39	12 R	0.20	ነ በበበ
CatG	64.622	0.000 0	.000	T. 200	0.000	2.413	2.00	0.55	12 0	0.20	,,,,,,,
	64 633			1 500	0.000	2 410	2 66/	0.76	70 0	0.20	3 000
CatC	64.622	0.000 0	.000	1.500	0.000	2.419	2.664	F 0.70	70 0	0.20	J.000
						0 410	2 66		34 0	A 20 (
CatH	64.622	0.0000	.000	1.500	0.000	2.419	2.664	2.5	54 8	0.20	0.000
CatD	64.622	0.000 0	000.	1.500	0.000	2.419	2.664	1 2.7	59 8	0.20	0.000
Outlet	64.622	0.000 0	0.000	1.500	0.000	2.419	0.000	7.1	.28 8	0.20	0.000
- · - -											

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Doplhin Point - Existing Prosed

ROUTING INCREMENT (MINS)	=	0.20	
STORM DURATION (MINS)	=	90.	
RETURN PERIOD (YRS)		1.00.	
BX	=	1.0000	
TOTAL OF FIRST SUB-AREAS	(km2)) =	66.39
TOTAL OF SECOND SUB-AREAS	s (km2) <u>=</u>	16.08
TOTAL OF ALL SUB-AREAS (km2)	_	82.47
TOTAL OF ALL BOD ANEAD (· · · · · · · · · · · · · · · · · · ·		

SUN Link Label No.	MARY OF C Catch. #1	ATCHMENT AN Area #2 #3	Slope	LL DATA % Impe #1	rvious #2	Per #1	n #2 #3	B L #2	Link
CatE	(ha) 5.450	0.2900 4.7	(%) '00 4.700	1.000	(%) 99.00	.060 .	015 .053	36 .000	4
1.000 CatA	2.650	3.240 6.7	00 6.700	.1000	99.00	.035 .	015 .023	L1 .001	1
1.001 CatF	23.730	1.250 6.0	000 6.000	1.000	99.00	.060 .	015 .10	L9 .000	7
2.000 CatB	2.990	3.650 4.8	300 4.800	1.000	99.00	.035 .	015 .02	64 .001	4
2.001 CatG	4.790	0.2500 5.0	500 5.600	1.000	99.00	.060 .	015 .04	9 .000	3
3.000 CatC	3.130	3.820 4.8	300 4.800	1.000	99.00	.035	035 .02	50 .003	5
3.001 Cath	21.650	1.140 3.9	900 3.900	1.000	99.00	.060	015 .12	000. 3	8
4.000 CatD	2.000	2.440 6.4	100 6.400	1.000	99.00	.035	.015 .01	79 .001	.0
4.001 Outlet 1.002	.00001	0.000 .0	0.000	0.000	0.000	,025 (.00 .00	21 0.00	0
Link Label	Average Intensity (mm/h)	(mm)	#1 (mm/	#2 h)	Excess #1 (mn 101.91	#2 1)	Peak Inflow (m^3/s) 2.072	Time to Peak 37.40	Link Lag mins 0.000
CatE	• • • • • •	25.00 2.50					_		*
CatA	88.364	25.00 2.50	1.500	0.000	101.91		6.447	30.00	
CatF	88.364	25.00 2.50	1.500	0.000	101.91	126.07	7.599	42.60	0.000
CatB	88.364	25.00 2.50	1.500	0.000	101.91	126.07	11.495	30.00	0.000
CatG	88.364	25.00 2.50	1.500	0.000	101.91	126.07	1.986	35.00	0.000
CatC	88.364	25.00 2.50	1.500	0.000	101.91	126.07	7.084	30.00	0.000
CatH	88.364	25.00 2.50	1.500	0.000	101.91	126.07	5.889	51.20	0.000
CatD	88.364	25.00 2.50	0 1.500	0.000	101.91	126.07	8.153	30.00	0.000
Outlet	88.364	25.00 0.00	0 1.500	0.000	101.91	0.000	33.179	30.00	0.000

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1.000
LINK CatE
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) ESTIMATED TIME TO PEAK (MINS)
                                               1.034
                                            0.70
                        (CUMECS) =
                                            80.20
                               (MINS) =
                       1.001
LINK CatA
ESTIMATED VOLUME (CU METRES*10**3) =
                                               1.451
                                            1.18
                            (CUMECS) =
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                              (MINS) =
                                            80.20
                       2.000
LINK CatF
ESTIMATED VOLUME (CU METRES*10**3) = ESTIMATED PEAK FLOW (CUMECS) =
                                               5.561
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                            3.45
                                            80.20
                               (MINS) =
                       2.001
LINK CatB
ESTIMATED VOLUME (CU METRES*10**3) =
                                               6.073
ESTIMATED PEAK FLOW
                            (CUMECS) =
                                            4.01
                                            80.20
ESTIMATED TIME TO PEAK
                               (MINS) =
                       3.000
LINK CatG
ESTIMATED VOLUME (CU METRES*10**3) =
                                              0.8244
                            (CUMECS) =
                                            0.58
ESTIMATED PEAK FLOW
ESTIMATED TIME TO PEAK
                               (MINS) =
                                             80.20
                       3.001
LINK CatC
ESTIMATED VOLUME (CU METRES*10**3) =
                                                1.385
                            (CUMECS) =
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                             1.17
                                (MINS) =
                                             80.20
                       4.000
LINK Cath
ESTIMATED VOLUME (CU METRES*10**3) =
                                                6.177
                                             3.52
                         (CUMECS) =
ESTIMATED PEAK FLOW
                                             80.20
                                (MINS) =
ESTIMATED TIME TO PEAK
                        4.001
LINK CatD
ESTIMATED VOLUME (CU METRES*10**3) =
                                               6.478
                             (CUMECS) =
                                             3.88
ESTIMATED PEAK FLOW
                                             80.20
ESTIMATED TIME TO PEAK
                                (MINS) =
                        1.002
LINK Outlet
ESTIMATED VOLUME (CU METRES*10**3) =
                                                15.39
                             (CUMECS) =
                                            10.24
ESTIMATED PEAK FLOW ESTIMATED TIME TO PEAK
                                (MINS) =
                                            80.20
#######
Doplhin Point - Existing
                         2 of
Continuous run: block
                         1:20.0 1/ 1/1990
2:40.0 1/ 1/1990
                    نابات
پښا
Results for period from
#######
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SU	MMARY OF C	ATCHMEN	T AND	RAINFA	LL DATA	_					
Link	Catch.		s٦	ope	% Imper			rn	В		Link
Label	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
No.											
	(ha)		(%)	((%)					
CatE	5.450	0.2900	4.700	4.700	1.000	99.00	.060	.015	.0536	.0004	1
1.000	55	0000									
CatA	2,650	3.240	6 700	6.700	1000	99.00	.035	015	0211	.0013	I
	2.030	3.240	0.700	0.700	. 1000	33.00	.055	. 013	. 02.11	.001	-
1.001	22 720	1 250	C 000	6 000	1 000	00 00	060	01 E	1010	.0007	7
CatF	23.730	1.250	6.000	6.000	T.000	99.00	.060	·OTO	·TOTA	.0007	•
2.000								045	0054	001	
CatB	2.990	3.650	4.800	4.800	1.000	99.00	.035	.015	.0254	.0014	+
2.001											_
CatG	4.790	0.2500	5.600	5.600	1.000	99.00	.060	.015	.0459	.000	3
3.000											
CatC	3.130	3.820	4.800	4.800	1.000	99.00	.035	.035	.0260	.003	5
3.001	31430	3.020									
Cath	21.650	1.140	3 000	3.900	1 000	99.00	.060	015	.1205	.0008	₹ .
	21.030	1.140	3.300	3.900	1.000	33.00	.000	.013	. 1203	.000	•
4.000	2 000	2 440	C 400	6 400	1 000	00 00	A2 E	Λ1 E	0170	.0010	`
CatD	2.000	2.440	6.400	6.400	T.000	99.00	.035	·OTO	.01/9	· OOT	,
4.001									0001		•
Outlet	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	J
1.002											
Link	Average	Init.	Loss	Cont.	Loss	Excess	Rain	Peak	(T	ime	Link
Label	Intensity		#2	#1	#2	#1	#2	Inflo	w t	0	Lag
	(mm/h)	′ "7 mn	_	" (mm/		(mm	Ϋ́	(m^3/		_	nins
CatE		0.000		1.500		3.652	3.897		าดัก ห	0.20	
Cale	00.304	0.000		1.500	0.000	3.032	J. 051	0.03	,00 0	U.LU .	0.000
	00 364	0 000 0		1 500	0.000	2 652	2 007	1.1	0 10	0.20	000
CatA	88.364	0.000	1.000	1.500	0.000	3.652	3.897	Т. Л	104 0	0.20	0.000
CatF	88.364	0.000	0.000	1.500	0.000	3.652	3.897	3.4	145 B	0.20	0.000
CatB	88.364	0.000 (0.000	1.500	0.000	3.652	3.897	4.(07 8	0.20	0.000
CatG	88 364	0.000 0	000	1.500	0.000	3.652	3.897	0.57	772 8	0.20	0.000
Cuco						J . U . L		0.0.			
	00.304	0.000		2.500							
Catc						2 652	2 907	, 11	167 g	0 20 (000
CatC		0.000		1.500		3.652	3.897	1.1	L67 8	0.20	0.000
	88.364	0.000	0.000	1.500	0.000						
CatC CatH	88.364		0.000		0.000	3.652 3.652	3.897 3.897			0.20 (
Сатн	88.364 88.364	0.000 (0.000	1.500 1.500	0.000 0.000	3.652	3.897	3.5	519 8	0.20	0.000
	88.364 88.364	0.000	0.000	1.500	0.000 0.000			3.5	519 8		0.000
CatH CatD	88.364 88.364 88.364	0.000 (0.000 (0.000 (0.000 0.000 0.000	1.500 1.500 1.500	0.000 0.000 0.000	3.652 3.652	3.897 3.897	3.5	519 8 384 8	0.20 0.20	0.000 0.000
Сатн	88.364 88.364 88.364	0.000 (0.000 0.000 0.000	1.500 1.500	0.000 0.000 0.000	3.652	3.897	3.5	519 8 384 8	0.20	0.000 0.000

ly 140 mm.

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Doplhin Point - Existing Report 7 OSP

ROUTING INCREMENT (MINS)	==	2.00	
STORM DURATION (MINS)	=	1440.	
RETURN PERIOD (YRS)	=	1.	
BX	==	1.0000	
TOTAL OF FIRST SUB-AREAS	Ckm2		66.39
TOTAL OF SECOND SUB-AREA	s (km2	ا =	16.08
TOTAL OF ALL SUB-AREAS (Lm2)	<i>,</i> _	82.47
IDIAL OF ALL SUDTAKEAS (NIII4)	_	OF LAS

SUM Link Label	MARY OF C Catch. #1	ATCHMEN ⁻ Area #2	F AND Slo #1	RAINFAI ope #2	LL DATA % Impe: #1	rvious #2	Pe #1	rn #2	В #1	#2	Link
No.	(ha) 5.450	0.2900		%) 4.700	1.000	(%) 99.00	.060	.015 .	0536	.0004	1
1.000 CatA	2.650	3.240	6.700	6.700	. 1000	99.00	.035	.015 .	0211	.001	L
1.001 osdA	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00 .	0021	0.000)
1.002 CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015 .	1019	.000	7
2.000 CatB	2.990	3.650	4.800	4.800	1.000	99.00	.035	.015 .	0254	.001	4
2.001 osdB	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00 .	0021	0.00	0
2.002 CatG	4.790	0.2500	5.600	5.600	1.000	99.00	.060	.015 .	0459	.000	3
3.000 CatC	3.130	3.820	4.800	4.800	1.000	99.00	.035	.035 .	0260	.003	5
3.001 osdC	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00 .	0021	0.00	0
3.002 CatH	21.650	1.140	3.900	3.900	1.000	99.00	.060	.015 .	1205	.000	8
4.000 CatD	2.000	2.440		6.400		99.00	.035	.015 .	0179	.001	0
4.001 osdD	.00001	0.000		0.000		0.000	.025	0.00 .	0021	0.00	0
4.002 Outlet	.00001	0.000		0.000		0.000	.025		0021	0.00	0
1.003	.00001	0.000	10010	01000	0.000	0.000				-	
Link Label CatE	Average Intensity (mm/h) 4.732	Init. / #1 (mm 25.00 2	#2 1)	Cont. #1 (mm/ 1.500	#2 'h)	Excess #1 (mn 67.552	#2 1)	Peak Inflow (m^3/s	i t		Link Lag mins 0.000
CatA	4.732	25.00 2	.500	1.500	0.000	67.552	111.06	0.583	7 7	20.0	0.000
osdA	4.732	25.00 0	.000	1.500	0.000	67.552	0.000	0.583	7 7	20.0	0.000
CatF	4.732	25.00 2	.500	1.500	0.000	67.552	111.06	1.18	37 7	20.0	0.000
CatB	4.732	25.00 2	2.500	1.500	0.000	67.552	111.06	1.53	30 7	20.0	0.000
osdB	4.732	25.00 0	.000	1.500	0.000	67.552	0.000	1.53	30 7	20.0	0.000

		Untitle	_! d		
CatG	4.732 25.00 2.500	1.500 0.000	67.552 111.06	0.2477	720.0 0.000
CatC	4.732 25.00 2.500	1.500 0.000	67.552 111.06	0.6072	720.0 0.000
osdC	4.732 25.00 0.000	1.500 0.000	67.552 0.000	0.6072	720.0 0.000
CatH	4.732 25.00 2.500	1.500 0.000	67.552 111.06	1.036	720.0 0.000
CatD	4.732 25.00 2.500	1.500 0.000	67.552 111.06	1.266	720.0 0.000
osdD	4.732 25.00 0.000	1.500 0.000	67.552 0.000	1.266	720.0 0.000
Outlet	4.732 25.00 0.000	1.500 0.000	67.552 0.000	3.872	722.0 0.000

SUMMARY OF BASIN RESULTS

Link	Time	Peak Time	Peak	Total		Basin	
Label	to Peak	Inflow to (m^3/s) Peak	Outflow (m^3/s)	Inflow (m∧3)	Vol. Avail	Vol. Used	Stage Used
osdA	720.0	.5837 720.0	`.5699´	9387.8	0.0000	373.15	0.2035
osdB	720.0	1.530 722.0	1.499	23463.8	0.0000	562.98	0.2165
osdC	720.0	.6072 722.0	.5906	9866.4	0.0000	469.79	0.2013
osdD	720.0	1.265 722.0	1.213	19916.8	0.0000	661.34	0.2229

Syr 270mm

Untitled ######
Doplhin Point - Existing Proposed TOSD

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> 0.50 ROUTING INCREMENT (MINS) = STORM DURATION (MINS) = RETURN PERIOD (YRS) = 270. 1.0000 BX TOTAL OF FIRST SUB-AREAS (km2) =
> TOTAL OF SECOND SUB-AREAS (km2) =
> TOTAL OF ALL SUB-AREAS (km2) = 66.39 16.08 82.47

	MARY OF CATCHMEN	T AND RAINFAL Slope	L DATA % Impervious	Pern	B Link
Link Label	Catch. Area #1 #2	#1 #2	#1 #2	#1 #2	#1 #2
No.	4 >	(0/)	(0/)		
CatE	(ha) 5.450 0.2900	(%) 4.700 4.700	(%) 1.000 99.00	.060 .015	.0536 .0004
1.000					
CatA	2.650 3.240	6.700 6.700	.1000 99.00	.035 .015	.0211 .0011
1.001 osdA	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
1.002				000 015	1010 0007
CatF 2.000	23.730 1.250	6.000 6.000	1.000 99.00	.060 .015	.1019 .0007
CatB	2.990 3.650	4.800 4.800	1.000 99.00	.035 .015	.0254 .0014
2.001	22221 2 222	0010 0 000	0 000 0 000	.025 0.00	.0021 0.000
osdB 2.002	.00001 0.000	.0010 0.000	0.000 0.000	.023 0.00	.0021 0.000
CatG	4.790 0.2500	5.600 5.600	1.000 99.00	.060 .015	.0459 .0003
3.000	3.130 3.820	4.800 4.800	1.000 99.00	.035 .035	.0260 .0035
CatC 3.001	3.130 3.620	4.600 4.600	1.000 99.00		
osdC	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
3.002 CatH	21.650 1.140	3.900 3.900	1.000 99.00	.060 .015	.1205 .0008
4.000					
CatD	2.000 2.440	6.400 6.400	1.000 99.00	.035 .015	.0179 .0010
4.001 osdD	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
4.002			0 000 0 000	035 0 00	0031 0 000
Outlet 1.003	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
1.003					
		C -n+ 1	Loss Excess	Rain Pea	k Time Link
Link Label	Average Init. Intensity #1	Loss Cont. #2 #1	#2 #1	#2 Infl	
Luse:	(mm/h) (mi	n) (mm/	h) (mr		
CatE	24.225 25.00	2.500 1.500 (0.000 69.003	95.103 0.8	863 90.00 0.000
CatA	24.225 25.00	2.500 1.500	0.000 69.003	95.103 1.	862 90.00 0.000
osdA	24.225 25.00	0.000 1.500	0.000 69.003	0.000 1.	862 90.00 0.000
CatF	24.225 25.00	2.500 1.500	0.000 69.003	95.103 3.	172 90.00 0.000
CatB	24.225 25.00	2.500 1.500	0.000 69.003	95.103 4.	281 90.00 0.000
osdB	24.225 25.00	0.000 1.500	0.000 69.003	0.000 4.	281 90.00 0.000
7340		J. 130 - 1200	Page 1		

CatG	24.225 2	25.00	2.500	1.500	0.000	69.003	95.103	0.8281	90.00	0.000
CatC	24.225	25.00	2.500	1.500	0.000	69.003	95.103	2.000	75.00	0.000
osdC	24.225	25.00	0.000	1.500	0.000	69.003	0.000	2.000	75.00	0.000
CatH	24.225	25.00	2.500	1.500	0.000	69.003	95.103	2.380	90.00	0.000
CatD	24.225	25.00	2.500	1.500	0.000	69.003	95.103	3.115	90.00	0.000
osdD	24.225	25.00	0.000	1.500	0.000	69.003	0.000	3.115	90.00	0.000
Outlet	24.225	25.00	0.000	1.500	0.000	69.003	0.000	10.636	90.50	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m^3/s)	Time to Peak	Peak Outflow (m^3/s)	Total Inflow (m^3)	Vol. Vol.	Basin Vol. Used	Stage Used
osdA	90.00	1.861		1.788	8397.0	0.0000	543.03	0.2715
osdB	90.00	4.281	90.50	4.070	20595.5	0.0000	707.15	0.2829
osdC	75.00	1.999	90.50	1.911	8837.5	0.0000	753.00	0.2824
osdD	90.00	3.114	91.00	2.869	16957.3	0.0000	680.81	0.2553

Untitled ####### Proposed + OSD Doplhin Point - Existing

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> ROUTING INCREMENT (MINS) = STORM DURATION (MINS) = RETURN PERIOD (YRS) = 0.20 120. **** TOTAL OF FIRST SUB-AREAS (km2) =
> TOTAL OF SECOND SUB-AREAS (km2) =
> TOTAL OF ALL SUB-AREAS (km2) = 66.39 16.08 82.47

SUM Link Label No.	MARY OF C Catch. #1			RAINFA pe #2	% Impe #1	#2	Pe #1	rn #2	B #1	#2	Link
CatH	(ha) 21.650	1.140	3.900	6) 3.900		(%) 99.00	.060	.015	.1205	.0008	
1.000 CatD	2.000	2.440	6.400	6.400	1.000	99.00	.035	.015	.0179	.0010	
1.001 osdD	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	
1.002 CatE	5.450	0.2900	4.700	4.700	1.000	99.00	.060	.015	.0536	.0004	
2.000 CatA	2.650	3.240	6.700	6.700	.1000	99.00	.035	.015	.0211	.0011	
2.001 osdA	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	
2.002 CatF	23.730	1.250	6.000	6.000	1.000	99.00	.060	.015	.1019	.0007	
3.000 CatB	2.990	3.650	4.800	4.800	1.000	99.00	.035	.015	.0254	.0014	
3.001 osdB	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000)
3.002 CatG		0.2500	5.600	5.600	1.000	99.00	.060	.015	.0459	.0003	;
4.000 CatC	3.130	3.820	4.800	4.800	1.000	99.00	.035	.035	.0260	.0035	;
4.001 osdC	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000)
4.002 Outlet 1.003	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000)
										_	
Link Label	Average Intensity		#2	Cont. #1 (mm/	#2	Excess #1 (mr	s Rain #2	Pea Infl (m^3	low t	ime :o Peak r	Link Lag nins
CatH	(mm/h) 54.449	25.00 2	.500	1.500	0.000	70.406	94.31		074 6	55.00	
CatD	54.449	25.00 2	.500	1.500	0.000	70.406	94.31	1 5	.057 4	0.00	0.000
osdD	54.449	25.00 0	.000	1.500	0.000	70.406	0.00	0 5	.057 4	10.00	0.000
CatE	54.449	25.00 2	2.500	1.500	0.000	70.406	94.31	1 1	. 384 4	15.00 (0.000
CatA	54.449	25.00 2	2.500	1.500	0.000	70.406	94.31	1 3	.912 4	10.00	0.000
osdA	54.449	25.00 (0.000	1.500	0.000 Page 1	70.406	0.00	0 3	.912 4	10.00	0.000

CatF	54.449 25.00 2.500	1.500 0.000	70.406 94.311	4.948	56.80 0.000
CatB	54.449 25.00 2.500	1.500 0.000	70.406 94.311	6.946	40.00 0.000
osdB	54.449 25.00 0.000	1.500 0.000	70.406 0.000	6.946	40.00 0.000
CatG	54.449 25.00 2.500	1.500 0.000	70.406 94.311	1.382	45.00 0.000
CatC	54.449 25.00 2.500	1.500 0.000	70.406 94.311	4.255	40.00 0.000
osdC	54.449 25.00 0.000	1.500 0.000	70.406 0.000	4.255	40.00 0.000
Outlet	54.449 25.00 0.000	1.500 0.000	70.406 0.000	17.942	40.40 0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Time Inflow to (m^3/s) Peak	Peak Outflow (m^3/s)	Total Inflow (m^3)	Vol. Avail	Basin Vol. Used	Stage Used
osdD	40.00		4.649	13718.4	0.0000	894.36	0.2824
osdA	40.00	3.912 40.40	3.516	7869.8	0.0000	626.63	0.2892
osdB	40.00	6.946 40.40	6.365	17838.2	0.0000	716.99	0.2689
osdC	40.00	4.254 41.00	3.719	8349.1	0.0000	847.36	0.2991

Proposed + OSD Doplhin Point - Existing

ROUTING INCREMENT (MINS)	=	0.20
STORM DURATION (MINS)	=	120.
RETURN PERIOD (YRS)	=	100.
BX	= 1.	0000
TOTAL OF FIRST SUB-AREAS	(km2) =	66.39
TOTAL OF SECOND SUB-AREA	5 (km2) =	16.08
TOTAL OF ALL SUB-AREAS (km2) =	82.47
101AL 01 ALL 300 ANLAS (IXIII <i>E)</i>	. 021.17

SUM Link Label No.	MMARY OF CATCHMEN Catch. Area #1 #2	NT AND RAINFA Slope #1 #2	% Impervious #1 #2	Pern #1 #2	B Link #1 #2
CatE 1.000	(ha) 5.450 0.2900	(%) 4.700 4.700	1.000 99.00	.060 .015	.0536 .0004
CatA	2.650 3.240	6.700 6.700	.1000 99.00	.035 .015	.0211 .0011
1.001 osdA	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
1.002 CatF	23.730 1.250	6.000 6.000	1.000 99.00	.060 .015	.1019 .0007
2.000 CatB	2.990 3.650	4.800 4.800	1.000 99.00	.035 .015	.0254 .0014
2.001 osdB	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
2.002 CatG	4.790 0.2500	5,600 5.600		.060 .015	.0459 .0003
3.000 CatC	3.130 3.820	4.800 4.800		.035 .035	.0260 .0035
3.001	.00001 0.000	.0010 0.000		.025 0.00	.0021 0.000
osdC 3.002					
Cath 4.000	21.650 1.140	3.900 3.900		.060 .015	.1205 .0008
CatD 4.001	2.000 2.440	6.400 6.400	1.000 99.00	.035 .015	.0179 .0010
osdD 4.002	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
Outlet 1.003	.00001 0.000	.0010 0.000	0.000 0.000	.025 0.00	.0021 0.000
Link	Average Init.	Loss Cont.	loss Fyces	s Rain Pea	ık Time Link
Label	Intensity #1 (mm/h) (mm	#2 #1	#2 #1	#2 Inf]	ow to Lag
CatE	74.619 25.00	2.500 1.500	0.000 104.09	128.08 2.	266 45.00 0.000
CatA	74.619 25.00	2.500 1.500	0.000 104.09	128.08 5.	796 40.00 0.000
osdA	74.619 25.00 (0.000 1.500	0.000 104.09	0.000 5.	796 40.00 0.000
CatF	74.619 25.00	2.500 1.500	0.000 104.09	128.08 7.	922 45.00 0.000
CatB	74.619 25.00	2.500 1.500	0.000 104.09	128.08 11.	220 40.00 0.000
osdB	74.619 25.00	0.000 1.500	0.000 104.09 Page 1	0.000 11.	220 40.00 0.000

CatG	74.619	25.00	2.500	1.500	0.000	104.09	128.08	2.205	40.00	0.000
CatC	74.619	25.00	2.500	1.500	0.000	104.09	128.08	6.338	40.00	0.000
osdC	74.619	25.00	0.000	1.500	0.000	104.09	0.000	6.338	40.00	0.000
Сатн	74.619	25.00	2.500	1.500	0.000	104.09	128.08	6.198	58.20	0.000
CatD	74.619	25.00	2.500	1.500	0.000	104.09	128.08	7.929	40.00	0.000
osdD	74.619	25.00	0.000	1.500	0.000	104.09	0.000	7.929	40.00	0.000
Outlet	74.619	25.00	0.000	1.500	0.000	104.09	0.000	29.328	40.40	0.000

SUMMARY OF BASIN RESULTS

Link	Time	Time Peak Time		Total		Basin	
Label	to Peak	Inflow to (m^3/s) Peak	Outflow (m^3/s)	Inflow (m∧3)	Vol. Avail	Vol. Used	Stage Used
osdA	40.00	5.795 40.20	5.492	11489.7	0.0000	628.25	0.2900
osdB	40.00	11.22 40.40	10.65	27062.4	0.0000	774.06	0.2903
osdC	40.00	6.338 40.40	5.918	12107.6	0.0000	896.88	0.2990
osdD	40.00	7.929 40.40	7.290	21308.3	0.0000	874.88	0.2763