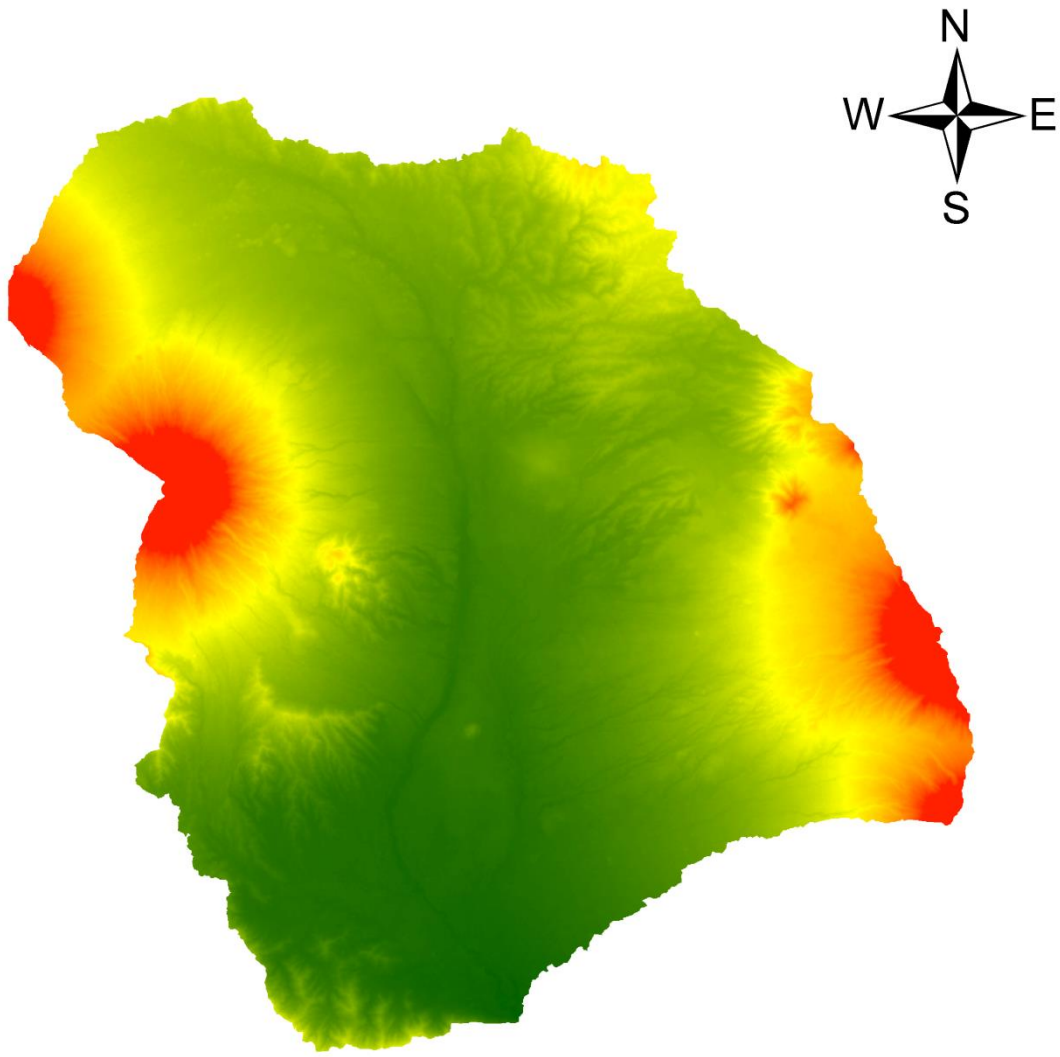
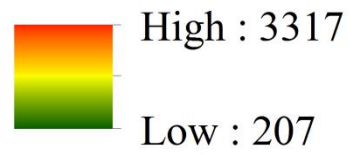


Lampiran 2. Peta Elevasi Sub DAS Progo Hulu

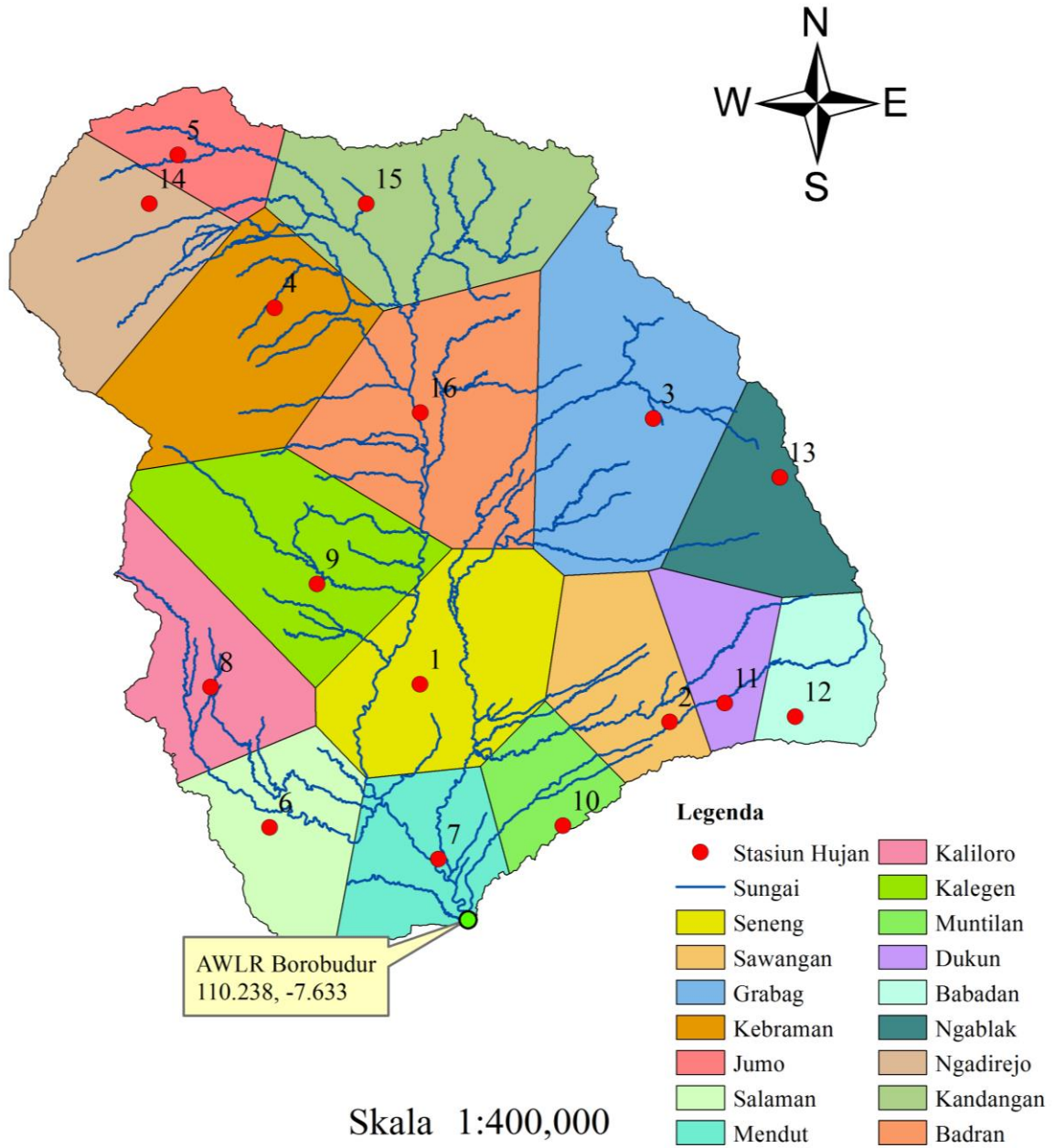


Legenda



Skala 1:400,000

Lampiran 3. Peta Poligon Thiessen Sub DAS Progo Hulu



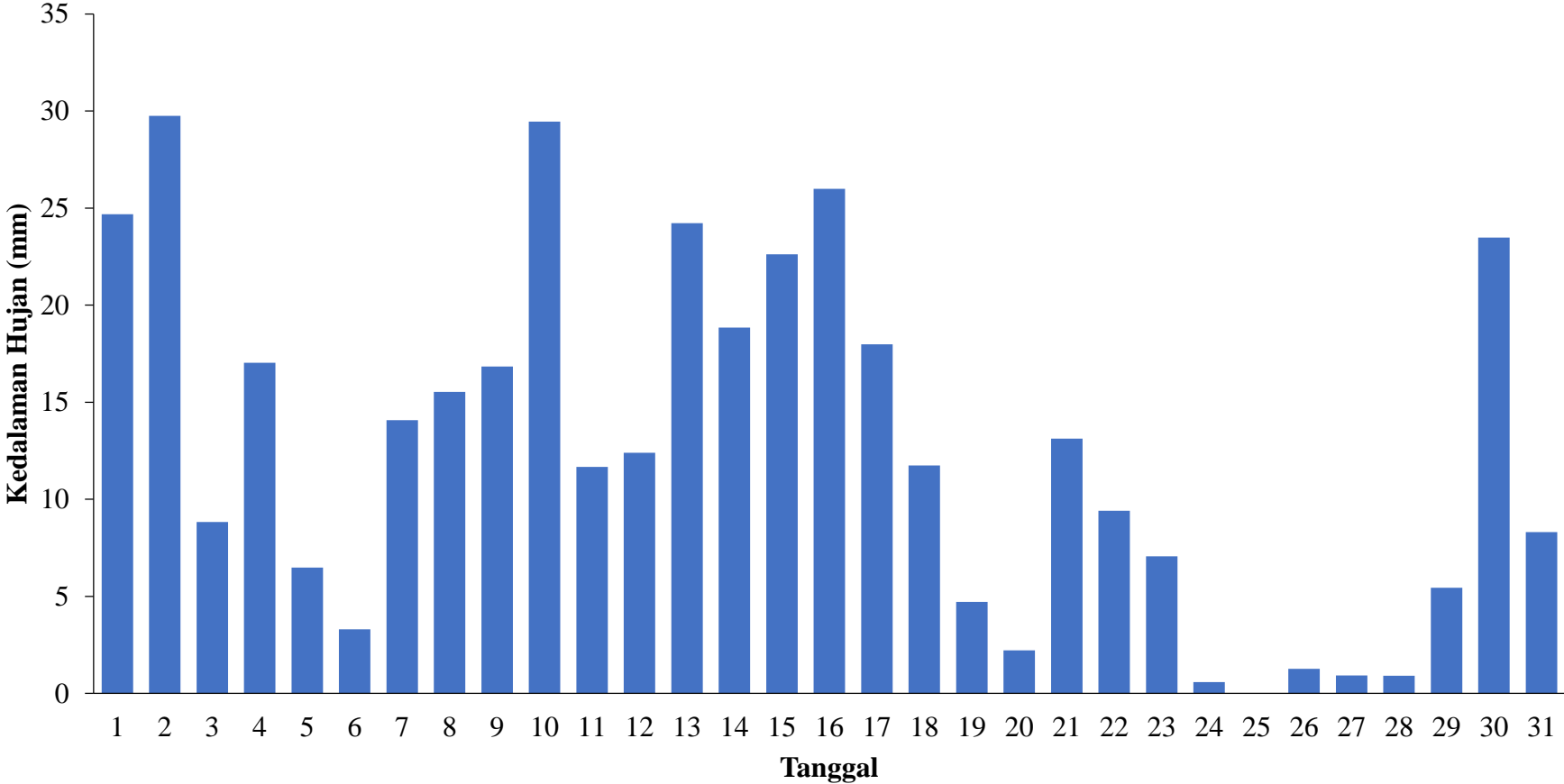
Lampiran 4. Data Stasiun Hujan di Sub DAS Progo Hulu

No	Nama	<i>Longitude</i>	<i>Latitude</i>	Luas Area (m ²)
1	Seneng	110°12'46,080"	-7°30'34,007"	132.588.777,4
2	Sawangan	110°20'36,955"	-7°31'45,018"	69.246.874,89
3	Grabag	110°20'05,973"	-7°22'12,031"	178.939.535,1
4	Kebraman	110°08'12,093"	-7°18'43,005"	137.362.368,7
5	Jumo	110°05'09,952"	-7°13'54,025"	44.795.994,41
6	Salaman	110°08'03,091"	-7°35'03,992"	86.201.884,34
7	Mendut	110°13'20,988"	-7°36'04,018"	53.234.108,26
8	Kaliloro	110°06'11,872"	-7°30'39,015"	84.955.476,63
9	Kalegen	110°09'32,019"	-7°27'24,043"	133.877.284,4
10	Muntilan	110°17'16,060"	-7°35'01,022"	25.511.729
11	Dukun	110°22'20,998"	-7°31'09,026"	41.053.878,24
12	Babadan	110°24'33,829"	-7°31'35,033"	41.973.572,3
13	Ngablak	110°24'05,012"	-7°24'03,018"	74.765.998,7
14	Ngadirejo	110°04'15,932"	-7°15'25,998"	102.612.936,5
15	Kandangan	110°11'04,903"	-7°15'26,002"	134.518.371
16	Badran	110°12'47,157"	-7°22'00,997"	160.490.476,9
Jumlah				1.502.129.267

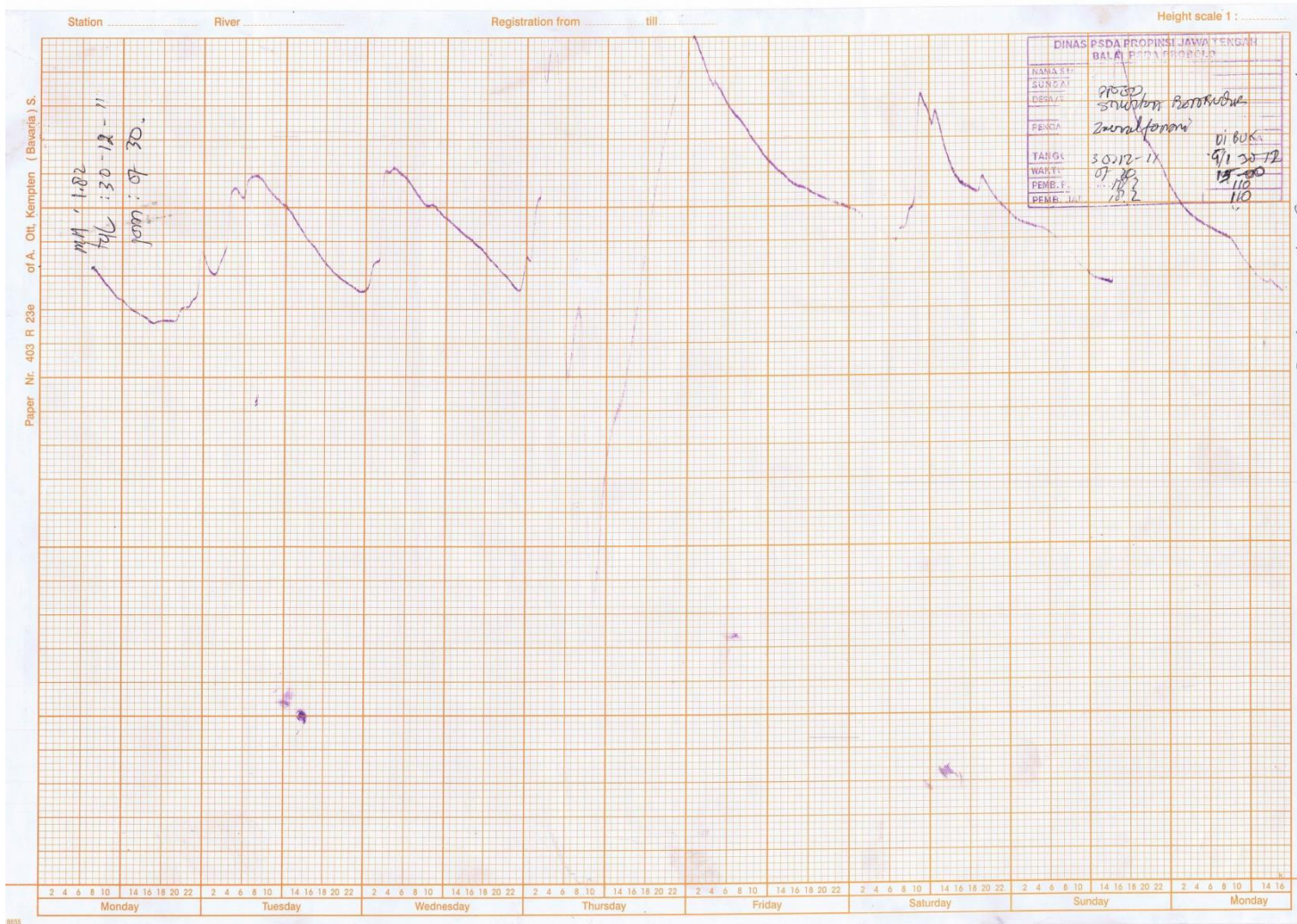
Lampiran 5. Data Curah Hujan Sub DAS Progo Hulu Bulan Januari 2012

Tanggal	Stasiun Hujan															Hujan Kawasan	
	Seneng	Sawangan	Grabag	Kebraman	Jumo	Salaman	Mendut	Kaliloro	Kalegan	Muntilan	Dukun	Babadan	Ngeblak	Ngadirejo	Kandangan		Badran
1	11	7	35	19	11	23	66	3	10	20	17	57	33	8	13	62.6	24.686778
2	33	44	96	20	6	47	0	68	15	1	5	0	2	25	17	0	29.748159
3	0	11	4	7	23	7	45	4	25	26	2	3	0	6	6	5.1	8.8325574
4	12	0	0	16	17	10	0	9	9	0	0	25	14	4	21	80.2	17.032253
5	3	69	0	5	0	0	0	3	0	0	1	11	15	3	11	1.3	6.4827381
6	0	0	0	4	4	8	5	11	0	4	15	6	8	4	0	2.3	3.3061959
7	0	0	0	2	7	25	0	6	64	3	2	11	22	3	0	42	14.069938
8	39	15	5	8	0	34	0	42	28	17	0	5	4	8	4	16	15.524813
9	17	5	0	20	13	16	6	11	25	0	13	23	20	15	24	35	16.835522
10	40	32	4	3	6	40	55	31	49	39	12	39	71	7	2	64.4	29.452528
11	17	34	0	0	18	45	0	9	2	0	0	11	26	22	9	8.3	11.671443
12	5	5	0	0	20	3	10	14	24	0	16	4	29	6	29	25	12.396016
13	0	9	3	12	43	78	60	11	34	30	3	31	44	16	3	54.3	24.217717
14	31	17	12	5	0	56	26	25	17	35	1	19	8	14	5	32	18.844708
15	8	0	0	24	0	64	15	41	6	18	10	54	34	25	21	49.5	22.615984
16	9	34	12	3	19	97	13	60	22	60	14	8	8	18	22	44.5	25.991153
17	16	0	8	0	6	8	0	19	49	5	23	0	2	91	28	0	17.981868
18	5	4	21	0	0	25	0	38	15	2	0	19	16	0	16	8.5	11.750265
19	11	13	0	6	0	0	0	17	7	7	0	0	0	0	0	8.3	4.7099124
20	0	0	0	8	4	0	1	0	0	0	0	9	7	6	0	3	2.2165804
21	5	13	9	0	15	4	35	0	21	0	2	26	8	0	12	46.5	13.123737
22	11	16	0	10	0	15	4	11	25	15	0	20	4	6	11	5	9.4176321
23	0	17	0	0	3	0	0	0	17	0	0	0	0	9	8	31.3	7.0636491
24	4	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0.5892389
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	10	0	0	0	0	0	0	0	0	7	0	0	0	1.2628645
27	7	0	0	0	2	3	0	0	0	0	0	3	0	0	0	0	0.9335014
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.5	0.9081569
29	0	0	0	6	12	0	7	0	0	0	0	34	33	0	19	0	5.4486611
30	18	44	4	3	6	8	6	4	9	3	31	28	133	5	4	77	23.474056
31	9	14	2	0	0	7	0	13	23	7	6	7	5	27	0	8.2	8.3127119

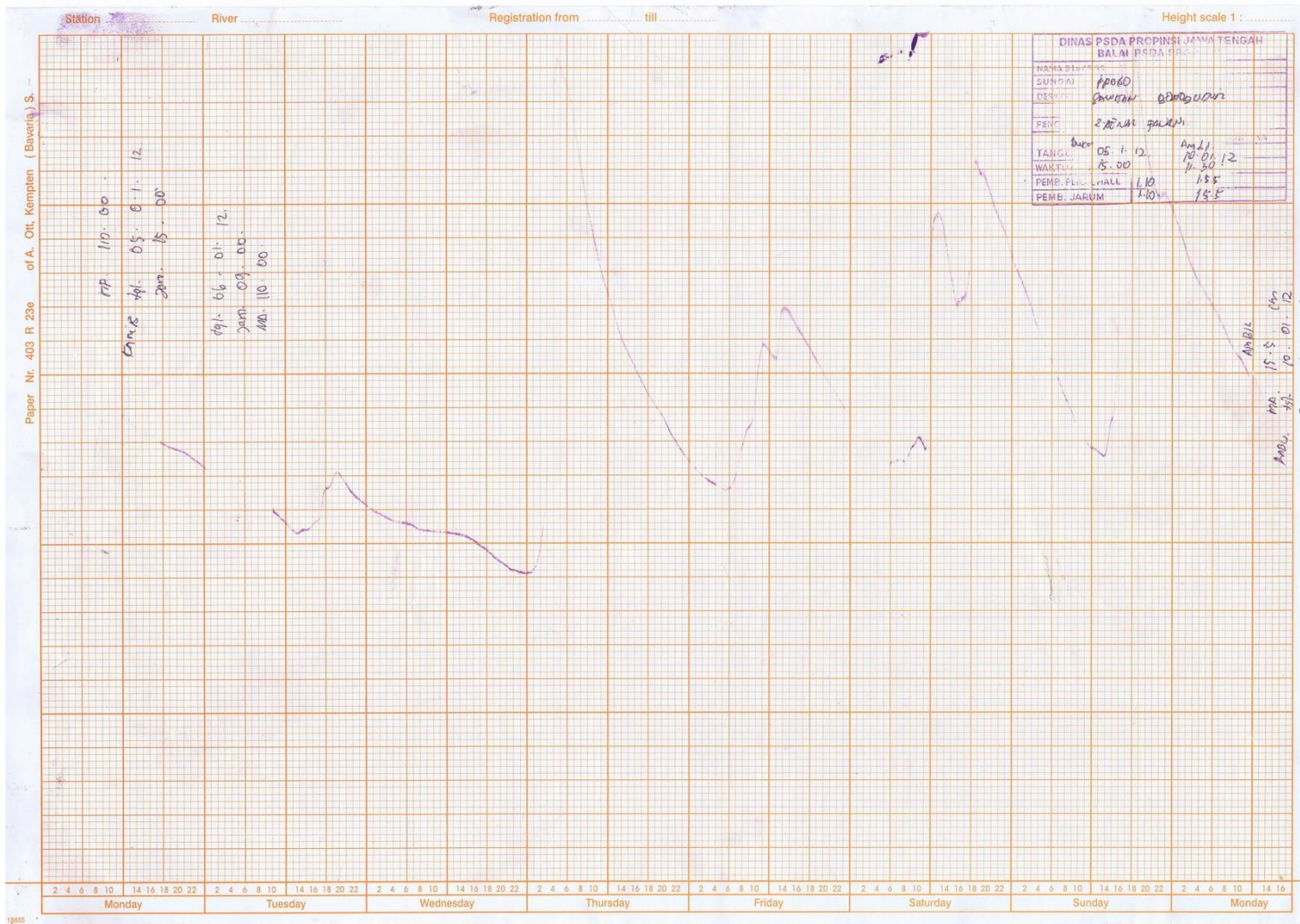
Lampiran 6. Grafik Curah Hujan Rata-rata DAS pada Bulan Januari 2012



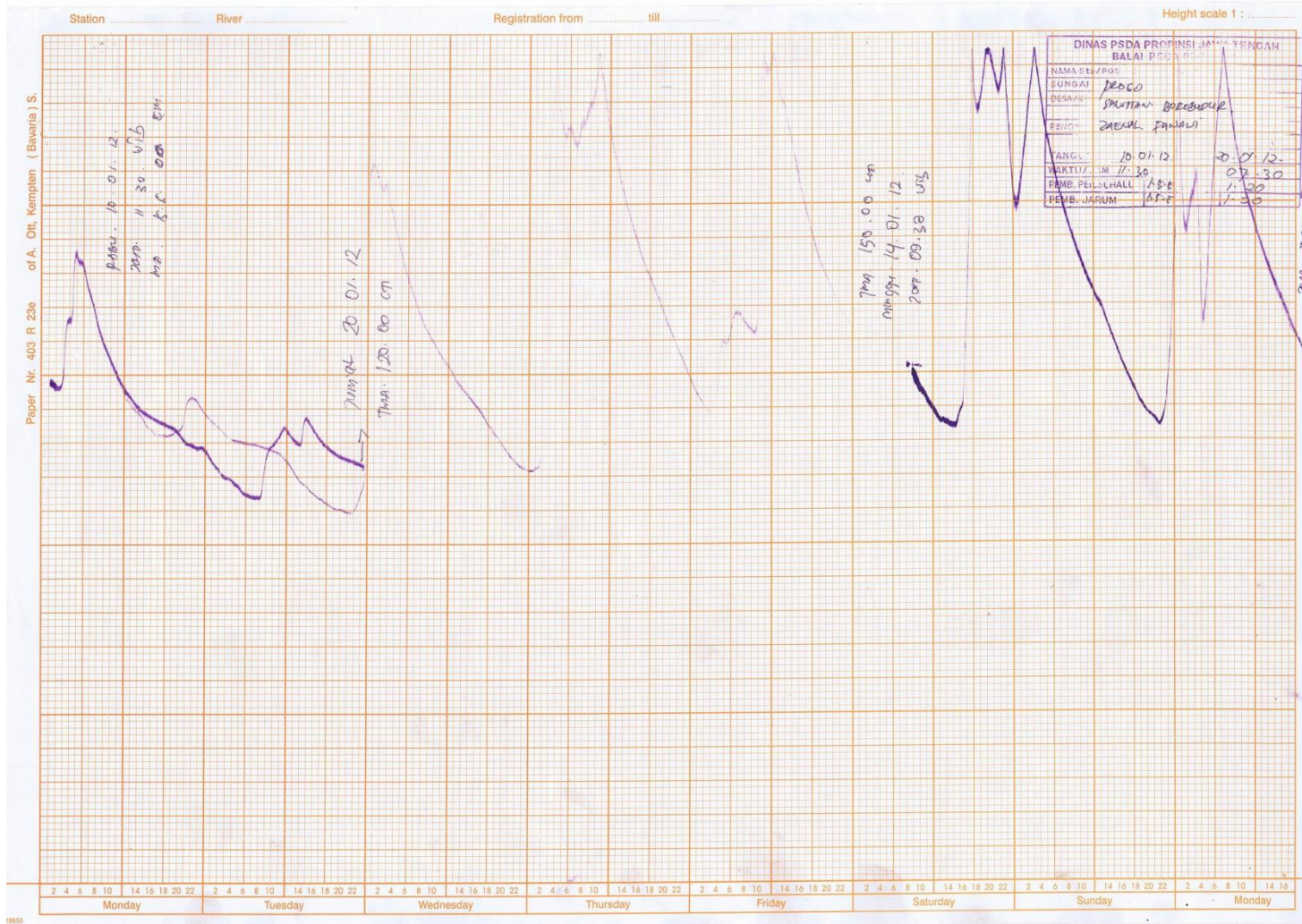
Lampiran 7. Data Muka Air Pengamatan AWLR Tanggal 1-5 Januari 2012



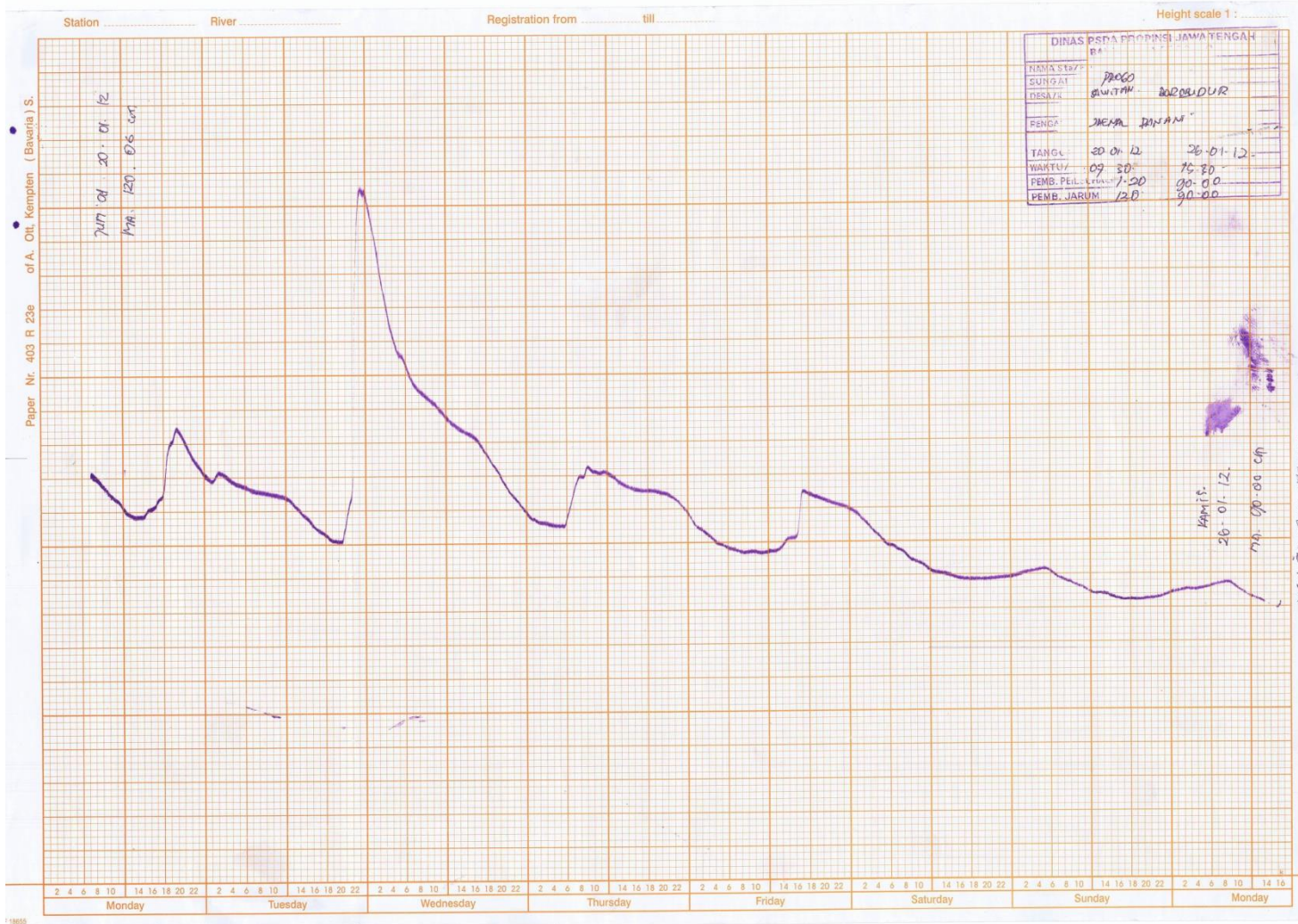
Lampiran 8. Data Muka Air Pengamatan AWLR Tanggal 5-10 Januari 2012



Lampiran 9. Data Muka Air Pengamatan AWLR Tanggal 10-13 Januari 2012

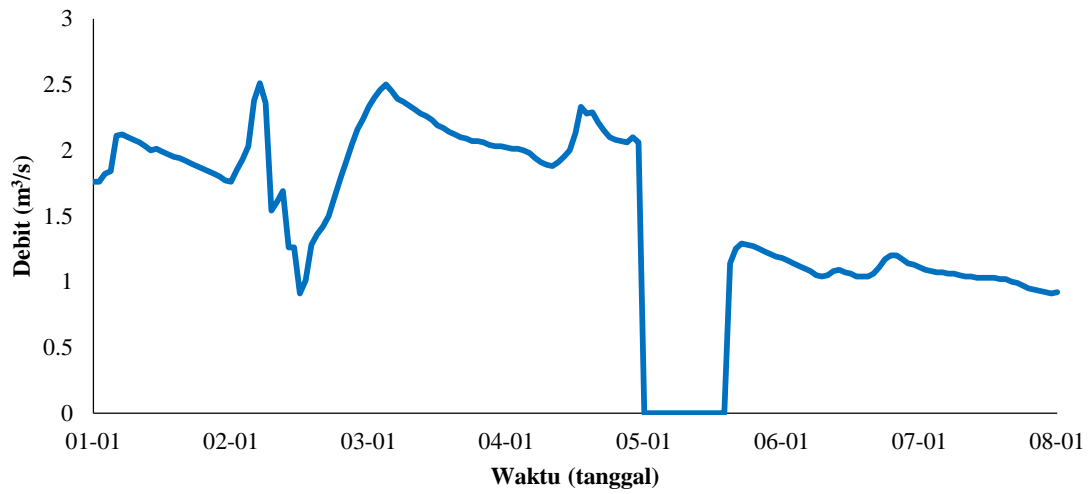


Lampiran 10. Data Muka Air Pengamatan AWLR Tanggal 20-26 Januari 2012

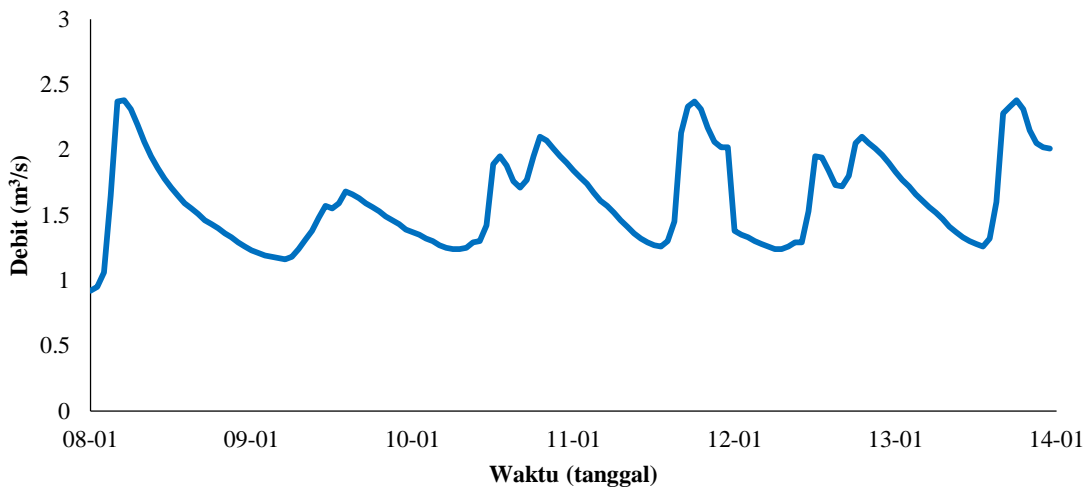


Lampiran 11. Data Muka Air AWLR Januari 2012

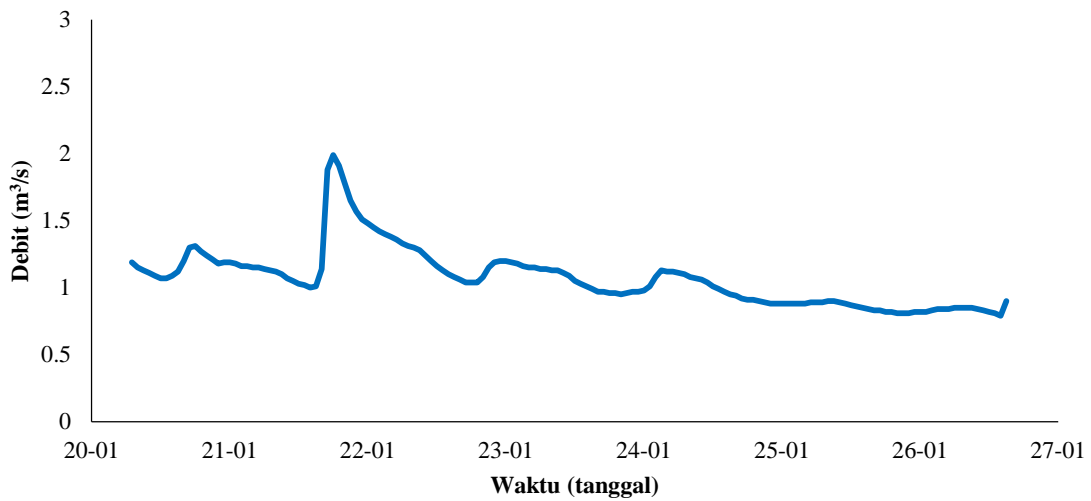
Tanggal 1-7



Tanggal 8-13



Tanggal 20-26



Lampiran 12. Hyetograf *ABM* untuk Analisis Hidrograf Banjir Metode *Snyder* (n = 5)

Tanggal 1 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	8.558428	8.558428	8.558428	58.48035	8.48851	2.09554
2	1~2	5.391472	10.78294	2.224516	15.20028	7.168223	1.769603
3	2~3	4.114463	12.34339	1.560445	10.66264	58.48035	14.43692
4		3.396414	13.58566	1.242268	8.48851	15.20028	3.752458
5		2.926941	14.63471	1.049048	7.168223	10.66264	2.632261
jumlah				14.63471	100	100	24.68678

Tanggal 2 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	10.31311	10.31311	10.31311	58.48035	8.48851	2.525175
2	1~2	6.496853	12.99371	2.680595	15.20028	7.168223	2.132414
3	2~3	4.958026	14.87408	1.880374	10.66264	58.48035	17.39683
4		4.092761	16.37104	1.496963	8.48851	15.20028	4.521802
5		3.527034	17.63517	1.264128	7.168223	10.66264	3.171938
jumlah				17.63517	100	100	29.74816

Tanggal 3 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	3.062077	3.062077	3.062077	58.48035	8.48851	0.749753
2	1~2	1.928987	3.857975	0.795898	15.20028	7.168223	0.633137
3	2~3	1.472093	4.416279	0.558304	10.66264	58.48035	5.165311
4		1.215186	4.860744	0.444465	8.48851	15.20028	1.342573
5		1.047215	5.236077	0.375334	7.168223	10.66264	0.941783
jumlah				5.236077	100	100	8.832557

Tanggal 4 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	5.904752	5.904752	5.904752	58.48035	8.48851	1.445785
2	1~2	3.719761	7.439522	1.534769	15.20028	7.168223	1.22091
3	2~3	2.838709	8.516127	1.076605	10.66264	58.48035	9.960522
4		2.343303	9.37321	0.857084	8.48851	15.20028	2.588949
5		2.019397	10.09698	0.723774	7.168223	10.66264	1.816087
jumlah				10.09698	100	100	17.03225

Tanggal 5 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	2.24744	2.24744	2.24744	58.48035	8.48851	0.550288
2	1~2	1.415798	2.831597	0.584157	15.20028	7.168223	0.464697
3	2~3	1.080456	3.241369	0.409772	10.66264	58.48035	3.791128
4		0.891897	3.567588	0.326219	8.48851	15.20028	0.985394
5		0.768614	3.843068	0.27548	7.168223	10.66264	0.691231
jumlah				3.843068	100	100	6.482738

Tanggal 6 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	1.146194	1.146194	1.146194	58.48035	8.48851	0.280647
2	1~2	0.722057	1.444114	0.29792	15.20028	7.168223	0.236996
3	2~3	0.551033	1.653098	0.208984	10.66264	58.48035	1.933475
4		0.454867	1.81947	0.166372	8.48851	15.20028	0.502551
5		0.391993	1.959964	0.140495	7.168223	10.66264	0.352528
jumlah				1.959964	100	100	3.306196

Tanggal 7 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	4.877775	4.877775	4.877775	58.48035	8.48851	1.194328
2	1~2	3.072806	6.145612	1.267836	15.20028	7.168223	1.008565
3	2~3	2.34499	7.034969	0.889358	10.66264	58.48035	8.22815
4		1.935746	7.742985	0.708016	8.48851	15.20028	2.138669
5		1.668176	8.340878	0.597893	7.168223	10.66264	1.500226
jumlah				8.340878	100	100	14.06994

Tanggal 8 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	5.382152	5.382152	5.382152	58.48035	8.48851	1.317825
2	1~2	3.390543	6.781087	1.398935	15.20028	7.168223	1.112853
3	2~3	2.587469	7.762407	0.98132	10.66264	58.48035	9.078966
4		2.135908	8.543634	0.781227	8.48851	15.20028	2.359814
5		1.84067	9.203351	0.659717	7.168223	10.66264	1.655354
jumlah				9.203351	100	100	15.52481

Tanggal 9 Januari 2012

Td	Δt	I_t	I_t [.	Δp	Pt (%)	hyetograph
----	------------	-------	----------	------------	--------	------------

jam	jam	mm/jam	mm	mm	%	%	mm
1	0-1	5.836549	5.836549	5.836549	58.48035	8.48851	1.429085
2	1~2	3.676796	7.353592	1.517042	15.20028	7.168223	1.206808
3	2~3	2.80592	8.417761	1.064169	10.66264	58.48035	9.845473
4		2.316236	9.264945	0.847184	8.48851	15.20028	2.559046
5		1.996072	9.980359	0.715414	7.168223	10.66264	1.795111
jumlah				9.980359	100	100	16.83552

Tanggal 10 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	10.21062	10.21062	10.21062	58.48035	8.48851	2.500081
2	1~2	6.432288	12.86458	2.653955	15.20028	7.168223	2.111223
3	2~3	4.908755	14.72626	1.861687	10.66264	58.48035	17.22394
4		4.052088	16.20835	1.482087	8.48851	15.20028	4.476865
5		3.491983	17.45992	1.251566	7.168223	10.66264	3.140416
jumlah				17.45992	100	100	29.45253

Tanggal 11 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	4.046263	4.046263	4.046263	58.48035	8.48851	0.990732
2	1~2	2.548986	5.097972	1.051709	15.20028	7.168223	0.836635
3	2~3	1.94524	5.835721	0.737749	10.66264	58.48035	6.825501
4		1.605761	6.423042	0.587321	8.48851	15.20028	1.774091
5		1.383803	6.919013	0.49597	7.168223	10.66264	1.244484
jumlah				6.919013	100	100	11.67144

Tanggal 12 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	4.297459	4.297459	4.297459	58.48035	8.48851	1.052237
2	1~2	2.707229	5.414459	1.117	15.20028	7.168223	0.888574
3	2~3	2.066003	6.198008	0.783549	10.66264	58.48035	7.249234
4		1.705448	6.821791	0.623783	8.48851	15.20028	1.884229
5		1.46971	7.348551	0.526761	7.168223	10.66264	1.321742
jumlah				7.348551	100	100	12.39602

Tanggal 13 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
-----------	-------------------	-----------------	----------------	------------------	-------------	-----------------	----

1	0-1	8.395814	8.395814	8.395814	58.48035	8.48851	2.055723
2	1~2	5.289031	10.57806	2.182249	15.20028	7.168223	1.73598
3	2~3	4.036286	12.10886	1.530796	10.66264	58.48035	14.16261
4		3.331881	13.32752	1.218665	8.48851	15.20028	3.68116
5		2.871328	14.35664	1.029116	7.168223	10.66264	2.582247
jumlah				14.35664	100	100	24.21772

Tanggal 20 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	0.768445	0.768445	0.768445	58.48035	8.48851	0.188155
2	1~2	0.48409	0.968181	0.199735	15.20028	7.168223	0.158889
3	2~3	0.36943	1.10829	0.14011	10.66264	58.48035	1.296264
4		0.304958	1.219831	0.111541	8.48851	15.20028	0.336926
5		0.262805	1.314023	0.094192	7.168223	10.66264	0.236346
jumlah				1.314023	100	100	2.21658

Tanggal 21 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	4.549746	4.549746	4.549746	58.48035	8.48851	1.11401
2	1~2	2.86616	5.73232	1.182575	15.20028	7.168223	0.940739
3	2~3	2.18729	6.561869	0.829548	10.66264	58.48035	7.674808
4		1.805568	7.222271	0.660402	8.48851	15.20028	1.994844
5		1.555991	7.779955	0.557685	7.168223	10.66264	1.399336
Jumlah				7.779955	100	100	13.12374

Tanggal 22 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	3.264911	3.264911	3.264911	58.48035	8.48851	0.799417
2	1~2	2.056765	4.11353	0.848619	15.20028	7.168223	0.675077
3	2~3	1.569605	4.708816	0.595286	10.66264	58.48035	5.507465
4		1.295681	5.182723	0.473907	8.48851	15.20028	1.431506
5		1.116584	5.582919	0.400196	7.168223	10.66264	1.004168
Jumlah				5.582919	100	100	9.417632

Tanggal 23 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	2.44883	2.44883	2.44883	58.48035	8.48851	0.599599

2	1~2	1.542666	3.085333	0.636503	15.20028	7.168223	0.506338
3	2~3	1.177275	3.531825	0.446492	10.66264	58.48035	4.130847
4		0.971819	3.887276	0.355451	8.48851	15.20028	1.073694
5		0.837488	4.187441	0.300165	7.168223	10.66264	0.753171
jumlah				4.187441	100	100	7.063649

Tanggal 24 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	0.204278	0.204278	0.204278	58.48035	8.48851	0.050018
2	1~2	0.128687	0.257374	0.053096	15.20028	7.168223	0.042238
3	2~3	0.098206	0.294619	0.037246	10.66264	58.48035	0.344589
4		0.081068	0.324271	0.029651	8.48851	15.20028	0.089566
5		0.069862	0.34931	0.025039	7.168223	10.66264	0.062828
jumlah				0.34931	100	100	0.589239

Tanggal 25 Januari 2012

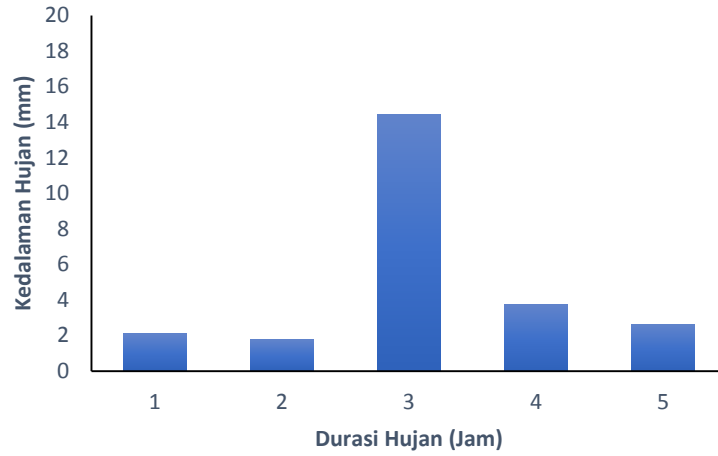
Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	0	0	0	0	0	0
2	1~2	0	0	0	0	0	0
3	2~3	0	0	0	0	0	0
4		0	0	0	0	0	0
5		0	0	0	0	0	0
jumlah				0	0	0	0

Tanggal 26 Januari 2012

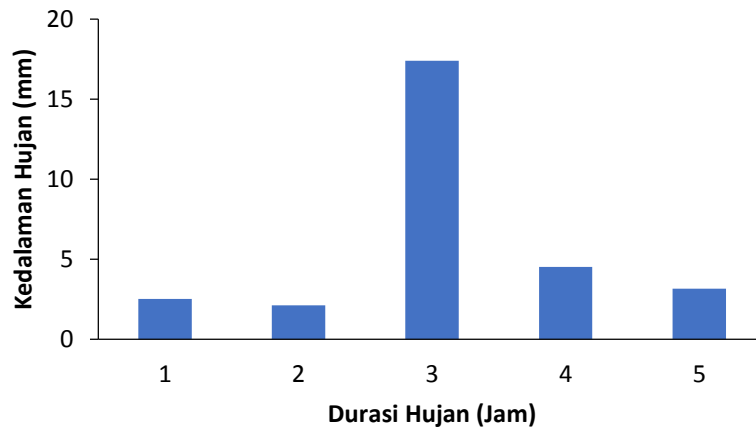
Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	0.437811	0.437811	0.437811	58.48035	8.48851	0.107198
2	1~2	0.275803	0.551607	0.113796	15.20028	7.168223	0.090525
3	2~3	0.210477	0.631432	0.079825	10.66264	58.48035	0.738528
4		0.173745	0.694981	0.063549	8.48851	15.20028	0.191959
5		0.149729	0.748646	0.053665	7.168223	10.66264	0.134655
jumlah				0.748646	100	100	1.262864

Lampiran 13. Hyetograf *ABM* untuk Analisis Hidrograf Banjir Metode *Snyder* (n = 5)

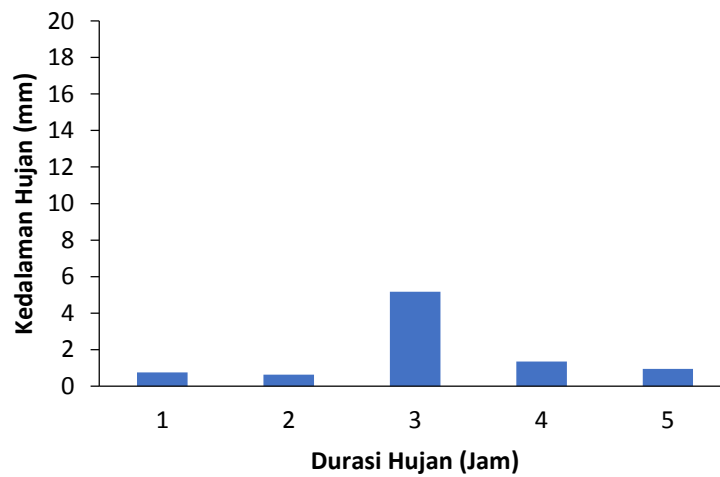
Tanggal 1 Januari 2012



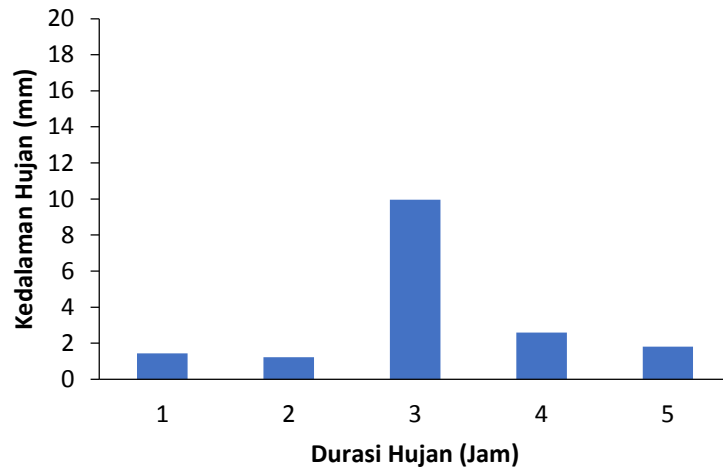
Tanggal 2 Januari 2012



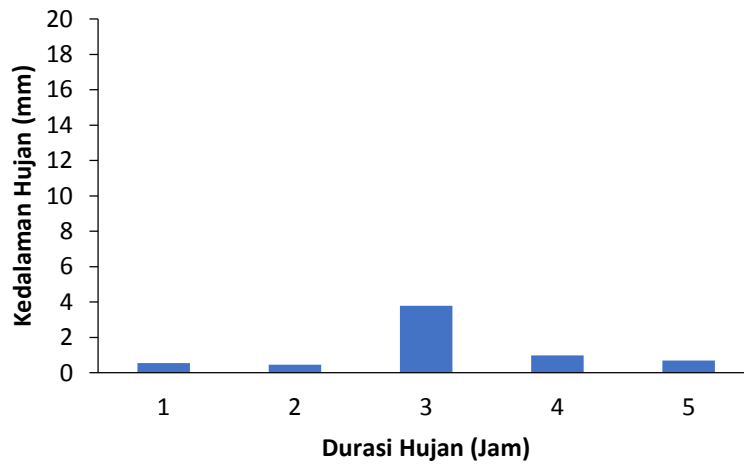
Tanggal 3 Januari 2012



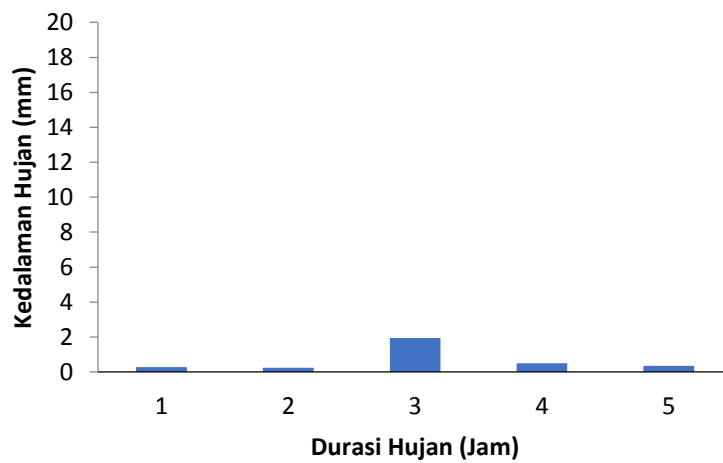
Tanggal 4 Januari 2012



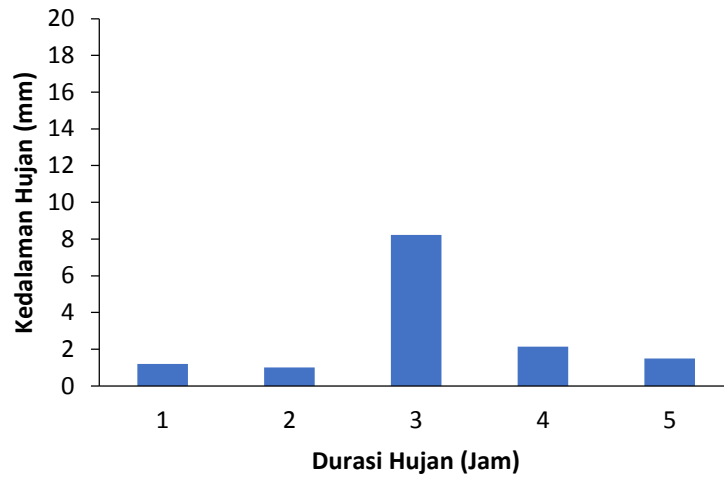
Tanggal 5 Januari 2012



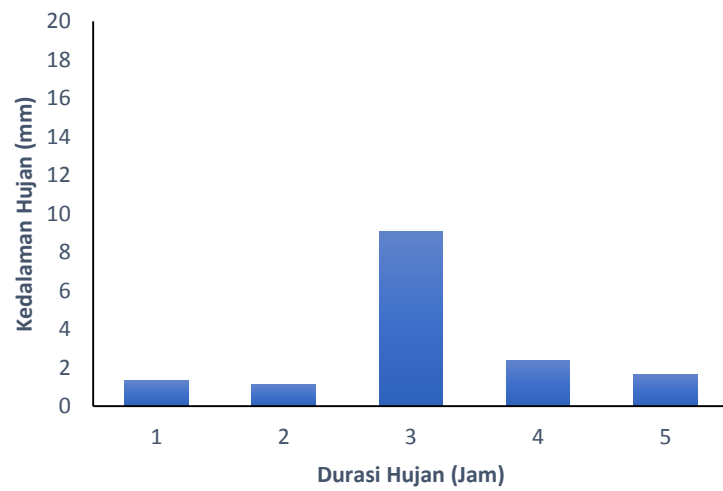
Tanggal 6 Januari 2012



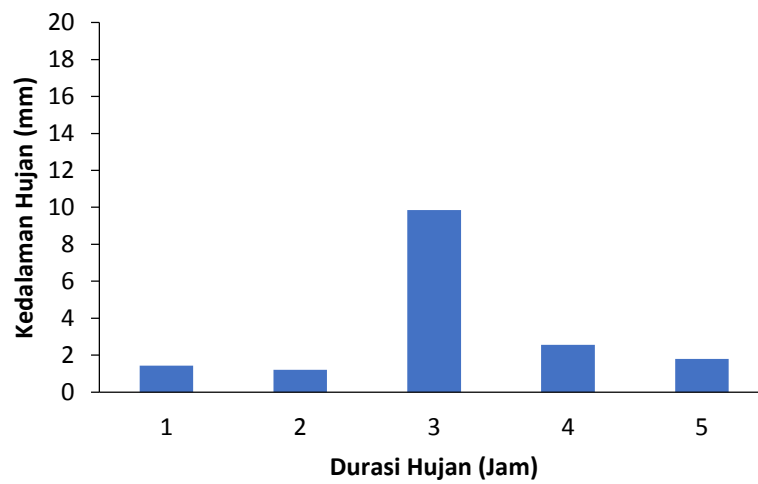
Tanggal 7 Januari 2012



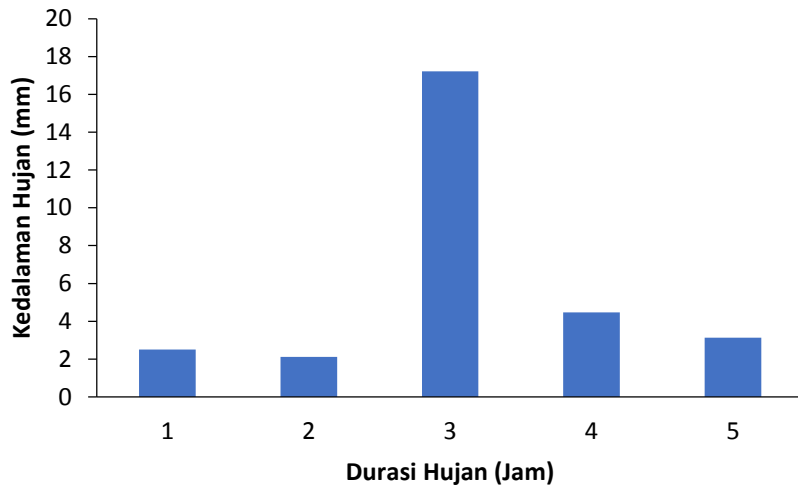
Tanggal 8 Januari 2012



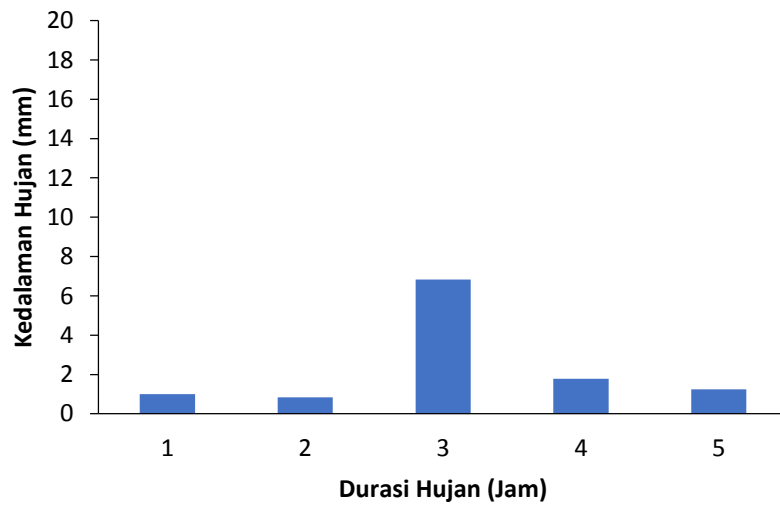
Tanggal 9 Januari 2012



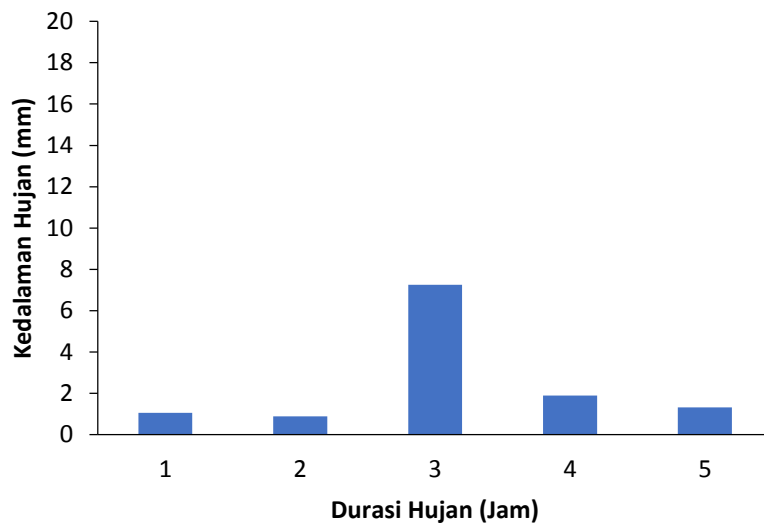
Tanggal 10 Januari 2012



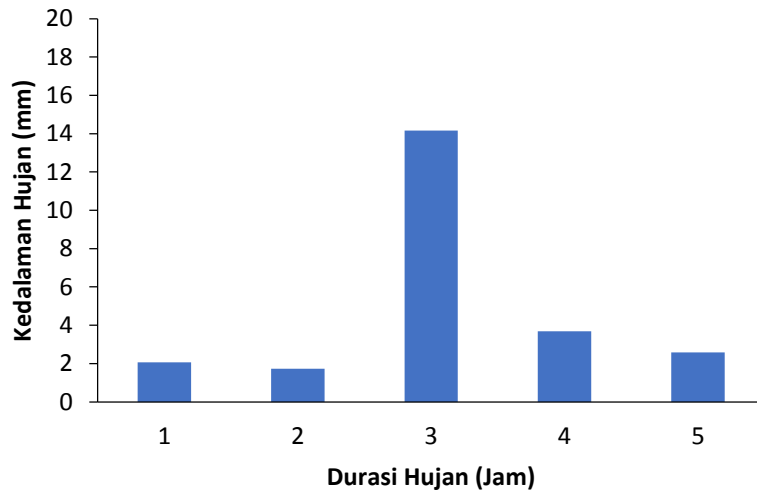
Tanggal 11 Januari 2012



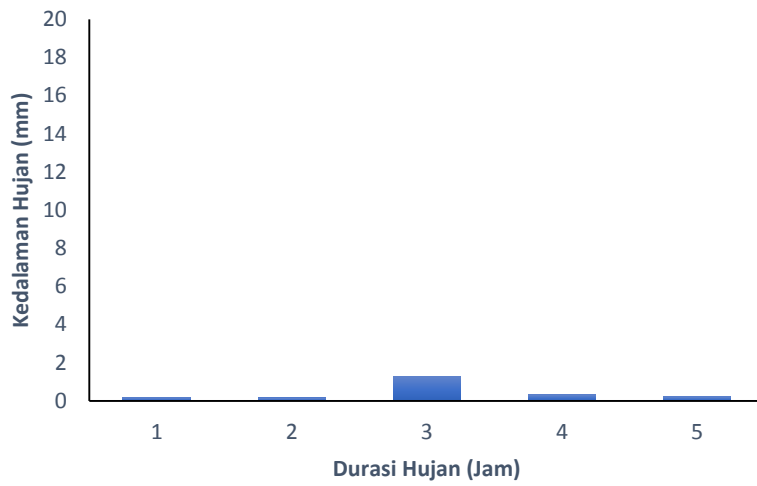
Tanggal 12 Januari 2012



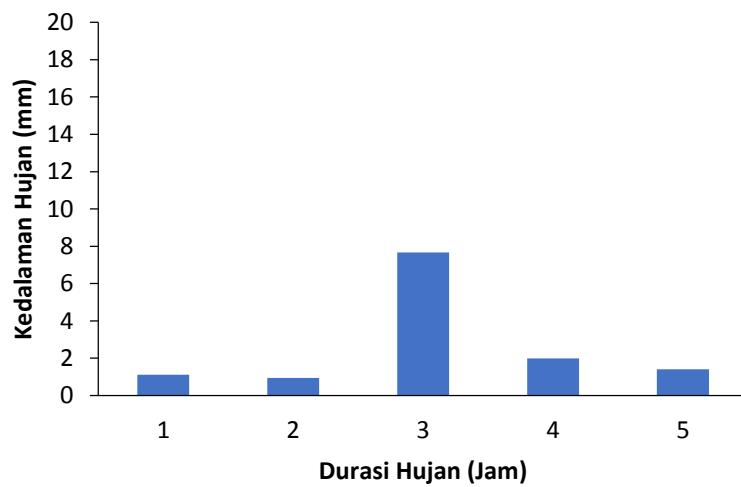
Tanggal 13 Januari 2012



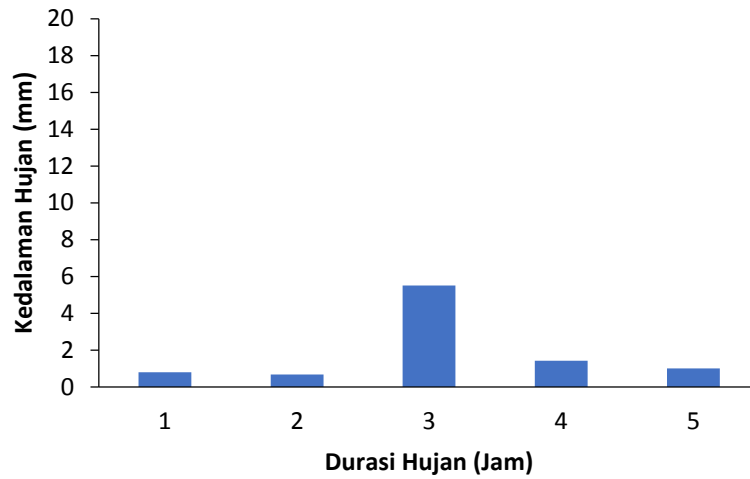
Tanggal 20 Januari 2012



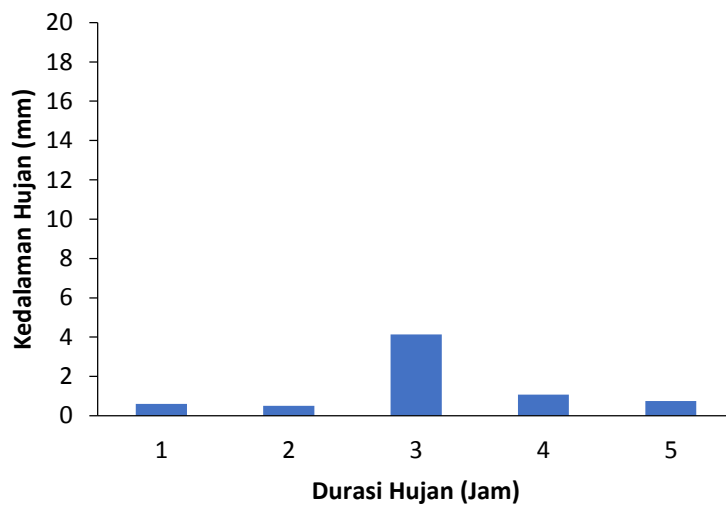
Tanggal 21 Januari 2012



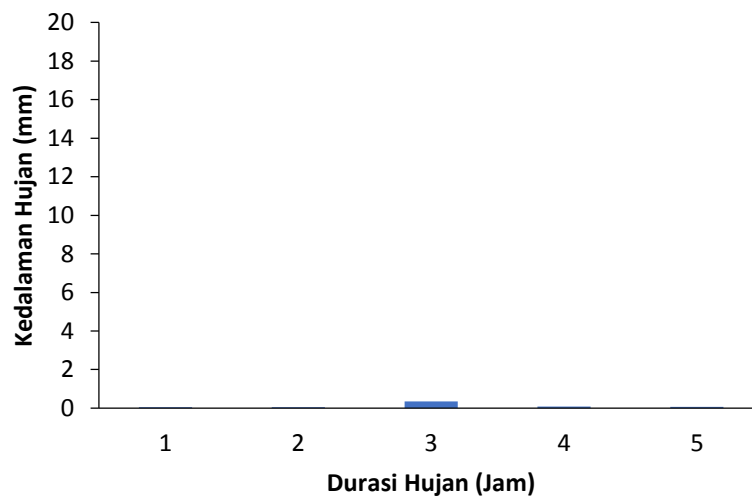
Tanggal 22 Januari 2012



Tanggal 23 Januari 2012



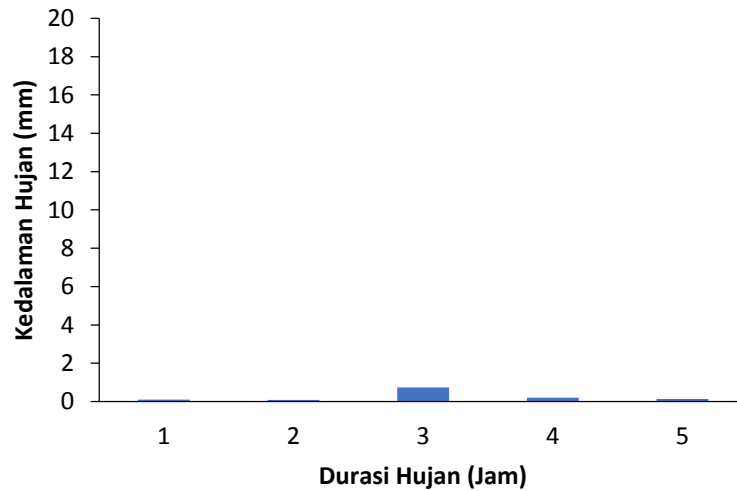
Tanggal 24 Januari 2012



Tanggal 25 Januari 2012

Tidak terdapat hyetograf karena tidak terjadi hujan pada tanggal 25 Januari 2012

Tanggal 26 Januari 2012



Lampiran 14. Hitungan ABM untuk Analisis Hidrograf Banjir Metode GAMA (n = 5)

Tanggal 1 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [.] mm	Δp mm	Pt (%) %	hyetograph	
						%	mm
1	0-1	8.558428	8.558428	8.558428	58.48035	8.48851	2.09554
2	1~2	5.391472	10.78294	2.224516	15.20028	7.168223	1.769603
3	2~3	4.114463	12.34339	1.560445	10.66264	58.48035	14.43692
4		3.396414	13.58566	1.242268	8.48851	15.20028	3.752458
5		2.926941	14.63471	1.049048	7.168223	10.66264	2.632261
jumlah				14.63471	100	100	24.68678

Tanggal 2 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [.] mm	Δp mm	Pt (%) %	hyetograph	
						%	mm
1	0-1	10.31311	10.31311	10.31311	58.48035	8.48851	2.525175
2	1~2	6.496853	12.99371	2.680595	15.20028	7.168223	2.132414
3	2~3	4.958026	14.87408	1.880374	10.66264	58.48035	17.39683
4		4.092761	16.37104	1.496963	8.48851	15.20028	4.521802
5		3.527034	17.63517	1.264128	7.168223	10.66264	3.171938
jumlah				17.63517	100	100	29.74816

Tanggal 3 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	3.062077	3.062077	3.062077	58.48035	8.48851	0.749753
2	1~2	1.928987	3.857975	0.795898	15.20028	7.168223	0.633137
3	2~3	1.472093	4.416279	0.558304	10.66264	58.48035	5.165311
4		1.215186	4.860744	0.444465	8.48851	15.20028	1.342573
5		1.047215	5.236077	0.375334	7.168223	10.66264	0.941783
jumlah				5.236077	100	100	8.832557

Tanggal 4 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	5.904752	5.904752	5.904752	58.48035	8.48851	1.445785
2	1~2	3.719761	7.439522	1.534769	15.20028	7.168223	1.22091
3	2~3	2.838709	8.516127	1.076605	10.66264	58.48035	9.960522
4		2.343303	9.37321	0.857084	8.48851	15.20028	2.588949
5		2.019397	10.09698	0.723774	7.168223	10.66264	1.816087
jumlah				10.09698	100	100	17.03225

Tanggal 5 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	2.24744	2.24744	2.24744	58.48035	8.48851	0.550288
2	1~2	1.415798	2.831597	0.584157	15.20028	7.168223	0.464697
3	2~3	1.080456	3.241369	0.409772	10.66264	58.48035	3.791128
4		0.891897	3.567588	0.326219	8.48851	15.20028	0.985394
5		0.768614	3.843068	0.27548	7.168223	10.66264	0.691231
jumlah				3.843068	100	100	6.482738

Tanggal 6 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	1.146194	1.146194	1.146194	58.48035	8.48851	0.280647
2	1~2	0.722057	1.444114	0.29792	15.20028	7.168223	0.236996
3	2~3	0.551033	1.653098	0.208984	10.66264	58.48035	1.933475
4		0.454867	1.81947	0.166372	8.48851	15.20028	0.502551
5		0.391993	1.959964	0.140495	7.168223	10.66264	0.352528
jumlah				1.959964	100	100	3.306196

Tanggal 7 Januari 2012

Td	Δt	I_t	I_t [.	Δp	Pt (%)	hyetograph	
----	------------	-------	----------	------------	--------	------------	--

jam	jam	mm/jam	mm	mm	%	%	mm
1	0-1	4.877775	4.877775	4.877775	58.48035	8.48851	1.194328
2	1~2	3.072806	6.145612	1.267836	15.20028	7.168223	1.008565
3	2~3	2.34499	7.034969	0.889358	10.66264	58.48035	8.22815
4		1.935746	7.742985	0.708016	8.48851	15.20028	2.138669
5		1.668176	8.340878	0.597893	7.168223	10.66264	1.500226
jumlah				8.340878	100	100	14.06994

Tanggal 8 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	5.382152	5.382152	5.382152	58.48035	8.48851	1.317825
2	1~2	3.390543	6.781087	1.398935	15.20028	7.168223	1.112853
3	2~3	2.587469	7.762407	0.98132	10.66264	58.48035	9.078966
4		2.135908	8.543634	0.781227	8.48851	15.20028	2.359814
5		1.84067	9.203351	0.659717	7.168223	10.66264	1.655354
jumlah				9.203351	100	100	15.52481

Tanggal 9 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	5.836549	5.836549	5.836549	58.48035	8.48851	1.429085
2	1~2	3.676796	7.353592	1.517042	15.20028	7.168223	1.206808
3	2~3	2.80592	8.417761	1.064169	10.66264	58.48035	9.845473
4		2.316236	9.264945	0.847184	8.48851	15.20028	2.559046
5		1.996072	9.980359	0.715414	7.168223	10.66264	1.795111
jumlah				9.980359	100	100	16.83552

Tanggal 10 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	10.21062	10.21062	10.21062	58.48035	8.48851	2.500081
2	1~2	6.432288	12.86458	2.653955	15.20028	7.168223	2.111223
3	2~3	4.908755	14.72626	1.861687	10.66264	58.48035	17.22394
4		4.052088	16.20835	1.482087	8.48851	15.20028	4.476865
5		3.491983	17.45992	1.251566	7.168223	10.66264	3.140416
jumlah				17.45992	100	100	29.45253

Tanggal 11 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
-----------	-------------------	-----------------	----------------	------------------	-------------	-----------------	----

1	0-1	4.046263	4.046263	4.046263	58.48035	8.48851	0.990732
2	1~2	2.548986	5.097972	1.051709	15.20028	7.168223	0.836635
3	2~3	1.94524	5.835721	0.737749	10.66264	58.48035	6.825501
4		1.605761	6.423042	0.587321	8.48851	15.20028	1.774091
5		1.383803	6.919013	0.49597	7.168223	10.66264	1.244484
jumlah				6.919013	100	100	11.67144

Tanggal 12 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	4.297459	4.297459	4.297459	58.48035	8.48851	1.052237
2	1~2	2.707229	5.414459	1.117	15.20028	7.168223	0.888574
3	2~3	2.066003	6.198008	0.783549	10.66264	58.48035	7.249234
4		1.705448	6.821791	0.623783	8.48851	15.20028	1.884229
5		1.46971	7.348551	0.526761	7.168223	10.66264	1.321742
jumlah				7.348551	100	100	12.39602

Tanggal 13 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	8.395814	8.395814	8.395814	58.48035	8.48851	2.055723
2	1~2	5.289031	10.57806	2.182249	15.20028	7.168223	1.73598
3	2~3	4.036286	12.10886	1.530796	10.66264	58.48035	14.16261
4		3.331881	13.32752	1.218665	8.48851	15.20028	3.68116
5		2.871328	14.35664	1.029116	7.168223	10.66264	2.582247
jumlah				14.35664	100	100	24.21772

Tanggal 20 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	0.768445	0.768445	0.768445	58.48035	8.48851	0.188155
2	1~2	0.48409	0.968181	0.199735	15.20028	7.168223	0.158889
3	2~3	0.36943	1.10829	0.14011	10.66264	58.48035	1.296264
4		0.304958	1.219831	0.111541	8.48851	15.20028	0.336926
5		0.262805	1.314023	0.094192	7.168223	10.66264	0.236346
jumlah				1.314023	100	100	2.21658

Tanggal 21 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	4.549746	4.549746	4.549746	58.48035	8.48851	1.11401

2	1~2	2.86616	5.73232	1.182575	15.20028	7.168223	0.940739
3	2~3	2.18729	6.561869	0.829548	10.66264	58.48035	7.674808
4		1.805568	7.222271	0.660402	8.48851	15.20028	1.994844
5		1.555991	7.779955	0.557685	7.168223	10.66264	1.399336
jumlah				7.779955	100	100	13.12374

Tanggal 22 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	3.264911	3.264911	3.264911	58.48035	8.48851	0.799417
2	1~2	2.056765	4.11353	0.848619	15.20028	7.168223	0.675077
3	2~3	1.569605	4.708816	0.595286	10.66264	58.48035	5.507465
4		1.295681	5.182723	0.473907	8.48851	15.20028	1.431506
5		1.116584	5.582919	0.400196	7.168223	10.66264	1.004168
jumlah				5.582919	100	100	9.417632

Tanggal 23 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	2.44883	2.44883	2.44883	58.48035	8.48851	0.599599
2	1~2	1.542666	3.085333	0.636503	15.20028	7.168223	0.506338
3	2~3	1.177275	3.531825	0.446492	10.66264	58.48035	4.130847
4		0.971819	3.887276	0.355451	8.48851	15.20028	1.073694
5		0.837488	4.187441	0.300165	7.168223	10.66264	0.753171
jumlah				4.187441	100	100	7.063649

Tanggal 24 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	0.204278	0.204278	0.204278	58.48035	8.48851	0.050018
2	1~2	0.128687	0.257374	0.053096	15.20028	7.168223	0.042238
3	2~3	0.098206	0.294619	0.037246	10.66264	58.48035	0.344589
4		0.081068	0.324271	0.029651	8.48851	15.20028	0.089566
5		0.069862	0.34931	0.025039	7.168223	10.66264	0.062828
jumlah				0.34931	100	100	0.589239

Tanggal 25 Januari 2012

Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph % mm	
1	0-1	0	0	0	0	0	0
2	1~2	0	0	0	0	0	0

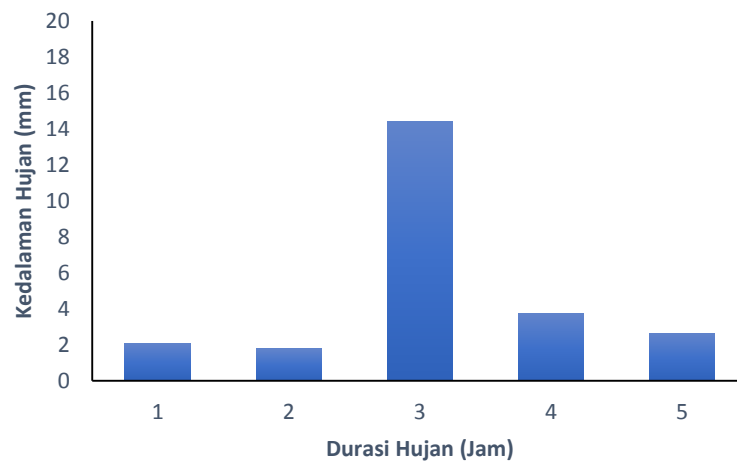
3	2~3	0	0	0	0	0	0
4		0	0	0	0	0	0
5		0	0	0	0	0	0
jumlah				0	0	0	0

Tanggal 26 Januari 2012

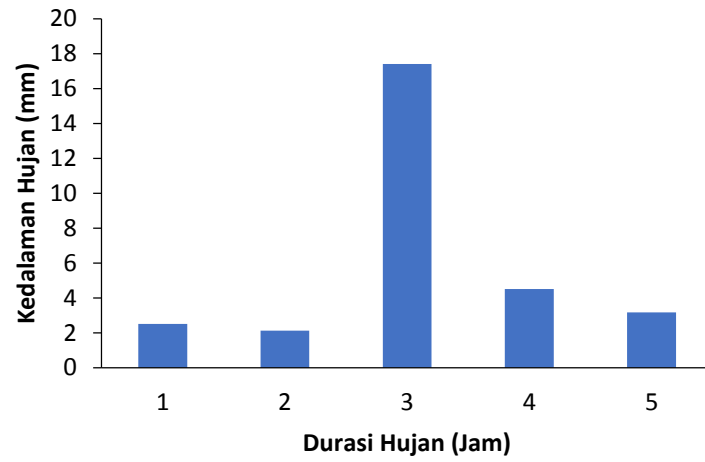
Td jam	Δt jam	I_t mm/jam	I_t [. mm	Δp mm	Pt (%) %	hyetograph %	mm
1	0-1	0.437811	0.437811	0.437811	58.48035	8.48851	0.107198
2	1~2	0.275803	0.551607	0.113796	15.20028	7.168223	0.090525
3	2~3	0.210477	0.631432	0.079825	10.66264	58.48035	0.738528
4		0.173745	0.694981	0.063549	8.48851	15.20028	0.191959
5		0.149729	0.748646	0.053665	7.168223	10.66264	0.134655
jumlah				0.748646	100	100	1.262864

Lampiran 15. Hyetograf *ABM* untuk Analisis Hidrograf Banjir Metode GAMA (n = 5)

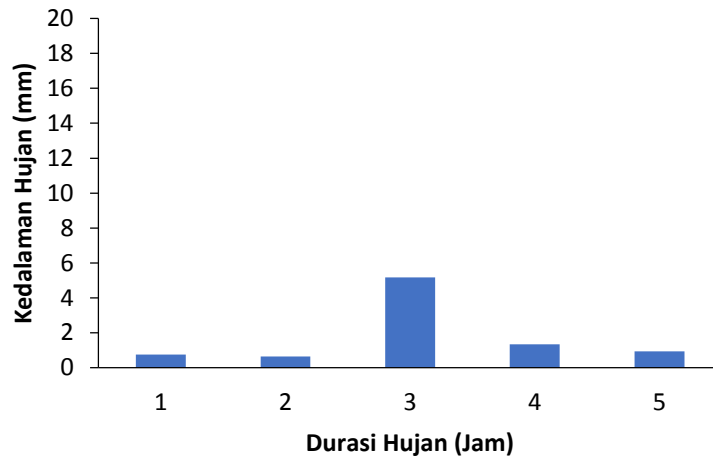
Tanggal 1 Januari 2012



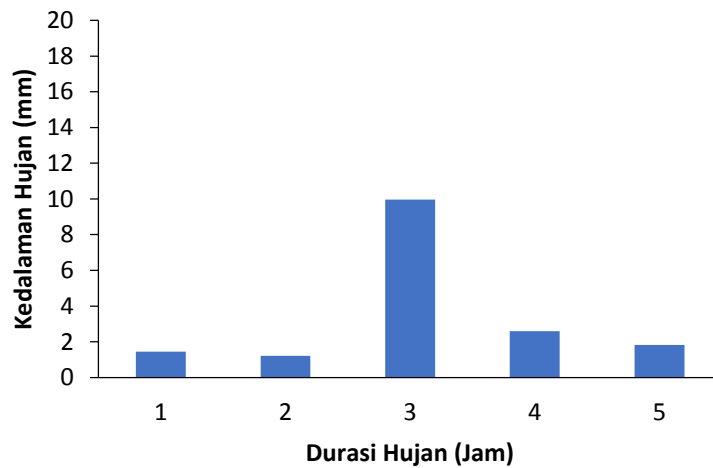
Tanggal 2 Januari 2012



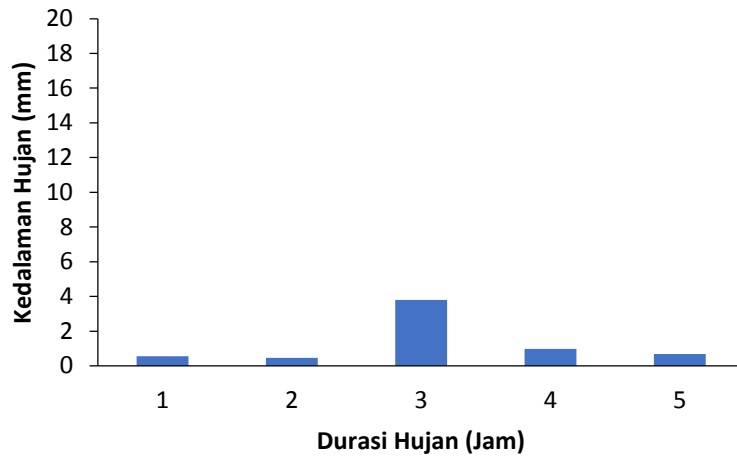
Tanggal 3 Januari 2012



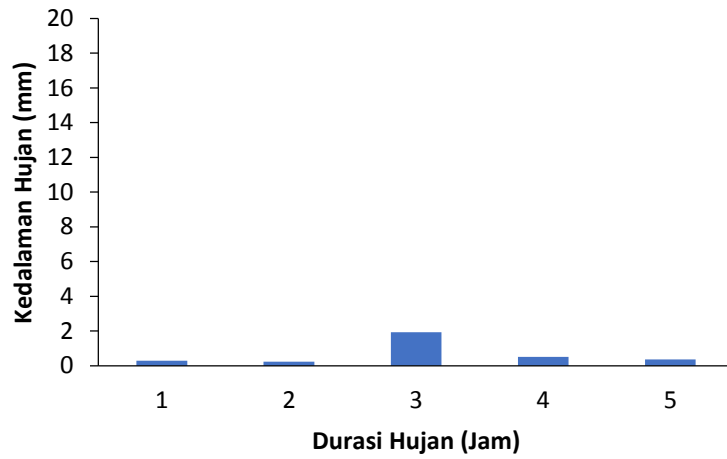
Tanggal 4 Januari 2012



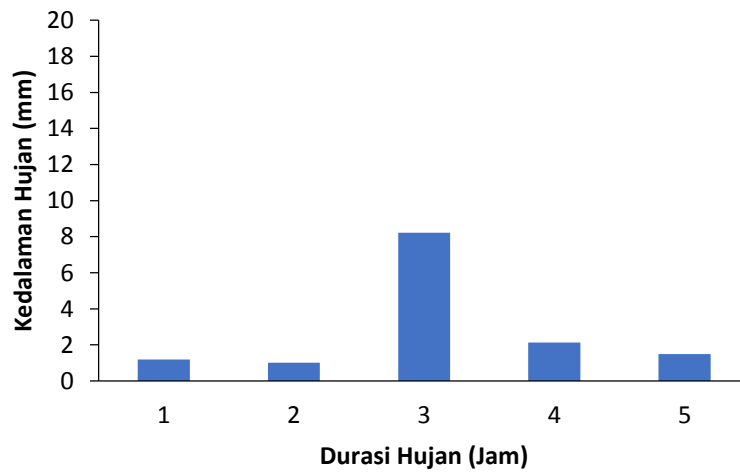
Tanggal 5 Januari 2012



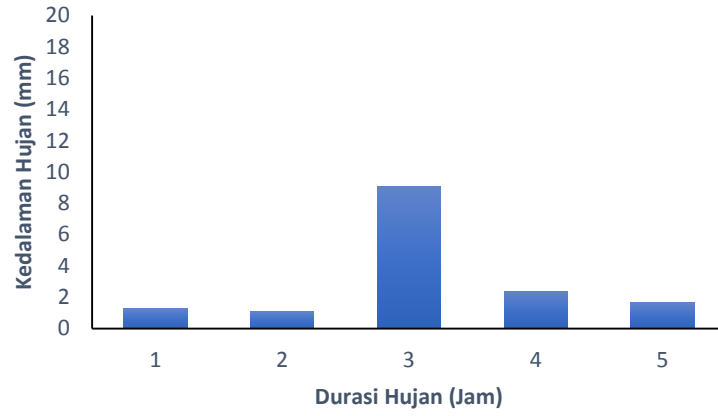
Tanggal 6 Januari 2012



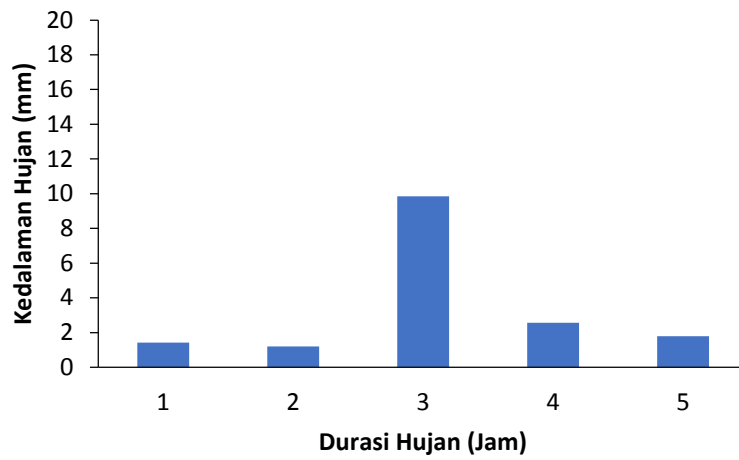
Tanggal 7 Januari 2012



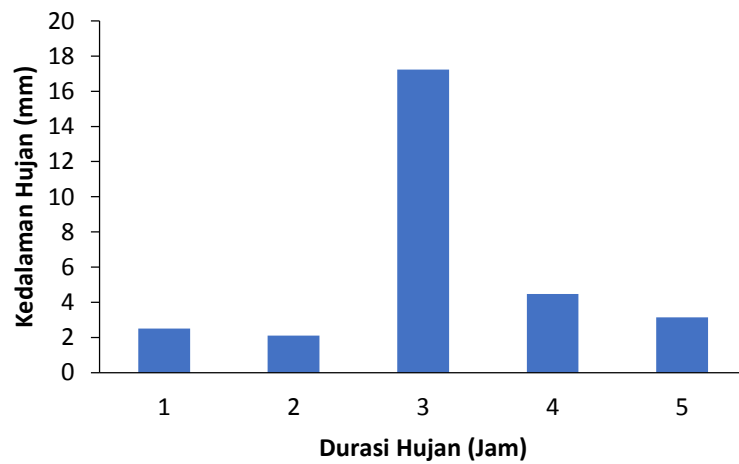
Tanggal 8 Januari 2012



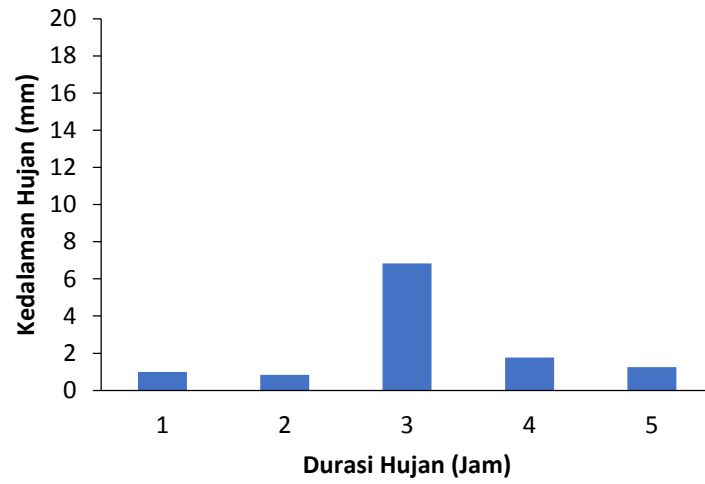
Tanggal 9 Januari 2012



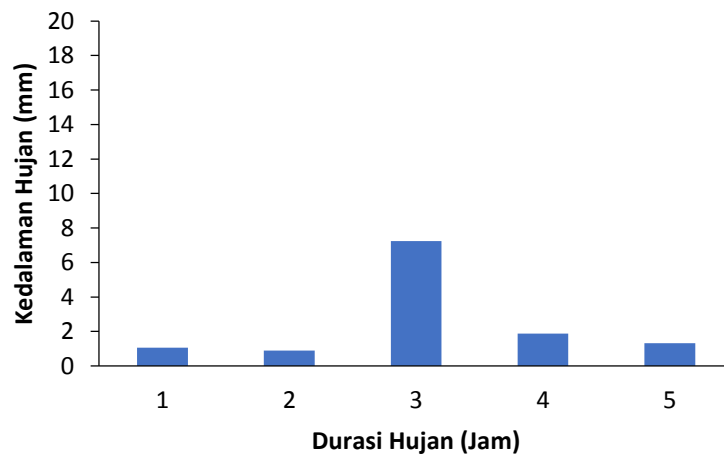
Tanggal 10 Januari 2012



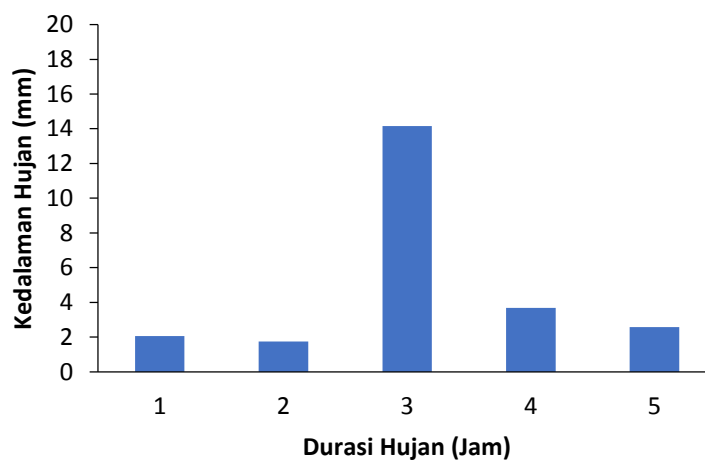
Tanggal 11 Januari 2012



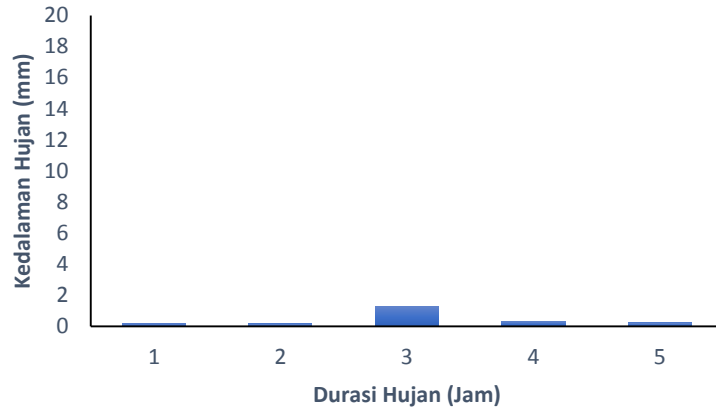
Tanggal 12 Januari 2012



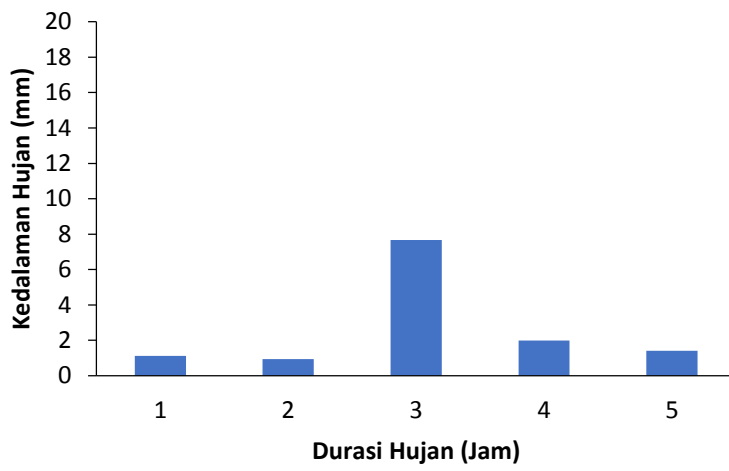
Tanggal 13 Januari 2012



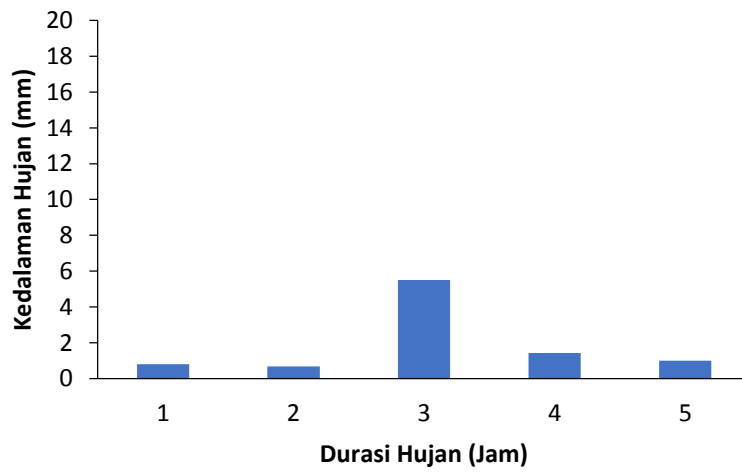
Tanggal 20 Januari 2012



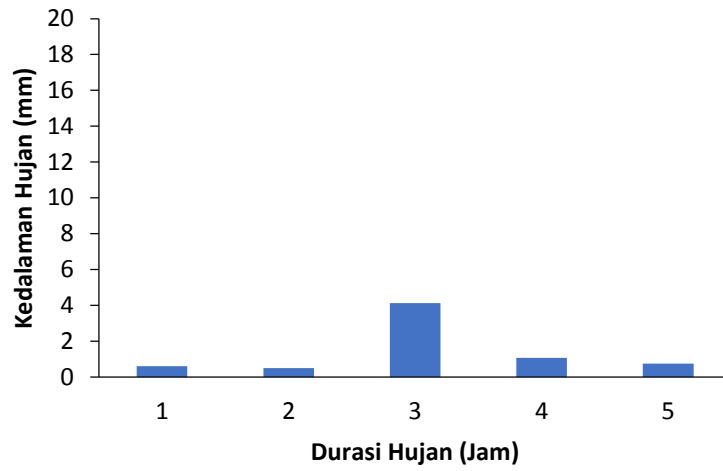
Tanggal 21 Januari 2012



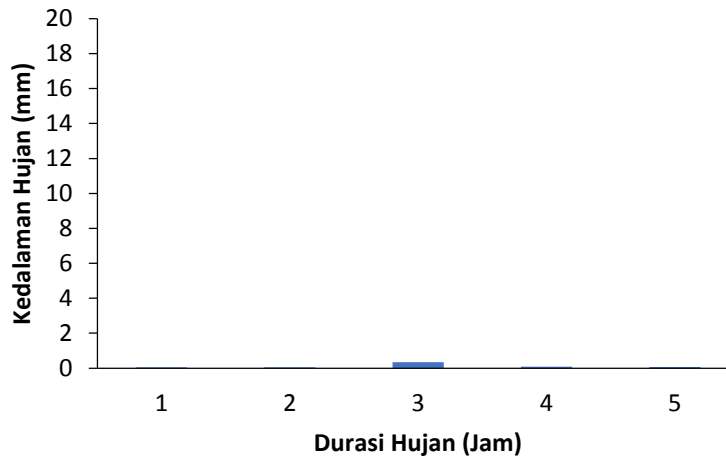
Tanggal 22 Januari 2012



Tanggal 23 Januari 2012



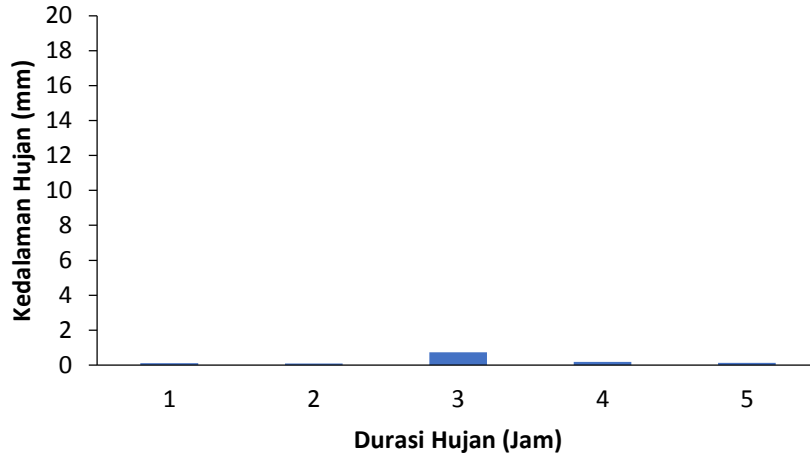
Tanggal 24 Januari 2012



Tanggal 25 Januari 2012

Tidak terdapat hyetograf karena tidak terjadi hujan pada tanggal 25 Januari 2012

Tanggal 26 Januari 2012



Lampiran 16. Data debit aliran, *baseflow*, dan limpasan langsung AWLR 1-7 Januari 2012

Tanggal	t (Jam)	Q (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung
01-Jan	0	133.0743	133.074	0
	1	133.0743	133.074	0
	2	140.8387	133.074	7.764309983
	3	143.4856	133.074	10.41121944
	4	182.1584	133.074	49.08400857
	5	183.6977	133.074	50.62331081
	6	180.6268	133.074	47.55246124
	7	177.5869	133.074	44.5125794
	8	174.5779	133.074	41.5035612
	9	170.122	133.074	37.0476746
	10	165.735	133.074	32.66064195
	11	167.1897	133.074	34.11535766
	12	164.2879	133.074	31.21353713
	13	161.4165	133.074	28.34210726
	14	158.5753	133.074	25.50096193
	15	157.1661	133.074	24.09171269
	16	154.3701	133.074	21.29579433
	17	151.6042	133.074	18.5298935
	18	148.8682	133.074	15.79390273
	19	146.1621	133.074	13.08771413
	20	143.4856	133.074	10.41121944
	21	140.8387	133.074	7.764309983
	22	138.2212	133.074	5.146876659
	23	134.3501	133.074	1.275754782
24	133.0743	133.074	0	
02-Jan	1	144.8201	126.134	18.68623626

	2	155.7643	119.193	36.57094348
	3	170.122	112.253	57.86909789
	4	226.4835	105.312	121.1710524
	5	249.9153	98.372	151.543285
	6	223.0008	91.4315	131.5692548
	7	106.8265	84.491	22.33548414
	8	114.8046	77.5506	37.2540697
	9	124.3473	70.6101	53.73723467
	10	78.28184	63.6696	14.61223348
	11	78.28184	56.7291	21.55270791
	12	49.78865	49.7887	-5.68434E-14
	13	57.14932	52.0405	5.108858028
	14	80.14628	54.2923	25.85401171
	15	87.86886	56.5441	31.32478096
	16	93.94221	58.7959	35.14632425
	17	102.4214	61.0477	41.37367439
	18	118.3297	63.2995	55.03016098
	19	135.6332	65.5513	70.08184015
	20	152.9834	67.8031	85.18031961
	21	171.5996	70.0549	101.5447144
	22	189.9327	72.3067	117.625931
	23	202.7789	74.5586	128.2203104
	24	217.8371	76.8104	141.0267861
03-Jan	1	229.9986	79.0622	150.9364669
	2	240.7394	81.314	159.4253917
	3	248.0636	83.5658	164.497828
	4	238.9288	85.8176	153.111233
	5	228.237	88.0694	140.167608
	6	224.7381	90.3212	134.4168702
	7	219.5503	92.573	126.9772738
	8	214.4349	94.8248	119.6101054
	9	209.3917	97.0766	112.315027
	10	206.0694	99.3285	106.7409207
	11	201.1455	101.58	99.56523671
	12	194.691	103.832	90.85892719
	13	191.5109	106.084	85.42706682
	14	186.7996	108.336	78.4638911
	15	183.6977	110.587	73.11016105
	16	180.6268	112.839	67.78750247
	17	179.103	115.091	64.01188809
	18	176.0786	117.343	58.73564211
	19	176.0786	119.595	56.48383311
	20	174.5779	121.847	52.73136645
Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung

	21	171.5996	124.098	47.50129842
	22	170.122	126.35	43.77186185
	23	170.122	128.602	41.52005285
	24	168.652	130.854	37.79826674
04-Jan	1	167.1897	133.106	34.08411792
	2	167.1897	135.357	31.83230892
	3	165.735	137.609	28.12578421
	4	162.8484	139.861	22.98736325
	5	157.1661	142.113	15.05323696
	6	152.9834	144.365	8.618813699
	7	150.2325	146.616	3.61607236
	8	148.8682	148.868	0
	9	152.9834	150.582	2.401218472
	10	158.5753	152.296	6.279104739
	11	165.735	154.01	11.72480752
	12	185.2447	155.724	29.52056928
	13	217.8371	157.438	60.39901205
	14	209.3917	159.152	50.23955664
	15	211.0648	160.866	50.19868016
	16	197.9025	162.58	35.32241262
	17	188.3622	164.294	24.06817873
	18	180.6268	166.008	14.6187862
	19	177.5869	167.722	9.864927128
	20	176.0786	169.436	6.642589362
	21	174.5779	171.15	3.427954464
	22	180.6268	172.864	7.762877268
	23	174.5779	174.578	0
	24	0	0	0
05-Jan	1	0	0	0
	2	0	0	0
	3	0	0	0
	4	0	0	0
	5	0	0	0
	6	0	0	0
	7	0	0	0
	8	0	0	0
	9	0	0	0
	10	0	0	0
	11	0	0	0
	12	0	0	0
	13	0	0	0
	14	0	0	0
	15	67.64173	67.6417	0
Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung

	16	77.35946	67.1314	10.22802898
	17	81.08838	66.6211	14.46725493
	18	80.14628	66.1108	14.03545557
	19	79.21077	65.6005	13.61024545
	20	77.35946	65.0902	12.26923107
	21	75.53432	64.5799	10.95438922
	22	73.73522	64.0696	9.665596214
	23	71.96205	63.5593	8.402727774
	24	71.08515	63.049	8.036126519
06-Jan	1	69.35063	62.5387	6.811910548
	2	67.64173	62.0284	5.613305731
	3	65.95831	61.5181	4.440185606
	4	64.30025	61.0078	3.292423064
	5	62.66741	60.4975	2.169890344
	6	60.26519	59.9872	0.277965808
	7	59.47692	59.4769	0
	8	60.26519	59.4769	0.788266329
	9	62.66741	59.4769	3.190491386
	10	63.48068	59.4769	4.003762289
	11	61.86042	59.4769	2.383495843
	12	61.05968	59.4769	1.582759543
	13	59.47692	59.4769	0
	14	59.47692	59.4769	0
	15	59.47692	59.4769	0
	16	61.05968	59.1742	1.885517898
	17	65.12612	58.8714	6.254711141
	18	70.21468	58.5686	11.64603771
	19	72.8454	58.2659	14.57951706
	20	72.8454	57.9631	14.88227542
	21	70.21468	57.6604	12.55431278
	22	67.64173	57.3576	10.28411682
	23	66.79684	57.0549	9.741987198
	24	65.12612	56.7521	8.374019627
07-Jan	1	63.48068	56.4493	7.031345842
	2	62.66741	56.1466	6.520833294
	3	61.86042	55.8438	6.016596106
	4	61.86042	55.5411	6.319354461
	5	61.05968	55.2383	5.821376517
	6	61.05968	54.9355	6.124134872
	7	60.26519	54.6328	5.632400014
	8	59.47692	54.33	5.14689204
	9	59.47692	54.0273	5.449650395
	10	58.69487	53.7245	4.970353061
Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpanan Langsung

11	58.69487	53.4218	5.273111416
12	58.69487	53.119	5.575869771
13	58.69487	52.8162	5.878628127
14	57.919	52.5135	5.405525145
15	57.919	52.2107	5.7082835
16	56.3858	51.908	4.477836867
17	55.62842	51.6052	4.023218776
18	54.13204	51.3024	2.829594005
19	52.66004	50.9997	1.660351961
20	51.93314	50.6969	1.236212104
21	51.21229	50.3942	0.818117994
22	50.49747	50.0914	0.40605289
23	49.78865	49.7887	0
24	50.49747	50.4975	0

Lampiran 17. Data debit aliran, *baseflow*, dan limpasan langsung AWLR 8-13 Januari 2012

Tanggal	t (Jam)	Q (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung
08-Jan	0	50.49747	50.4975	0
	1	52.66004	51.1476	1.512464833
	2	61.05968	51.7977	9.26199706
	3	119.5189	52.4478	67.07111035
	4	224.7381	53.0979	171.6401837
	5	226.4835	53.748	172.7354901
	6	214.4349	54.3981	160.0368183
	7	194.691	55.0482	139.6427668
	8	174.5779	55.6983	118.8795687
	9	158.5753	56.3484	102.2268601
	10	146.1621	56.9986	89.16350302
	11	135.6332	57.6487	77.98448955
	12	126.8046	58.2988	68.50581831
	13	119.5189	58.9489	60.57001732
	14	112.49	59.599	52.89099894
	15	107.9452	60.2491	47.69609306
	16	103.5122	60.8992	42.61303049
	17	98.12692	61.5493	36.57759684
	18	94.97815	62.1994	32.77872077
	19	91.89072	62.8495	29.04117947
	20	87.86886	63.4997	24.36921064
	21	84.92298	64.1498	20.77322035
	22	81.08838	64.7999	16.28851368
	23	78.28184	65.45	12.83185712
	24	75.53432	66.1001	9.434227269
Tanggal	t (Jam)	Q (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung

09-Jan	1	73.73522	66.7502	6.985024442
	2	71.96205	67.4003	4.561746178
	3	71.08515	68.0504	3.034735099
	4	70.21468	68.7005	1.514158276
	5	69.35063	69.3506	0
	6	71.08515	69.6344	1.450796969
	7	76.44362	69.9181	6.525549041
	8	82.99241	70.2018	12.79061864
	9	89.86631	70.4855	19.38079739
	10	100.2604	70.7692	29.49113702
	11	110.2036	71.053	39.15060594
	12	107.9452	71.3367	36.60852615
	13	112.49	71.6204	40.86960321
	14	123.1295	71.9041	51.22535039
	15	120.7153	72.1878	48.52744071
	16	117.1476	72.4715	44.67600342
	17	112.49	72.7553	39.73472511
	18	109.0709	73.039	36.03188681
	19	105.7148	73.3227	32.39209016
	20	101.3374	73.6064	27.73099204
	21	98.12692	73.8901	24.23677282
	22	94.97815	74.1739	20.80428654
	23	90.87514	74.4576	16.41755177
	24	88.86422	74.7413	14.12291744
10-Jan	1	86.88021	75.025	11.85518558
	2	83.95437	75.3087	8.645626464
	3	82.03709	75.5925	6.444623464
	4	79.21077	75.8762	3.334588987
	5	77.35946	76.1599	1.19955456
	6	76.44362	76.4436	0
	7	76.44362	76.4436	0
	8	77.35946	76.5049	0.854561262
	9	81.08838	76.5662	4.522212918
	10	82.03709	76.6274	5.409643572
	11	93.94221	76.6887	17.25349602
	12	150.2325	76.75	73.48252125
	13	158.5753	76.8113	81.76404332
	14	148.8682	76.8725	71.99571034
	15	133.0743	76.9338	56.14053384
	16	126.8046	76.9951	49.8095081
	17	134.3501	77.0564	57.29374108
	18	158.5753	77.1176	81.45767445
	19	180.6268	77.1789	103.4479
Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung

	20	176.0786	77.2402	98.83838385
	21	167.1897	77.3015	89.88824886
	22	158.5753	77.3627	81.21257936
	23	151.6042	77.424	74.18023715
	24	143.4856	77.4853	66.00028933
11-Jan	1	136.9235	77.5466	59.37697545
	2	130.5447	77.6078	52.93685874
	3	121.9188	77.6691	44.2496869
	4	114.8046	77.7304	37.07424904
	5	110.2036	77.7916	32.41191197
	6	104.61	77.8529	26.75712821
	7	98.12692	77.9142	20.21272654
	8	92.91308	77.9755	14.93760772
	9	87.86886	78.0367	9.832120705
	10	83.95437	78.098	5.856356477
	11	81.08838	78.1593	2.929094799
	12	79.21077	78.2206	0.990210499
	13	78.28184	78.2818	-1.56319E-13
	14	82.03709	78.1737	3.863381868
	15	97.07049	78.0656	19.00491574
	16	185.2447	77.9574	107.2872823
	17	217.8371	77.8493	139.9878325
	18	224.7381	77.7412	146.9969008
	19	214.4349	77.6331	136.8018842
	20	191.5109	77.5249	113.9860207
	21	174.5779	77.4168	97.16111354
	22	168.652	77.3087	91.34338001
	23	168.652	77.2005	91.4515102
	24	89.86631	77.0924	12.77390627
12-Jan	1	86.88021	76.9843	9.895937013
	2	84.92298	76.8761	8.046837075
	3	82.03709	76.768	5.269074326
	4	80.14628	76.6599	3.486400202
	5	78.28184	76.5518	1.730083025
	6	76.44362	76.4436	0
	7	76.44362	76.4436	0
	8	78.28184	76.5049	1.776939441
	9	81.08838	76.5662	4.522212918
	10	81.08838	76.6274	4.460939145
	11	105.7148	76.6887	29.02608031
	12	158.5753	76.75	81.82531709
	13	157.1661	76.8113	80.35479408
	14	143.4856	76.8725	66.61302706
Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung

	15	129.2907	76.9338	52.35693374
	16	128.0441	76.9951	51.04896848
	17	138.2212	77.0564	61.16486296
	18	173.0849	77.1176	95.96730586
	19	180.6268	77.1789	103.4479
	20	173.0849	77.2402	95.84475831
	21	167.1897	77.3015	89.88824886
	22	159.9921	77.3627	82.62937311
	23	151.6042	77.424	74.18023715
	24	142.1584	77.4853	64.67314325
13-Jan	1	134.3501	77.5466	56.80355089
	2	128.0441	77.6078	50.43623074
	3	120.7153	77.6691	43.04617238
	4	114.8046	77.7304	37.07424904
	5	109.0709	77.7916	31.27922951
	6	104.61	77.8529	26.75712821
	7	99.19021	77.9142	21.2760143
	8	92.91308	77.9755	14.93760772
	9	88.86422	78.0367	10.82748218
	10	84.92298	78.098	6.824965938
	11	82.03709	78.1593	3.877799226
	12	80.14628	78.2206	1.925721139
	13	78.28184	78.2818	-1.56319E-13
	14	83.95437	87.1726	-3.218251692
	15	113.6438	96.0634	17.58036691
	16	209.3917	104.954	104.437473
	17	217.8371	113.845	103.9921644
	18	226.4835	122.736	103.7477313
	19	214.4349	131.627	82.80838194
	20	188.3622	140.517	47.84487942
	21	173.0849	149.408	23.67680937
	22	168.652	158.299	10.35312667
	23	167.1897	167.19	0

Lampiran 18. Data debit aliran, *baseflow*, dan limpasan langsung AWLR 20-26 Januari 2012

Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung
---------	----------------	------------------------------	-----------------	-------------------

20-Jan	0	0	0	0
	1	0	0	0
	2	0	0	0
	3	0	0	0
	4	0	0	0
	5	0	0	0
	6	0	0	0
	7	71.96205	71.9621	0
	8	68.49299	68.493	0
	9	66.79684	66.7968	0
	10	65.12612	65.1261	0
	11	63.48068	63.4807	0
	12	61.86042	61.8604	0
	13	61.86042	61.8604	0
	14	63.48068	61.6414	1.839251161
	15	65.95831	61.4224	4.535861276
	16	72.8454	61.2035	11.64194194
	17	82.03709	60.9845	21.05260967
	18	82.99241	60.7655	22.22691861
	19	79.21077	60.5465	18.66426414
	20	76.44362	60.3275	16.11609892
	21	73.73522	60.1085	13.62668277
	22	71.08515	59.8896	11.19559675
	23	71.96205	59.6706	12.29148324
24	71.96205	59.4516	12.51046796	
21-Jan	1	71.08515	59.2326	11.85255089
	2	69.35063	59.0136	10.33701912
	3	69.35063	58.7946	10.55600383
	4	68.49299	58.5756	9.917342371
	5	68.49299	58.3567	10.13632709
	6	67.64173	58.1377	9.504052636
	7	66.79684	57.9187	8.87814937
	8	65.95831	57.6997	8.258601419
	9	64.30025	57.4807	6.81952307
	10	61.86042	57.2617	4.598679
	11	60.26519	57.0428	3.222434201
	12	58.69487	56.8238	1.871096896
	13	57.919	56.6048	1.314220274
	14	56.3858	56.3858	0
	15	57.14932	56.5003	0.649035671
	16	67.64173	56.6148	11.02695835
Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung
	17	148.8682	56.7293	92.13899253
	18	164.2879	56.8437	107.4441409

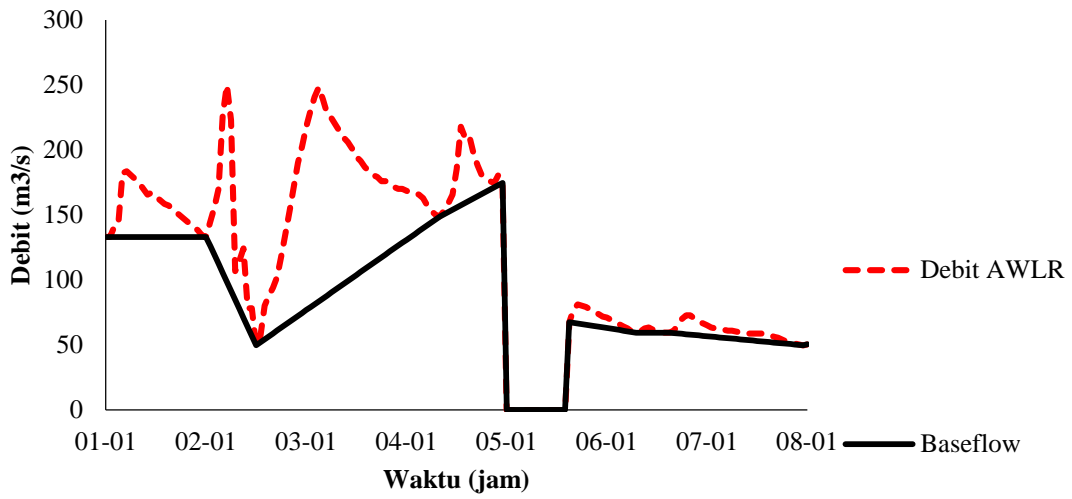
	19	152.9834	56.9582	96.02521624
	20	135.6332	57.0727	78.56044178
	21	119.5189	57.1872	62.33170215
	22	110.2036	57.3017	52.90187076
	23	103.5122	57.4162	46.09607123
	24	100.2604	57.5307	42.72971032
22-Jan	1	97.07049	57.6451	39.42534635
	2	93.94221	57.7596	36.18258288
	3	91.89072	57.8741	34.01660412
	4	89.86631	57.9886	31.87770717
	5	87.86886	58.1031	29.76577259
	6	84.92298	58.2176	26.7054056
	7	82.99241	58.3321	24.66035089
	8	82.03709	58.4465	23.59054066
	9	80.14628	58.561	21.58525035
	10	76.44362	58.6755	17.76810377
	11	72.8454	58.79	14.05539965
	12	69.35063	58.9045	10.44614368
	13	66.79684	59.019	7.777864358
	14	64.30025	59.1335	5.166782628
	15	62.66741	59.2479	3.419463387
	16	61.05968	59.3624	1.697245544
	17	59.47692	59.4769	0
	18	59.47692	59.4769	0
	19	59.47692	59.4769	0
	20	62.66741	59.2042	3.463166666
	21	68.49299	58.9316	9.561418059
	22	71.96205	58.6589	13.30315778
	23	72.8454	58.3862	14.45918476
	24	72.8454	58.1135	14.73186004
23-Jan	1	71.96205	57.8409	14.12118362
	2	71.08515	57.5682	13.51695712
	3	69.35063	57.2955	12.05511591
	4	68.49299	57.0228	11.47014501
	5	68.49299	56.7502	11.74282029
	6	67.64173	56.4775	11.16423641
	7	67.64173	56.2048	11.43691169
	8	66.79684	55.9321	10.86469899
	9	66.79684	55.6595	11.13737427
	10	65.12612	55.3868	9.739323622
	11	63.48068	55.1141	8.366566761
Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung
	12	60.26519	54.8414	5.423746081
	13	58.69487	54.5688	4.126099341

	14	57.14932	54.2961	2.853229967
	15	55.62842	54.0234	1.605007128
	16	54.13204	53.7507	0.381299282
	17	54.13204	53.4781	0.653974562
	18	53.393	53.2054	0.187610096
	19	53.393	52.9327	0.460285375
	20	52.66004	52.66	0
	21	53.393	52.4692	0.923803518
	22	54.13204	52.2784	1.853686127
	23	54.13204	52.0875	2.04452899
	24	54.87718	51.8967	2.980507292
24-Jan	1	57.14932	51.7058	5.443495961
	2	62.66741	51.515	11.15243055
	3	66.79684	51.3241	15.47270239
	4	65.95831	51.1333	14.82501258
	5	65.95831	50.9425	15.01585545
	6	65.12612	50.7516	14.37450505
	7	64.30025	50.5608	13.73947811
	8	62.66741	50.3699	12.29748773
	9	61.86042	50.1791	11.68133505
	10	61.05968	49.9882	11.07144162
	11	59.47692	49.7974	9.679524938
	12	57.14932	49.6066	7.542767459
	13	55.62842	49.4157	6.212712204
	14	54.13204	49.2249	4.907171941
	15	52.66004	49.034	3.626014405
	16	51.93314	48.8432	3.089959056
	17	50.49747	48.6523	1.845125995
	18	49.78865	48.4615	1.327157613
	19	49.78865	48.2707	1.518000476
	20	49.08584	48.0798	1.006027472
	21	48.389	47.889	0.500032958
	22	47.69812	47.6981	-1.06581E-13
	23	47.69812	47.6981	0
	24	47.69812	47.6981	0
25-Jan	1	47.69812	47.6981	0
	2	47.69812	47.6981	0
	3	47.69812	47.6981	0
	4	47.69812	47.6981	0
	5	48.389	47.4062	0.982790833
	6	48.389	47.1143	1.274705845
Tanggal	<i>t</i> (Jam)	<i>Q</i> (m ³ /d)	<i>Baseflow</i>	Limpasan Langsung
	7	48.389	46.8224	1.566620857
	8	49.08584	46.5305	2.555373246

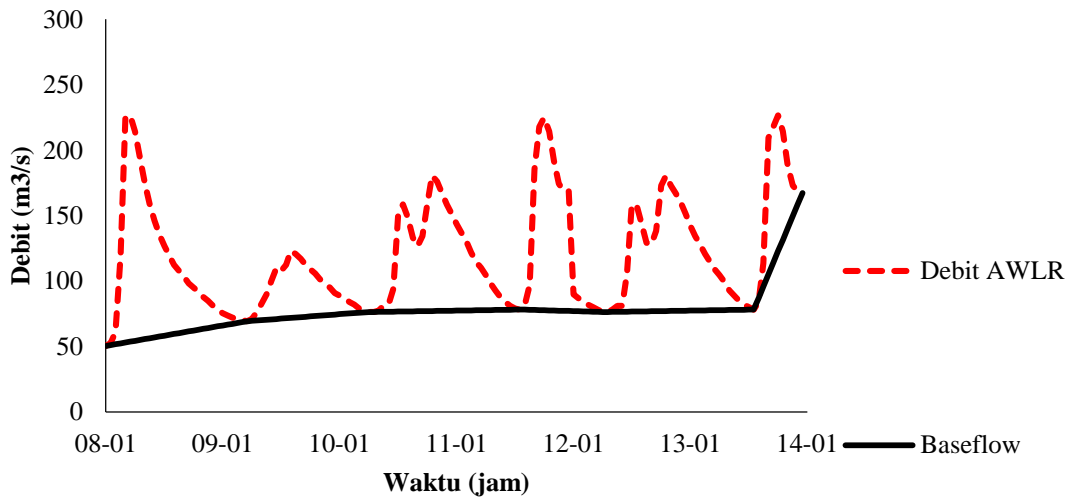
	9	49.08584	46.2385	2.847288258
	10	48.389	45.9466	2.442365892
	11	47.69812	45.6547	2.043405083
	12	47.01319	45.3628	1.650388844
	13	46.33419	45.0709	1.263300143
	14	45.6611	44.779	0.882121895
	15	44.9939	44.4871	0.506836966
	16	44.33257	44.1951	0.13742817
	17	44.33257	43.9032	0.429343181
	18	43.67711	43.6113	0.065793281
	19	43.67711	43.3194	0.357708293
	20	43.02748	43.0275	0
	21	43.02748	43.0275	0
	22	43.02748	43.0275	0
	23	43.67711	42.9474	0.729735255
	24	43.67711	42.8673	0.809847206
26-Jan	1	43.67711	42.7871	0.889959156
	2	44.33257	42.707	1.625536018
	3	44.9939	42.6269	2.366971777
	4	44.9939	42.5468	2.447083727
	5	44.9939	42.4667	2.527195677
	6	45.6611	42.3866	3.274507569
	7	45.6611	42.3065	3.354619519
	8	45.6611	42.2264	3.43473147
	9	45.6611	42.1463	3.51484342
	10	44.9939	42.0661	2.927755429
	11	44.33257	41.986	2.346543571
	12	43.67711	41.9059	1.77119061
	13	43.02748	41.8258	1.201679255
	14	41.74569	41.7457	0
	15	49.08584	49.0858	0
	16	0	0	0
	17	0	0	0
	18	0	0	0
	19	0	0	0
	20	0	0	0
	21	0	0	0
	22	0	0	0
	23	0	0	0
	24	0	0	0

Lampiran 19. Grafik debit aliran dan *baseflow* AWLR Januari 2012

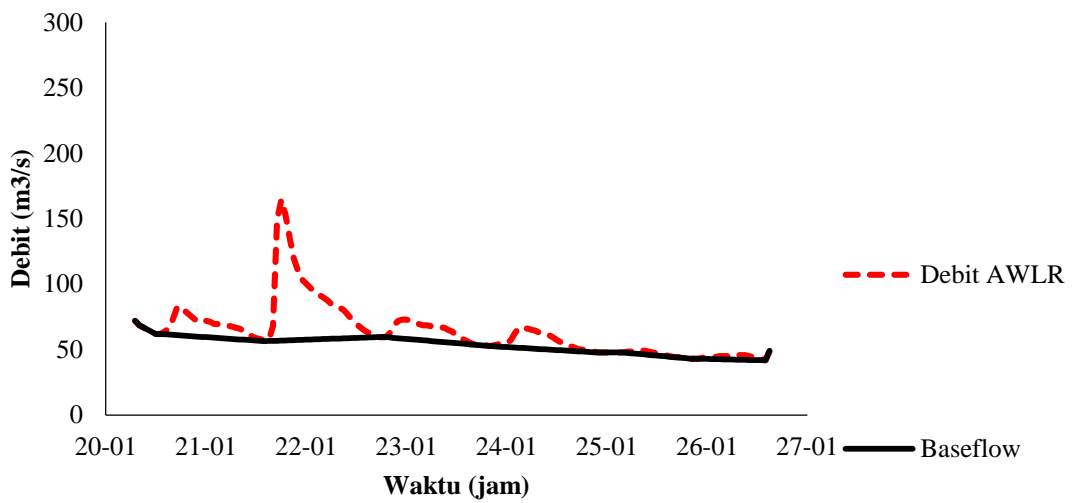
Tanggal 1-7 Januari 2012



Tanggal 8-13 Januari 2012



Tanggal 20-26 Januari 2012



Lampiran 20. Data Debit Banjir Metode *Snyder* Asli Tanggal 1-7 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
1 Januari	0	0	3 Januari	18	40.55101
	1	4.747335		19	12.40305
	2	12.77453		20	5.309806
	3	52.69987		21	2.793702
	4	94.98429		22	8.810441
	5	138.5625		23	20.02476
	6	172.0882		24	34.72863
	7	193.2695		1	49.57558
	8	201.6183		2	61.57056
	9	199.0498		3	69.14892
	10	188.4395		4	72.13599
	11	172.684		5	71.21701
	12	154.2359		6	67.42083
	13	134.9544		7	61.78375
	14	116.1264		8	55.18327
	15	98.56054		9	48.28465
	16	82.69988		10	41.54829
	17	68.7271		11	35.26348
	18	56.65074		12	29.58877
	19	43.89759		13	24.58952
	20	33.65514		14	20.26878
	21	10.51388		15	16.59097
	22	6.119524		16	13.49897
	23	9.409223		17	10.92597
24	29.67367	18	8.803118		
2 Januari	1	67.44363	19	7.064336	
	2	116.9664	20	5.648952	
	3	166.9711	21	4.502972	
	4	207.3704	22	3.579426	
	5	232.8944	23	2.838166	
	6	242.9549	24	2.245344	
	7	239.8597	4 Januari	1	1.684625
	8	227.0742		2	1.256118
	9	208.0884		3	0.547398
	10	185.8579		4	1.442313
	11	162.6233		5	5.387233
	12	139.9351		6	16.9896
	13	118.7678		7	38.61473
	14	99.65533		8	66.96892
	15	82.8178		9	95.59902
	16	68.2655		10	118.7295
	17	52.89765		11	133.3432

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
5 Januari	12	139.1034	7 Januari	6	6.46113
	13	137.3313		7	5.184935
	14	130.0109		8	4.146101
	15	119.1406		9	3.137517
	16	106.4126		10	2.353853
	17	93.10966		11	0.745628
	18	80.1196		12	0.518217
	19	68.00029		13	1.045737
	20	57.05748		14	3.297917
	21	47.41718		15	7.495652
	22	39.08528		16	12.99959
	23	31.99317		17	18.55709
	24	26.03073		18	23.04704
	1	21.06908		19	25.88377
	2	16.97548		20	27.00189
	3	13.62251		21	26.6579
	4	10.89315		22	25.23691
	5	8.243274		23	23.12684
	6	6.183988		24	20.65616
	7	1.937274		1	18.07387
	8	1.193125		2	15.55232
	9	2.050464		3	13.1998
	10	6.466505		4	11.07565
	11	14.69736		5	9.20433
12	25.4894	6	7.586994		
13	36.38646	7	6.210317		
14	45.19029	8	5.052925		
15	50.75249	9	4.0898		
16	52.94488	10	3.295176		
17	52.27039	11	2.644317		
18	49.48415	12	2.114511		
19	45.34676	13	1.685549		
20	40.50228	14	1.339848		
21	35.43897	15	1.06238		
22	30.49476	16	0.840475		
23	25.88196	17	0.66357		
24	21.71695	18	0.522936		
6 Januari	1	18.04771	19	0.391116	
	2	14.87646	20	0.292353	
	3	12.17709	21	0.226559	
	4	9.907697	22	1.107701	
	5	8.019216	23	4.450265	
			24	14.03471	

Lampiran 21. Data Debit Banjir Metode *Snyder* Asli Tanggal 8-13 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
8 Januari	0	0	10 Januari	18	92.03419
	1	5.512426		19	79.19418
	2	12.57353		20	67.21485
	3	54.38688		21	56.39843
	4	83.3879		22	46.86948
	5	108.2214		23	38.63383
	6	121.5417		24	31.62364
	7	126.792		1	25.73006
	8	125.1767		2	20.82572
	9	118.5043		3	16.77941
	10	108.5961		4	13.46516
	11	96.99456		5	10.21828
	12	84.86898		6	7.689025
	13	73.02861		7	2.619414
	14	61.98192		8	3.119179
	15	52.0076		9	9.315716
	16	43.22052		10	29.37878
	17	35.62604		11	66.77339
	18	29.16162		12	115.804
	19	23.72688		13	165.3118
	20	19.20436		14	205.3096
	21	15.47307		15	230.5799
	22	12.41684		16	240.5404
	23	9.929053		17	237.4761
24	7.914786	18	224.8176		
9 Januari	1	6.291487	19	206.0205	
	2	4.73847	20	184.0109	
	3	3.541045	21	161.0072	
	4	1.237568	22	138.5445	
	5	1.684754	23	117.5875	
	6	5.325008	24	98.66498	
	7	16.79337	11 Januari	1	81.99477
	8	38.16871		2	67.58709
	9	66.19539		3	55.32326
	10	94.4948		4	45.01288
	11	117.3581		5	36.43309
	12	131.8031		6	29.35436
	13	137.4966		7	23.55632
	14	135.745		8	17.87614
	15	128.5092		9	13.44514
	16	117.7645		10	4.189428
	17	105.1835	11	2.411306	
		12	3.69163		

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	13	11.64222		10	1.953647
	14	26.46095		11	2.490126
	15	45.89081		12	7.659967
	16	65.50974		13	24.15708
	17	81.36004		14	54.90527
	18	91.37417		15	95.22136
	19	95.32132		16	135.9298
	20	94.10697		17	168.8184
	21	89.09066		18	189.5973
	22	81.64176		19	197.7874
	23	72.91981		20	195.2677
	24	63.80389		21	184.8591
12 Januari	1	54.90239		22	169.403
	2	46.59756		23	151.3053
	3	39.09894		24	132.3902
	4	32.49287			
	5	25.33574			
	6	19.5334			
	7	6.058103			
	8	3.187003			
	9	3.92081			
	10	12.36498			
	11	28.10367			
	12	48.73975			
	13	69.57664			
	14	86.41095			
	15	97.04676			
	16	101.239			
	17	99.94922			
	18	94.62149			
	19	86.71015			
	20	77.44674			
	21	67.76489			
	22	58.31078			
	23	49.49038			
	24	41.52624			
13 Januari	1	34.51006			
	2	28.44614			
	3	23.28452			
	4	18.94508			
	5	15.334			
	6	12.3547			
	7	9.914413			
	8	7.523732			
	9	5.661836			

Lampiran 22. Data Debit Banjir Metode *Snyder* Asli Tanggal 20-26 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
20 Januari	0	0	22 Januari	18	156.8715
	1	0		19	159.5048
	2	0		20	161.5444
	3	0		21	163.0893
	4	0.023356		22	164.2187
	5	0.317204		23	164.997
	6	1.101134		24	165.4767
	7	3.715268		1	165.7012
	8	7.518194		2	165.7065
	9	11.46654		3	165.5229
	10	14.94063		4	165.1758
	11	17.76118		5	164.6869
	12	20.00313		6	164.0746
	13	21.78054		7	163.3549
	14	23.19287		8	162.5414
	15	24.31793		9	161.6459
	16	25.21501		10	147.328
	17	25.92928		11	136.2856
	18	26.49537		12	46.05199
	19	26.94013		13	32.79669
	20	27.28462		14	31.94271
	21	27.54554		15	48.71812
	22	27.73631		16	63.47857
	23	27.86776		17	75.46232
24	27.94878	18	84.9877		
21 Januari	1	27.98669	19	92.53946	
	2	27.98759	20	98.54006	
	3	27.95657	21	103.3201	
	4	25.68437	22	107.1316	
	5	25.36611	23	110.1663	
	6	13.72214	24	112.5714	
	7	24.96269	23 Januari	1	114.4611
	8	44.51307		2	115.9247
	9	67.89008		3	117.0333
	10	88.45919		4	117.8438
	11	105.1589		5	118.4023
	12	118.4328		6	118.7466
	13	128.9564		7	118.9076
	14	137.3184		8	118.9115
	15	143.9795		9	118.7797
	16	149.2909		10	118.5306
	17	153.5198		11	118.1798

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	12	117.7404
	13	117.224
	14	116.6402
	15	106.3536
	16	98.45583
	17	33.38729
	18	24.12673
	19	23.95848
	20	36.54079
	21	47.61179
	22	56.60014
	23	63.74461
	24	69.40877
24 Januari	1	73.90949
	2	77.49473
	3	80.3535
	4	82.62969
	5	84.43366
	6	85.85099
	7	86.94879
	8	87.78029
	9	88.38819
	10	88.80709
	11	89.06528
	12	89.1861
	13	89.18896
	14	82.19402
	15	82.03375
	16	81.80153
	17	81.50675
	18	80.54792
	19	73.99949
	20	22.95718
	21	10.312
	22	1.99858
	23	3.048177
	24	3.971704
25 Januari	1	4.721498
	2	5.317479
	3	5.789974
	4	6.165418
	5	6.464493
	6	6.702967
	7	6.892843
	8	7.043328

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	9	7.161559
	10	7.253136
	11	7.322498
	12	7.373209
	13	7.408153
	14	7.429691
	15	7.439769
	16	7.440008
	17	7.431763
	18	0.013307
	19	0.180722
	20	0.627355
	21	2.11672
	22	4.283382
	23	6.532893
	24	8.512207
26 Januari	1	10.11918
	2	11.39649
	3	12.40915
	4	13.2138
	5	13.85479
	6	14.36589
	7	14.77283
	8	15.09535
	9	15.34875
	10	15.54502
	11	15.69367
	12	15.80236
	13	15.87725
	14	15.92341
	15	15.94501
	16	15.94552
	17	15.92785
	18	15.89445
	19	15.84741
	20	15.78849
	21	14.39954
	22	13.21482
	23	4.052033
	24	1.667042

Lampiran 23. Data Debit Banjir Metode *Snyder* Modifikasi Tanggal 1-7 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
1 Januari	0	0		17	52.89765	
	1	4.747335		18	40.55101	
	2	12.77453		19	12.40305	
	3	52.69987		20	5.309806	
	4	94.98429		21	2.793702	
	5	138.5625		22	8.810441	
	6	172.0882		23	20.02476	
	7	193.2695		24	34.72863	
	8	201.6183		3 Januari	1	49.57558
	9	199.0498			2	61.57056
	10	188.4395			3	69.14892
	11	172.684			4	72.13599
	12	154.2359			5	71.21701
	13	134.9544			6	67.42083
	14	116.1264			7	61.78375
	15	98.56054			8	55.18327
	16	82.69988			9	48.28465
	17	68.7271			10	41.54829
	18	56.65074			11	35.26348
	19	43.89759			12	29.58877
	20	33.65514			13	24.58952
	21	10.51388			14	20.26878
	22	6.119524			15	16.59097
	23	9.409223			16	13.49897
24	29.67367	17	10.92597			
2 Januari	1	67.44363	18	8.803118		
	2	116.9664	19	7.064336		
	3	166.9711	20	5.648952		
	4	207.3704	21	4.502972		
	5	232.8944	22	3.579426		
	6	242.9549	23	2.838166		
	7	239.8597	24	2.245344		
	8	227.0742	4 Januari	1	1.684625	
	9	208.0884		2	1.256118	
	10	185.8579		3	0.547398	
	11	162.6233		4	1.442313	
	12	139.9351		5	5.387233	
	13	118.7678		6	16.9896	
	14	99.65533		7	38.61473	
	15	82.8178		8	66.96892	
	16	68.2655	9	95.59902		

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	10	118.7295
	11	133.3432
	12	139.1034
	13	137.3313
	14	130.0109
	15	119.1406
	16	106.4126
	17	93.10966
	18	80.1196
	19	68.00029
	20	57.05748
	21	47.41718
	22	39.08528
	23	31.99317
	24	26.03073
5 Januari	1	21.06908
	2	16.97548
	3	13.62251
	4	10.89315
	5	8.243274
	6	6.183988
	7	1.937274
	8	1.193125
	9	2.050464
	10	6.466505
	11	14.69736
	12	25.4894
	13	36.38646
	14	45.19029
	15	50.75249
	16	52.94488
	17	52.27039
	18	49.48415
	19	45.34676
	20	40.50228
	21	35.43897
	22	30.49476
	23	25.88196
	24	21.71695
6 Januari	1	18.04771
	2	14.87646
	3	12.17709
	4	9.907697
	5	8.019216
	6	6.46113

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	7	5.184935
	8	4.146101
	9	3.137517
	10	2.353853
	11	0.745628
	12	0.518217
	13	1.045737
	14	3.297917
	15	7.495652
	16	12.99959
	17	18.55709
	18	23.04704
	19	25.88377
	20	27.00189
	21	26.6579
	22	25.23691
	23	23.12684
	24	20.65616
7 Januari	1	18.07387
	2	15.55232
	3	13.1998
	4	11.07565
	5	9.20433
	6	7.586994
	7	6.210317
	8	5.052925
	9	4.0898
	10	3.295176
	11	2.644317
	12	2.114511
	13	1.685549
	14	1.339848
	15	1.06238
	16	0.840475
	17	0.66357
	18	0.522936
	19	0.391116
	20	0.292353
	21	0.226559
	22	1.107701
	23	4.450265
	24	14.03471

Lampiran 24. Data Debit Banjir Metode *Snyder* Modifikasi Tanggal 8-13 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
8 Januari	0	0		16	117.7645	
	1	5.512426		17	105.1835	
	2	12.57353		18	92.03419	
	3	54.38688		19	79.19418	
	4	83.3879		20	67.21485	
	5	108.2214		21	56.39843	
	6	121.5417		22	46.86948	
	7	126.792		23	38.63383	
	8	125.1767		24	31.62364	
	9	118.5043		10 Januari	1	25.73006
	10	108.5961			2	20.82572
	11	96.99456			3	16.77941
	12	84.86898			4	13.46516
	13	73.02861			5	10.21828
	14	61.98192			6	7.689025
	15	52.0076			7	2.619414
	16	43.22052			8	3.119179
	17	35.62604			9	9.315716
	18	29.16162			10	29.37878
	19	23.72688			11	66.77339
	20	19.20436			12	115.804
	21	15.47307			13	165.3118
	22	12.41684			14	205.3096
	23	9.929053			15	230.5799
24	7.914786		16		240.5404	
9 Januari	1	6.291487	17	237.4761		
	2	4.73847	18	224.8176		
	3	3.541045	19	206.0205		
	4	1.237568	20	184.0109		
	5	1.684754	21	161.0072		
	6	5.325008	22	138.5445		
	7	16.79337	23	117.5875		
	8	38.16871	24	98.66498		
	9	66.19539	11 Januari	1	81.99477	
	10	94.4948		2	67.58709	
	11	117.3581		3	55.32326	
	12	131.8031		4	45.01288	
	13	137.4966		5	36.43309	
	14	135.745		6	29.35436	
	15	128.5092		7	23.55632	
		8		17.87614		

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	9	13.44514
	10	4.189428
	11	2.411306
	12	3.69163
	13	11.64222
	14	26.46095
	15	45.89081
	16	65.50974
	17	81.36004
	18	91.37417
	19	95.32132
	20	94.10697
	21	89.09066
	22	81.64176
	23	72.91981
	24	63.80389
12 Januari	1	54.90239
	2	46.59756
	3	39.09894
	4	32.49287
	5	25.33574
	6	19.5334
	7	6.058103
	8	3.187003
	9	3.92081
	10	12.36498
	11	28.10367
	12	48.73975
	13	69.57664
	14	86.41095
	15	97.04676
	16	101.239
	17	99.94922
	18	94.62149
	19	86.71015
	20	77.44674
	21	67.76489
	22	58.31078
	23	49.49038
	24	41.52624
13 Januari	1	34.51006
	2	28.44614
	3	23.28452
	4	18.94508
	5	15.334

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	6	12.3547
	7	9.914413
	8	7.523732
	9	5.661836
	10	1.953647
	11	2.490126
	12	7.659967
	13	24.15708
	14	54.90527
	15	95.22136
	16	135.9298
	17	168.8184
	18	189.5973
	19	197.7874
	20	195.2677
	21	184.8591
	22	169.403
	23	151.3053
	24	132.3902

Lampiran 25. Data Debit Banjir Metode *Snyder* Modifikasi Tanggal 20-26 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
20 Januari	0	0		17	100.1763
	1	0		18	91.80056
	2	0		19	81.99333
	3	0		20	71.7431
	4	8.55E-10		21	61.73397
	5	0.000348		22	52.39576
	6	0.021861		23	43.96408
	7	0.169383		24	36.53601
	8	0.701095	22 Januari	1	30.1161
	9	2.21103		2	24.65146
	10	5.025327		3	20.05727
	11	8.715346		4	16.2342
	12	12.44127		5	13.07999
	13	15.45148		6	10.49645
	14	17.35331		7	8.39342
	15	18.10294		8	6.690681
	16	17.87231		9	5.318443
	17	16.91964		10	4.005616
	18	15.50498		11	2.99263
	19	13.84856		12	0.998688
	20	12.11731		13	1.056313
	21	10.42678		14	2.978759
	22	8.849569		15	9.394051
	23	7.42547		16	21.35121
24	6.17088	17		37.02908	
21 Januari	1	5.086565		18	52.8595
	2	4.163597		19	65.64903
	3	3.387644		20	73.72939
	4	2.598768		21	76.91433
	5	1.976019		22	75.93447
	6	0.728362		23	71.88684
	7	1.227293		24	65.87635
	8	4.150985	23 Januari	1	58.83865
	9	13.09088		2	51.48306
	10	29.75352		3	44.30048
	11	51.60107		4	37.59935
	12	73.66121		5	31.54875
	13	91.48379		6	26.21835
	14	102.744		7	21.6114
	15	107.1823		8	17.68996
	16	105.8168		9	14.39315

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	10	11.64971
	11	9.386242
	12	7.532282
	13	6.023143
	14	4.801252
	15	3.624207
	16	2.71314
	17	0.891144
	18	0.8454
	19	2.234204
	20	7.045962
	21	16.01437
	22	27.77348
	23	39.64701
	24	49.23974
24 Januari	1	55.30037
	2	57.68922
	3	56.95428
	4	53.91837
	5	49.41023
	6	44.13164
	7	38.61462
	8	33.22736
	9	28.20121
	10	23.66299
	11	19.66494
	12	16.20952
	13	13.26827
	14	10.27366
	15	8.319637
	16	6.706148
	17	5.38365
	18	4.287265
	19	3.224225
	20	0.982963
	21	0.409431
	22	0.186374
	23	0.587763
	24	1.335895
25 Januari	1	2.316821
	2	3.307293
	3	4.107504
	4	4.613073
	5	4.812347
	6	4.75104

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	7	4.497789
	8	4.121727
	9	3.681395
	10	3.221173
	11	2.771776
	12	2.352502
	13	1.97393
	14	1.64042
	15	1.352174
	16	1.106819
	17	0.900545
	18	4.87E-10
	19	0.000198
	20	0.012455
	21	0.096504
	22	0.399439
	23	1.259702
	24	2.863107
26 Januari	1	4.965442
	2	7.088234
	3	8.803257
	4	9.886798
	5	10.31388
	6	10.18249
	7	9.639719
	8	8.833739
	9	7.890013
	10	6.90366
	11	5.940506
	12	5.041914
	13	4.230554
	14	3.515769
	15	2.897997
	16	2.372149
	17	1.930061
	18	1.562177
	19	1.258655
	20	1.010047
	21	0.766493
	22	0.576422
	23	0.174699
	24	0.065149

Lampiran 26. Data Debit Banjir Metode GAMA Asli Tanggal 1-7 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
1 Januari	0	0		15	68.11301	
	1	32.06535		16	54.38816	
	2	83.99978		17	43.42889	
	2.775182	323.0917		18	34.67792	
	3	538.4805		19	27.69028	
	4	586.0087		20	22.11066	
	5	522.7769		21	17.65534	
	6	428.3171		22	14.09777	
	7	342.0107		23	22.15137	
	8	273.0952		24	38.09267	
	9	218.0662		3 Januari	0.775182	118.033
	10	174.1256		1	193.5698	
	11	139.0391		2	209.6651	
	12	111.0226		3	187.0417	
	13	88.65142		4	153.2454	
	14	70.78806		5	122.3663	
	15	56.52419		6	97.70935	
	16	45.13451		7	78.02081	
	17	36.03985		8	62.29953	
	18	28.77778		9	49.74611	
	19	22.97903		10	39.72221	
	20	18.34873		11	31.71814	
	21	14.65144		12	25.3269	
	22	11.69916		13	20.22351	
23	9.341766		14	16.14845		
24	7.45939		15	12.89452		
2 Januari	1	44.2899	16	10.29626		
	2	105.4752	17	8.221551		
	2.775182	390.622	18	6.564899		
	3	649.3632	19	5.242065		
	4	706.1545	20	4.185783		
	5	629.9586	21	3.342343		
	6	516.1324	22	2.668858		
	7	412.1311	23	2.13108		
	8	329.0863	24	1.701665		
	9	262.775	4 Januari	1	1.358778	
	10	209.8256	2	1.084982		
	11	167.5455	3	0.866357		
	12	133.7849	4	0.691785		
	13	106.8271	5	0.55239		
14	85.30131	6	0.441083			

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	7	0.352204
	8	0.281235
	9	22.33601
	10	58.11469
	10.77518	222.9606
	11	371.5343
	12	404.3075
	13	360.6817
	14	295.5106
	15	235.9649
	16	188.4177
	17	150.4513
	18	120.1352
	19	95.92786
	20	76.59829
	21	61.16365
	22	48.83911
	23	38.99798
	24	31.13984
5 Januari	1	24.86513
	2	19.85478
	3	15.85402
	4	12.65942
	5	10.10853
	6	8.071651
	7	6.445204
	8	5.146489
	9	4.109466
	10	3.281404
	11	2.620197
	12	2.092225
	13	1.670639
	14	9.685835
	15	23.01094
	15.77518	85.13239
	16	141.5126
	17	153.8857
	18	137.281
	19	112.4759
	20	89.81188
	21	71.71469
	22	57.2641
	23	45.72532
	24	36.51162
6 Januari	1	29.15449

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	2	23.27983
	3	18.58892
	4	14.84323
	5	11.8523
	6	9.464052
	7	7.557035
	8	6.034284
	9	4.818369
	10	3.847463
	11	3.072195
	12	2.453144
	13	1.958833
	14	5.778167
	15	12.3667
	15.77518	43.60874
	16	72.2428
	17	78.48167
	18	70.0133
	19	57.3627
	20	45.80405
	21	36.57449
	22	29.20469
	23	23.31991
	24	18.62092
7 Januari	1	14.86879
	2	11.87271
	3	9.480347
	4	7.570046
	5	6.044674
	6	4.826666
	7	3.854087
	8	3.077484
	9	2.457368
	10	1.962206
	11	1.566819
	12	1.251103
	13	0.999005
	14	0.797704
	15	0.636966
	16	0.508617
	17	0.40613
	18	0.324294
	19	0.258949
	20	0.20677
	21	0.165106

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	22	0.131837
	23	18.37513
	24	47.94986

Lampiran 27. Data Debit Banjir Metode GAMA Asli Tanggal 8-13 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
8 Januari	0	0		15	82.57386	
	1	7.139021		16	65.93514	
	2	18.70169		17	52.64914	
	2.775182	71.93305		18	42.04028	
	3	119.8872		19	33.56912	
	4	130.4688		20	26.8049	
	5	116.3909		21	21.40369	
	6	95.3604		22	17.09082	
	7	76.14517		23	13.647	
	8	60.80184		24	10.89712	
	9	48.5502		10 Januari	1	8.701335
	10	38.76728			2	6.948006
	11	30.95563			3	5.547976
	12	24.71804			4	4.430053
	13	19.73733			5	3.537392
	14	15.76023			6	2.824604
	15	12.58453			7	2.255443
	16	10.04873			8	1.800969
	17	8.023903			9	1.438072
	18	6.407078			10	14.63294
	19	5.116045			11	36.29948
	20	4.085156		11.77518	136.7145	
	21	3.261993		12	227.5338	
	22	2.604698		13	247.5158	
23	2.079848		14	220.8082		
24	1.660757		15	180.9107		
9 Januari	1	1.326112	16	144.457		
	2	1.058899	17	115.3488		
	3	0.84553	18	92.10585		
	4	0.675155	19	73.54642		
	5	0.53911	20	58.72674		
	6	0.430479	21	46.89324		
	7	0.343737	22	37.4442		
	8	0.274474	23	29.89915		
	9	7.949655	24	23.87444		
	10	20.43712	11 Januari	1	19.06372	
	10.77518	78.05354		2	15.22236	
	11	130.0265		3	12.15503	
	12	141.4839		4	9.705782	
	13	126.2174		5	7.750056	
14	103.4114	6		6.188412		

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	7	4.94144		2	6.406804
	8	3.945734		3	5.115826
	9	3.150665		4	4.084982
	10	2.515802		5	3.261853
	11	2.008865		6	2.604586
	12	1.604077		7	2.079759
	13	1.280854		8	1.660686
	14	6.337294		9	1.326056
	15	14.79016		10	1.058854
	15.77518	54.30004		11	0.845494
	16	90.21293		12	0.675126
	17	98.08552		13	0.539087
	18	87.50184		14	11.54477
	19	71.69126		15	29.48084
	20	57.24539	15.77518	15.77518	112.3041
	21	45.71038		16	187.0511
	22	36.49969		17	203.523
	23	29.14496		18	181.5624
	24	23.27222		19	148.7561
12 Januari	1	18.58284		20	118.7816
	2	14.83838		21	94.84698
	3	11.84843		22	75.73521
	4	9.460959		23	60.47449
	5	7.554566		24	48.28881
	6	6.032313			
	7	4.816795			
	8	3.846206			
	9	3.071191			
	10	8.026643			
	11	16.68389			
	11.77518	57.96661			
	12	95.92381			
	13	104.1748			
	14	92.93403			
	15	76.14192			
	16	60.79924			
	17	48.54813			
	18	38.76563			
	19	30.95431			
	20	24.71698			
	21	19.73648			
	22	15.75956			
	23	12.58399			
	24	10.0483			
13 Januari	1	8.02356			

Lampiran 28. Data Debit Banjir Metode GAMA Asli Tanggal 20-26 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
20 Januari	0	0		15.77518	15.91724	
	1	0		16	60.84055	
	2	0		17	101.3576	
	3	0		18	110.2904	
	4	0		19	98.38982	
	5	0		20	80.61191	
	6	0		21	64.36852	
	7	0		22	51.39819	
	8	0		23	41.0414	
	9	0		24	32.77151	
	10	0		22 Januari	1	26.16802
	11	0			2	20.89513
	12	0			3	16.68474
	13	0			4	13.32275
14	1.019285		5		10.6382	
14.77518	2.670164		6		8.494591	
15	10.27036		7		6.782922	
16	17.11708		8		5.416156	
17	18.6279		9		4.324795	
18	16.6179		10		3.453344	
19	13.61524		11		2.757491	
20	10.87175		12		2.201854	
21	8.681081		13		1.758178	
22	6.931834		14		1.403903	
23	5.535062		15	1.121015		
24	4.419741		16	0.895129		
21 Januari	1	3.529158	17	0.71476		
	2	2.818029	18	0.570735		
	3	2.250193	19	0.455731		
	4	1.796777	20	4.675869		
	5	1.434724	20.77518	11.60465		
	6	1.145626	21	43.71462		
	7	0.914781	22	72.75511		
	8	0.730452	23	79.14474		
	9	0.583265	24	70.60482		
	10	0.465736	23 Januari	1	57.84734	
	11	0.37189		2	46.19104	
	12	0.296954		3	36.88349	
	13	0.237117		4	29.45143	
	14	0.189338		5	23.51693	
	15	6.178317		6	18.77825	

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	7	14.99441		3	0.48179
	8	11.97302		4	0.384708
	9	9.560443		5	0.307189
	10	7.634004		6	0.503651
	11	6.095744		6.775182	0.884981
	12	4.867445		7	2.783267
	13	3.886649		8	4.570094
	14	3.103485		9	4.951899
	15	2.47813		10	4.417576
	16	1.978784		11	3.619371
	17	1.580057		12	2.890064
	18	1.261674		13	2.307713
	19	1.007445		14	1.842706
	20	0.804444		15	1.471399
	21	0.642347		16	1.17491
	22	0.512914		17	0.938165
	23	0.409561		18	0.749123
	24	0.327034		19	0.598174
24 Januari	1	0.261136		20	0.477641
	2	3.445997		21	0.381396
	2.775182	8.658004		22	0.304544
	3	32.774		23	0.243178
	4	54.56441		24	0.194178
	5	59.36213	26 Januari	1	0.155051
	6	52.9568		2	0.123808
	7	43.38812		3	0.09886
	8	34.64536		4	0.07894
	9	27.66428		5	0.063033
	10	22.0899		1	0.580723
	11	17.63876		1.775182	1.521287
	12	14.08453		2	5.851387
	13	11.24648		3	9.752209
	14	8.980305		4	10.61297
	15	7.170764		5	9.467807
	16	5.725847		6	7.757083
	17	4.572083		7	6.194022
	18	3.650803		8	4.94592
	19	2.915162		9	3.949312
	20	2.327754		10	3.153521
	21	1.858709		11	2.518083
	22	1.484177		12	2.010687
	23	1.185114		13	1.605531
	24	0.946312		14	1.282015
25 Januari	1	0.755629		15	1.023687
	2	0.603369		16	0.817413

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	17	0.652704
	18	0.521183
	19	0.416164
	20	0.332307
	21	0.265346
	22	0.211879
	23	0.169185
	24	0.135094

Lampiran 29. Data Debit Banjir Metode GAMA Modifikasi Tanggal 1-7 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
1 Januari	0	0		15	30.19927	
	1	0		16	24.11408	
	2	11.35211		17	19.25507	
	2.775182	29.73849		18	15.37515	
	3	114.3843		19	12.27704	
	4	190.6385		20	9.803204	
	5	207.465		21	7.827848	
	6	185.079		22	6.250528	
	7	151.6373		23	4.99104	
	8	121.0822		24	7.842261	
	9	96.68403		3 Januari	0.775182	13.48597
	10	77.20209		1	41.78729	
	11	61.64579		2	68.5296	
	12	49.22409		3	74.22784	
	13	39.30539		4	66.21846	
	14	31.38531		5	54.25355	
	15	25.06113		6	43.3214	
	16	20.01129		7	34.59209	
	17	15.97899		8	27.62175	
	18	12.75921		9	22.05593	
	19	10.18821		10	17.61164	
	20	8.135277		11	14.06288	
	21	6.49601		12	11.22919	
	22	5.187057		13	8.966496	
23	4.141859		14	7.159738		
24	3.30727		15	5.717043		
2 Januari	1	2.640852	16	4.565052		
	2	15.67998	17	3.645189		
	2.775182	37.34145	18	2.91068		
	3	138.2921	19	2.324175		
	4	229.8944	20	1.855851		
	5	250.0002	21	1.481895		
	6	223.0246	22	1.183292		
	7	182.7266	23	0.944857		
	8	145.907	24	0.754467		
	9	116.5066	4 Januari	1	0.602441	
	10	93.03037	2	0.481049		
	11	74.28465	3	0.384117		
	12	59.31621	4	0.306717		
	13	47.36393	5	0.244913		
14	37.82005	6	0.195563			

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	7	0.156157
	8	0.124691
	9	0.099566
	10	7.90763
	10.77518	20.57437
	11	78.93486
	12	131.5345
	13	143.1372
	14	127.6923
	15	104.6198
	16	83.53878
	17	66.70562
	18	53.26437
	19	42.53154
	20	33.96139
	21	27.11813
	22	21.6538
	23	17.29053
	24	13.80647
5 Januari	1	11.02445
	2	8.803014
	3	7.029197
	4	5.612806
	5	4.48182
	6	3.578728
	7	2.857611
	8	2.281799
	9	1.822014
	10	1.454876
	11	1.161717
	12	0.92763
	13	0.740711
	14	0.591457
	15	3.429081
	15.77518	8.146575
	16	30.13946
	17	50.09976
	18	54.48022
	19	48.60166
	20	39.8199
	21	31.79615
	22	25.38919
	23	20.27324
	24	16.18816
6 Januari	1	12.92623

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	2	10.32158
	3	8.241769
	4	6.581044
	5	5.254956
	6	4.196077
	7	3.350563
	8	2.675421
	9	2.136321
	10	1.70585
	11	1.362119
	12	1.087651
	13	0.868488
	14	0.693487
	15	2.045647
	15.77518	4.378189
	16	15.43882
	17	25.57615
	18	27.78491
	19	24.78684
	20	20.30815
	21	16.21603
	22	12.94848
	23	10.33935
	24	8.25596
7 Januari	1	6.592375
	2	5.264004
	3	4.203302
	4	3.356332
	5	2.680027
	6	2.139999
	7	1.708787
	8	1.364464
	9	1.089523
	10	0.869983
	11	0.694681
	12	0.554702
	13	0.442929
	14	0.353678
	15	0.282412
	16	0.225505
	17	0.180066
	18	0.143782
	19	0.11481
	20	0.091676
	21	0.073203

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	22	0.058452
	23	0.046674
	24	6.505358

Lampiran 30. Data Debit Banjir Metode ITB-2 Modifikasi Tanggal 8-13 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
8 Januari	0	0		15	103.4114	
	1	0		16	82.57386	
	2	7.139021		17	65.93514	
	2.775182	18.70169		18	52.64914	
	3	71.93305		19	42.04028	
	4	119.8872		20	33.56912	
	5	130.4688		21	26.8049	
	6	116.3909		22	21.40369	
	7	95.3604		23	17.09082	
	8	76.14517		24	13.647	
	9	60.80184		10 Januari	1	10.89712
	10	48.5502			2	8.701335
	11	38.76728			3	6.948006
	12	30.95563			4	5.547976
	13	24.71804			5	4.430053
	14	19.73733			6	3.537392
	15	15.76023			7	2.824604
	16	12.58453			8	2.255443
	17	10.04873			9	1.800969
	18	8.023903			10	1.438072
	19	6.407078			11	14.63294
	20	5.116045		11.77518	36.29948	
	21	4.085156		12	136.7145	
	22	3.261993		13	227.5338	
23	2.604698		14	247.5158		
24	2.079848		15	220.8082		
9 Januari	1	1.660757	16	180.9107		
	2	1.326112	17	144.457		
	3	1.058899	18	115.3488		
	4	0.84553	19	92.10585		
	5	0.675155	20	73.54642		
	6	0.53911	21	58.72674		
	7	0.430479	22	46.89324		
	8	0.343737	23	37.4442		
	9	0.274474	24	29.89915		
	10	7.949655	11 Januari	1	23.87444	
	10.77518	20.43712		2	19.06372	
	11	78.05354		3	15.22236	
	12	130.0265		4	12.15503	
	13	141.4839		5	9.705782	
14	126.2174	6		7.750056		

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	7	6.188412		2	8.02356
	8	4.94144		3	6.406804
	9	3.945734		4	5.115826
	10	3.150665		5	4.084982
	11	2.515802		6	3.261853
	12	2.008865		7	2.604586
	13	1.604077		8	2.079759
	14	1.280854		9	1.660686
	15	6.337294		10	1.326056
	15.77518	14.79016		11	1.058854
	16	54.30004		12	0.845494
	17	90.21293		13	0.675126
	18	98.08552		14	0.539087
	19	87.50184		15	11.54477
	20	71.69126	15.77518	15.77518	29.48084
	21	57.24539		16	112.3041
	22	45.71038		17	187.0511
	23	36.49969		18	203.523
	24	29.14496		19	181.5624
12 Januari	1	23.27222		20	148.7561
	2	18.58284		21	118.7816
	3	14.83838		22	94.84698
	4	11.84843		23	75.73521
	5	9.460959		24	60.47449
	6	7.554566			
	7	6.032313			
	8	4.816795			
	9	3.846206			
	10	3.071191			
	11	8.026643			
	11.77518	16.68389			
	12	57.96661			
	13	95.92381			
	14	104.1748			
	15	92.93403			
	16	76.14192			
	17	60.79924			
	18	48.54813			
	19	38.76563			
	20	30.95431			
	21	24.71698			
	22	19.73648			
	23	15.75956			
	24	12.58399			
13 Januari	1	10.0483			

Lampiran 31. Data Debit Banjir Metode GAMA Modifikasi Tanggal 20-26 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
20 Januari	0	0		15.77518	15.91724	
	1	0		16	60.84055	
	2	0		17	101.3576	
	3	0		18	110.2904	
	4	0		19	98.38982	
	5	0		20	80.61191	
	6	0		21	64.36852	
	7	0		22	51.39819	
	8	0		23	41.0414	
	9	0		24	32.77151	
	10	0		22 Januari	1	26.16802
	11	0			2	20.89513
	12	0			3	16.68474
	13	0			4	13.32275
14	1.019285		5		10.6382	
14.77518	2.670164		6		8.494591	
15	10.27036		7		6.782922	
16	17.11708		8		5.416156	
17	18.6279		9		4.324795	
18	16.6179		10		3.453344	
19	13.61524		11		2.757491	
20	10.87175		12		2.201854	
21	8.681081		13		1.758178	
22	6.931834		14		1.403903	
23	5.535062		15		1.121015	
24	4.419741		16	0.895129		
21 Januari	1	3.529158	17	0.71476		
	2	2.818029	18	0.570735		
	3	2.250193	19	0.455731		
	4	1.796777	20	4.675869		
	5	1.434724	20.77518	11.60465		
	6	1.145626	21	43.71462		
	7	0.914781	22	72.75511		
	8	0.730452	23	79.14474		
	9	0.583265	24	70.60482		
	10	0.465736	23 Januari	1	57.84734	
	11	0.37189		2	46.19104	
	12	0.296954		3	36.88349	
	13	0.237117		4	29.45143	
	14	0.189338		5	23.51693	
	15	6.178317		6	18.77825	

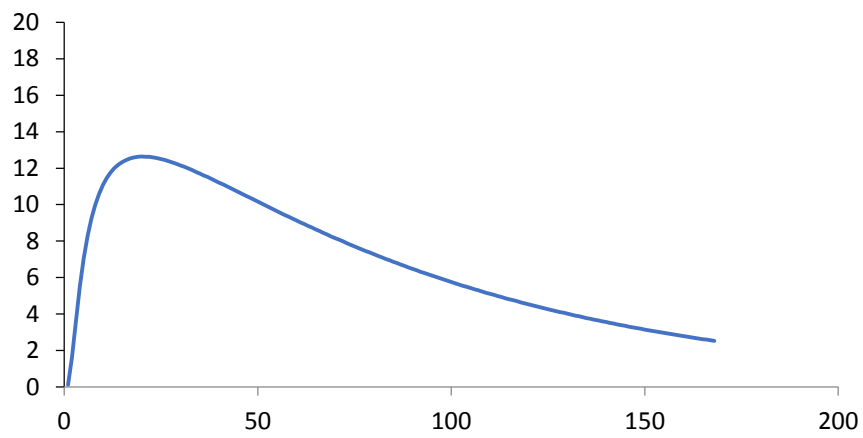
Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	7	14.99441
	8	11.97302
	9	9.560443
	10	7.634004
	11	6.095744
	12	4.867445
	13	3.886649
	14	3.103485
	15	2.47813
	16	1.978784
	17	1.580057
	18	1.261674
	19	1.007445
	20	0.804444
	21	0.642347
	22	0.512914
	23	0.409561
	24	0.327034
24 Januari	1	0.261136
	2	3.445997
	2.775182	8.658004
	3	32.774
	4	54.56441
	5	59.36213
	6	52.9568
	7	43.38812
	8	34.64536
	9	27.66428
	10	22.0899
	11	17.63876
	12	14.08453
	13	11.24648
	14	8.980305
	15	7.170764
	16	5.725847
	17	4.572083
	18	3.650803
	19	2.915162
	20	2.327754
	21	1.858709
	22	1.484177
	23	1.185114
	24	0.946312
25 Januari	1	0.755629
	2	0.603369

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	3	0.48179
	4	0.384708
	5	0.307189
	6	0.503651
	6.775182	0.884981
	7	2.783267
	8	4.570094
	9	4.951899
	10	4.417576
	11	3.619371
	12	2.890064
	13	2.307713
	14	1.842706
	15	1.471399
	16	1.17491
	17	0.938165
	18	0.749123
	19	0.598174
	20	0.477641
	21	0.381396
	22	0.304544
	23	0.243178
	24	0.194178
26 Januari	1	0.155051
	2	0.123808
	3	0.09886
	4	0.07894
	5	0.063033
	1	0.580723
	1.775182	1.521287
	2	5.851387
	3	9.752209
	4	10.61297
	5	9.467807
	6	7.757083
	7	6.194022
	8	4.94592
	9	3.949312
	10	3.153521
	11	2.518083
	12	2.010687
	13	1.605531
	14	1.282015
	15	1.023687
	16	0.817413

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	17	0.652704
	18	0.521183
	19	0.416164
	20	0.332307
	21	0.265346
	22	0.211879
	23	0.169185
	24	0.135094

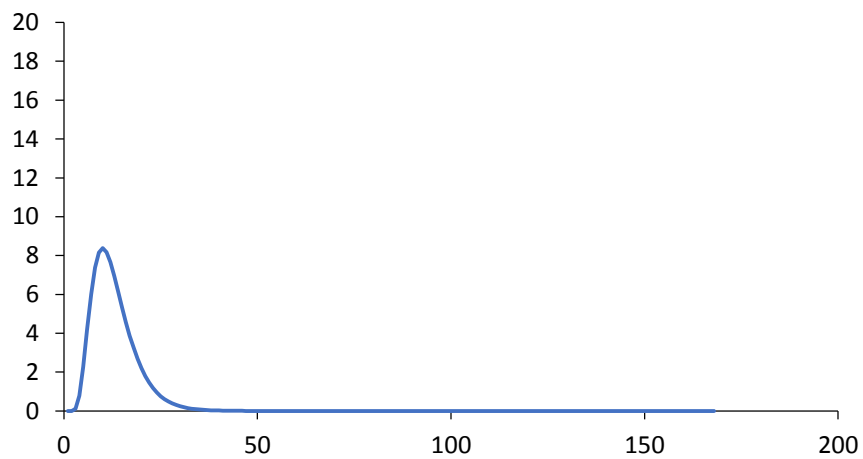
Lampiran 32. Grafik Hidrograf Satuan Sintetik

HSS Snyder Asli

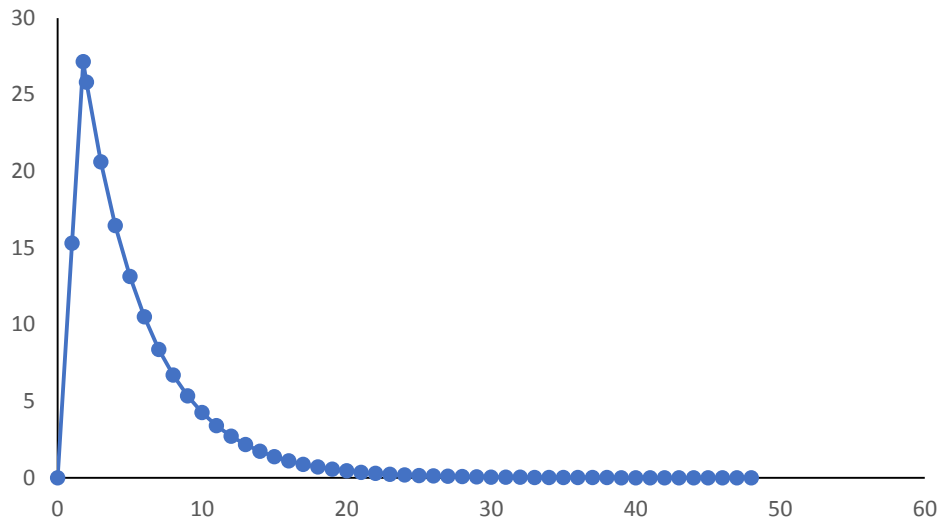


HSS Snyder Modifikasi

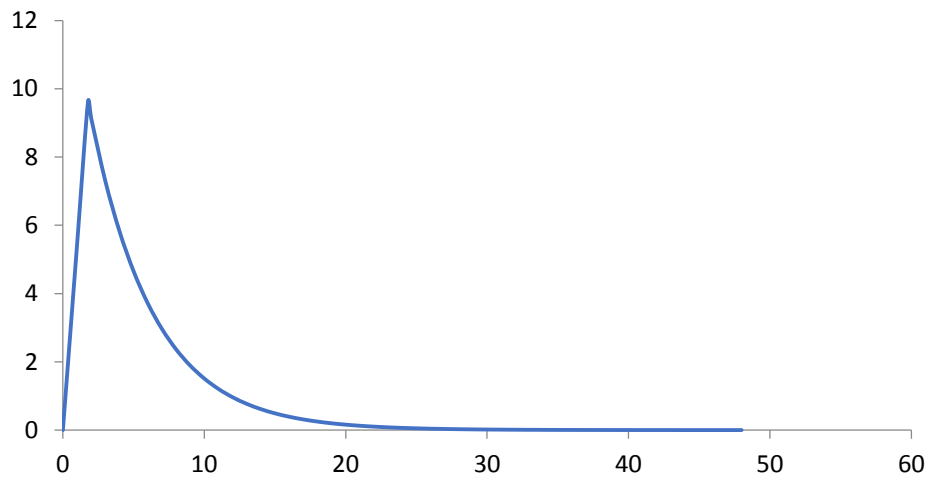
HSS Snyder Modifikasi



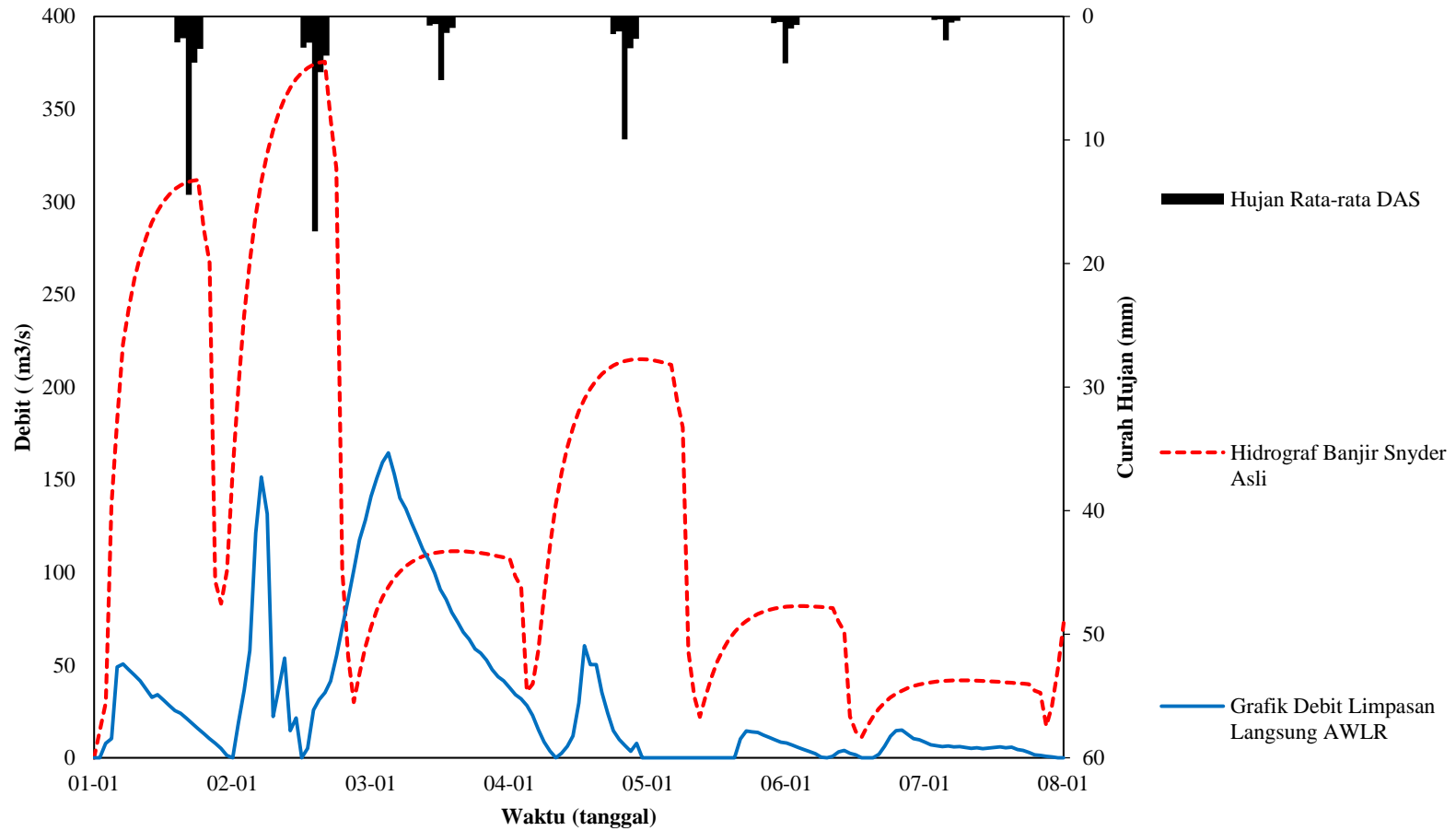
HSS GAMA Asli



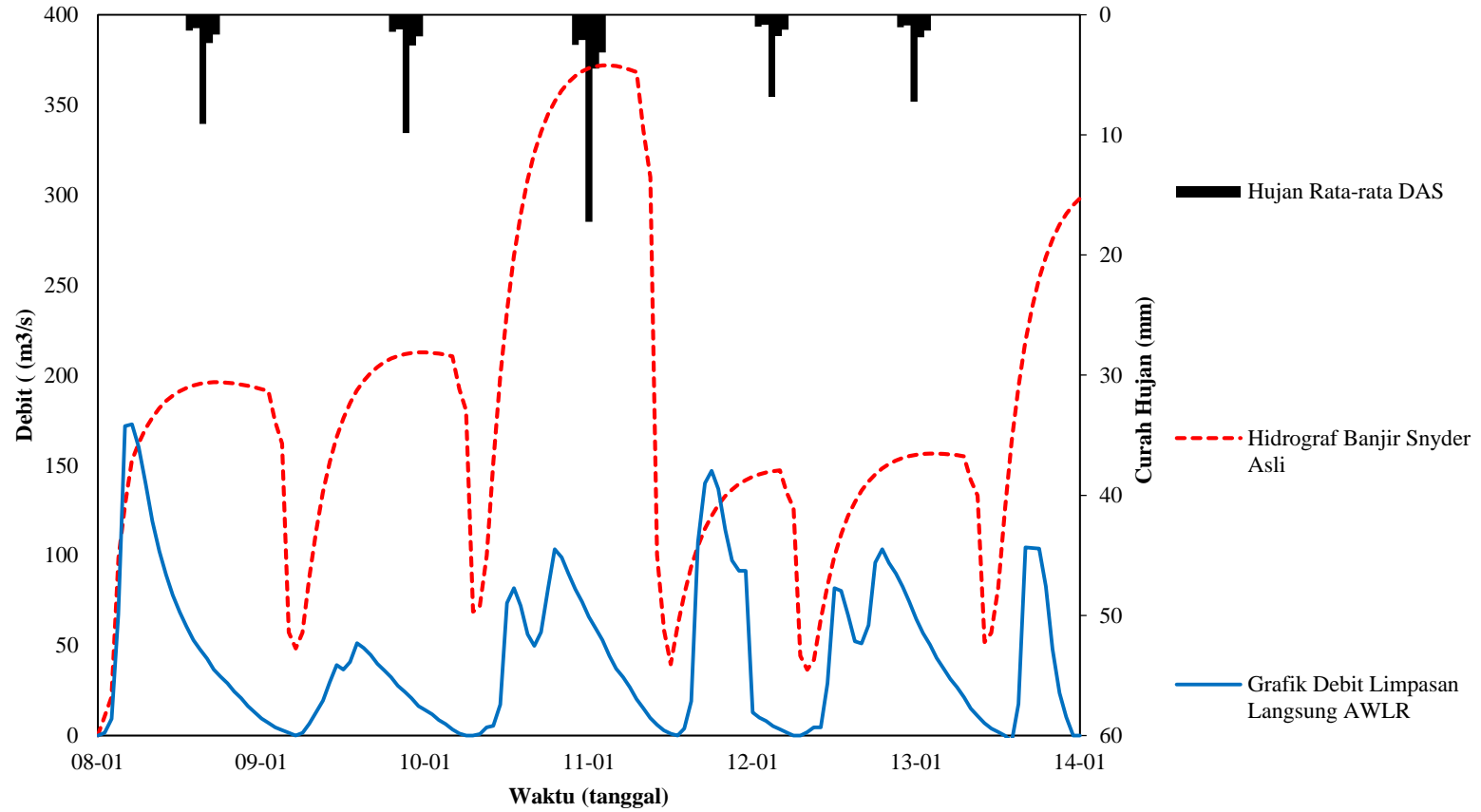
HSS GAMA Modifikasi



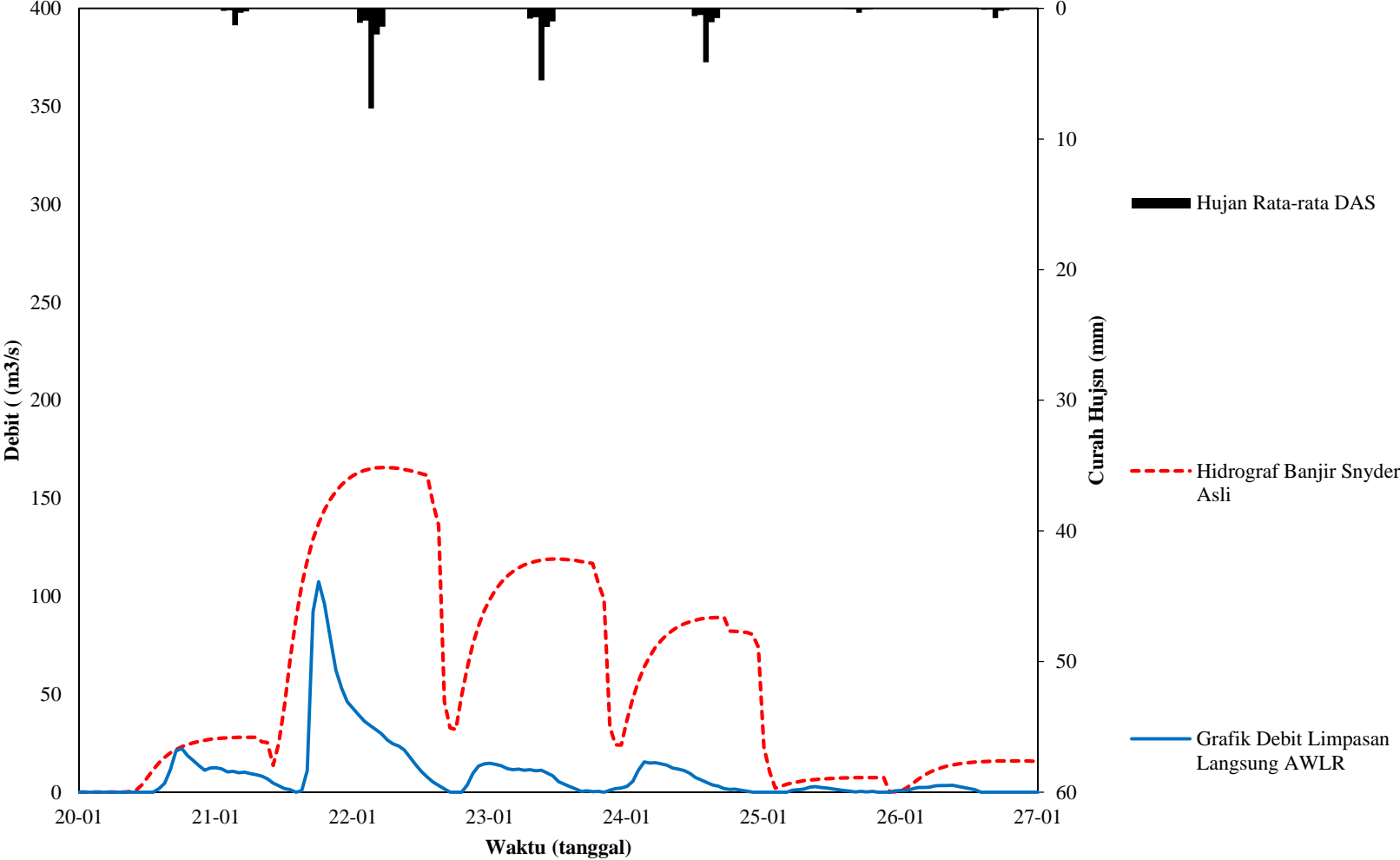
Lampiran 33. Hidrograf Banjir Metode *Snyder* Asli dan Grafik Limpasan Langsung *AWLR* Tanggal 1-7 Januari 2012



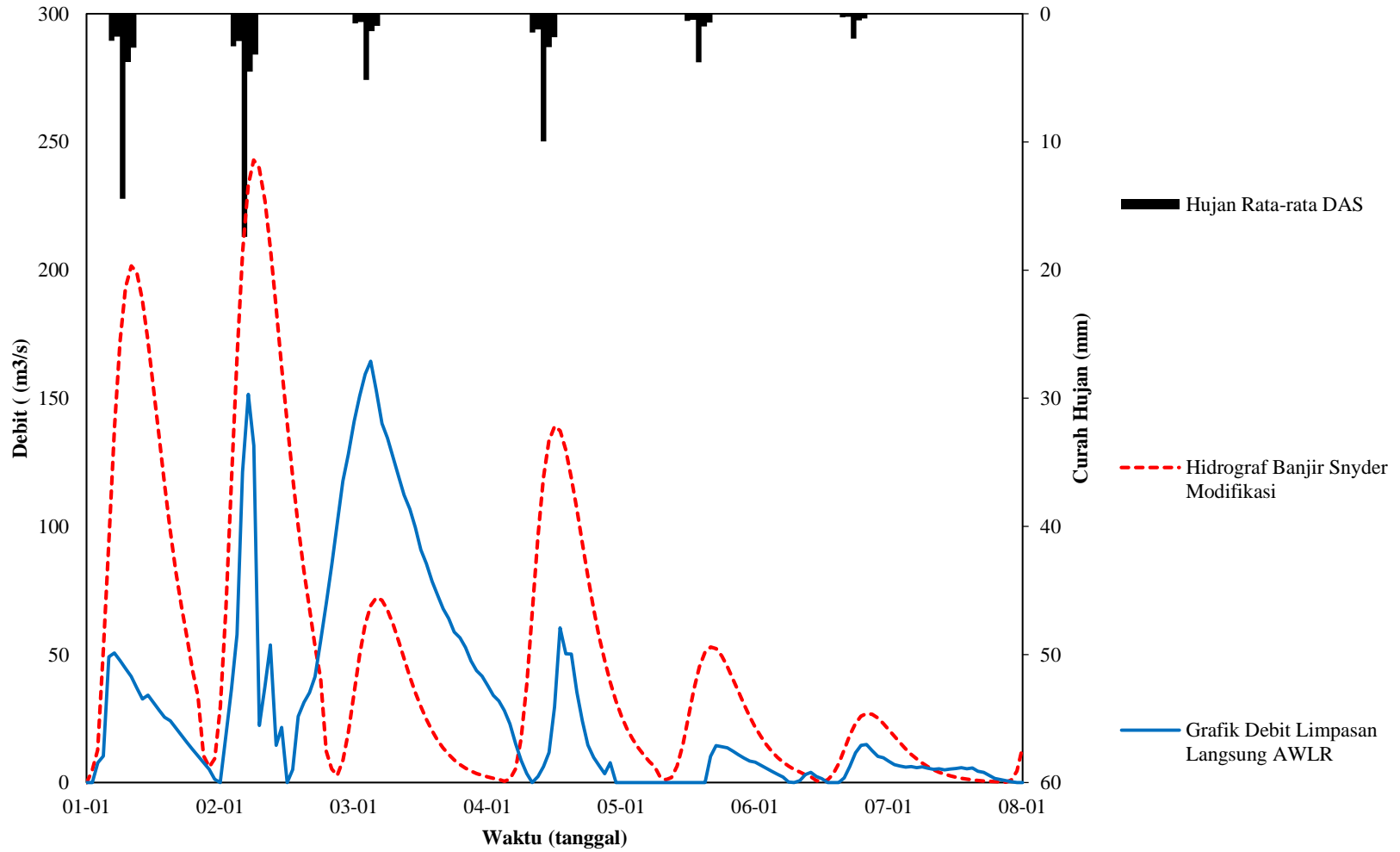
Lampiran 34. Hidrograf Banjir Metode *Snyder* Asli dan Grafik Limpasan Langsung *AWLR* Tanggal 8-13 Januari 2012



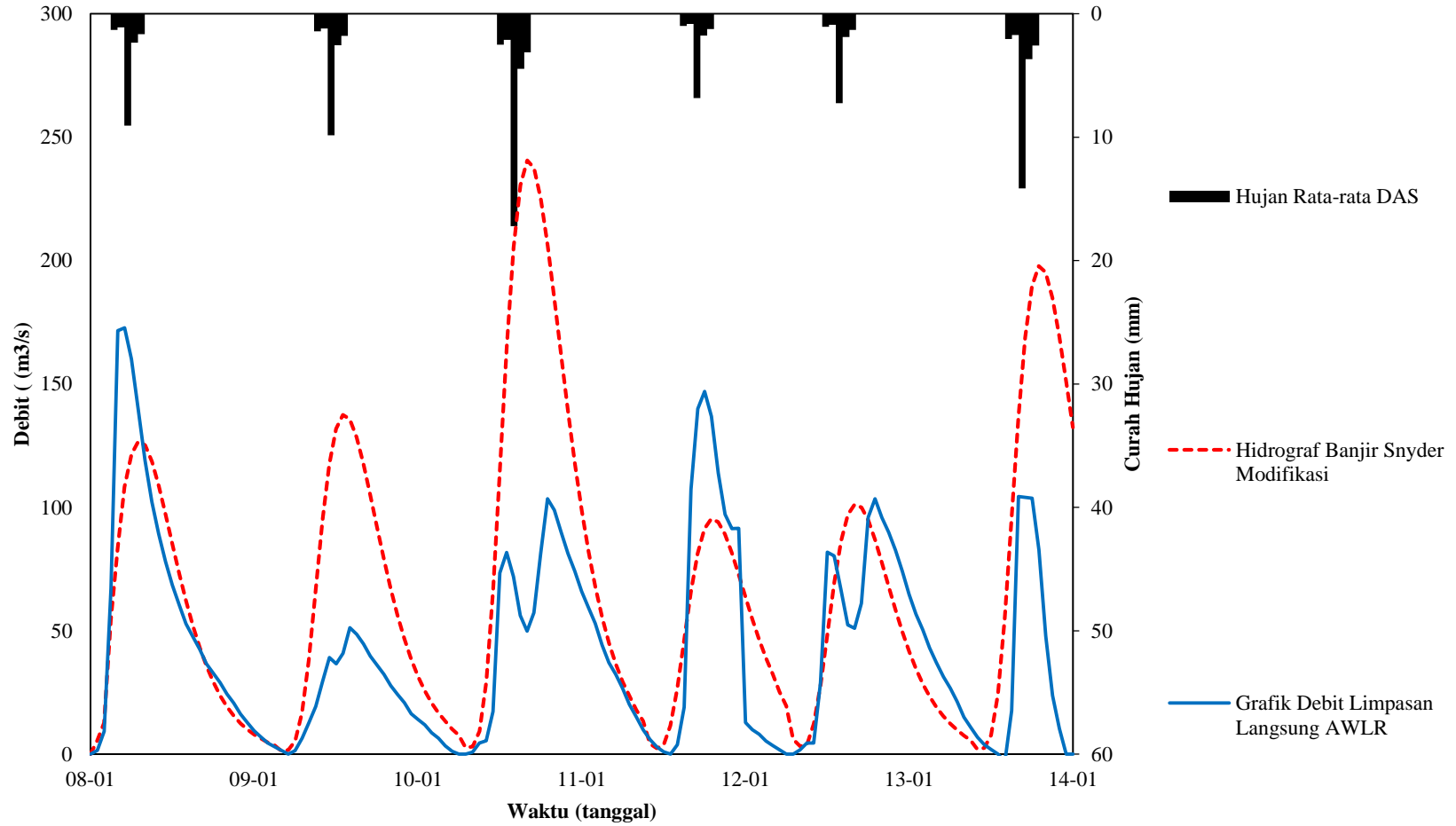
Lampiran 35. Hidrograf Banjir Metode Snyder Asli dan Grafik Limpasan Langsung AWLR Tanggal 20-26 Januari 2012



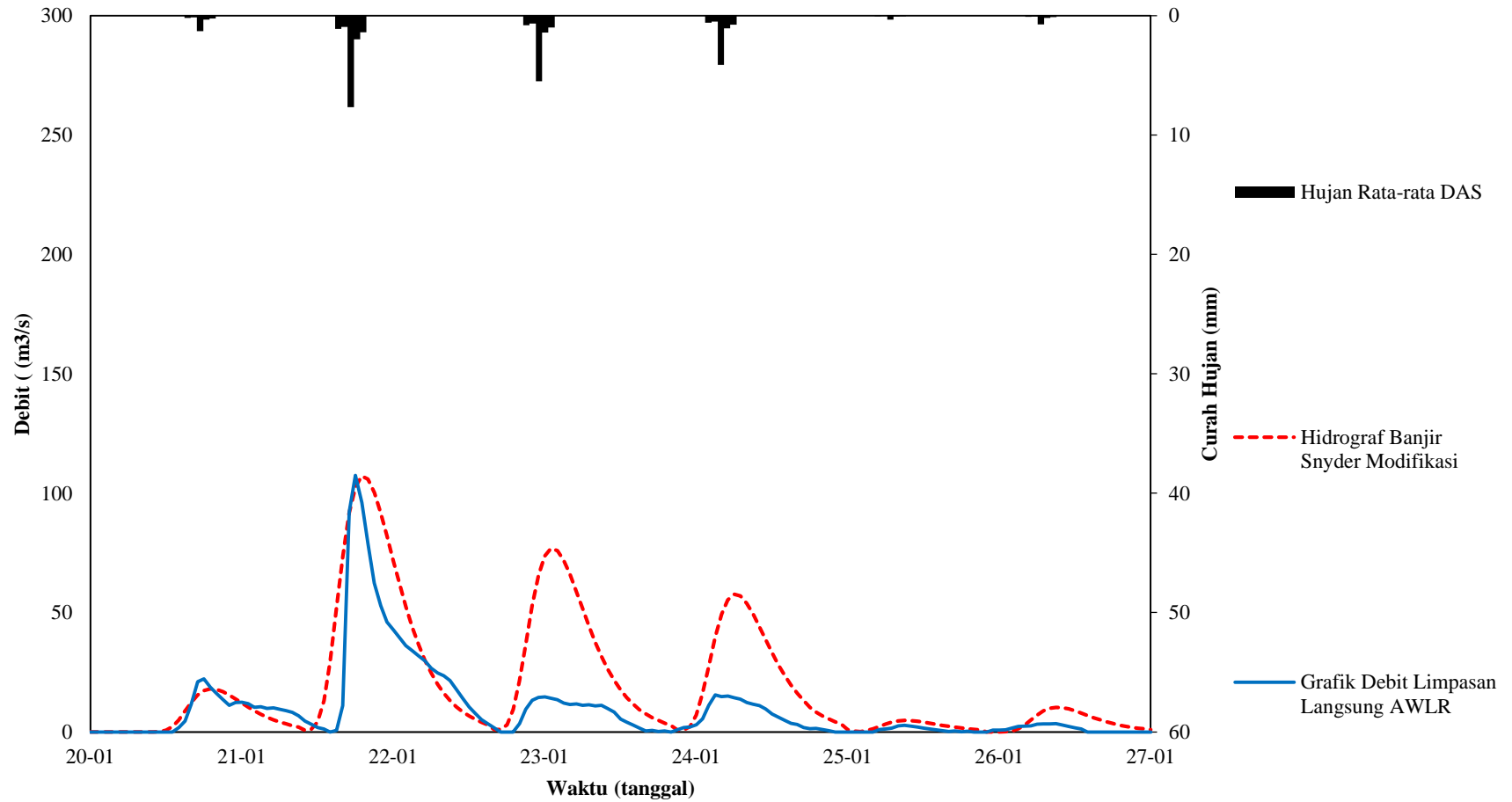
Lampiran 36. Hidrograf Banjir Metode *Snyder* Modifikasi dan Grafik Limpasan Langsung *AWLR* Tanggal 1-7 Januari 2012



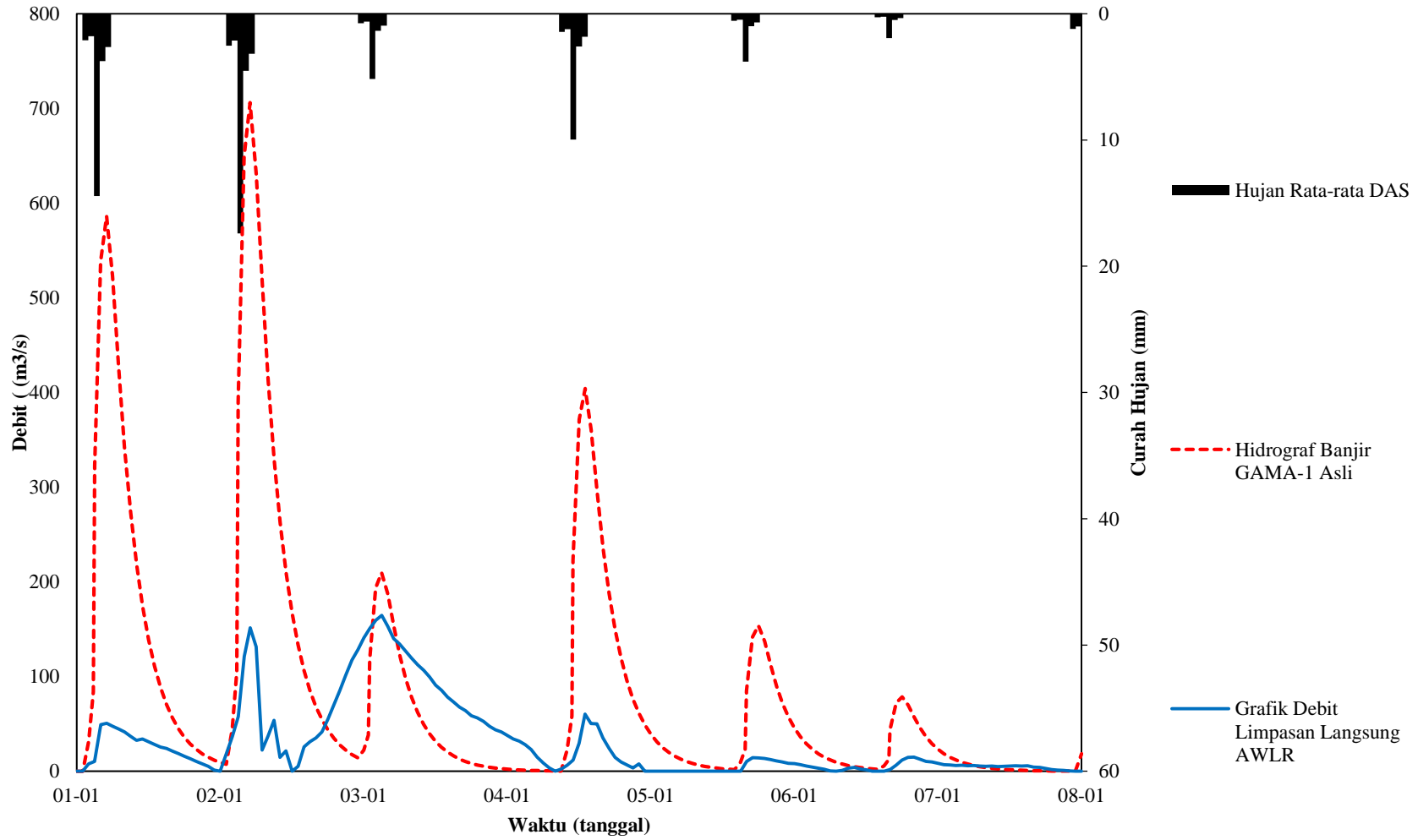
Lampiran 37. Hidrograf Banjir Metode *Snyder* Modifikasi dan Grafik Limpasan Langsung *AWLR* Tanggal 8-13 Januari 2012



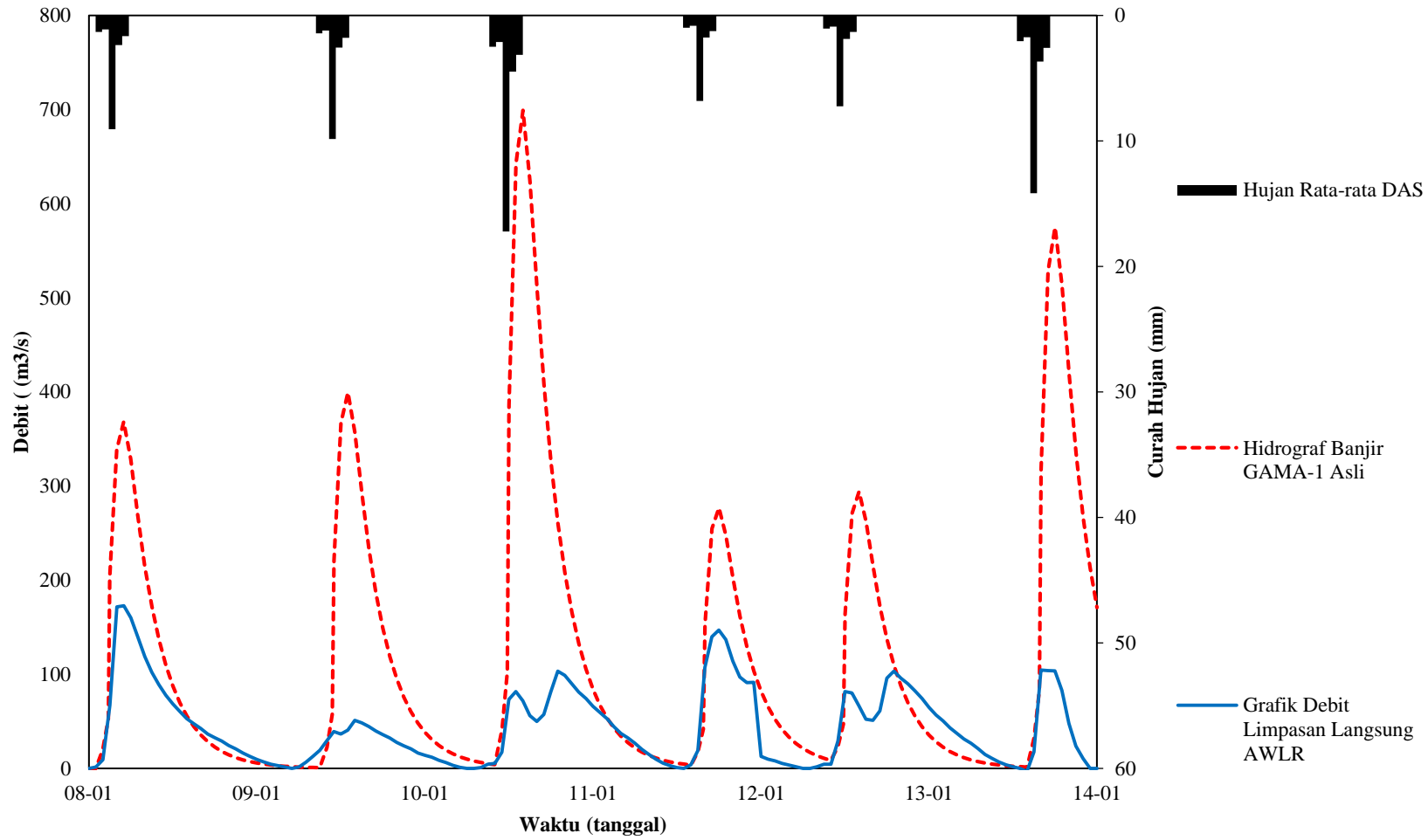
Lampiran 38. Hidrograf Banjir Metode *Snyder* Modifikasi dan Grafik Limpasan Langsung *AWLR* Tanggal 20-26 Januari 2012



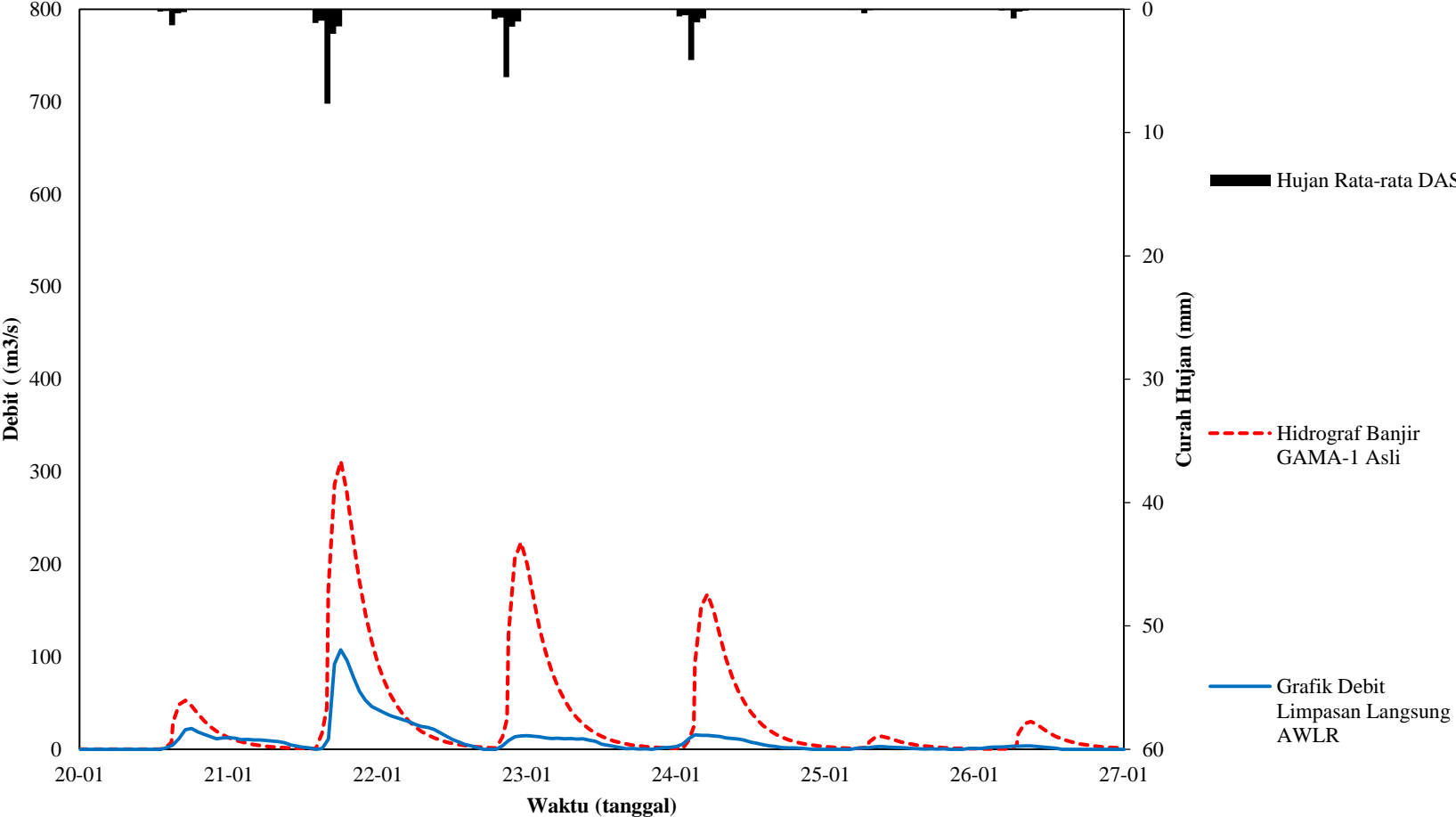
Lampiran 39. Hidrograf Banjir Metode GAMA Asli dan Grafik Limpasan Langsung AWLR Tanggal 1-7 Januari 2012



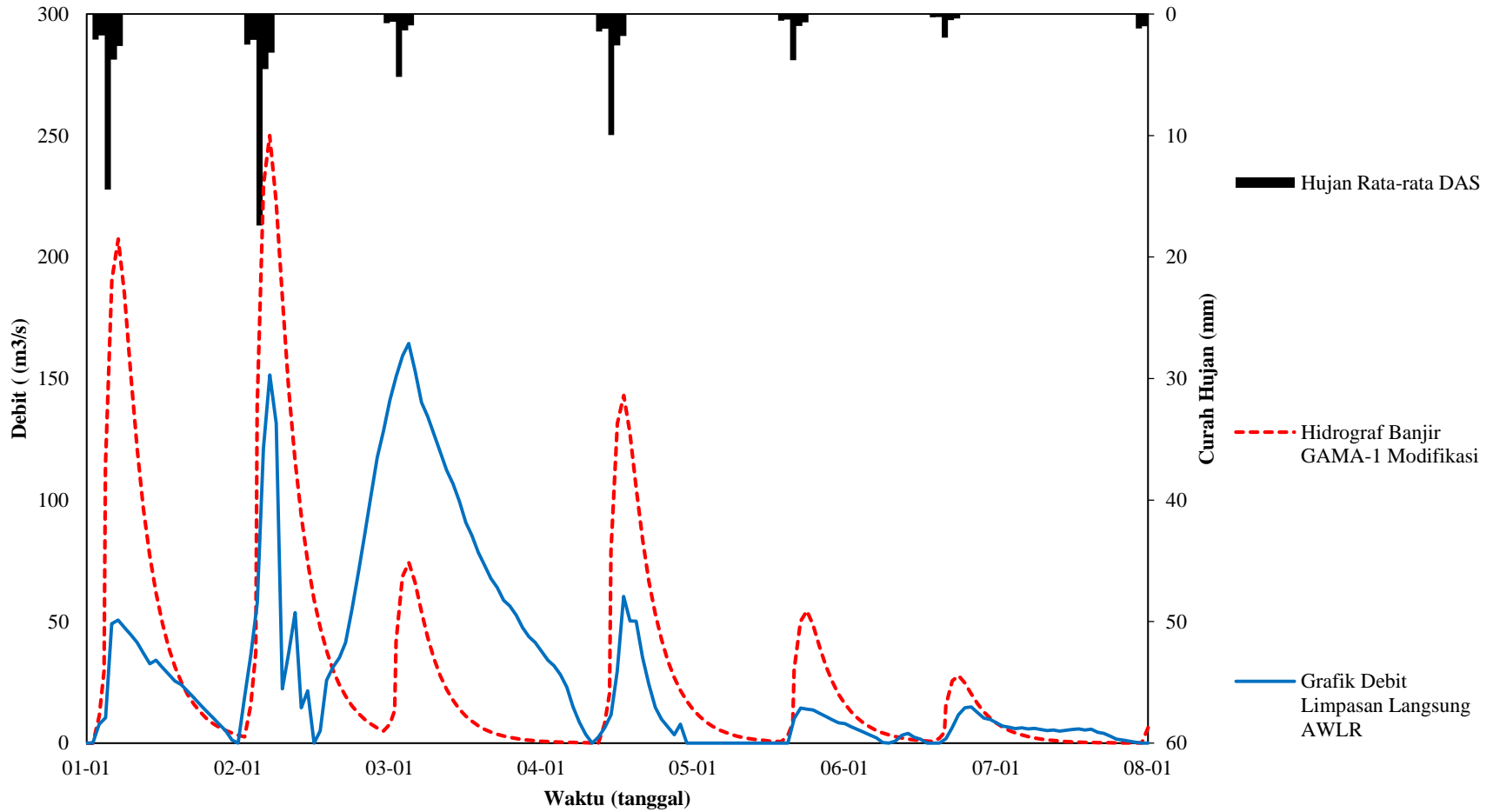
Lampiran 40. Hidrograf Banjir Metode GAMA Asli dan Grafik Limpasan Langsung AWLR Tanggal 8-13 Januari 2012



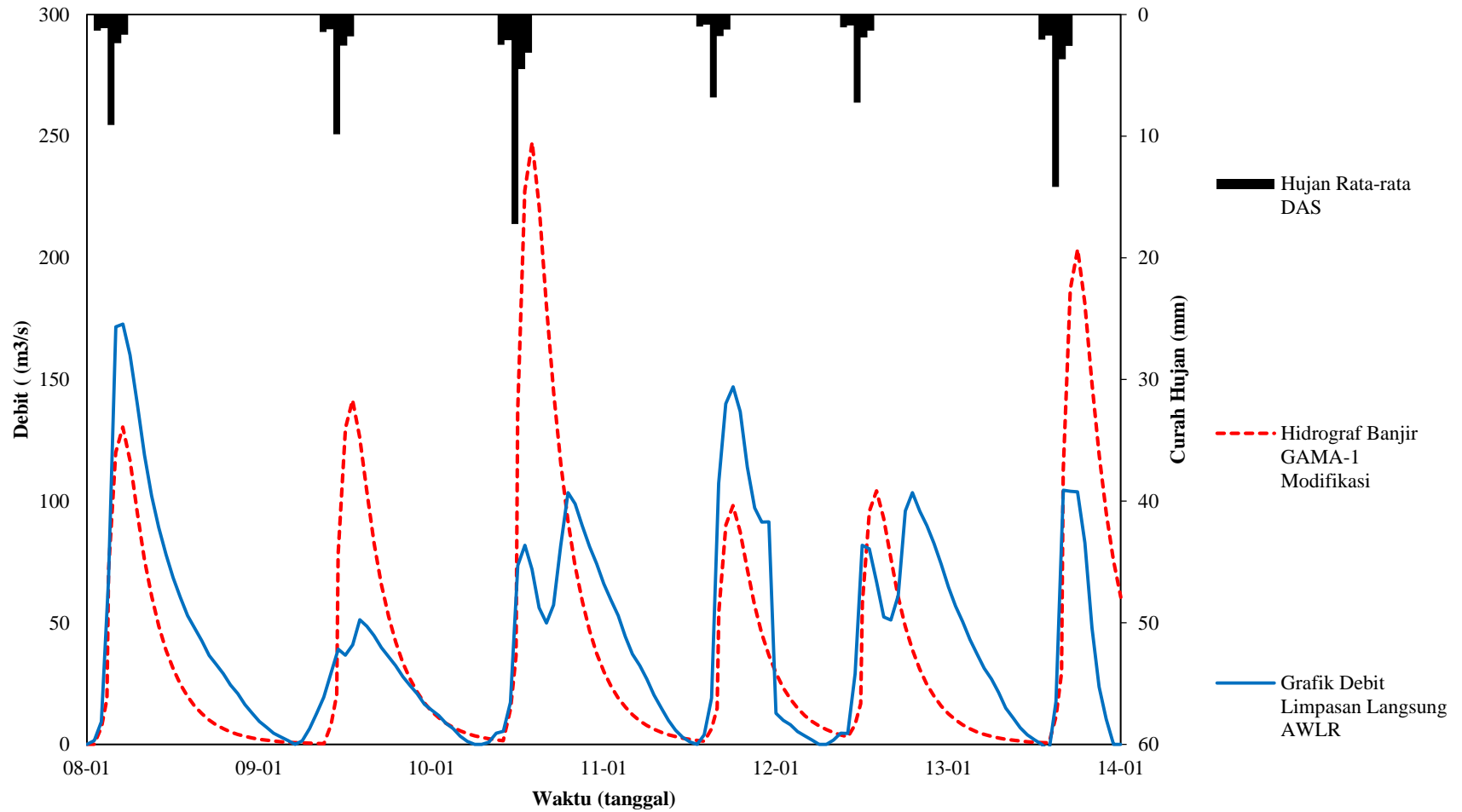
Lampiran 41. Hidrograf Banjir Metode GAMA Asli dan Grafik Limpasan Langsung AWLR Tanggal 20-26 Januari 2012



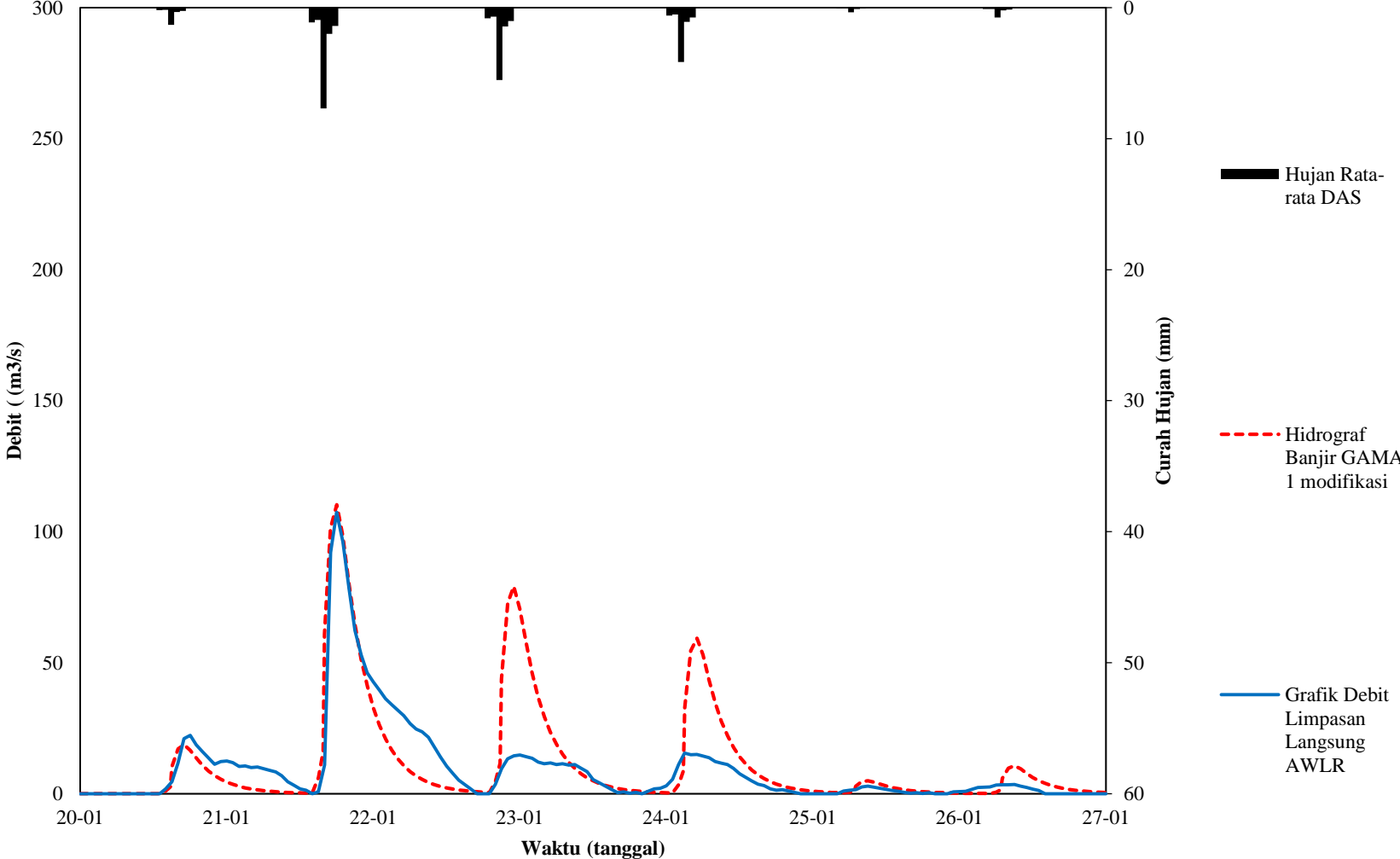
Lampiran 42. Hidrograf Banjir Metode GAMA Modifikasi dan Grafik Limpasan Langsung AWLR Tanggal 1-7 Januari 2012



Lampiran 43. Hidrograf Banjir Metode GAMA Modifikasi dan Grafik Limpasan Langsung AWLR Tanggal 8-13 Januari 2012



Lampiran 44. Hidrograf Banjir Metode GAMA Modifikasi dan Grafik Limpasan Langsung AWLR Tanggal 20-26 Januari 2012



Lampiran 45. Nilai Kesesuaian (R^2)

Nilai R^2 Metode *Snyder* Asli

Kondis	R^2
1	0.0181
2	0.0418
3	0.3159

Nilai R^2 Metode *Snyder* Modifikasi

Kondisi	R^2
1	0.0897
2	0.3279
3	0.6129

Nilai R^2 Metode GAMA Asli

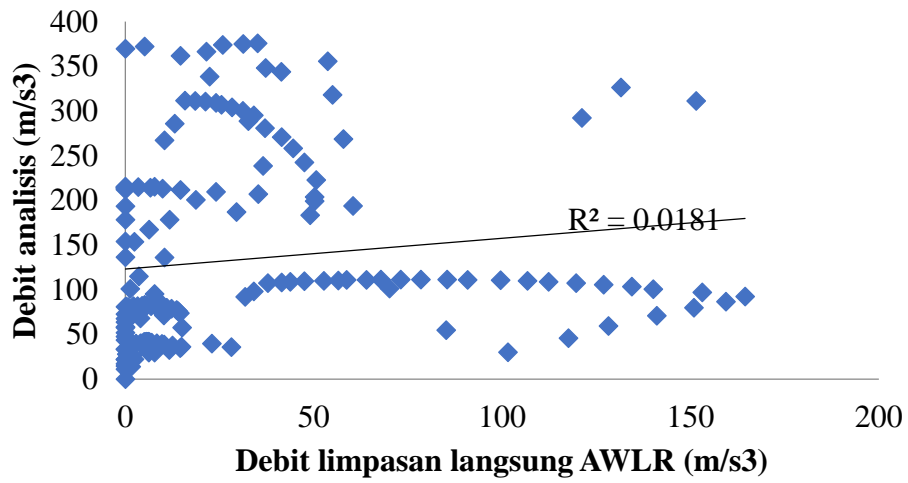
Kondis	R^2
1	0.1482
2	0.3446
3	0.6089

Nilai R^2 Metode GAMA Modifikasi

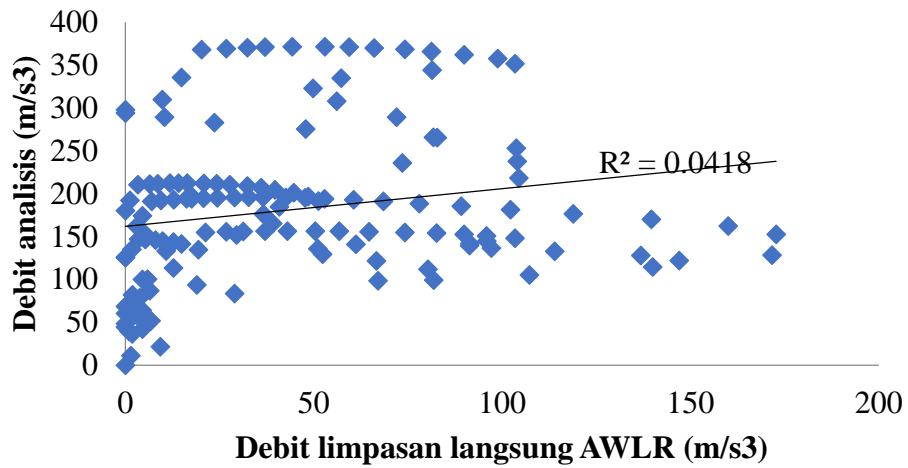
Kondis	R^2
1	0.1482
2	0.3446
3	0.6089

Lampiran 46. Grafik Nilai Kesesuaian (R^2) Metode Snyder Asli

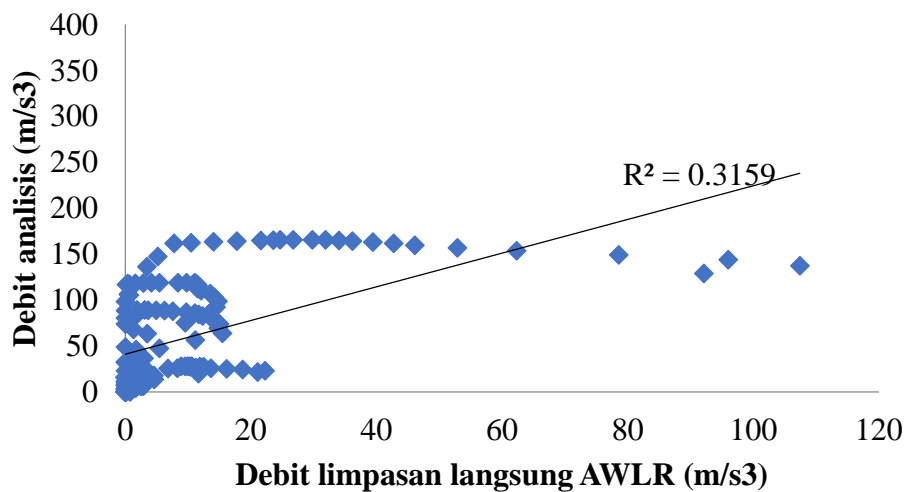
Tanggal 1-7 Januari 2012



Tanggal 8-13 Januari 2012

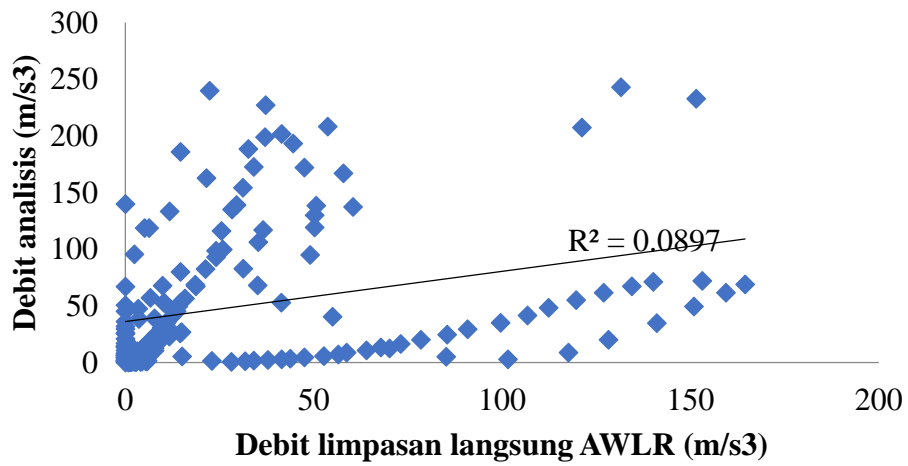


Tanggal 20-26 Januari 2012

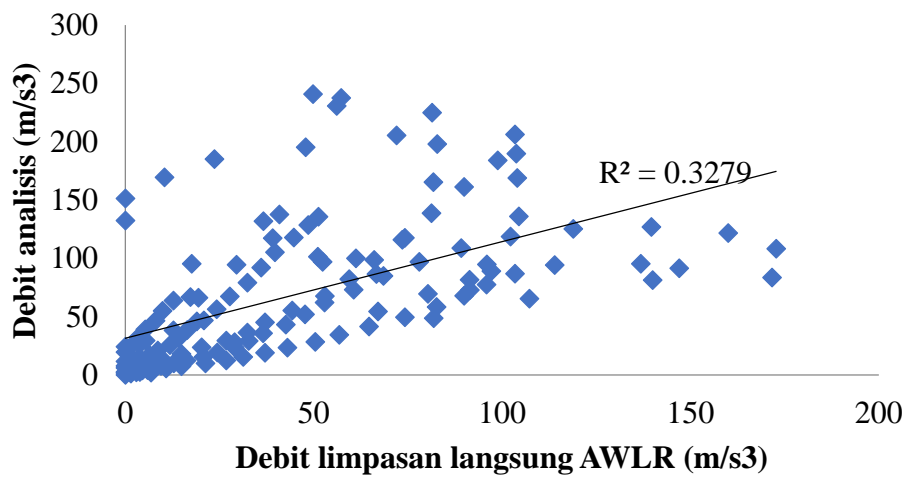


Lampiran 47. Grafik Nilai Kesesuaian (R^2) Metode Snyder Modifikasi

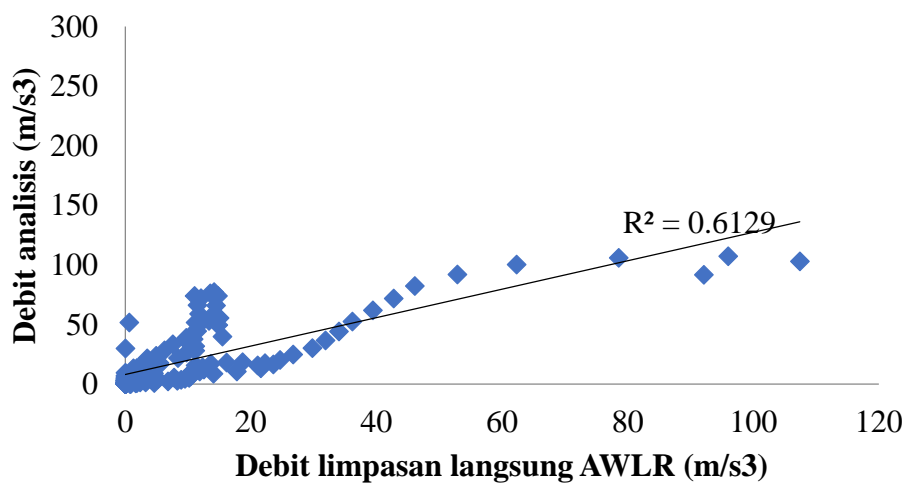
Tanggal 1-7 Januari 2012



Tanggal 8-13 Januari 2012

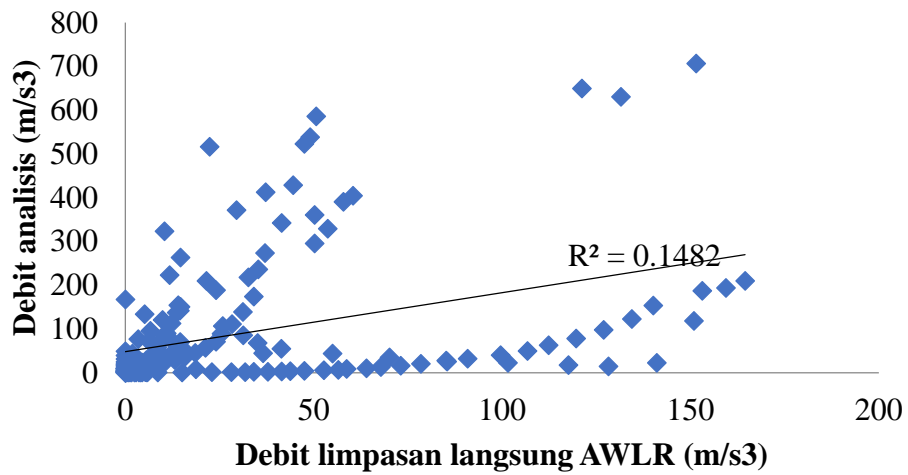


Tanggal 20-26 Januari 2012

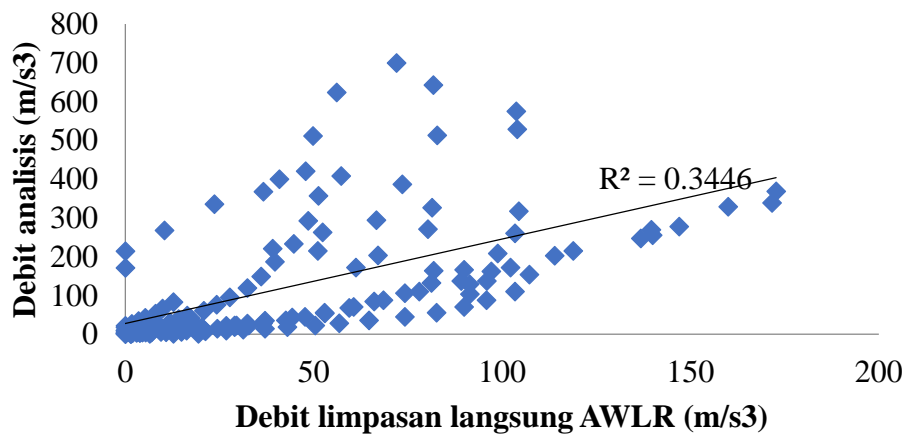


Lampiran 48. Grafik Nilai Kesesuaian (R^2) Metode GAMA Asli

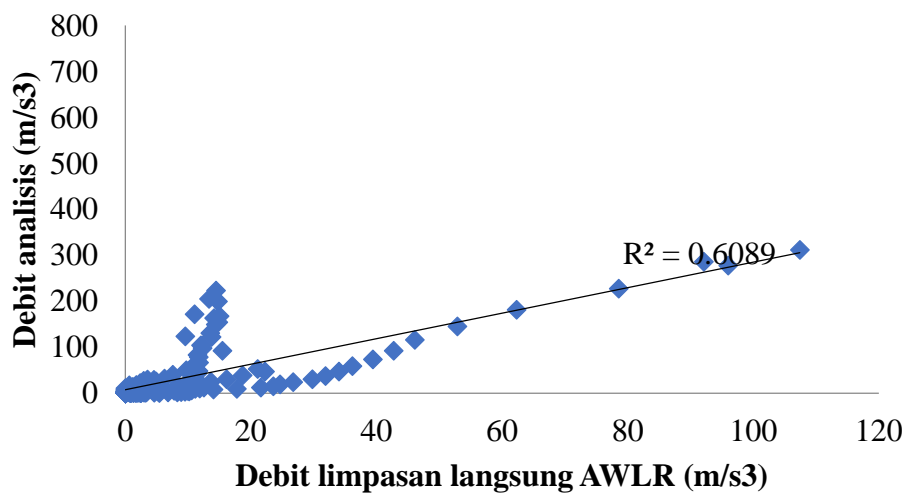
Tanggal 1-7 Januari 2012



Tanggal 8-13 Januari 2012

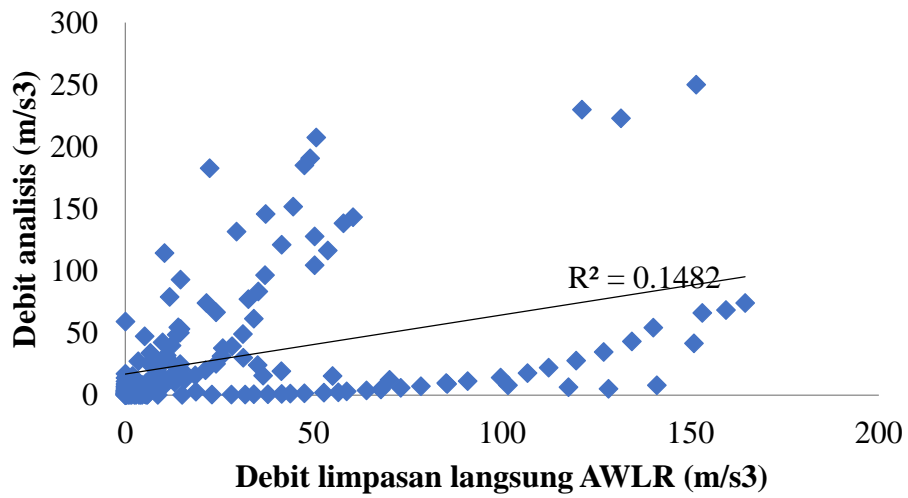


Tanggal 20-26 Januari 2012

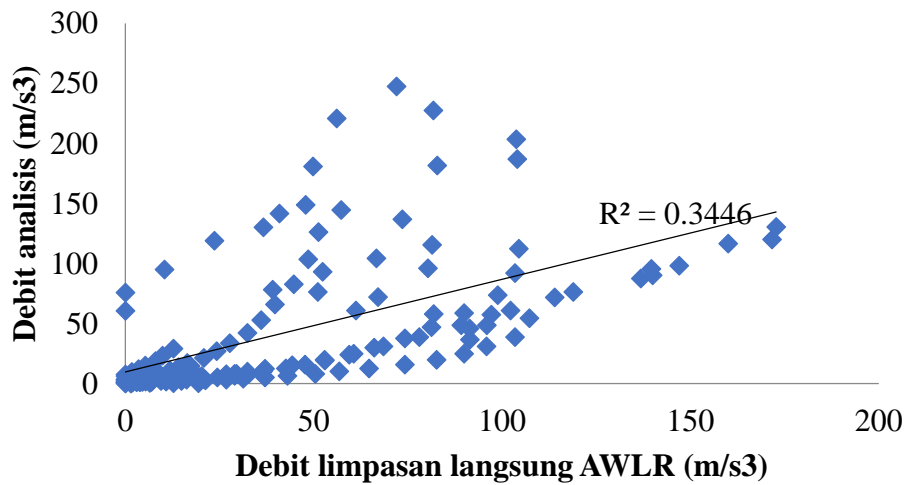


Lampiran 49. Grafik Nilai Kesesuaian (R^2) Metode GAMA Modifikasi

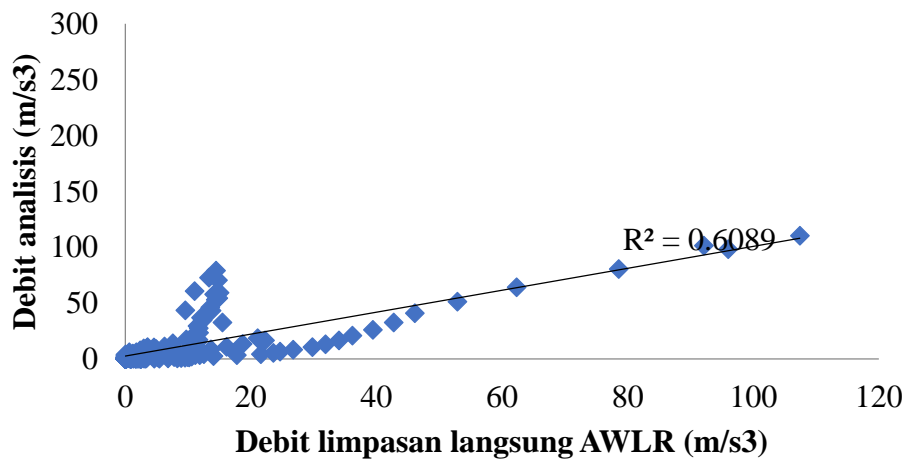
Tanggal 1-7 Januari 2012



Tanggal 8-13 Januari 2012



Tanggal 20-26 Januari 2012



Lampiran 50. Data Debit Banjir Metode *Snyder* Modifikasi 2 Tanggal 20-26 Januari 2012

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
20 Januari	0	0		19	81.99333
	1	0		20	71.7431
	2	0		21	61.73397
	3	0		22	52.39576
	4	8.55E-10		23	43.96408
	5	0.000348		24	36.53601
	6	0.021861	22 Januari	1	30.1161
	7	0.169383		2	24.65146
	8	0.701095		3	20.05727
	9	2.21103		4	16.2342
	10	5.025327		5	13.07999
	11	8.715346		6	10.49645
	12	12.44127		7	8.39342
	13	15.45148		8	6.690681
	14	17.35331		9	5.318443
	15	18.10294		10	4.005616
	16	17.87231		11	2.99263
	17	16.91964		12	0.998688
	18	15.50498		13	1.056313
	19	13.84856		14	2.978759
	20	12.11731		15	9.394051
	21	10.42678		16	21.35121
	22	8.849569		17	37.02908
	23	7.42547		18	52.8595
24	6.17088	19		65.64903	
21 Januari	1	5.086565		20	73.72939
	2	4.163597		21	76.91433
	3	3.387644		22	75.93447
	4	2.598768		23	71.88684
	5	1.976019		24	65.87635
	6	0.728362	23 Januari	1	58.83865
	7	1.227293		2	51.48306
	8	4.150985		3	44.30048
	9	13.09088		4	37.59935
	10	29.75352		5	31.54875
	11	51.60107		6	26.21835
	12	73.66121		7	21.6114
	13	91.48379		8	17.68996
	14	102.744		9	14.39315
	15	107.1823		10	11.64971
	16	105.8168		11	9.386242
	17	100.1763		12	7.532282
	18	91.80056		13	6.023143

Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	14	4.801252		7	4.497789
	15	3.624207		8	4.121727
	16	2.71314		9	3.681395
	17	0.891144		10	3.221173
	18	0.8454		11	2.771776
	19	2.234204		12	2.352502
	20	7.045962		13	1.97393
	21	16.01437		14	1.64042
	22	27.77348		15	1.352174
	23	39.64701		16	1.106819
	24	49.23974		17	0.900545
24 Januari	1	55.30037		18	4.87E-10
	2	57.68922		19	0.000198
	3	56.95428		20	0.012455
	4	53.91837		21	0.096504
	5	49.41023		22	0.399439
	6	44.13164		23	1.259702
	7	38.61462		24	2.863107
	8	33.22736	26 Januari	1	4.965442
	9	28.20121		2	7.088234
	10	23.66299		3	8.803257
	11	19.66494		4	9.886798
	12	16.20952		5	10.31388
	13	13.26827		6	10.18249
	14	10.27366		7	9.639719
	15	8.319637		8	8.833739
	16	6.706148		9	7.890013
	17	5.38365		10	6.90366
	18	4.287265		11	5.940506
	19	3.224225		12	5.041914
	20	0.982963		13	4.230554
	21	0.409431		14	3.515769
	22	0.186374		15	2.897997
	23	0.587763		16	2.372149
	24	1.335895		17	1.930061
25 Januari	1	2.316821		18	1.562177
	2	3.307293		19	1.258655
	3	4.107504		20	1.010047
	4	4.613073		21	0.766493
	5	4.812347		22	0.576422
	6	4.75104		23	0.174699
				24	0.065149

Lampiran 51. Data Debit Banjir Metode GAMA Modifikasi 2 Tanggal 20-26 Januari 2012

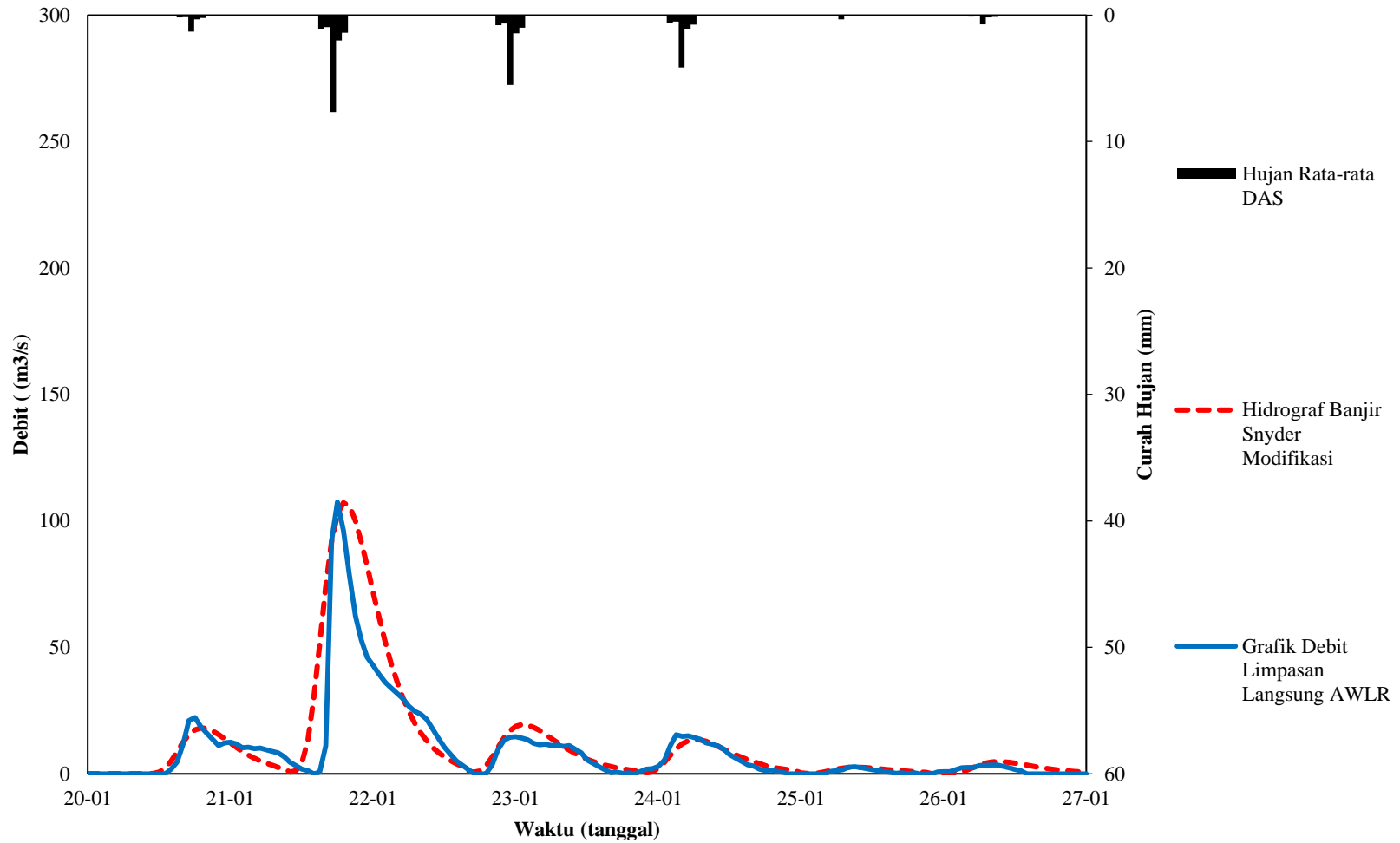
Tanggal	t (Jam)	Q_{tot} (m ³ /s)	Tanggal	t (Jam)	Q_{tot} (m ³ /s)	
20 Januari	0	0		17	101.3576	
	1	0		18	110.2904	
	2	0		19	98.38982	
	3	0		20	80.61191	
	4	0		21	64.36852	
	5	0		22	51.39819	
	6	0		23	41.0414	
	7	0		24	32.77151	
	8	0		22 Januari	1	26.16802
	9	0			2	20.89513
	10	0			3	16.68474
	11	0			4	13.32275
	12	0			5	10.6382
	13	0			6	8.494591
	14	1.019285			7	6.782922
	14.77518	2.670164			8	5.416156
	15	10.27036			9	4.324795
	16	17.11708			10	3.453344
	17	18.6279			11	2.757491
	18	16.6179			12	2.201854
	19	13.61524			13	1.758178
	20	10.87175			14	1.403903
	21	8.681081			15	1.121015
	22	6.931834			16	0.895129
23	5.535062		17	0.71476		
24	4.419741		18	0.570735		
21 Januari	1	3.529158	19	0.455731		
	2	2.818029	20	4.675869		
	3	2.250193	20.77518	11.60465		
	4	1.796777	21	43.71462		
	5	1.434724	22	72.75511		
	6	1.145626	23	79.14474		
	7	0.914781	24	70.60482		
	8	0.730452	23 Januari	1	57.84734	
	9	0.583265		2	46.19104	
	10	0.465736		3	36.88349	
	11	0.37189		4	29.45143	
	12	0.296954		5	23.51693	
	13	0.237117		6	18.77825	
	14	0.189338		7	14.99441	
	15	6.178317		8	11.97302	
	15.77518	15.91724		9	9.560443	
16	60.84055	10		7.634004		

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	11	6.095744
	12	4.867445
	13	3.886649
	14	3.103485
	15	2.47813
	16	1.978784
	17	1.580057
	18	1.261674
	19	1.007445
	20	0.804444
	21	0.642347
	22	0.512914
	23	0.409561
	24	0.327034
24 Januari	1	0.261136
	2	3.445997
	2.775182	8.658004
	3	32.774
	4	54.56441
	5	59.36213
	6	52.9568
	7	43.38812
	8	34.64536
	9	27.66428
	10	22.0899
	11	17.63876
	12	14.08453
	13	11.24648
	14	8.980305
	15	7.170764
	16	5.725847
	17	4.572083
	18	3.650803
	19	2.915162
	20	2.327754
	21	1.858709
	22	1.484177
	23	1.185114
	24	0.946312
25 Januari	1	0.755629
	2	0.603369
	3	0.48179
	4	0.384708
	5	0.307189
	6	0.503651

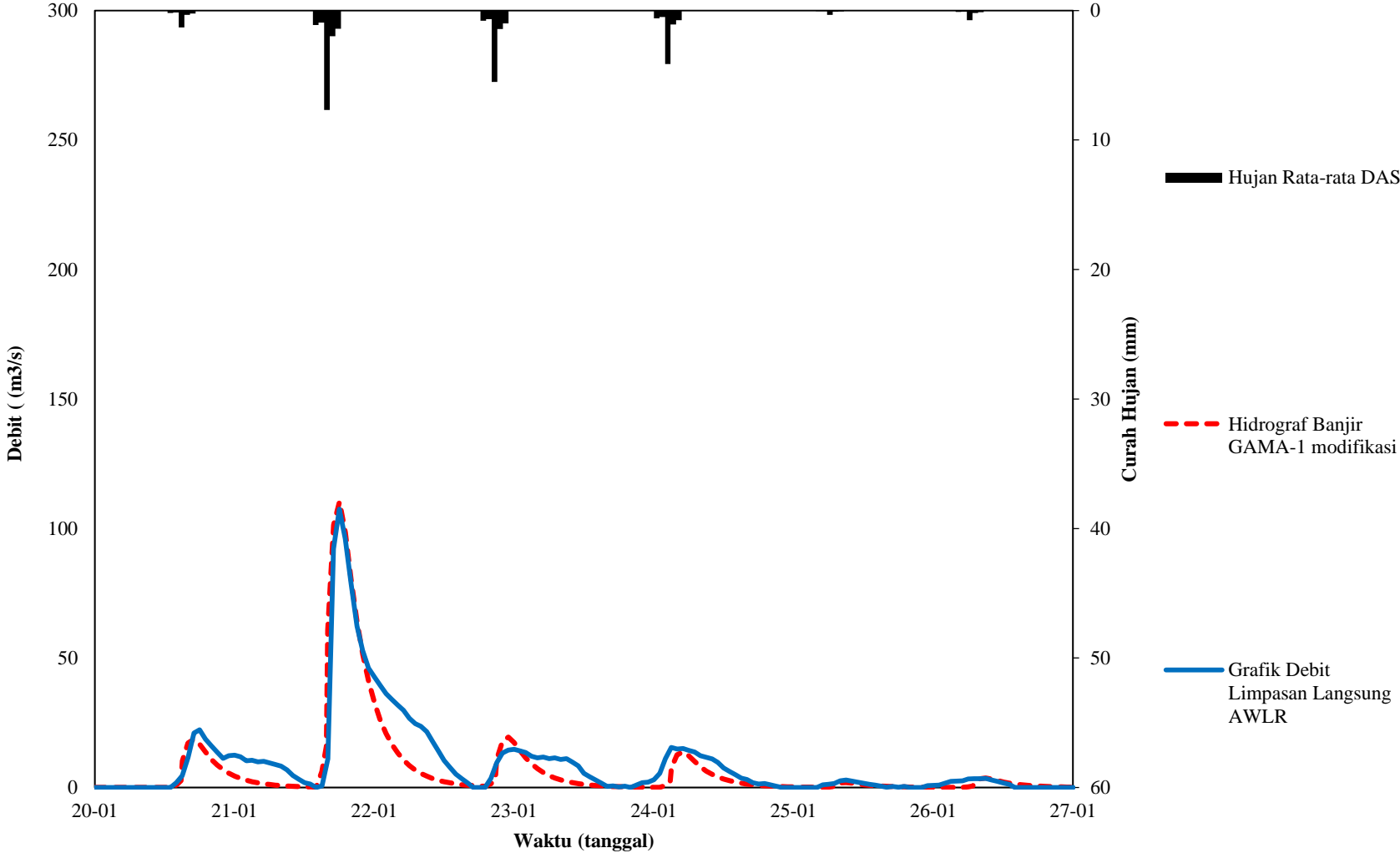
Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	6.775182	0.884981
	7	2.783267
	8	4.570094
	9	4.951899
	10	4.417576
	11	3.619371
	12	2.890064
	13	2.307713
	14	1.842706
	15	1.471399
	16	1.17491
	17	0.938165
	18	0.749123
	19	0.598174
	20	0.477641
	21	0.381396
	22	0.304544
	23	0.243178
	24	0.194178
26 Januari	1	0.155051
	2	0.123808
	3	0.09886
	4	0.07894
	5	0.063033
	1	0.580723
	1.775182	1.521287
	2	5.851387
	3	9.752209
	4	10.61297
	5	9.467807
	6	7.757083
	7	6.194022
	8	4.94592
	9	3.949312
	10	3.153521
	11	2.518083
	12	2.010687
	13	1.605531
	14	1.282015
	15	1.023687
	16	0.817413
	17	0.652704
	18	0.521183
	19	0.416164
	20	0.332307

Tanggal	t (Jam)	Q_{tot} (m ³ /s)
	21	0.265346
	22	0.211879
	23	0.169185
	24	0.135094

Lampiran 52. Hidrograf Banjir Metode *Snyder* Modifikasi 2 dan Grafik Limpasan Langsung *AWLR* Tanggal 20-26 Januari 2012



Lampiran 53. Hidrograf Banjir Metode GAMA Modifikasi 2 dan Grafik Limpasan Langsung AWLR Tanggal 20-26 Januari 2012



Lampiran 54. Nilai R^2 Metode *Snyder* dan GAMA Modifikasi 2 Tanggal 20-26 Januari 2012

Nilai R^2 Metode *Snyder* Modifikasi 2

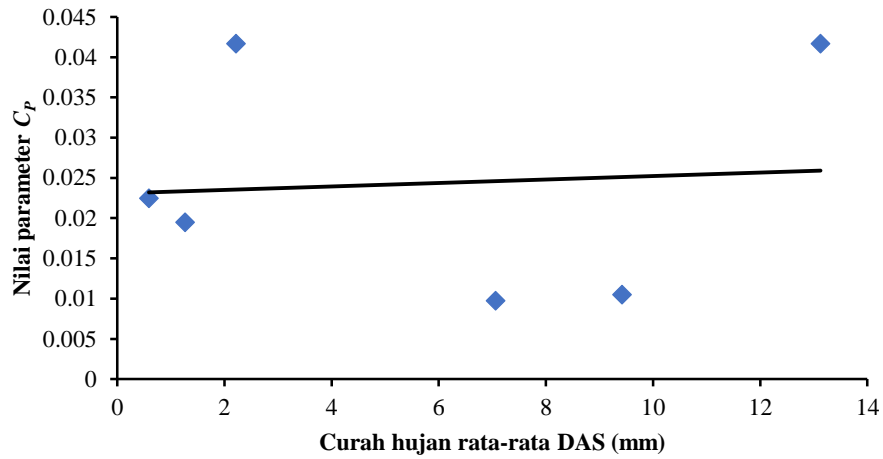
Tanggal	R^2
20	0.919
21	0.7606
22	0.8598
23	0.895
24	0.9065
25	0.7111
26	0.332

Nilai R^2 Metode GAMA Modifikasi 2

Tanggal	R^2
20	0.8279
21	0.9037
22	0.0371
23	0.6512
24	0.770
25	0.8066
26	0.2912

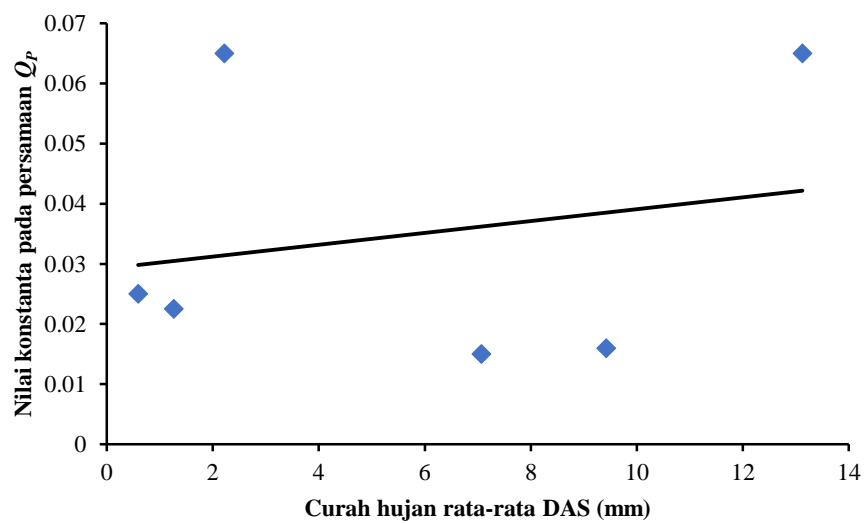
Lampiran 55. Grafik Parameter Kalibrasi Metode Snyder

Grafik nilai parameter C_p



Lampiran 56. Grafik Parameter Kalibrasi Metode GAMA

Grafik nilai parameter Q_p



Lampiran 57. Hitungan metode *Snyder* Asli

Yang diketahui :

$$\begin{aligned}C_t &= 1,7 = 1,4 - 1,7 \\A &= 1501502080 \text{ m}^2 = 1501,50208 \\L &= 68 \text{ km} \\L_c &= 34 \text{ km} \\C_p &= 0,15 = 0,15 - 0,19 \\T_r &= 5 \text{ jam} \\N &= 0,3\end{aligned}$$

Hitungan

- Menghitung T_p

$$t_p = C_t \cdot (L \cdot L_c)^n$$

$$t_p = 1,7 \cdot (68 \cdot 34)^{0,3} = 17,3638$$

- Mencari nilai Q_p

$$Q_p = C_p A / t_p$$

$$Q_p = 0,15 \cdot 1501,50208 / 17,3638 = 12,971$$

- Mencari nilai T_{pR}

$$T_b = 3 + t_p / 8$$

$$T_b = 3 + 17,3638 / 8 = 5,17048$$

$$t_D = t_p / 5,5$$

$$t_D = 17,3638 / 5,5 = 3,15706$$

$$t_D < t_r$$

$$t_{pR} = t_p + 0,25 (t_r - t_D)$$

$$t_{pR} = 17,3638 + 0,25 \cdot (5 - 3,15706) = 17,8246$$

- Mencari nilai debit puncak (Q_{pR})

$$Q_{pR} = Q_p \cdot t_p / t_{pR}$$

$$Q_{pR} = 12,971 \cdot 17,3638 / 17,8246 = 12,6357$$

- Mencari waktu dari awal hujan hingga puncak (p_r)

$$p_r = t_r / 2 + t_{pR}$$

$$p_r = 5 / 2 + 17,8246 = 20,3246$$

$$W_{50} = ((0,23A)^{1,08}) / (Q_{pR}^{1,08})$$

$$W_{50} = ((0,23 \cdot 1501,50208)^{1,08}) / (12,6357^{1,08}) = 35,6113 \text{ jam}$$

$$W75 = ((0.13A)^{1.08}) / (QpR^{1.08})$$

$$W75 = ((0,13 * 1501,50208)^{1,08}) / (12,6357^{1,08}) = 19,2301 \text{ jam}$$

$$x = t/tp$$

$$l = (Qp * Tp) / (A * h) = (12,971 * 17,3638) / (5 * 1) = 0,17103839$$

$$a = 1,32 * l^2 + 0,15 * l + 0,045 = 1,32 * 0,17103839^2 + 0,15 * 0,17103839 + 0,045 = 0.10927121$$

$$y = 10^{(-a * (1-x)^2/x)}$$

$$Qt = Qp * y$$

Lampiran 58. Hitungan metode Snyder Modifikasi

Yang diketahui :

$$Ct = 1,7 = 1,4 - 1,7$$

$$A = 1501502080 \text{ m}^2 = 1501,50208$$

$$L = 68 \text{ km}$$

$$Lc = 34 \text{ km}$$

$$Cp = 0,15 = 0,15 - 0,19$$

$$Tr = 5 \text{ jam}$$

$$N = 0,3$$

Hitungan

- Menghitung Tp

$$tp = 0,375 * Ct * (L * Lc)^n$$

$$tp = 0,375 * 1,7 * (68 * 34)^{0,3} = 6,51143$$

- Mencari nilai Qp

$$Qp = 0,278 * CpA / tp$$

$$Qp = 0,278 * 0,15 * 1501,50208 / 6,51143 = 9,6158$$

- Mencari nilai TpR

$$Tb = 3 + tp/8$$

$$Tb = 3 + 6,51143 / 8 = 3,81393 \text{ hari} = 92 \text{ jam}$$

$$tD = tp / 5,5$$

$$tD = 6,51143 / 5,5 = 1,1839$$

$$tD < tr$$

$$tpR = tp + 0,25 (tr - tD)$$

$$tpR = 6,51143 + 0,25 * (5 - 1,1839) = 7.46546$$

- Mencari nilai debit puncak (Q_{pR})

$$Q_{pR} = Q_p \cdot t_p / t_{pR}$$

$$Q_{pR} = 9,6158 \cdot 6,51143 / 7,46546 = 8,38698$$

- Mencari waktu dari awal hujan hingga puncak (p_r)

$$p_r = t_r/2 + t_{pR}$$

$$p_r = 5/2 + 7,46546 = 9,96546$$

$$W_{50} = ((0,23A)^{1,08}) / (Q_{pR}^{1,08})$$

$$W_{50} = ((0,23 * 1501,50208)^{1,08}) / (8,38698^{1,08}) = 55,4396 \text{ jam}$$

$$W_{75} = ((0,13A)^{1,08}) / (Q_{pR}^{1,08})$$

$$W_{75} = ((0,13 * 1501,50208)^{1,08}) / (8,38698^{1,08}) = 29,9373 \text{ jam}$$

$$x = t / t_p$$

$$l = (Q_p \cdot T_p) / (A \cdot h) = (9,6158 \cdot 6,51143) / (5 \cdot 1) = 0,0556643$$

$$a = 1,32 \cdot l^2 + 0,15 \cdot l + 0,045 = 1,32 \cdot 0,0556643^2 + 0,15 \cdot 0,0556643 + 0,045 = 0,0574397$$

$$y = 10^{(-a \cdot (1-x)^2 / (0,05 \cdot x))}$$

$$Q_t = Q_p \cdot y$$

Lampiran 59. Hitungan metode GAMA Asli

A	= 1501502080.2 m ² = 1501.502 km ²
Pangasa sungai 1	= 63 km
Pangsa sungai semua	= 106
JN	= 48
L semua tingkat	= 696,787
L tingkat	= 551,638
WU	= 39 km
WL	= 50 km
AU	= 777,2052368 km ²
S	= 0,025
SF	= 0.79168931
SN	= 0.594339623
WF	= 0.78
RUA	= 0.517618422
SIM	= 0.403742369
D	= 0.464059659

Perhitungan

- Waktu puncak

$$TR = 0.43*(L/100SF)^3 + 1.0665SIM + 1.2775$$

$$TR = 0.43*(551,638)^3 + 1,0665*0,403742369 + 1,2775 = 1.775181506$$

- Debit puncak banjir

$$QP = 0.1836(A)^{0.5886}*(TR)^{-0.4008}*(JN)^{0.2381}$$

$$QP = 0,1836 (1501.502)^{0,5886}*(1.775181506)^{-0,4008}*(48)^{0,2381} = 27.16332205$$

- Waktu dasar

$$TB = 27.4132*(TR)^{0.1457}*(S)^{-0.0986}*(SN)^{0.7344}*(RUA)^{0.2574}$$

$$TB = 27.4132*(1.775181506)^{0.1457}*(0,025)^{-0.0986}*(0.594339623)^{0.7344}*(0.517618422)^{0.2574} = 24.69873415$$

- Koefisien resesi

$$K = 0.5617*(A)^{0.1798}*(S)^{-0.1446}*(SF)^{-1.0897}*(D)^{0.0452}$$

$$K = 0.5617*(1501.502)^{0.1798}*(0,025)^{-0.1446}*(0.79168931)^{-1.0897}*(0.464059659)^{0.0452} = 4.444016413$$

- Aliran dasar

$$QB = 0.4715*(A)^{0.6444}*(D)^{0.9430}$$

$$QB = 0,4715*(1501.502)^{0.6444}*(0.464059659)^{0.9430} = 25.46913061$$

- Besarnya indeks

$$\Phi = 10.4903 - 3.859*(10)^{-6}*(A)^2 + 1.6985*(10)^{-13}*(A/SN)^4$$

$$\Phi = 10.4903 - 3.859 \cdot (10)^{-6} \cdot (1501.502)^2 + 1.6985 \cdot (10)^{-13} \cdot (1501.502 / 0.594339623)^4 = 8.708948374$$

kurva naik $0 < t < TR$

$$Q_t = (QP \cdot t) / TR$$

kurva turun $t > TR$

$$Q_t = QP \cdot \text{EXP}(-(t - TR) / K)$$

Lampiran 60. Hitungan metode GAMA Modifikasi

A	= 1501502080.2 m ² = 1501.502 km ²
Pangasa sungai 1	= 63 km
Pangsa sungai semua	= 106
JN	= 48
L semua tingkat	= 696,787
L tingkat	= 551,638
WU	= 39 km
WL	= 50 km
AU	= 777,2052368 km ²
S	= 0,025
SF	= 0.79168931
SN	= 0.594339623
WF	= 0.78
RUA	= 0.517618422
SIM	= 0.403742369
D	= 0.464059659

Perhitungan

- Waktu puncak

$$TR = 0.43*(L/100SF)^3 + 1.0665SIM + 1.2775$$

$$TR = 0.43*(551,638)^3 + 1,0665*0,403742369 + 1,2775 = 1.775181506$$

- Debit puncak banjir

$$QP = 0.1836(A)^{0.5886}*(TR)^{-0.4008}*(JN)^{0.2381}$$

$$QP = 0.1836 (1501.502)^{0.5886}*(1.775181506)^{-0.4008}*(48)^{0.2381} = 9.616644515$$

- Waktu dasar

$$TB = 27.4132*(TR)^{0.1457}*(S)^{-0.0986}*(SN)^{0.7344}*(RUA)^{0.2574}$$

$$TB = 27.4132*(1.775181506)^{0.1457}*(0,025)^{-0.0986}*(0.594339623)^{0.7344}*(0.517618422)^{0.2574} = 24.69873415$$

- Koefisien resesi

$$K = 0.5617*(A)^{0.1798}*(S)^{-0.1446}*(SF)^{-1.0897}*(D)^{0.0452}$$

$$K = 0.5617*(1501.502)^{0.1798}*(0,025)^{-0.1446}*(0.79168931)^{-1.0897}*(0.464059659)^{0.0452} = 4.444016413$$

- Aliran dasar

$$QB = 0.4715*(A)^{0.6444}*(D)^{0.9430}$$

$$QB = 0,4751*(1501.502)^{0.6444}*(0.464059659)^{0.9430} = 25.46913061$$

- Besarnya indeks

$$\Phi = 10.4903-3.859*(10)^{-6}*(A)^2+1.6985*(10)^{-13}*(A/SN)^4$$

$$\Phi = 10.4903-3.859*(10)^{-6}*(1501.502)^2+1.6985*(10)^{-13}*(1501.502/0.594339623)^4 = 8.708948374$$

kurva naik $0 < t < TR$

$$Q_t = (QP^*t)/TR$$

kurva turun $t > TR$

$$Q_t = QP^*EXP(-(t-TR)/K)$$