

DAFTAR PUSTAKA

- Anandhita, Tia, and Roby Hambali. 2015. "Analisis Pengaruh Back Water (Air Balik) Terhadap Banjir Sungai Rangkui Kota Pangkalpinang." *FROPIL (Forum Profesional Teknik Sipil)* 3(2): 131–41.
- BAPPEDA. 2016. "Profil Kabupaten Bantaeng 2016." : 1–305.
- Effendi, Rizki, Gentur Handoyo, and Heryoso Setiyono. 2017. "[1] , [2]." *Oseanografi* 6(Peramalan Pasang Surut Di Sekitar perairan Tempat Pelelangan Ikan (TPI) Banyutowo, Kabupaten Pati, Jawa Tengah): 221–27.
- Ginting, Segel. 2019. *Analisis Profil Muka Air Sungai Dengan Hec-Ras*.
- Halim, Fuad. 2014. "Pengaruh Hubungan Tata Guna Lahan Dengan Debit Banjir Pada Daerah Aliran Sungai Malalayang." *Jurnal Ilmiah Media Engineering* 4(1): 45–54.
- Kinthen, N, D R Prabumukti, G Gunawan, and D Dahroni. 2018. "Karakteristik Morfologi Sungai Terhadap Kerentanan Banjir Di Zonasi Urban Sprawl Kecamatan Kartasura, Kabupaten Sukoharjo." 3: 169–79.
<https://publikasiilmiah.ums.ac.id/xmlui/handle/11617/10352>.
- Kurniawan, Randa '., Sigit '., Sutikno, and Bambang '., Sujatmoko. 2017. "Analisis Perubahan Morfologi Sungai Rokan Berbasis Sistem Informasi Geografis Dan Penginderaan Jauh." *Jurnal Online Mahasiswa Fakultas Teknik Universitas Riau* 4(1): 1–10.
- Mulyono, Dedi. 2014. "Analisis Karakteristik Curah Hujan Di Wilayah Kabupaten Garut Selatan." *Jurnal Konstruksi* 13(1): 1–9.
- Raco, M G, T Jansen, and L A Hendratta. 2019. "Pengaruh Pasang Surut Terhadap Tinggi Muka Air Di Muara Sungai Bailang." *Jurnal Sipil Statik* 7(6): 627–36. <https://ejournal.unsrat.ac.id/index.php/jss/article/view/23417>.
- Sucipta, Chandra et al. 2019. "Analisa Geometri Sungai Terhadap Debit Aliran Pada Saluran Aluvial." *Jurnal Mahasiswa Teknik Sipil* 6(3): 1–4.
- Sulaeman, Asep, Ery Suhartanto, and Sumiadi Sumiadi. 2017. "Analisis Genangan Banjir Akibat Luapan Bengawan Solo Untuk Mendukung Peta Risiko Bencana Banjir Di Kabupaten Bojonegoro." *Jurnal Teknik Pengairan* 8(2): 146–57.
- Surinati, Dewi. 2018. "Pasang Surut Dan Energinya." *Proceedings - 2018 IEEE International Conference on Healthcare Informatics, ICHI 2018 XXXII*(1): 457–58.
- Susilowati, and Ilyas Sadad. 2015. "Analisa Karakteristik Curah Hujan Di Kota Bandar Lampung." *Jurnal Konstruksia* 7(1): 13–26.

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Lampiran 1 Hitungan Parameter Statistik

Tahun	CH Max	X- X Bar	(X-X Bar)^2	(X-X Bar)^3	(X-X Bar)^4
1977	85	1.205131205	1.452334	1.7502487	2.109274
1978	87	3.205131205	10.273147	32.925791	105.53138
1979	25	- 58.79487179	3456.8369	-203244.3	11949722
1980	26	- 57.79487179	3340.2472	-193049.2	11157251
1981	95	11.20513121	125.5549	1406.8587	15764.032
1982	50	- 33.79487179	1142.0934	-38596.9	1304377.2
1983	82	- 1.794871795	3.2215648	-5.782296	10.37848
1984	50	- 33.79487179	1142.0934	-38596.9	1304377.2
1985	200	116.2051312	13503.632	1569191.3	182348072
1986	150	66.20513121	4383.119	290184.96	19211732
1987	45	- 38.79487179	1505.0421	-58387.91	2265151.7
1988	17	- 66.79487179	4461.5549	-298009	19905472
1989	123	39.20513121	1537.0421	60259.932	2362498.3
1990	78	- 5.794871795	33.580539	-194.5949	1127.6526
1991	80	- 3.794871795	14.401052	-54.65015	207.3903
1992	79	- 4.794871795	22.990796	-110.2379	531.57668
1993	70	- 13.79487179	190.29849	-2625.143	36213.514
1994	82	- 1.794871795	3.2215648	-5.782296	10.37848
1995	70	- 13.79487179	190.29849	-2625.143	36213.514
1996	62	- 21.79487179	475.01644	-10352.92	225640.61
1997	69	- 14.79487179	218.88823	-3238.423	47912.058
1998	97	13.20513121	174.37541	2302.6497	30406.784
1999	60	- 23.79487179	566.19592	-13472.56	320577.82
2000	180	96.20513121	9255.4267	890419.51	85662923
2002	110	26.20513121	686.70874	17995.291	471568.9
2003	100	16.20513121	262.60618	4255.5668	68962.006

2004	25	- 58.79487179	3456.8369	-203244.3	11949722
2005	20	- 63.79487179	4069.7857	-259631.5	16563155
2006	95	11.20513121	125.5549	1406.8587	15764.032
2007	25	- 58.79487179	3456.8369	-203244.3	11949722
2008	50	- 33.79487179	1142.0934	-38596.9	1304377.2
2009	20	- 63.79487179	4069.7857	-259631.5	16563155
2010	86	2.205131205	4.8625904	10.722635	23.644785
2011	82	- 1.794871795	3.2215648	-5.782296	10.37848
2014	105	21.20513121	449.65746	9535.0441	202191.83
2015	223	139.2051312	19378.068	2697526.4	375509509
2018	90	6.205131205	38.503616	238.91987	1482.5314
2019	110	26.20513121	686.70874	17995.291	471568.9
2020	165	81.20513121	6594.2731	535488.77	43484434
Jumlah	3268	0	90182.359	4271329.2	816741944
Average	83.79487	0	2312.3682	109521.26	20942101

Lampiran 2 Data Hujan dan Probabilitas

m	p	$y=\ln p$	$P=m/n+1$	$T=1/P$
1	17	2.833213	5.882353	17
2	20	2.995732	11.76471	8.5
3	20	2.995732	17.64706	5.666667
4	25	3.218876	23.52941	4.25
5	25	3.218876	29.41176	3.4
6	25	3.218876	35.29412	2.833333
7	26	3.258097	41.17647	2.431571
8	45	3.806662	47.05882	2.125
9	50	3.912023	52.94118	1.888889
10	50	3.912023	58.82353	1.7
11	50	3.912023	64.70588	1.545455
12	60	4.094345	70.58824	1.416667
13	62	4.127134	76.47059	1.307692
14	69	4.234107	82.35294	1.214316
15	70	4.248495	88.23529	1.133333
16	70	4.248495	94.11765	1.0625
17	78	4.356709	100	1
18	79	4.369448	105.8824	0.944444
19	80	4.382027	111.7647	0.894737
20	82	4.406719	117.6471	0.85
21	82	4.406719	123.5294	0.809524
22	82	4.406719	129.4118	0.772727
23	85	4.442651	135.2941	0.73913
24	86	4.454347	141.1765	0.708333
25	87	4.465908	147.0588	0.68
26	90	4.49981	152.9412	0.653846
27	95	4.553877	158.8235	0.62963
31	95	4.553877	164.7059	0.607143
29	97	4.574711	170.5882	0.586207
30	100	4.60517	176.4706	0.566667
31	105	4.65396	182.3529	0.548387
32	110	4.70048	188.2353	0.53125
33	110	4.70048	194.1176	0.515152
34	123	4.812184	200	0.5
35	150	5.010635	205.8824	0.485714
36	165	5.105945	211.7647	0.472222
37	180	5.192957	217.6471	0.459459
38	200	5.298317	223.5294	0.447368
39	223	5.407172	229.4118	0.435897

Lampiran 3 Hitungan Parameter Statistik Log Pearson III

Tahun	CH Max	y= Log xi	(y-y bar)	(y-y bar)^2	(y-y bar)^3
1977	85	1.929419	0.085387475	0.007291	0.0006226
1978	87	1.939519	0.095487801	0.0091179	0.0008707
1979	25	1.39794	0.446091442	0.1989976	0.0887711
1980	26	1.414973	0.429058103	0.1840909	0.0789857
1981	95	1.977724	0.133692154	0.0178736	0.0023896
1982	50	1.69897	0.145061447	0.0210431	0.0030525
1983	82	1.913814	0.069782401	0.0048696	0.0003398
1984	50	1.69897	0.145061447	0.0210431	0.0030525
1985	200	2.30103	0.456998545	0.2088477	0.0954431
1986	150	2.176091	0.332059808	0.1102637	0.0366141
1987	45	1.653213	0.190818937	0.0364119	0.0069481
1988	17	1.230449	-0.61358253	0.3764835	0.2310037
1989	123	2.089905	0.24587366	0.0604539	0.014864
1990	78	1.892095	0.048063152	0.0023101	0.000111
1991	80	1.90309	0.059058536	0.0034879	0.000206
1992	79	1.897627	0.05359564	0.0031725	0.000154
1993	70	1.845098	0.001066589	1.138E-06	1.213E-09
1994	82	1.913814	0.069782401	0.0048696	0.0003398
1995	70	1.845098	0.001066589	1.138E-06	1.213E-09
1996	62	1.792392	0.051639762	0.0026667	0.0001377
1997	69	1.838849	-0.00518236	2.686E-05	-1.392E-07
1998	97	1.986772	0.142740313	0.0203748	0.0029083
1999	60	1.778151	0.065880201	0.0043402	0.0003159
2000	180	2.255273	0.411241054	0.1691192	0.0695488
2002	110	2.041393	0.197361234	0.0389515	0.0076875
2003	100	2	0.155968549	0.0243262	0.0037941
2004	25	1.39794	0.446091442	0.1989976	0.0887711
2005	20	1.30103	0.543001455	0.2948506	0.1601043
2006	95	1.977724	0.133692154	0.0178736	0.0023896

2007	25	1.39794	0.446091442	0.1989976	0.0887711
2008	50	1.69897	0.145061447	0.0210431	0.0030525
2009	20	1.30103	0.543001455	0.2948506	0.1601043
2010	86	1.934498	0.090467	0.0081843	0.0007404
2011	82	1.913814	0.069782401	0.0048696	0.0003398
2014	105	2.021189	0.177157848	0.0313849	0.0055601
2015	223	2.348305	0.504273412	0.2542917	0.1312325
2018	90	1.954243	0.110211058	0.0121465	0.0013387
2019	110	2.041393	0.197361234	0.0389515	0.0076875
2020	165	2.217484	0.373452493	0.1394668	0.0520842
Jumlah	3268	71.91723	-1.42109E-14	3.0460424	0.4787746
Average	83.79487	1.844031	-3.64381E-16	0.0781037	0.0122763

Lampiran 4 Hitungan Hujan dengan Log Pearson III

T	G	Log X	X(mm)
2	0.167449	1.891440299	77.88257454
5	0.8814	2.093576601	124.0442394
10	1.163801	2.173530921	149.1182921
25	1.406252	2.242174537	174.6523916
50	1.522102	2.274974648	188.3539133

Lampiran 5 Desain Hujan Jam-Jaman

Disain Hujan Jam-jaman T(jam)	Curah hujan rencana (mm)				
	RT2	RT5	RT10	RT25	RT50
	77.88257	124.0442394	149.1183	174.6524	188.3539133
1	27.00	43.00	51.70	60.55	65.30
2	17.01	27.09	32.57	38.14	41.14
3	12.98	20.67	24.85	29.11	31.39
4	10.72	17.07	20.52	24.03	25.91
5	9.23	14.71	17.68	20.71	22.33

Lampiran 6 Curah Hujan Efektif

T (jam)	RT2	RT5	RT10	RT25	RT50
1	19.17027	30.53265253	36.70446	42.98951	46.36204483
2	12.07651	19.23436582	23.12236	27.08169	29.2062581
3	9.216105	14.67856833	17.64566	20.6672	22.31854641
4	7.607727	12.11689119	14.56618	17.0604	18.39878968
5	6.55614	10.44202031	12.55275	14.7022	15.8555963

Lampiran 7 Ordinat Hidrograf Satuan

waktu	Q(m ³ /det)			
	Qa(Qp>Qa)	Qd1(Qd>0,3Qp)	Qd2(0,3Qp>Qd>0,3 ² Qp)	Qd3(0,3 ² Qp>Qd)
0	0	3.929167174	1.907977548	0.983988335
1	0.124481268	2.79259644	1.519538501	0.829552331
2	0.657016071	1.984795895	1.210180518	0.699354901
3	1.738581341	1.410663813	0.963803737	0.589591833
4	3.467751611	1.002608077	0.767586017	0.497055972
5	5.924231396	0.712588602	0.611315634	0.419043523
6	9.176317331	0.506461626	0.48685984	0.353275052
7	13.3143191	0.359959979	0.387741602	0.297831878
8	18.30290273	0.255836138	0.308802529	0.251084927
9	24.31208783	0.181831685	0.24593441	0.211677393
10	31.26831077	0.129234134	0.19586541	0.178454833
11	39.30487753	0.091851216	0.155989798	0.150446522
12	48.4327349	0.065311869	0.124232334	0.126834087
13	58.69053231	0.046398106	0.09894027	0.106927601
14	70.11505654	0.032976756	0.078797337	0.090145419
15	82.74143044	0.023437733	0.062755239	0.075997183
16	96.60329979	0.016658016	0.049979101	0.0640695
17	111.7329883	0.011839434	0.039804015	0.054013854
18	131.1616279	0.0084147	0.031700443	0.045536433
19	145.919269	0.005980621	0.025246651	0.038389534
20	165.0349753	0.004250636	0.020106766	0.032364334
21	185.5369061	0.003021076	0.016013294	0.027314784
22	207.4523873	0.002147184	0.012753199	0.023002464
23	230.8079743	0.001526079	0.010156816	0.019392249
24	255.6295074	0.001084638	0.008089022	0.016348655
25	311.9421608	0.00077089	0.006442204	0.013782749
26	309.7704867	0.000547898	0.005130656	0.01161956
27	339.1384547	0.000389411	0.004086122	0.009795882
31	370.0694871	0.000276768	0.003254242	0.008258431
29	402.5864911	0.000196708	0.002591721	0.006962276
30	436.711888	0.000139808	0.002064081	0.005869553
31	472.4676398	9.93661E-05	0.001643861	0.004948333
32	509.8752731	7.0623E-05	0.001309193	0.004171697
33	548.955902	5.01942E-05	0.001042658	0.003516953
34	589.730248	3.56748E-05	0.000830387	0.002964971
35	632.2186592	2.53553E-05	0.000661331	0.002499621
36	676.4411276	1.80209E-05	0.000526693	0.002107308
37	722.4173052	1.31081E-05	0.000419465	0.001776568
38	770.166519	9.10316E-06	0.000334068	0.001497738

39	819.7077852	6.46993E-06	0.000266056	0.001262669
40	871.059822	4.59841E-06	0.00021189	0.001064494
41	924.2410615	3.26825E-06	0.000168752	0.000897423
42	979.2696615	2.32316E-06	0.000134397	0.000756573
43	1036.163516	1.65094E-06	0.000107035	0.00063783
44	1094.940265	1.17338E-06	8.52442E-05	0.000537723
45	1155.617303	8.33961E-07	6.78896E-05	0.000453331
46	1218.211792	5.92725E-07	5.40682E-05	0.000382179
47	1312.740663	4.21271E-07	4.30606E-05	0.000322196
48	1349.220629	2.99412E-07	3.42941E-05	0.000271631
49	1417.668191	2.13102E-07	2.73122E-05	0.000231996
50	1488.099646	1.51246E-07	2.17518E-05	0.000193055
51	1560.531091	1.07496E-07	1.73234E-05	0.000162755
52	1634.978431	7.64011E-08	1.37966E-05	0.000137211
53	1711.457386	5.43009E-08	1.09878E-05	0.000115676
54	1789.983495	3.85936E-08	8.75083E-06	9.75208E-05
55	1870.572123	2.74298E-08	6.96931E-06	8.2215E-05
56	1953.238463	1.94953E-08	5.55043E-06	6.93114E-05
57	2037.997545	1.3856E-08	4.42043E-06	5.84331E-05
58	2124.864239	9.84794E-09	3.52049E-06	4.9262E-05
59	2213.853258	6.99931E-09	2.80377E-06	4.15304E-05
60	2304.979164	4.97463E-09	2.23296E-06	3.50123E-05
61	2398.256372	3.53564E-09	1.77836E-06	2.95171E-05
62	2493.699153	2.51291E-09	1.41631E-06	2.48844E-05
63	2591.321639	1.78601E-09	1.12796E-06	2.09788E-05
64	2691.137825	1.26938E-09	8.98326E-07	1.76862E-05
65	2793.161575	9.02193E-10	7.15439E-07	1.49104E-05
66	3197.406621	6.4122E-10	5.69785E-07	1.25702E-05
67	3003.886572	4.55737E-10	4.53784E-07	1.05973E-05
68	3112.61491	3.23908E-10	3.614E-07	8.9341E-06
69	3223.605	2.30213E-10	2.87823E-07	7.5319E-06
70	3336.870089	1.6362E-10	2.29226E-07	6.34978E-06
71	3452.423308	1.16291E-10	1.82559E-07	5.35319E-06
72	3570.277676	8.26519E-11	1.45392E-07	4.51301E-06
73	3690.446105	5.87436E-11	1.15792E-07	3.8047E-06
74	3812.941396	4.17511E-11	9.22186E-08	3.20755E-06
75	3937.776249	2.9674E-11	7.34441E-08	2.70413E-06
76	4064.963258	2.10903E-11	5.84918E-08	2.27972E-06
77	4194.514919	1.49896E-11	4.65837E-08	1.92192E-06
78	4326.443629	1.06537E-11	3.70999E-08	1.62031E-06
79	4460.761688	7.57193E-12	2.95468E-08	1.36598E-06
80	4597.481303	5.38164E-12	2.35315E-08	1.15159E-06
81	4736.614589	3.82492E-12	1.87408E-08	9.70847E-07

82	4878.173568	2.7185E-12	1.49254E-08	8.18473E-07
83	5022.170176	1.93213E-12	1.18868E-08	6.90015E-07
84	5168.61626	1.37324E-12	9.46679E-09	5.81718E-07
85	5317.523583	9.76006E-13	7.53948E-09	4.90418E-07
86	5468.903824	6.93682E-13	6.00454E-09	4.13447E-07
87	5622.768579	4.93024E-13	4.7821E-09	3.48557E-07
88	5779.129364	3.50409E-13	3.80852E-09	2.93851E-07
89	5937.997616	2.49048E-13	3.03316E-09	2.47732E-07
90	6099.384695	1.77007E-13	2.41565E-09	2.0885E-07
91	6263.301882	1.25805E-13	1.92385E-09	1.76072E-07
92	6429.760386	8.94142E-14	1.53218E-09	1.48437E-07
93	6598.77134	6.35498E-14	1.22025E-09	1.2514E-07
94	6770.345808	4.51671E-14	9.71824E-10	1.055E-07
95	6944.494778	3.21018E-14	7.73973E-10	8.89415E-08
96	7121.229172	2.31159E-14	6.16402E-10	7.49822E-08
97	7300.559843	1.6216E-14	4.90911E-10	6.32138E-08

Lampiran 8 Data Debit Banjir Rencana Setiap Periode Kala Ulang

Waktu	2 tahun	5 tahun	10 tahun	25 tahun	50 tahun
0	0	0	0	0	0
1	3.889639	6.195062	7.447319	8.722552	9.406838
2	26.58477	42.34179	50.90067	59.61659	64.29352
3	67.81148	108.0039	129.8356	152.0679	163.9976
4	54.76923	87.23141	104.8642	122.8205	132.4558
5	38.9264	61.99841	74.53065	87.29312	94.14096
6	27.66636	44.06444	52.97154	62.04206	66.90927
7	21.18107	33.73526	40.55444	47.49873	51.22502
8	16.86888	26.86721	32.29809	37.83162	40.79631
9	13.4346	21.3974	25.72263	30.12721	32.4907
10	10.69949	17.04117	20.48584	23.99371	25.87602
11	8.521217	13.57181	16.31519	19.10891	20.608
12	6.931535	11.03514	13.26576	15.5373	16.75621
13	5.841108	9.303182	11.18371	13.09874	14.12634
14	4.924352	7.843057	9.431437	11.0429	11.90922
15	4.15148	6.612097	7.948653	9.309731	10.04008
16	3.499909	5.574335	6.701119	7.848578	8.464301
17	2.950602	4.699448	5.649385	6.616751	7.135837
18	2.487508	3.961874	4.76272	5.578259	6.015874
19	2.097096	3.340062	4.015216	4.702756	5.071689
20	1.767959	2.815843	3.385031	3.964663	4.275692
21	1.490479	2.373899	2.853754	3.342413	3.604626
22	1.25655	2.001318	2.40586	2.817825	3.038884
23	1.059336	1.687213	2.031263	2.37557	2.561934
24	0.893074	1.422407	1.709929	2.002727	2.159841
25	0.752907	1.199161	1.441557	1.688401	1.820856

Lampiran 9 Data Pasang Surut

Tanggal	Jam	Elevasi Pasang Surut (m)
01/01/2020	00:00:00	-0.355
01/01/2020	01:00:00	-0.562
01/01/2020	02:00:00	-0.689
01/01/2020	03:00:00	-0.706
01/01/2020	04:00:00	-0.607
01/01/2020	05:00:00	-0.411
01/01/2020	06:00:00	-0.158
01/01/2020	07:00:00	0.1
01/01/2020	08:00:00	0.315
01/01/2020	09:00:00	0.448
01/01/2020	10:00:00	0.483
01/01/2020	11:00:00	0.426
01/01/2020	12:00:00	0.305
01/01/2020	13:00:00	0.159
01/01/2020	14:00:00	0.031
01/01/2020	15:00:00	-0.046
01/01/2020	16:00:00	-0.056
01/01/2020	17:00:00	-0.002
01/01/2020	18:00:00	0.091
01/01/2020	19:00:00	0.187
01/01/2020	20:00:00	0.249
01/01/2020	21:00:00	0.248
01/01/2020	22:00:00	0.169
01/01/2020	23:00:00	0.02
02/01/2020	00:00:00	-0.17
02/01/2020	01:00:00	-0.363
02/01/2020	02:00:00	-0.514
02/01/2020	03:00:00	-0.586
02/01/2020	04:00:00	-0.56
02/01/2020	05:00:00	-0.437
02/01/2020	06:00:00	-0.239
02/01/2020	07:00:00	-0.005
02/01/2020	08:00:00	0.218
02/01/2020	09:00:00	0.388
02/01/2020	10:00:00	0.476
02/01/2020	11:00:00	0.471
02/01/2020	12:00:00	0.384
02/01/2020	13:00:00	0.245
02/01/2020	14:00:00	0.092

02/01/2020	15:00:00	-0.037
02/01/2020	16:00:00	-0.114
02/01/2020	17:00:00	-0.125
02/01/2020	18:00:00	-0.078
02/01/2020	19:00:00	0.005
02/01/2020	20:00:00	0.091
02/01/2020	21:00:00	0.147
02/01/2020	22:00:00	0.148
02/01/2020	23:00:00	0.084
03/01/2020	00:00:00	-0.035
03/01/2020	01:00:00	-0.184
03/01/2020	02:00:00	-0.331
03/01/2020	03:00:00	-0.429
03/01/2020	04:00:00	-0.459
03/01/2020	05:00:00	-0.404
03/01/2020	06:00:00	-0.269
03/01/2020	07:00:00	-0.078
03/01/2020	08:00:00	0.131
03/01/2020	09:00:00	0.317
03/01/2020	10:00:00	0.443
03/01/2020	11:00:00	0.487
03/01/2020	12:00:00	0.444
03/01/2020	13:00:00	0.329
03/01/2020	14:00:00	0.17
03/01/2020	15:00:00	0.006
03/01/2020	16:00:00	-0.131
03/01/2020	17:00:00	-0.207
03/01/2020	18:00:00	-0.219
03/01/2020	19:00:00	-0.173
03/01/2020	20:00:00	-0.09
03/01/2020	21:00:00	-0.002
03/01/2020	22:00:00	0.063
03/01/2020	23:00:00	0.08
04/01/2020	00:00:00	0.042
04/01/2020	01:00:00	-0.044
04/01/2020	02:00:00	-0.153
04/01/2020	03:00:00	-0.256
04/01/2020	04:00:00	-0.32
04/01/2020	05:00:00	-0.321
04/01/2020	06:00:00	-0.249
04/01/2020	07:00:00	-0.113
04/01/2020	08:00:00	0.063
04/01/2020	09:00:00	0.245

04/01/2020	10:00:00	0.395
04/01/2020	11:00:00	0.481
04/01/2020	12:00:00	0.484
04/01/2020	13:00:00	0.403
04/01/2020	14:00:00	0.257
04/01/2020	15:00:00	0.075
04/01/2020	16:00:00	-0.104
04/01/2020	17:00:00	-0.246
04/01/2020	18:00:00	-0.326
04/01/2020	19:00:00	-0.334
04/01/2020	20:00:00	-0.278
04/01/2020	21:00:00	-0.182
04/01/2020	22:00:00	-0.075
04/01/2020	23:00:00	0.011
05/01/2020	00:00:00	0.055
05/01/2020	01:00:00	0.047
05/01/2020	02:00:00	-0.007
05/01/2020	03:00:00	-0.085
05/01/2020	04:00:00	-0.16
05/01/2020	05:00:00	-0.2
05/01/2020	06:00:00	-0.186
05/01/2020	07:00:00	-0.109
05/01/2020	08:00:00	0.022
05/01/2020	09:00:00	0.184
05/01/2020	10:00:00	0.341
05/01/2020	11:00:00	0.458
05/01/2020	12:00:00	0.505
05/01/2020	13:00:00	0.468
05/01/2020	14:00:00	0.348
05/01/2020	15:00:00	0.167
05/01/2020	16:00:00	-0.042
05/01/2020	17:00:00	-0.24
05/01/2020	18:00:00	-0.389
05/01/2020	19:00:00	-0.464
05/01/2020	20:00:00	-0.458
05/01/2020	21:00:00	-0.381
05/01/2020	22:00:00	-0.256
05/01/2020	23:00:00	-0.117
06/01/2020	00:00:00	0.001
06/01/2020	01:00:00	0.075
06/01/2020	02:00:00	0.094
06/01/2020	03:00:00	0.063
06/01/2020	04:00:00	0.003

06/01/2020	05:00:00	-0.057
06/01/2020	06:00:00	-0.088
06/01/2020	07:00:00	-0.068
06/01/2020	08:00:00	0.011
06/01/2020	09:00:00	0.137
06/01/2020	10:00:00	0.316
06/01/2020	11:00:00	0.423
06/01/2020	12:00:00	0.511
06/01/2020	13:00:00	0.522
06/01/2020	14:00:00	0.443
06/01/2020	15:00:00	0.311
06/01/2020	16:00:00	0.06
06/01/2020	17:00:00	-0.18
06/01/2020	18:00:00	-0.396
06/01/2020	19:00:00	-0.549
06/01/2020	20:00:00	-0.613
06/01/2020	21:00:00	-0.581
06/01/2020	22:00:00	-0.467
06/01/2020	23:00:00	-0.301
07/01/2020	00:00:00	-0.122
07/01/2020	01:00:00	0.032
07/01/2020	02:00:00	0.133
07/01/2020	03:00:00	0.17
07/01/2020	04:00:00	0.149
07/01/2020	05:00:00	0.093
07/01/2020	06:00:00	0.035
07/01/2020	07:00:00	0.005
07/01/2020	08:00:00	0.027
07/01/2020	09:00:00	0.108
07/01/2020	10:00:00	0.234
07/01/2020	11:00:00	0.377
07/01/2020	12:00:00	0.499
07/01/2020	13:00:00	0.562
07/01/2020	14:00:00	0.537
07/01/2020	15:00:00	0.413
07/01/2020	16:00:00	0.204
07/01/2020	17:00:00	-0.06
07/01/2020	18:00:00	-0.333
07/01/2020	19:00:00	-0.566
07/01/2020	20:00:00	-0.716
07/01/2020	21:00:00	-0.757
07/01/2020	22:00:00	-0.688
07/01/2020	23:00:00	-0.527

08/01/2020	00:00:00	-0.313
08/01/2020	01:00:00	-0.092
08/01/2020	02:00:00	0.094
08/01/2020	03:00:00	0.214
08/01/2020	04:00:00	0.256
08/01/2020	05:00:00	0.231
08/01/2020	06:00:00	0.168
08/01/2020	07:00:00	0.103
08/01/2020	08:00:00	0.071
08/01/2020	09:00:00	0.097
08/01/2020	10:00:00	0.184
08/01/2020	11:00:00	0.317
08/01/2020	12:00:00	0.461
08/01/2020	13:00:00	0.573
08/01/2020	14:00:00	0.612
08/01/2020	15:00:00	0.549
08/01/2020	16:00:00	0.379
08/01/2020	17:00:00	0.12
08/01/2020	18:00:00	-0.189
08/01/2020	19:00:00	-0.493
08/01/2020	20:00:00	-0.736
08/01/2020	21:00:00	-0.874
08/01/2020	22:00:00	-0.883
08/01/2020	23:00:00	-0.767
09/01/2020	00:00:00	-0.554
09/01/2020	01:00:00	-0.291
09/01/2020	02:00:00	-0.031
09/01/2020	03:00:00	0.176
09/01/2020	04:00:00	0.301
09/01/2020	05:00:00	0.335
09/01/2020	06:00:00	0.295
09/01/2020	07:00:00	0.215
09/01/2020	08:00:00	0.14
09/01/2020	09:00:00	0.107
09/01/2020	10:00:00	0.142
09/01/2020	11:00:00	0.244
09/01/2020	12:00:00	0.391
09/01/2020	13:00:00	0.541
09/01/2020	14:00:00	0.645
09/01/2020	15:00:00	0.66
09/01/2020	16:00:00	0.558
09/01/2020	17:00:00	0.339
09/01/2020	18:00:00	0.03

09/01/2020	19:00:00	-0.319
09/01/2020	20:00:00	-0.647
09/01/2020	21:00:00	-0.891
09/01/2020	22:00:00	-1.007
09/01/2020	23:00:00	-0.976
10/01/2020	00:00:00	-0.809
10/01/2020	01:00:00	-0.543
10/01/2020	02:00:00	-0.237
10/01/2020	03:00:00	0.05
10/01/2020	04:00:00	0.266
10/01/2020	05:00:00	0.381
10/01/2020	06:00:00	0.394
10/01/2020	07:00:00	0.329
10/01/2020	08:00:00	0.23
10/01/2020	09:00:00	0.145
10/01/2020	10:00:00	0.116
10/01/2020	11:00:00	0.165
10/01/2020	12:00:00	0.318
10/01/2020	13:00:00	0.452
10/01/2020	14:00:00	0.61
10/01/2020	15:00:00	0.706
10/01/2020	16:00:00	0.696
10/01/2020	17:00:00	0.555
10/01/2020	18:00:00	0.29
10/01/2020	19:00:00	-0.062
10/01/2020	20:00:00	-0.443
10/01/2020	21:00:00	-0.782
10/01/2020	22:00:00	-1.015
10/01/2020	23:00:00	-1.1
11/01/2020	00:00:00	-1.022
11/01/2020	01:00:00	-0.803
11/01/2020	02:00:00	-0.492
11/01/2020	03:00:00	-0.154
11/01/2020	04:00:00	0.145
11/01/2020	05:00:00	0.354
11/01/2020	06:00:00	0.446
11/01/2020	07:00:00	0.431
11/01/2020	08:00:00	0.333
11/01/2020	09:00:00	0.213
11/01/2020	10:00:00	0.121
11/01/2020	11:00:00	0.1
11/01/2020	12:00:00	0.168
11/01/2020	13:00:00	0.312

11/01/2020	14:00:00	0.494
11/01/2020	15:00:00	0.658
11/01/2020	16:00:00	0.744
11/01/2020	17:00:00	0.709
11/01/2020	18:00:00	0.533
11/01/2020	19:00:00	0.23
11/01/2020	20:00:00	-0.153
11/01/2020	21:00:00	-0.549
11/01/2020	22:00:00	-0.884
11/01/2020	23:00:00	-1.092
12/01/2020	00:00:00	-1.136
12/01/2020	01:00:00	-1.01
12/01/2020	02:00:00	-0.745
12/01/2020	03:00:00	-0.4
12/01/2020	04:00:00	-0.046
12/01/2020	05:00:00	0.248
12/01/2020	06:00:00	0.433
12/01/2020	07:00:00	0.49
12/01/2020	08:00:00	0.435
12/01/2020	09:00:00	0.308
12/01/2020	10:00:00	0.169
12/01/2020	11:00:00	0.073
12/01/2020	12:00:00	0.062
12/01/2020	13:00:00	0.147
12/01/2020	14:00:00	0.31
12/01/2020	15:00:00	0.505
12/01/2020	16:00:00	0.67
12/01/2020	17:00:00	0.745
12/01/2020	18:00:00	0.688
12/01/2020	19:00:00	0.486
12/01/2020	20:00:00	0.161
12/01/2020	21:00:00	-0.235
12/01/2020	22:00:00	-0.626
12/01/2020	23:00:00	-0.938
13/01/2020	00:00:00	-1.109
13/01/2020	01:00:00	-1.107
13/01/2020	02:00:00	-0.936
13/01/2020	03:00:00	-0.636
13/01/2020	04:00:00	-0.273
13/01/2020	05:00:00	0.079
13/01/2020	06:00:00	0.351
13/01/2020	07:00:00	0.5
13/01/2020	08:00:00	0.515

13/01/2020	09:00:00	0.419
13/01/2020	10:00:00	0.261
13/01/2020	11:00:00	0.104
13/01/2020	12:00:00	0.005
13/01/2020	13:00:00	0.001
13/01/2020	14:00:00	0.099
13/01/2020	15:00:00	0.274
13/01/2020	16:00:00	0.474
13/01/2020	17:00:00	0.637
13/01/2020	18:00:00	0.701
13/01/2020	19:00:00	0.63
13/01/2020	20:00:00	0.416
13/01/2020	21:00:00	0.088
13/01/2020	22:00:00	-0.296
13/01/2020	23:00:00	-0.662
14/01/2020	00:00:00	-0.935
14/01/2020	01:00:00	-1.059
14/01/2020	02:00:00	-1.011
14/01/2020	03:00:00	-0.803
14/01/2020	04:00:00	-0.483
14/01/2020	05:00:00	-0.119
14/01/2020	06:00:00	0.214
14/01/2020	07:00:00	0.45
14/01/2020	08:00:00	0.554
14/01/2020	09:00:00	0.522
14/01/2020	10:00:00	0.385
14/01/2020	11:00:00	0.197
14/01/2020	12:00:00	0.023
14/01/2020	13:00:00	-0.081
14/01/2020	14:00:00	-0.083
14/01/2020	15:00:00	0.02
14/01/2020	16:00:00	0.198
14/01/2020	17:00:00	0.397
14/01/2020	18:00:00	0.554
14/01/2020	19:00:00	0.613
14/01/2020	20:00:00	0.539
14/01/2020	21:00:00	0.332
14/01/2020	22:00:00	0.023
14/01/2020	23:00:00	-0.331
15/01/2020	00:00:00	-0.648
15/01/2020	01:00:00	-0.87
15/01/2020	02:00:00	-0.945
15/01/2020	03:00:00	-0.856

15/01/2020	04:00:00	-0.624
15/01/2020	05:00:00	-0.299
15/01/2020	06:00:00	0.048
15/01/2020	07:00:00	0.346
15/01/2020	08:00:00	0.537
15/01/2020	09:00:00	0.591
15/01/2020	10:00:00	0.513
15/01/2020	11:00:00	0.337
15/01/2020	12:00:00	0.122
15/01/2020	13:00:00	-0.069
15/01/2020	14:00:00	-0.182
15/01/2020	15:00:00	-0.189
15/01/2020	16:00:00	-0.09
15/01/2020	17:00:00	0.083
15/01/2020	18:00:00	0.276
15/01/2020	19:00:00	0.43
15/01/2020	20:00:00	0.491
15/01/2020	21:00:00	0.43
15/01/2020	22:00:00	0.249
15/01/2020	23:00:00	-0.02

Lampiran 10 Tabel Tinggi Muka Air pada *Cross Sections*

Cross Section 563

Waktu	Kala Ulang				
	2 Tahun	5 Tahun	10 Tahun	25 Tahun	50 Tahun
0:00	2.39	2.61	2.7	2.8	2.84
0:10	2.42	2.64	2.75	2.84	2.89
0:20	2.43	2.63	2.73	2.81	2.86
0:30	2.41	2.65	2.78	2.9	2.96
0:40	2.53	2.87	3.02	3.11	3.14
0:50	2.78	3.13	3.21	3.24	3.26
1:00	3.03	3.29	3.32	3.37	3.45
1:10	3.24	3.39	3.52	3.76	3.88
1:20	3.37	3.58	3.87	4.09	4.21
1:30	3.43	3.9	4.18	4.4	4.51
1:40	3.51	4.21	4.47	4.63	4.82
1:50	3.8	4.47	4.67	4.86	5.21
2:00	4.06	4.67	4.86	5.15	5.62
2:10	4.27	4.8	5.11	5.44	6
2:20	4.44	4.98	5.34	5.68	6.31
2:30	4.53	5.11	5.46	5.78	6.46
2:40	4.55	5.14	5.46	5.77	6.51
2:50	4.54	5.12	5.39	5.68	6.43
3:00	4.53	5.08	5.32	5.57	6.24
3:10	4.51	5.02	5.26	5.46	5.96
3:20	4.49	4.98	5.2	5.39	5.65
3:30	4.46	4.95	5.15	5.34	5.44
3:40	4.43	4.92	5.11	5.31	5.34
3:50	4.4	4.85	5.05	5.22	5.26
4:00	4.37	4.79	5	5.17	5.19
4:10	4.34	4.73	4.98	5.12	5.11
4:20	4.31	4.68	4.91	5.06	5.04
4:30	4.27	4.64	4.83	5.02	4.98
4:40	4.25	4.6	4.77	4.99	4.91
4:50	4.23	4.57	4.73	4.92	4.85
5:00	4.22	4.54	4.69	4.86	4.81
5:10	4.19	4.51	4.65	4.79	4.77
5:20	4.16	4.48	4.61	4.74	4.74
5:30	4.14	4.45	4.57	4.7	4.71
5:40	4.13	4.42	4.55	4.66	4.69
5:50	4.12	4.39	4.53	4.64	4.67
6:00	4.12	4.37	4.51	4.61	4.65
6:10	4.1	4.34	4.48	4.58	4.62

6:20	4.07	4.32	4.45	4.56	4.6
6:30	4.04	4.3	4.42	4.53	4.58
6:40	4.01	4.27	4.39	4.51	4.55
6:50	3.98	4.25	4.37	4.48	4.53
7:00	3.96	4.24	4.34	4.46	4.51
7:10	3.93	4.21	4.32	4.43	4.48
7:20	3.9	4.19	4.29	4.39	4.45
7:30	3.88	4.17	4.27	4.36	4.41
7:40	3.85	4.15	4.24	4.33	4.38
7:50	3.83	4.13	4.22	4.31	4.34
8:00	3.81	4.11	4.19	4.31	4.3
8:10	3.78	4.08	4.16	4.26	4.26
8:20	3.75	4.03	4.14	4.22	4.22
8:30	3.72	3.99	4.12	4.19	4.17
8:40	3.69	3.96	4.09	4.15	4.13
8:50	3.66	3.91	4.06	4.12	4.1
9:00	3.64	3.87	4.02	4.1	4.08
9:10	3.61	3.83	3.98	4.08	4.05
9:20	3.58	3.8	3.94	4.05	4.02
9:30	3.55	3.76	3.9	4.03	3.99
9:40	3.52	3.73	3.85	3.99	3.96
9:50	3.5	3.7	3.81	3.94	3.93
10:00	3.47	3.67	3.77	3.9	3.89
10:10	3.45	3.64	3.74	3.87	3.86
10:20	3.42	3.61	3.71	3.82	3.83
10:30	3.4	3.59	3.68	3.78	3.8
10:40	3.38	3.56	3.66	3.75	3.77
10:50	3.36	3.54	3.63	3.72	3.74
11:00	3.33	3.51	3.6	3.69	3.72
11:10	3.32	3.49	3.58	3.67	3.7
11:20	3.31	3.48	3.56	3.65	3.68
11:30	3.3	3.46	3.54	3.63	3.67
11:40	3.31	3.44	3.53	3.61	3.65
11:50	3.27	3.43	3.51	3.59	3.64
12:00	3.26	3.42	3.5	3.58	3.62
12:10	3.26	3.42	3.49	3.57	3.61
12:20	3.26	3.41	3.49	3.56	3.6
12:30	3.27	3.41	3.48	3.55	3.59
12:40	3.27	3.41	3.48	3.55	3.58
12:50	3.27	3.41	3.47	3.54	3.58
13:00	3.31	3.41	3.47	3.54	3.57
13:10	3.29	3.41	3.48	3.54	3.57
13:20	3.31	3.42	3.48	3.54	3.57

13:30	3.32	3.43	3.49	3.54	3.58
13:40	3.34	3.44	3.5	3.55	3.58
13:50	3.36	3.45	3.51	3.56	3.59
14:00	3.38	3.46	3.52	3.57	3.59
14:10	3.4	3.48	3.53	3.58	3.6
14:20	3.43	3.5	3.54	3.59	3.61
14:30	3.45	3.52	3.56	3.61	3.63
14:40	3.48	3.54	3.58	3.62	3.64
14:50	3.51	3.56	3.6	3.64	3.66
15:00	3.54	3.59	3.62	3.65	3.67
15:10	3.56	3.61	3.64	3.67	3.69
15:20	3.59	3.63	3.65	3.68	3.7
15:30	3.61	3.65	3.67	3.7	3.71
15:40	3.64	3.67	3.69	3.72	3.73
15:50	3.66	3.69	3.71	3.73	3.75
16:00	3.69	3.71	3.73	3.75	3.77
16:10	3.7	3.73	3.74	3.76	3.77
16:20	3.71	3.74	3.75	3.77	3.78
16:30	3.72	3.74	3.76	3.78	3.79
16:40	3.73	3.75	3.77	3.79	3.79
16:50	3.74	3.76	3.78	3.79	3.8
17:00	3.76	3.77	3.79	3.8	3.81
17:10	3.75	3.77	3.78	3.79	3.8
17:20	3.74	3.76	3.77	3.78	3.79
17:30	3.73	3.75	3.76	3.77	3.78
17:40	3.72	3.74	3.75	3.76	3.77
17:50	3.71	3.73	3.74	3.75	3.76
18:00	3.7	3.72	3.73	3.74	3.75
18:10	3.67	3.69	3.7	3.71	3.72
18:20	3.64	3.65	3.67	3.68	3.69
18:30	3.6	3.62	3.63	3.65	3.65
18:40	3.57	3.59	3.6	3.61	3.62
18:50	3.54	3.55	3.57	3.58	3.59
19:00	3.5	3.52	3.53	3.55	3.56
19:10	3.45	3.47	3.49	3.5	3.51
19:20	3.4	3.42	3.44	3.45	3.46
19:30	3.35	3.37	3.39	3.4	3.41
19:40	3.3	3.32	3.34	3.35	3.36
19:50	3.24	3.27	3.31	3.3	3.31
20:00	3.19	3.22	3.23	3.25	3.26
20:10	3.13	3.16	3.18	3.19	3.2
20:20	3.07	3.1	3.12	3.14	3.15
20:30	3.01	3.04	3.06	3.08	3.09

20:40	2.94	2.97	3	3.02	3.03
20:50	2.88	2.91	2.94	2.96	2.97
21:00	2.81	2.85	2.88	2.9	2.91
21:10	2.75	2.79	2.82	2.84	2.86
21:20	2.69	2.73	2.76	2.79	2.8
21:30	2.63	2.68	2.71	2.73	2.75
21:40	2.57	2.62	2.65	2.68	2.7
21:50	2.52	2.56	2.59	2.63	2.64
22:00	2.46	2.51	2.54	2.57	2.59
22:10	2.41	2.46	2.5	2.53	2.55
22:20	2.36	2.42	2.45	2.49	2.51
22:30	2.31	2.38	2.41	2.45	2.47
22:40	2.27	2.33	2.37	2.41	2.43
22:50	2.23	2.29	2.33	2.37	2.39
23:00	2.18	2.25	2.29	2.33	2.35

Cross Sections 2309

Waktu	Kala Ulang				
	2 Tahun	5 Tahun	10 Tahun	25 Tahun	50 Tahun
0:00	13.45	13.71	13.81	13.9	13.95
0:10	13.35	13.63	13.72	13.83	13.89
0:20	13.65	14.06	14.22	14.38	14.46
0:30	14.09	14.55	14.71	14.71	14.72
0:40	14.43	14.8	14.84	15	15.09
0:50	14.65	14.89	15.12	15.26	15.32
1:00	14.79	15.13	15.29	15.4	15.45
1:10	14.75	15.27	15.39	15.47	15.51
1:20	14.97	15.4	15.49	15.56	15.58
1:30	15.2	15.49	15.57	15.58	15.8
1:40	15.34	15.55	15.59	15.76	15.97
1:50	15.39	15.59	15.75	15.89	16.09
2:00	15.44	15.67	15.85	15.98	16.2
2:10	15.48	15.78	15.92	16.06	16.27
2:20	15.46	15.77	15.9	16.05	16.24
2:30	15.44	15.75	15.88	16.02	16.19
2:40	15.42	15.72	15.86	15.99	16.14
2:50	15.39	15.69	15.83	15.95	16.08
3:00	15.37	15.66	15.8	15.92	16.02
3:10	15.35	15.64	15.77	15.89	15.96
3:20	15.32	15.64	15.74	15.85	15.9
3:30	15.29	15.59	15.69	15.81	15.84
3:40	15.27	15.53	15.65	15.77	15.78
3:50	15.24	15.5	15.64	15.73	15.72
4:00	15.21	15.47	15.62	15.68	15.65
4:10	15.18	15.43	15.54	15.64	15.63
4:20	15.16	15.4	15.51	15.64	15.59
4:30	15.14	15.37	15.48	15.6	15.54
4:40	15.09	15.34	15.45	15.54	15.52
4:50	15.04	15.31	15.42	15.5	15.5
5:00	14.98	15.31	15.38	15.47	15.48
5:10	14.91	15.24	15.34	15.44	15.46
5:20	14.88	15.22	15.32	15.41	15.44
5:30	14.87	15.2	15.3	15.39	15.42
5:40	14.83	15.19	15.31	15.36	15.39
5:50	14.78	15.17	15.25	15.34	15.37
6:00	14.66	15.15	15.23	15.31	15.35
6:10	14.61	15.12	15.21	15.29	15.33
6:20	14.57	15.08	15.19	15.27	15.31

6:30	14.55	15.05	15.18	15.25	15.29
6:40	14.52	15.01	15.17	15.23	15.27
6:50	14.48	14.97	15.15	15.21	15.25
7:00	14.45	14.93	15.12	15.2	15.23
7:10	14.41	14.91	15.08	15.18	15.21
7:20	14.38	14.89	15.04	15.17	15.19
7:30	14.35	14.86	15	15.15	15.17
7:40	14.32	14.81	14.97	15.13	15.14
7:50	14.29	14.75	14.93	15.09	15.08
8:00	14.26	14.66	14.91	15.05	15.01
8:10	14.23	14.62	14.88	15	14.94
8:20	14.2	14.58	14.85	14.97	14.89
8:30	14.17	14.56	14.8	14.93	14.88
8:40	14.14	14.53	14.73	14.9	14.87
8:50	14.11	14.49	14.65	14.89	14.84
9:00	14.09	14.46	14.61	14.86	14.8
9:10	14.06	14.42	14.58	14.8	14.77
9:20	14.04	14.39	14.55	14.73	14.7
9:30	14.01	14.36	14.52	14.66	14.66
9:40	13.99	14.33	14.49	14.62	14.63
9:50	13.97	14.3	14.45	14.58	14.61
10:00	13.94	14.27	14.42	14.55	14.59
10:10	13.91	14.24	14.39	14.52	14.56
10:20	13.88	14.21	14.36	14.49	14.54
10:30	13.86	14.18	14.33	14.46	14.51
10:40	13.84	14.16	14.3	14.43	14.49
10:50	13.82	14.13	14.31	14.41	14.46
11:00	13.79	14.11	14.25	14.38	14.43
11:10	13.77	14.08	14.22	14.34	14.41
11:20	13.75	14.06	14.2	14.32	14.39
11:30	13.74	14.05	14.18	14.3	14.36
11:40	13.72	14.03	14.16	14.31	14.34
11:50	13.71	14.01	14.13	14.26	14.32
12:00	13.69	14	14.11	14.23	14.29
12:10	13.68	13.97	14.09	14.21	14.27
12:20	13.66	13.96	14.07	14.19	14.25
12:30	13.64	13.94	14.06	14.17	14.23
12:40	13.62	13.92	14.04	14.15	14.21
12:50	13.6	13.89	14.02	14.13	14.18
13:00	13.58	13.87	14	14.1	14.16
13:10	13.56	13.85	13.98	14.08	14.14
13:20	13.54	13.83	13.96	14.06	14.12
13:30	13.52	13.81	13.95	14.05	14.1

13:40	13.5	13.79	13.92	14.03	14.08
13:50	13.48	13.78	13.9	14.01	14.06
14:00	13.46	13.76	13.88	13.99	14.04
14:10	13.44	13.74	13.86	13.97	14.02
14:20	13.42	13.72	13.83	13.95	14
14:30	13.41	13.7	13.81	13.93	13.98
14:40	13.39	13.68	13.79	13.91	13.96
14:50	13.37	13.66	13.77	13.88	13.94
15:00	13.35	13.64	13.75	13.86	13.92
15:10	13.33	13.62	13.73	13.84	13.89
15:20	13.31	13.59	13.71	13.81	13.87
15:30	13.31	13.57	13.69	13.79	13.85
15:40	13.26	13.55	13.67	13.77	13.82
15:50	13.24	13.53	13.65	13.75	13.8
16:00	13.22	13.5	13.63	13.73	13.78
16:10	13.2	13.48	13.61	13.71	13.76
16:20	13.19	13.46	13.58	13.69	13.74
16:30	13.17	13.44	13.56	13.67	13.72
16:40	13.15	13.42	13.54	13.65	13.7
16:50	13.14	13.4	13.52	13.63	13.68
17:00	13.12	13.39	13.5	13.61	13.66
17:10	13.11	13.37	13.48	13.59	13.64
17:20	13.09	13.35	13.46	13.57	13.62
17:30	13.08	13.34	13.44	13.55	13.6
17:40	13.07	13.32	13.43	13.53	13.58
17:50	13.06	13.3	13.41	13.51	13.56
18:00	13.05	13.29	13.4	13.5	13.54
18:10	13.04	13.27	13.38	13.48	13.52
18:20	13.02	13.26	13.37	13.46	13.51
18:30	13.01	13.24	13.36	13.45	13.5
18:40	13	13.23	13.34	13.43	13.48
18:50	12.99	13.22	13.33	13.42	13.47
19:00	12.98	13.21	13.32	13.41	13.45
19:10	12.97	13.19	13.3	13.39	13.44
19:20	12.96	13.18	13.29	13.38	13.43
19:30	12.95	13.17	13.31	13.37	13.41
19:40	12.95	13.17	13.27	13.36	13.4
19:50	12.94	13.16	13.26	13.35	13.39
20:00	12.93	13.15	13.25	13.34	13.38
20:10	12.93	13.14	13.24	13.33	13.37
20:20	12.92	13.13	13.23	13.32	13.36
20:30	12.92	13.13	13.22	13.31	13.35
20:40	12.91	13.12	13.21	13.3	13.34

20:50	12.91	13.11	13.2	13.29	13.33
21:00	12.91	13.11	13.19	13.31	13.32
21:10	12.91	13.1	13.19	13.27	13.31
21:20	12.91	13.1	13.18	13.26	13.3
21:30	12.91	13.09	13.17	13.25	13.29
21:40	12.9	13.09	13.16	13.24	13.31
21:50	12.9	13.08	13.16	13.23	13.27
22:00	12.89	13.08	13.15	13.22	13.26
22:10	12.89	13.07	13.14	13.21	13.24
22:20	12.88	13.07	13.13	13.2	13.23
22:30	12.88	13.06	13.13	13.19	13.22
22:40	12.87	13.06	13.12	13.18	13.21
22:50	12.87	13.05	13.11	13.17	13.2
23:00	12.87	13.04	13.1	13.16	13.19

Cross Sections 3357

Waktu	Kala Ulang				
	2 Tahun	5 Tahun	10 Tahun	25 Tahun	50 Tahun
0:00	24.55	24.66	24.7	24.75	24.77
0:10	24.82	24.95	25.02	25.08	25.1
0:20	24.93	25.11	25.17	25.24	25.27
0:30	25.06	25.22	25.31	25.41	25.46
0:40	25.13	25.33	25.44	25.5	25.54
0:50	25.18	25.42	25.5	25.6	25.65
1:00	25.24	25.47	25.59	25.69	25.73
1:10	25.39	25.61	25.73	25.82	25.94
1:20	25.45	25.72	25.83	25.95	26.19
1:30	25.53	25.81	25.95	26.14	26.35
1:40	25.62	25.9	26.12	26.31	26.47
1:50	25.67	26.02	26.25	26.36	26.59
2:00	25.72	26.16	26.32	26.44	26.71
2:10	25.68	26.11	26.29	26.41	26.65
2:20	25.65	26.07	26.26	26.38	26.59
2:30	25.62	26.03	26.23	26.35	26.53
2:40	25.59	25.99	26.19	26.33	26.46
2:50	25.57	25.96	26.14	26.3	26.39
3:00	25.54	25.92	26.1	26.27	26.32
3:10	25.51	25.87	26.05	26.22	26.27
3:20	25.48	25.81	25.99	26.16	26.2
3:30	25.45	25.76	25.94	26.1	26.11
3:40	25.42	25.71	25.89	26.04	26.02
3:50	25.39	25.67	25.83	25.98	25.93
4:00	25.36	25.62	25.75	25.92	25.85
4:10	25.34	25.59	25.72	25.87	25.8
4:20	25.31	25.56	25.68	25.81	25.76
4:30	25.29	25.52	25.64	25.76	25.73
4:40	25.26	25.49	25.6	25.71	25.71
4:50	25.24	25.46	25.56	25.67	25.68
5:00	25.21	25.42	25.52	25.62	25.65
5:10	25.2	25.41	25.5	25.6	25.63
5:20	25.19	25.39	25.48	25.57	25.61
5:30	25.16	25.37	25.46	25.55	25.58
5:40	25.14	25.35	25.44	25.52	25.56
5:50	25.12	25.33	25.41	25.5	25.54
6:00	25.1	25.3	25.39	25.47	25.51
6:10	25.09	25.29	25.37	25.45	25.49
6:20	25.08	25.27	25.36	25.43	25.47

6:30	25.07	25.26	25.34	25.42	25.45
6:40	25.06	25.25	25.32	25.4	25.43
6:50	25.04	25.23	25.3	25.38	25.41
7:00	25.02	25.22	25.31	25.36	25.39
7:10	25.01	25.2	25.27	25.34	25.37
7:20	24.99	25.18	25.26	25.33	25.34
7:30	24.97	25.16	25.24	25.31	25.31
7:40	24.96	25.14	25.23	25.29	25.31
7:50	24.94	25.12	25.22	25.27	25.25
8:00	24.92	25.11	25.2	25.26	25.22
8:10	24.91	25.09	25.17	25.24	25.21
8:20	24.9	25.08	25.15	25.23	25.21
8:30	24.89	25.07	25.13	25.22	25.2
8:40	24.87	25.06	25.12	25.2	25.18
8:50	24.86	25.05	25.1	25.18	25.16
9:00	24.85	25.03	25.09	25.15	25.15
9:10	24.84	25.01	25.08	25.14	25.13
9:20	24.83	25	25.07	25.12	25.12
9:30	24.82	24.98	25.06	25.11	25.11
9:40	24.81	24.96	25.04	25.09	25.1
9:50	24.79	24.95	25.03	25.08	25.09
10:00	24.78	24.93	25.01	25.07	25.08
10:10	24.77	24.92	24.99	25.06	25.08
10:20	24.77	24.91	24.98	25.05	25.07
10:30	24.76	24.89	24.96	25.03	25.06
10:40	24.75	24.88	24.95	25.02	25.05
10:50	24.74	24.87	24.94	25	25.03
11:00	24.73	24.86	24.92	24.99	25.02
11:10	24.72	24.85	24.91	24.97	25.01
11:20	24.71	24.84	24.9	24.96	25
11:30	24.7	24.84	24.89	24.95	24.98
11:40	24.7	24.83	24.88	24.94	24.97
11:50	24.69	24.82	24.87	24.93	24.96
12:00	24.68	24.81	24.86	24.92	24.95
12:10	24.67	24.8	24.86	24.91	24.94
12:20	24.66	24.79	24.85	24.9	24.93
12:30	24.66	24.79	24.84	24.89	24.92
12:40	24.65	24.78	24.83	24.88	24.91
12:50	24.64	24.77	24.82	24.87	24.9
13:00	24.63	24.76	24.81	24.86	24.88
13:10	24.62	24.76	24.81	24.85	24.88
13:20	24.62	24.75	24.8	24.85	24.87
13:30	24.61	24.74	24.79	24.84	24.86

13:40	24.6	24.73	24.78	24.83	24.85
13:50	24.59	24.72	24.77	24.82	24.84
14:00	24.58	24.71	24.77	24.81	24.83
14:10	24.58	24.7	24.76	24.8	24.82
14:20	24.57	24.69	24.75	24.79	24.82
14:30	24.56	24.68	24.74	24.78	24.81
14:40	24.55	24.68	24.73	24.78	24.8
14:50	24.54	24.67	24.72	24.77	24.79
15:00	24.53	24.66	24.71	24.76	24.78
15:10	24.53	24.65	24.7	24.75	24.77
15:20	24.52	24.64	24.69	24.74	24.76
15:30	24.51	24.63	24.68	24.73	24.76
15:40	24.51	24.62	24.67	24.72	24.75
15:50	24.5	24.61	24.66	24.71	24.74
16:00	24.49	24.6	24.65	24.7	24.73
16:10	24.49	24.59	24.64	24.69	24.72
16:20	24.48	24.58	24.64	24.68	24.71
16:30	24.47	24.58	24.63	24.67	24.7
16:40	24.47	24.57	24.62	24.66	24.69
16:50	24.46	24.56	24.61	24.65	24.68
17:00	24.46	24.55	24.6	24.65	24.67
17:10	24.45	24.54	24.59	24.64	24.66
17:20	24.45	24.54	24.58	24.63	24.65
17:30	24.44	24.53	24.58	24.62	24.64
17:40	24.43	24.53	24.57	24.61	24.64
17:50	24.42	24.52	24.56	24.61	24.63
18:00	24.42	24.51	24.56	24.6	24.62
18:10	24.41	24.51	24.55	24.59	24.61
18:20	24.41	24.51	24.54	24.59	24.61
18:30	24.4	24.5	24.54	24.58	24.6
18:40	24.4	24.5	24.53	24.57	24.59
18:50	24.39	24.49	24.53	24.57	24.59
19:00	24.39	24.49	24.53	24.56	24.58
19:10	24.39	24.49	24.52	24.56	24.58
19:20	24.39	24.48	24.52	24.55	24.57
19:30	24.39	24.48	24.52	24.55	24.57
19:40	24.39	24.48	24.51	24.54	24.56
19:50	24.39	24.48	24.51	24.54	24.56
20:00	24.39	24.47	24.51	24.54	24.55
20:10	24.39	24.47	24.5	24.53	24.55
20:20	24.39	24.47	24.5	24.53	24.54
20:30	24.39	24.47	24.5	24.53	24.54
20:40	24.39	24.47	24.5	24.52	24.54

20:50	24.39	24.47	24.5	24.52	24.53
21:00	24.39	24.47	24.49	24.52	24.53
21:10	24.39	24.47	24.49	24.52	24.53
21:20	24.4	24.47	24.49	24.51	24.53
21:30	24.4	24.47	24.49	24.51	24.52
21:40	24.4	24.47	24.49	24.51	24.52
21:50	24.4	24.47	24.49	24.51	24.52
22:00	24.4	24.47	24.48	24.5	24.51
22:10	24.4	24.47	24.48	24.5	24.51
22:20	24.41	24.46	24.48	24.5	24.51
22:30	24.41	24.46	24.48	24.5	24.51
22:40	24.41	24.46	24.48	24.49	24.5
22:50	24.41	24.46	24.48	24.49	24.5
23:00	24.41	24.46	24.47	24.49	24.5

Lampiran 11 Tabel Debit Masing-Masing Kala Ulang pada *cross sections*

Cross Sections 563

Waktu	Kala Ulang				
	2 Tahun	5 Tahun	10 Tahun	25 Tahun	50 Tahun
0:00	19.45	30.98	37.24	43.61	47.05
0:10	19.75	31.8	38.75	45.36	48.73
0:20	19.73	30.37	36.65	42.82	46
0:30	18.5	31.54	39.61	48.74	53.66
0:40	24.16	45.98	57.45	67.07	70.14
0:50	38.51	68.46	76.69	79.97	81.7
1:00	57.73	84.05	87.86	95.21	106.69
1:10	77.55	96.04	114.64	154.56	176.64
1:20	92.35	121.14	172.6	218.51	243.42
1:30	99.38	176.99	235.06	291.1	316.49
1:40	108.6	238.96	305.39	353.11	414.71
1:50	154.26	303.47	362.6	422.6	530.29
2:00	203.07	361.62	421.7	506.23	669.42
2:10	248.31	402.66	490.47	603.33	773.3
2:20	290.57	455.64	571.17	686.19	851.4
2:30	313.61	491.21	613.31	721.47	895.16
2:40	319.25	504.33	614.04	722.14	909.14
2:50	315.71	497.6	593.96	703.42	901.83
3:00	308.07	485.53	578.53	677.27	875.16
3:10	298.84	472.48	559.7	645.91	813.25
3:20	319.53	459.25	540.87	619.13	720.87
3:30	278.65	450.93	521.84	602.27	645.99
3:40	266.87	438.83	500.33	580.07	605.42
3:50	255.64	412.36	479.9	555.12	572.77
4:00	243.45	387	463.5	529.85	537.46
4:10	230.63	362.72	451.16	503.27	498.81
4:20	217.11	339.09	422.72	476.86	471.03
4:30	204.58	319.89	393.93	460.54	447.87
4:40	194.25	302.35	368.62	445.99	417.69
4:50	185.79	315.91	345.46	417.02	394.33
5:00	177.36	270.8	326.36	390.64	374.87
5:10	168.58	257.29	307.31	364.26	356.3
5:20	159.21	243.4	318.3	339.42	340.21
5:30	150.75	230.58	272.49	320.16	326.9
5:40	145.89	219.32	260.92	304.39	314.78
5:50	142.54	209.26	250.19	290.58	303.36
6:00	138.69	200.2	239.53	277.58	292.11
6:10	133.26	191.88	229.56	266.24	310.89

6:20	125.86	184.19	219.24	254.96	270.14
6:30	118.66	177.13	209.53	244.16	261.06
6:40	112.32	170.6	201.24	234.57	252.15
6:50	105.29	164.43	193.96	226.29	243.27
7:00	99.43	158.47	186.99	218.2	234.44
7:10	94.95	152.93	181.27	210.22	226.17
7:20	90.97	148.72	175.58	202.21	217.98
7:30	87.25	145.65	169.57	194.78	208.94
7:40	84.03	143.31	163.59	187.85	199.58
7:50	80.73	139.95	157.77	181.99	190.39
8:00	77.35	136.3	152.23	176.66	182.02
8:10	74.41	130.88	148.43	171.2	173.47
8:20	71.52	124.4	145.61	165.16	163.42
8:30	68.82	118.35	143.31	158.89	153.69
8:40	66.35	112.98	139.62	153.15	147.93
8:50	64.01	106.66	135.67	148.86	144.15
9:00	61.73	100.94	129.82	145.74	141.32
9:10	59.51	96.06	123.5	143.5	137.91
9:20	57.32	91.87	117.61	140.44	134.43
9:30	55.27	88.31	112.13	136.59	130.39
9:40	53.41	85.1	105.45	130.75	125.4
9:50	51.7	81.98	100.08	124.38	120.61
10:00	50.03	78.54	95.4	118.47	116.32
10:10	48.21	75.23	91.39	112.99	112.32
10:20	46.43	72.15	87.79	106.4	108.19
10:30	44.69	69.51	84.52	100.72	103.69
10:40	43.13	67.2	81.42	96.07	99.95
10:50	41.65	65.02	78.25	92.29	96.64
11:00	40.26	62.89	75.34	89.02	93.67
11:10	38.69	60.63	72.69	85.99	90.9
11:20	37.26	58.43	70.12	83.02	88.27
11:30	35.95	56.4	67.75	79.87	85.82
11:40	34.83	54.66	65.69	77.09	83.5
11:50	33.82	53.18	63.82	74.7	81.17
12:00	32.87	51.82	62.05	72.6	78.57
12:10	31.61	50.31	60.13	70.41	76.03
12:20	30.51	48.83	58.31	68.3	73.63
12:30	29.53	47.4	56.53	66.3	71.5
12:40	31.68	46.07	54.9	64.43	69.5
12:50	27.89	44.8	53.43	62.64	67.59
13:00	27.1	43.56	52.02	60.89	65.7
13:10	25.96	42.05	50.45	58.96	63.65
13:20	25.08	40.63	48.95	57.08	61.67

13:30	24.26	39.3	47.48	55.31	59.79
13:40	23.48	38.08	46.08	53.68	58.04
13:50	22.74	36.93	44.76	52.21	56.34
14:00	22.01	35.83	43.45	50.79	54.68
14:10	21.05	34.56	41.99	49.27	52.99
14:20	20.23	33.37	40.6	47.77	51.4
14:30	19.47	32.24	39.26	46.31	49.91
14:40	18.78	31.19	38.01	44.95	48.49
14:50	18.14	30.2	36.83	43.61	47.09
15:00	17.52	29.24	35.72	42.27	45.7
15:10	17.22	31.52	34.79	41.12	44.48
15:20	16.7	27.66	33.7	39.85	43.12
15:30	16.09	26.77	32.6	38.56	41.76
15:40	15.51	25.92	31.56	37.37	40.47
15:50	14.98	25.09	30.57	36.24	39.24
16:00	14.48	24.35	29.6	35.12	38.05
16:10	15.16	24.59	29.55	34.79	37.61
16:20	14.74	24	31.8	33.89	36.65
16:30	14.25	23.25	27.92	32.87	35.56
16:40	13.8	22.54	27.1	31.9	34.52
16:50	13.38	21.88	26.32	30.97	33.52
17:00	12.97	21.22	25.55	30.11	32.55
17:10	14.35	22.12	26.3	30.54	32.83
17:20	13.95	21.6	25.82	29.85	32.15
17:30	13.51	20.96	25.11	29.02	31.31
17:40	13.15	20.41	24.42	31.24	30.4
17:50	12.83	19.88	23.72	27.47	29.55
18:00	12.5	19.35	23.08	26.79	31.78
18:10	14.07	20.44	23.94	27.52	29.35
18:20	13.79	20.06	23.49	27.01	31.72
18:30	13.42	19.51	22.85	26.29	31.01
18:40	13.02	18.97	22.24	25.59	27.32
18:50	12.71	18.52	21.67	24.93	26.65
19:00	12.39	18.09	21.14	24.29	25.99
19:10	13.35	18.78	21.64	24.61	26.24
19:20	13.14	18.43	21.27	24.16	25.74
19:30	12.8	17.91	20.64	23.52	25.06
19:40	12.47	17.42	20.05	22.81	24.36
19:50	12.03	16.9	19.51	22.15	23.62
20:00	11.73	16.44	18.99	21.52	22.94
20:10	11.8	16.44	18.89	21.31	22.66
20:20	11.56	16.05	18.49	20.82	22.11
20:30	11.31	15.51	17.94	20.25	21.47

20:40	10.61	14.84	17.25	19.67	20.81
20:50	10.27	14.27	16.53	18.85	20.04
21:00	9.82	13.8	15.97	18.21	19.35
21:10	9.46	13.35	15.44	17.61	18.73
21:20	9.21	12.85	14.95	17.04	18.15
21:30	8.99	12.37	14.46	16.48	17.57
21:40	8.75	11.96	13.94	15.96	17
21:50	8.49	11.58	13.48	15.51	16.53
22:00	8.16	11.2	13.04	14.98	16.05
22:10	7.68	10.69	12.49	14.37	15.41
22:20	7.37	10.29	12.04	13.85	14.85
22:30	7.11	9.94	11.61	13.37	14.33
22:40	6.86	9.62	11.27	12.92	13.85
22:50	6.62	9.33	10.95	12.57	13.42
23:00	6.42	9.07	10.66	12.25	13.09

Cross Sections 2309

Waktu	Kala Ulang				
	2 Tahun	5 Tahun	10 Tahun	25 Tahun	50 Tahun
0:00	19.45	30.98	37.24	43.61	47.05
0:10	38.36	61.1	73.45	86.02	92.78
0:20	57.27	91.22	109.66	131.44	138.52
0:30	76.19	121.34	145.87	170.85	184.25
0:40	95.1	151.46	182.08	213.26	229.98
0:50	114.01	181.59	218.29	255.67	275.72
1:00	132.92	211.71	254.5	298.08	321.45
1:10	167.31	266.43	320.31	375.13	436.31
1:20	201.64	321.15	386.06	452.17	551.17
1:30	235.99	375.86	451.84	529.21	666.02
1:40	270.35	430.58	517.62	606.25	780.88
1:50	304.7	485.3	583.4	683.3	895.74
2:00	339.06	540.02	649.18	760.34	1010.6
2:10	331.19	522.71	631.37	735.97	952.55
2:20	317.32	505.4	607.56	711.59	894.5
2:30	306.45	488.09	586.75	687.22	836.45
2:40	295.58	470.78	565.94	662.85	778.4
2:50	314.71	453.47	545.13	638.48	720.35
3:00	273.85	436.16	524.32	614.1	662.3
3:10	260.64	415.13	499.04	584.5	619.22
3:20	247.44	394.1	473.77	554.89	576.13
3:30	234.24	373.07	448.49	525.31	533.05
3:40	221.04	352.05	423.21	495.68	489.97
3:50	207.83	331.02	397.93	466.07	446.88
4:00	194.63	309.99	372.65	436.46	403.8
4:10	185.25	295.05	354.69	415.42	390.1
4:20	175.87	310.1	336.72	394.38	376.4
4:30	166.48	265.16	318.76	373.34	362.7
4:40	157.1	250.21	300.79	352.29	349
4:50	147.72	235.27	312.82	331.25	335.3
5:00	138.33	220.32	264.86	310.21	321.6
5:10	132.93	211.71	254.51	298.09	310.69
5:20	127.52	203.11	244.16	315.97	299.78
5:30	122.12	194.5	233.81	273.85	318.88
5:40	116.71	185.89	223.47	261.73	277.97
5:50	111.31	177.31	213.12	249.61	267.06
6:00	105.91	168.68	202.77	237.49	256.15
6:10	102.31	162.95	195.89	229.44	247.46
6:20	98.72	157.23	189.01	221.38	238.77

6:30	95.12	151.51	182.13	213.32	230.07
6:40	91.53	145.78	175.25	205.26	221.38
6:50	87.94	140.06	168.37	197.2	212.69
7:00	84.34	134.34	161.49	189.14	204
7:10	81.48	129.78	156.01	182.73	193.3
7:20	78.62	125.22	150.53	176.31	182.6
7:30	75.76	120.66	145.05	169.89	171.9
7:40	72.9	116.1	139.57	163.47	161.2
7:50	70.03	111.55	134.09	157.05	150.5
8:00	67.17	106.99	131.61	150.64	139.8
8:10	64.89	103.36	124.25	145.52	136.15
8:20	62.61	99.73	119.89	140.41	132.5
8:30	60.34	96.1	115.52	135.3	131.85
8:40	58.06	92.47	111.16	130.19	125.2
8:50	55.78	88.84	106.79	125.08	121.55
9:00	53.5	85.21	102.43	119.97	117.9
9:10	51.68	82.31	98.95	115.9	114.82
9:20	49.87	79.42	95.48	111.83	111.73
9:30	48.05	76.53	92	107.76	108.65
9:40	46.24	73.64	88.53	103.69	105.57
9:50	44.42	70.75	85.05	99.62	102.48
10:00	42.61	67.86	81.58	95.54	99.4
10:10	41.31	65.75	79.03	92.57	96.8
10:20	39.95	63.63	76.49	89.59	94.2
10:30	38.62	61.52	73.95	86.62	91.6
10:40	37.3	59.4	71.41	83.64	89
10:50	35.97	57.29	68.87	80.66	86.4
11:00	34.64	55.18	66.33	77.69	83.8
11:10	33.74	53.73	64.59	75.65	81.61
11:20	32.83	52.29	62.86	73.62	79.42
11:30	31.92	50.85	61.12	71.59	77.22
11:40	31.02	49.4	59.39	69.56	75.03
11:50	30.11	47.96	57.65	67.53	72.84
12:00	29.21	46.52	55.92	65.49	70.65
12:10	31.44	45.3	54.46	63.78	68.8
12:20	27.68	44.08	52.99	62.07	66.95
12:30	26.91	42.87	51.53	60.35	65.1
12:40	26.15	41.65	50.07	58.64	63.25
12:50	25.39	40.43	48.6	56.93	61.4
13:00	24.62	39.22	47.14	55.21	59.55
13:10	23.98	38.19	45.91	53.77	57.99
13:20	23.33	37.16	44.68	52.33	56.43
13:30	22.69	36.14	43.44	50.88	54.88

13:40	22.05	35.11	42.21	49.44	53.32
13:50	21.4	34.09	40.98	47.99	51.76
14:00	20.76	33.06	39.74	46.55	50.2
14:10	20.21	32.2	38.7	45.33	48.88
14:20	19.67	31.33	37.66	44.11	47.57
14:30	19.13	30.47	36.62	42.9	46.25
14:40	18.59	29.6	35.58	41.68	44.93
14:50	18.04	31.74	34.55	40.46	43.62
15:00	17.5	27.87	33.51	39.24	42.3
15:10	17.04	27.14	32.63	38.22	41.2
15:20	16.58	26.41	31.75	37.19	40.1
15:30	16.13	25.68	30.88	36.16	39
15:40	15.67	24.96	30	35.14	37.9
15:50	15.21	24.23	29.12	34.11	36.8
16:00	14.75	23.5	31.25	33.08	35.7
16:10	14.37	22.88	27.51	32.22	34.77
16:20	13.98	22.27	26.77	31.35	33.83
16:30	13.6	21.65	26.03	30.49	32.9
16:40	13.21	21.04	25.29	29.62	31.97
16:50	12.82	20.42	24.55	31.76	31.03
17:00	12.44	19.81	23.81	27.89	30.1
17:10	12.11	19.29	23.19	27.16	29.31
17:20	11.79	18.77	22.57	26.43	31.52
17:30	11.46	18.25	21.94	25.7	27.72
17:40	11.14	17.74	21.32	24.97	26.93
17:50	10.81	17.22	20.7	24.24	26.14
18:00	10.49	16.7	20.08	23.51	25.35
18:10	10.21	16.26	19.55	22.9	24.69
18:20	9.94	15.83	19.03	22.31	24.03
18:30	9.66	15.39	18.5	21.67	23.38
18:40	9.39	14.95	17.98	21.05	22.72
18:50	9.11	14.52	17.45	20.44	22.06
19:00	8.84	14.08	16.93	19.82	21.4
19:10	8.61	13.71	16.48	19.3	20.83
19:20	8.38	13.34	16.04	18.79	20.27
19:30	8.15	12.97	15.6	18.27	19.7
19:40	7.91	12.61	15.15	17.75	19.13
19:50	7.68	12.24	14.71	17.23	18.57
20:00	7.45	11.87	14.27	16.71	18
20:10	7.26	11.56	13.9	16.27	17.53
20:20	7.06	11.25	13.52	15.84	17.07
20:30	6.87	10.94	13.15	15.4	16.6
20:40	6.67	10.63	12.78	14.96	16.13

20:50	6.48	10.32	12.4	14.53	15.67
21:00	6.31	10.01	12.03	14.09	15.2
21:10	6.12	9.74	11.71	13.72	14.8
21:20	5.95	9.48	11.4	13.35	14.4
21:30	5.79	9.22	11.09	12.98	14
21:40	5.63	8.96	10.77	12.61	13.6
21:50	5.46	8.7	10.46	12.25	13.2
22:00	5.3	8.44	10.14	11.88	12.8
22:10	5.16	8.22	9.88	11.57	12.47
22:20	5.02	7.99	9.61	11.26	12.13
22:30	4.88	7.77	9.35	10.95	11.8
22:40	4.74	7.55	9.08	10.64	11.47
22:50	4.6	7.33	8.81	10.32	11.13
23:00	4.47	7.11	8.55	10.01	10.8

Cross Sections 3357

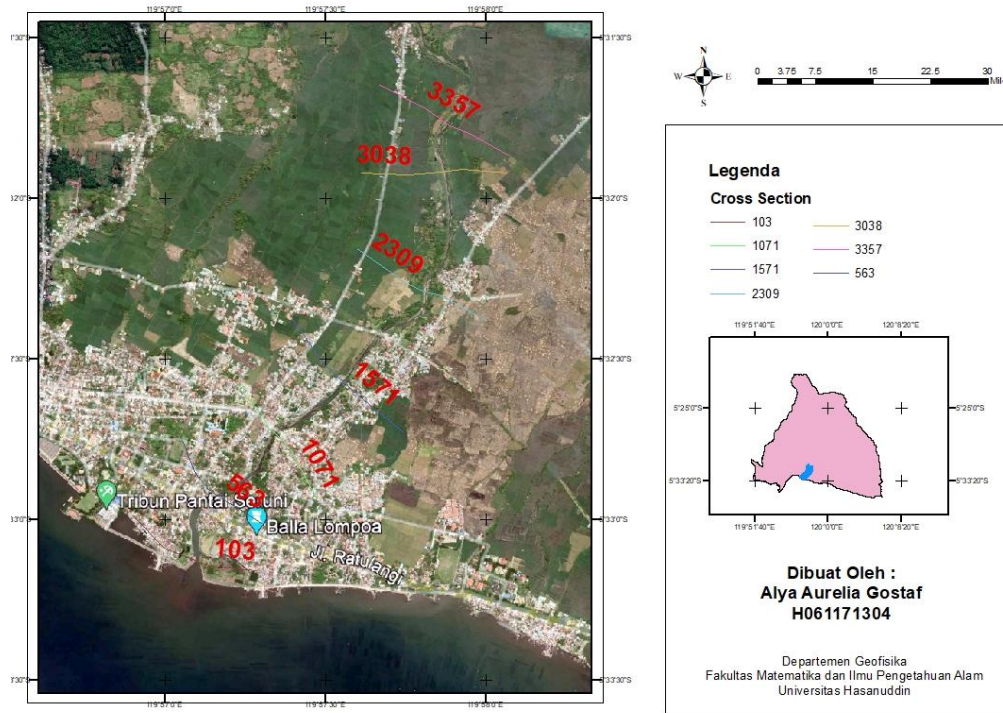
Waktu	Kala Ulang				
	2 Tahun	5 Tahun	10 Tahun	25 Tahun	50 Tahun
0:00	19.45	30.98	37.24	43.61	47.05
0:10	38.36	61.1	73.45	86.02	92.78
0:20	57.27	91.22	109.66	131.44	138.52
0:30	76.19	121.34	145.87	170.85	184.25
0:40	95.1	151.46	182.08	213.26	229.98
0:50	114.01	181.59	218.29	255.67	275.72
1:00	132.92	211.71	254.5	298.08	321.45
1:10	167.31	266.43	320.31	375.13	436.31
1:20	201.64	321.15	386.06	452.17	551.17
1:30	235.99	375.86	451.84	529.21	666.02
1:40	270.35	430.58	517.62	606.25	780.88
1:50	304.7	485.3	583.4	683.3	895.74
2:00	339.06	540.02	649.18	760.34	1010.6
2:10	331.19	522.71	631.37	735.97	952.55
2:20	317.32	505.4	607.56	711.59	894.5
2:30	306.45	488.09	586.75	687.22	836.45
2:40	295.58	470.78	565.94	662.85	778.4
2:50	314.71	453.47	545.13	638.48	720.35
3:00	273.85	436.16	524.32	614.1	662.3
3:10	260.64	415.13	499.04	584.5	619.22
3:20	247.44	394.1	473.77	554.89	576.13
3:30	234.24	373.07	448.49	525.31	533.05
3:40	221.04	352.05	423.21	495.68	489.97
3:50	207.83	331.02	397.93	466.07	446.88
4:00	194.63	309.99	372.65	436.46	403.8
4:10	185.25	295.05	354.69	415.42	390.1
4:20	175.87	310.1	336.72	394.38	376.4
4:30	166.48	265.16	318.76	373.34	362.7
4:40	157.1	250.21	300.79	352.29	349
4:50	147.72	235.27	312.82	331.25	335.3
5:00	138.33	220.32	264.86	310.21	321.6
5:10	132.93	211.71	254.51	298.09	310.69
5:20	127.52	203.11	244.16	315.97	299.78
5:30	122.12	194.5	233.81	273.85	318.88
5:40	116.71	185.89	223.47	261.73	277.97
5:50	111.31	177.31	213.12	249.61	267.06
6:00	105.91	168.68	202.77	237.49	256.15
6:10	102.31	162.95	195.89	229.44	247.46
6:20	98.72	157.23	189.01	221.38	238.77

6:30	95.12	151.51	182.13	213.32	230.07
6:40	91.53	145.78	175.25	205.26	221.38
6:50	87.94	140.06	168.37	197.2	212.69
7:00	84.34	134.34	161.49	189.14	204
7:10	81.48	129.78	156.01	182.73	193.3
7:20	78.62	125.22	150.53	176.31	182.6
7:30	75.76	120.66	145.05	169.89	171.9
7:40	72.9	116.1	139.57	163.47	161.2
7:50	70.03	111.55	134.09	157.05	150.5
8:00	67.17	106.99	131.61	150.64	139.8
8:10	64.89	103.36	124.25	145.52	136.15
8:20	62.61	99.73	119.89	140.41	132.5
8:30	60.34	96.1	115.52	135.3	131.85
8:40	58.06	92.47	111.16	130.19	125.2
8:50	55.78	88.84	106.79	125.08	121.55
9:00	53.5	85.21	102.43	119.97	117.9
9:10	51.68	82.31	98.95	115.9	114.82
9:20	49.87	79.42	95.48	111.83	111.73
9:30	48.05	76.53	92	107.76	108.65
9:40	46.24	73.64	88.53	103.69	105.57
9:50	44.42	70.75	85.05	99.62	102.48
10:00	42.61	67.86	81.58	95.54	99.4
10:10	41.31	65.75	79.03	92.57	96.8
10:20	39.95	63.63	76.49	89.59	94.2
10:30	38.62	61.52	73.95	86.62	91.6
10:40	37.3	59.4	71.41	83.64	89
10:50	35.97	57.29	68.87	80.66	86.4
11:00	34.64	55.18	66.33	77.69	83.8
11:10	33.74	53.73	64.59	75.65	81.61
11:20	32.83	52.29	62.86	73.62	79.42
11:30	31.92	50.85	61.12	71.59	77.22
11:40	31.02	49.4	59.39	69.56	75.03
11:50	30.11	47.96	57.65	67.53	72.84
12:00	29.21	46.52	55.92	65.49	70.65
12:10	31.44	45.3	54.46	63.78	68.8
12:20	27.68	44.08	52.99	62.07	66.95
12:30	26.91	42.87	51.53	60.35	65.1
12:40	26.15	41.65	50.07	58.64	63.25
12:50	25.39	40.43	48.6	56.93	61.4
13:00	24.62	39.22	47.14	55.21	59.55
13:10	23.98	38.19	45.91	53.77	57.99
13:20	23.33	37.16	44.68	52.33	56.43
13:30	22.69	36.14	43.44	50.88	54.88

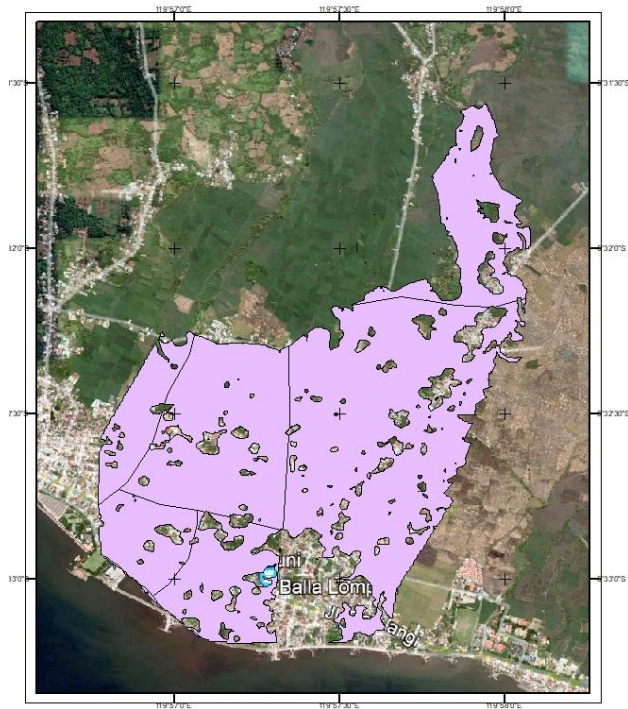
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13:50	21.4	34.09	40.98	47.99	51.76
14:00	20.76	33.06	39.74	46.55	50.2
14:10	20.21	32.2	38.7	45.33	48.88
14:20	19.67	31.33	37.66	44.11	47.57
14:30	19.13	30.47	36.62	42.9	46.25
14:40	18.59	29.6	35.58	41.68	44.93
14:50	18.04	31.74	34.55	40.46	43.62
15:00	17.5	27.87	33.51	39.24	42.3
15:10	17.04	27.14	32.63	38.22	41.2
15:20	16.58	26.41	31.75	37.19	40.1
15:30	16.13	25.68	30.88	36.16	39
15:40	15.67	24.96	30	35.14	37.9
15:50	15.21	24.23	29.12	34.11	36.8
16:00	14.75	23.5	31.25	33.08	35.7
16:10	14.37	22.88	27.51	32.22	34.77
16:20	13.98	22.27	26.77	31.35	33.83
16:30	13.6	21.65	26.03	30.49	32.9
16:40	13.21	21.04	25.29	29.62	31.97
16:50	12.82	20.42	24.55	31.76	31.03
17:00	12.44	19.81	23.81	27.89	30.1
17:10	12.11	19.29	23.19	27.16	29.31
17:20	11.79	18.77	22.57	26.43	31.52
17:30	11.46	18.25	21.94	25.7	27.72
17:40	11.14	17.74	21.32	24.97	26.93
17:50	10.81	17.22	20.7	24.24	26.14
18:00	10.49	16.7	20.08	23.51	25.35
18:10	10.21	16.26	19.55	22.9	24.69
18:20	9.94	15.83	19.03	22.31	24.03
18:30	9.66	15.39	18.5	21.67	23.38
18:40	9.39	14.95	17.98	21.05	22.72
18:50	9.11	14.52	17.45	20.44	22.06
19:00	8.84	14.08	16.93	19.82	21.4
19:10	8.61	13.71	16.48	19.3	20.83
19:20	8.38	13.34	16.04	18.79	20.27
19:30	8.15	12.97	15.6	18.27	19.7
19:40	7.91	12.61	15.15	17.75	19.13
19:50	7.68	12.24	14.71	17.23	18.57
20:00	7.45	11.87	14.27	16.71	18
20:10	7.26	11.56	13.9	16.27	17.53
20:20	7.06	11.25	13.52	15.84	17.07
20:30	6.87	10.94	13.15	15.4	16.6
20:40	6.67	10.63	12.78	14.96	16.13

20:50	6.48	10.32	12.4	14.53	15.67
21:00	6.31	10.01	12.03	14.09	15.2
21:10	6.12	9.74	11.71	13.72	14.8
21:20	5.95	9.48	11.4	13.35	14.4
21:30	5.79	9.22	11.09	12.98	14
21:40	5.63	8.96	10.77	12.61	13.6
21:50	5.46	8.7	10.46	12.25	13.2
22:00	5.3	8.44	10.14	11.88	12.8
22:10	5.16	8.22	9.88	11.57	12.47
22:20	5.02	7.99	9.61	11.26	12.13
22:30	4.88	7.77	9.35	10.95	11.8
22:40	4.74	7.55	9.08	10.64	11.47
22:50	4.6	7.33	8.81	10.32	11.13
23:00	4.47	7.11	8.55	10.01	10.8

Lampiran 13 Letak *cross sections*



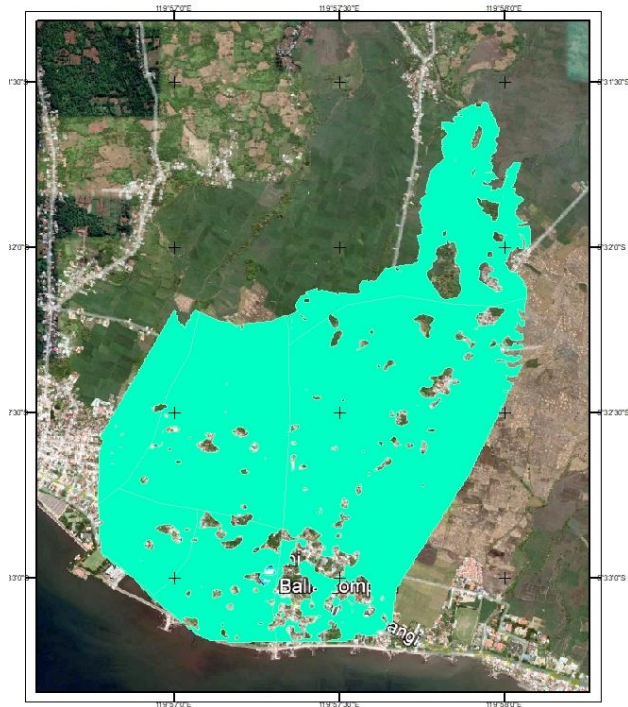
Lampiran 14 Peta Genangan pada Area Penelitian



Legenda

Genangan Kala Ulang 2 Tahun

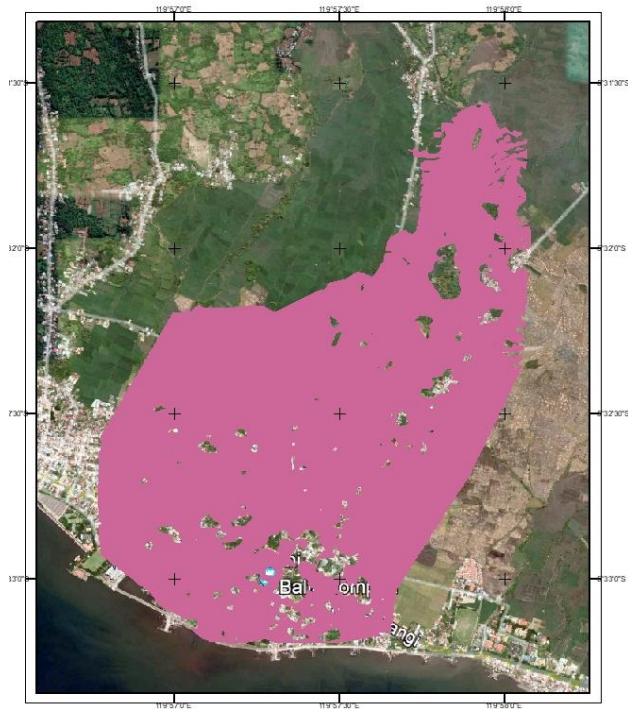
Dibuat Oleh :
Alya Aurelia Gostaf
H061171304
 Departemen Geofisika
 Fakultas Matematika dan Ilmu Pengetahuan Alam
 Universitas Hasanuddin



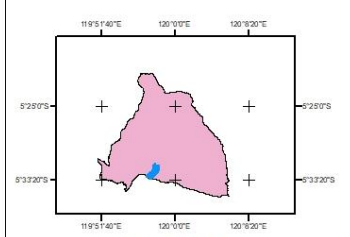
Legenda

Genangan Kala Ulang 5 Tahun

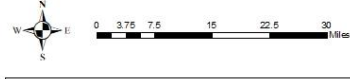
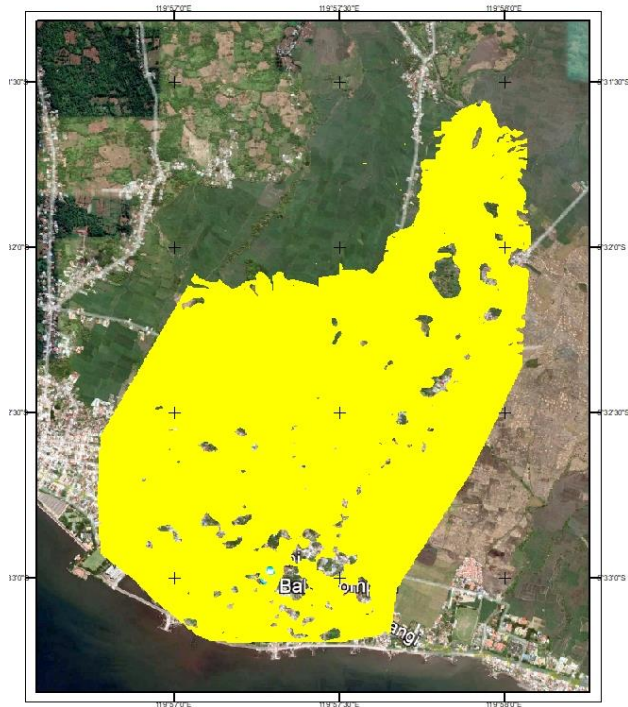
Dibuat Oleh :
Alya Aurelia Gostaf
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 Departemen Geofisika
 Fakultas Matematika dan Ilmu Pengetahuan Alam
 Universitas Hasanuddin



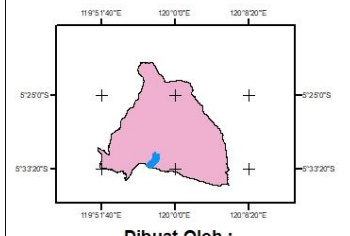
Legenda
 Genangan Kala Ulang 10 Tahun



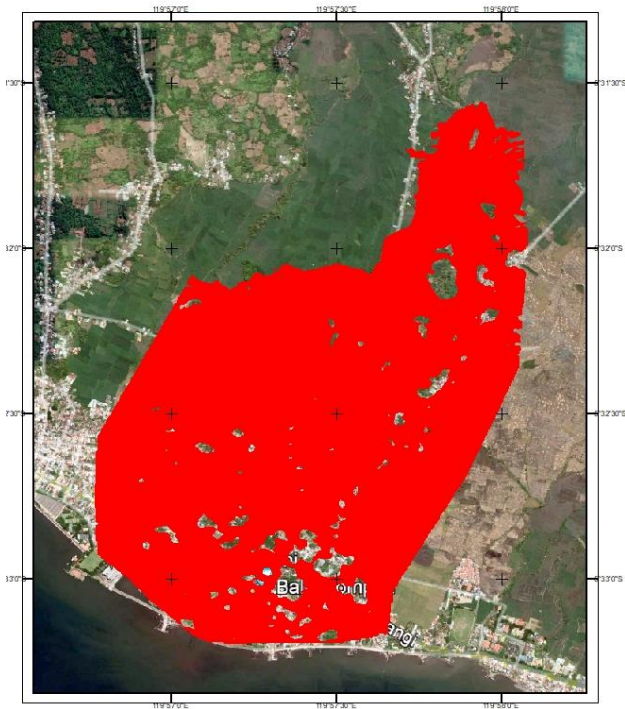
Dibuat Oleh :
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Legenda
 Genangan Kala Ulang 25 Tahun

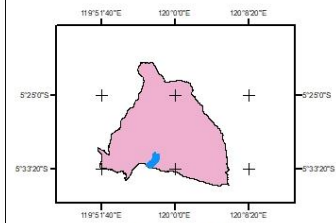


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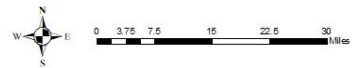
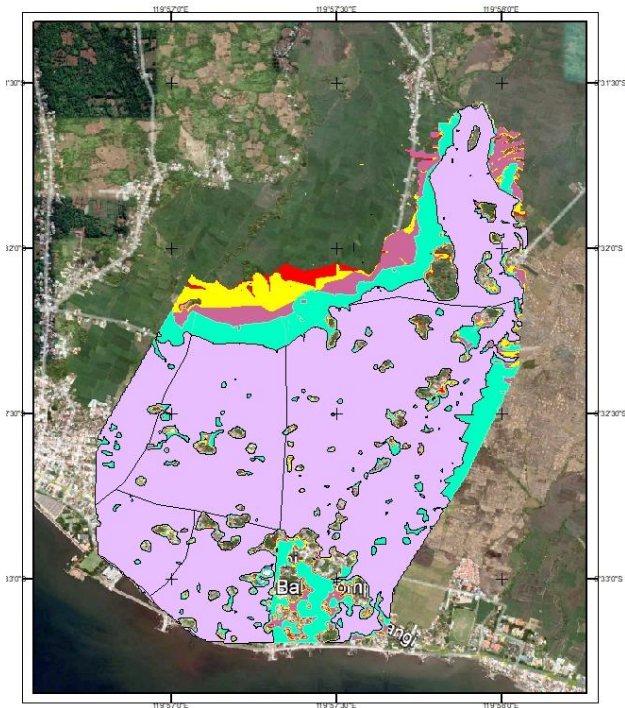
Legenda

- Genangan Kala Ulang 50 Tahun



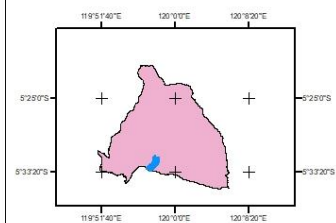
Dibuat Oleh :
Alya Aurelia Gostaf
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Legenda

- Genangan Kala Ulang 2 Tahun
- Genangan Kala Ulang 5 Tahun
- Genangan Kala Ulang 10 Tahun
- Genangan Kala Ulang 25 Tahun
- Genangan Kala Ulang 50 Tahun



Dibuat Oleh :
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