

BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Ketersediaan air di Embung Tambakboyo dihitung dari debit air yang masuk ke dalam Embung Tambakboyo dengan menggunakan Metode Mock (1973). Data yang digunakan berupa data curah hujan dari Stasiun Bronggang, Santan, dan Prumpung dimulai dari tahun 2001-2015. Dalam perhitungan dengan Metode Mock (1973), memerlukan nilai dari evapotranspirasi yang dihitung dengan menggunakan Metode Penman. Perhitungan evapotranspirasi menggunakan data-data seperti suhu, kecepatan angin, kelembaban udara dan lamanya penyinaran.

1. Hasil perhitungan menunjukkan besarnya ketersediaan air rata-rata per bulan selama 2001-2015 dengan keandalan 80% sebesar $0,7320 \text{ m}^3/\text{detik}$ pada bulan Januari, dan bulan-bulan selanjutnya sebesar $0,6152$; $0,4531$; $0,4279$; $0,2151$; $0,1428$; $0,1000$; $0,0700$; $0,0490$; $0,0570$; $0,2033$ dan $0,4920 \text{ m}^3/\text{detik}$. Hasil yang didapat akan digunakan sebagai *inflow*.
2. Dari hasil perhitungan besar kebutuhan air adalah $0,2433 \text{ m}^3/\text{detik}$ pada tahun 2001, dan tahun-tahun selanjutnya sebesar $0,2445$; $0,2457$; $0,2470$; $0,2483$; $0,2495$; $0,2510$; $0,2527$; $0,2533$; $0,2539$; $0,2562$; $0,2553$; $0,2584$; $0,2566$ dan $0,2528 \text{ m}^3/\text{detik}$

3. Perbedaan jumlah ketersediaan air dan kebutuhan air menggambarkan neraca air di Embung Tambakboyo selama periode analisis. Perhitungan neraca air dilakukan setiap bulan pada periode analisis agar lebih detail dan dari perhitungan ini didapatkan kondisi dari embung. Berdasarkan perhitungan didapat bahwa mulai dari tahun 2001-2015 embung mengalami surplus air. Ketersediaan air dan kebutuhan air yang telah didapatkan kemudian diprediksikan ke beberapa tahun yang akan datang dimulai dari tahun periode analisis berakhir yakni dipilih 2030. Pada tahun 2030 air yang tertampung sebesar $513057,747 \text{ m}^3$. Berdasarkan perhitungan didapatpula prediksi usai pakai embung yakni embung dapat digunakan hingga lebih dari tahun 2060 dengan jumlah ketersediaan air sebesar $33411,3421 \text{ m}^3$ dan jumlah kebutuhan air sebesar $24542,3636 \text{ m}^3$. Dari hasil perhitungan ketersediaan dan kebutuhan air didapat besar volume air yang tertampungan sebesar $635873,711 \text{ m}^3$ pada tahun 2060.

Dari hasil perhitungan memperlihatkan bahwa embung ini mampu untuk memenuhi kebutuhan baik secara irigasi maupun non irigasi. Embung ini mampu bertahan sampai 30 tahun yang akan datang dan lebih dari perkiraan tersebut.

5.2 Saran

Saran yang dapat penulis berikan setelah melihat hasil penelitian adalah sebagai berikut.

1. Diperlukan kajian lebih lanjut mengenai kebutuhan air irigasi yang digunakan dengan memperhatikan pola tanam dan jadwal tanam sehingga perhitungannya lebih akurat serta fungsi embung dapat dioptimalkan.
2. Diperlukan adanya instalasi air bersih agar embung dapat digunakan untuk kebutuhan sehari-hari dan kebutuhan yang lainnya.
3. Sebaiknya data yang digunakan lebih banyak dari 15 tahun agar hasilnya mendekati kondisi yang ada dilapangan dan lebih akurat.
4. Diperlukan pengukuran debit AWLR dari embung tersebut sehingga elemen yang dibutuhkan untuk perhitungan dengan Metode Mock sesuai dengan kondisi di lapangan

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LAMPIRAN

LAMPIRAN A.1
Data Curah Hujan Bulanan Tiap Stasiun

Stasiun	2001											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	339	379	373	162	60	112	76	6	0	461	338	318
Santan	381	144	357	352	0	67	0	0	0	213	238	263
Prumpung	400	364	557	217	222	185	47	0	15	470	364	241
2002												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	444	600	235	249	126	0	0	0	0	22	184	263
Bronggang	590	426	181	157	95	0	0	0	0	0	184	230
Santan	386	669	256	285	138	0	0	0	0	30	145	276
2003												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	327	678	333	76	101	10	0	0	5	34	295	279
Bronggang	350	535	273	143	154	9	0	0	0	0	198	345
Santan	307	193	457	111	114	42	0	0	3	11	90	305
2004												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	272	826	355	70	272	4	31	0	15	23	165	586
Bronggang	319	368	262	26	116	0	0	0	0	23	240	411
Santan	288	274	323	44	152	46	75	4	6	9	355	424
2005												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	296	534	269	183	0	160	42	3	29	113	45	493
Bronggang	358	485	266	230	0	0	0	0	0	128	98	483
Santan	309	275	343	271	7	81	121	1	34	178	179	511
2006												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	379	426	313	356	198	22	42	3	29	3	79	423
Bronggang	399	444	218	269	220	27	4	0	35	4	24	436
Santan	382	249	276	413	134	44	1	0	0	0	100	386
2007												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	392	495	257	463	90	84	10	0	0	232	424	475
Bronggang	489	344	270	382	0	0	0	0	0	53	197	737
Santan	429	321	323	568	70	49	2	1	2	117	316	657

2008												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	344	457	474	306	197	12	0	0	0	298	480	521
Santan	413	250	218	273	103	10	0	0	0	199	348	411
Prumpung	377	358	352	290	152	11	0	0	0	251	417	469
2009												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	449	305	193	408	127	38	5	0	0	70	245	236
Santan	298	338	285	223	141	0	0	0	0	74	97	255
Prumpung	377	321	237	320	133	20	3	0	0	72	174	245
2010												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	371	226,7	115,2	330	48,5	0	0	0	0	0	167	271
Santan	357	402	176	227	178	0	0	0	0	0	123	394
Prumpung	364	310	144	281	110	0	0	0	0	0	146	329
2011												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	619	371	524	248	420	21	0	0	9	64	438	382
Santan	311	239	325	96	197	0	0	0	0	6	375	376
Prumpung	472	308	429	176	314	11	0	0	5	36	408	379
2012												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	457	561	202	130	86,3	10	0	0	0	164	445	356
Santan	369	234	196	166	81	0	0	0	0	85	440	348
Prumpung	193	231	210	2	106	4	0	0	0	91	461	336
2013												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	209	124	63	0	60,1	84,1	26,7	1	1,5	24,5	264	393
Santan	393	534	189	268	257	282	73	0	0	39	424	399
Prumpung	458	601	508	336	43	171	72	5	0	55	297	359
2014												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	4323	323	157	233	83	109,5	79	0	0	0	489	395
Santan	417	320	162	327	0	55	27	0	0	0	346	344
Prumpung	361	107	144	154	96	52	41	0	0	2	301	413
2015												
Stasiun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bronggang	497	414	339	429	64	0	0	0	0	0	169,5	344
Santan	370	414	444	433	212	45	0	0	0	0	106	421
Prumpung	523	406	491	287	87	14	0	0	0	0	119	515

LAMPIRAN A.2
Curah Hujan Bulanan Daerah

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	mm											
2001	377	313	452	234	118	134	44	2	7	403	325	270
2002	454	588	231	242	124	0	0	0	0	20	166	261
2003	324	424	374	108	120	24	0	0	3	15	179	307
2004	291	463	317	47	179	21	43	2	7	17	269	469
2005	317	405	302	234	3	84	67	1	24	146	118	498
2006	385	351	272	360	175	33	14	1	17	2	75	409
2007	433	379	290	490	59	47	4	0	1	135	319	622
2008	376	361	355	291	153	11	0	0	0	252	419	470
2009	379	320	236	322	133	20	3	0	0	72	176	245
2010	365	308	143	282	109	0	0	0	0	0	147	328
2011	476	310	431	178	317	11	0	0	5	37	409	379
2012	316	331	204	81	94	5	0	0	0	112	451	345
2013	367	441	294	218	102	173	59	3	0	42	319	379
2014	397	225	152	221	68	70	49	0	0	1	369	390
2015	477	410	434	366	111	18	0	0	0	0	131	440

LAMPIRAN A.3

Jumlah Hari Hujan

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2001	22	16	21	11	3	8	3	0	0	15	18	12
2002	18	18	13	9	3	0	0	0	0	6	7	13
2003	13	17	17	6	5	2	0	0	2	5	12	17
2004	15	18	16	7	10	1	4	1	2	3	15	17
2005	16	19	15	14	1	6	6	1	4	8	8	21
2006	21	21	14	19	17	3	3	1	4	1	8	19
2007	8	18	16	19	4	3	1	0	1	5	13	20
2008	12	14	19	11	6	1	0	0	0	10	18	10
2009	13	15	9	13	3	1	0	0	0	5	9	6
2010	14	16	10	16	3	0	0	0	0	13	15	20
2011	18	12	13	12	14	0	0	0	0	4	20	18
2012	19	14	15	6	7	2	0	0	0	8	14	14
2013	20	19	16	16	11	11	7	1	0	5	18	19
2014	21	14	7	10	5	5	5	0	0	0	18	23
2015	22	15	22	16	8	2	0	0	0	0	14	20

LAMPIRAN B.1

Perhitungan Evaporasi dengan Transfer Massa Stasiun Plunyon.

Bulan	R.H (%)	Temperatur (°C)	e _s mmHg	e _d mmHg	u ₂ m/dtk	E mm/hari
Jan	76,66	22,51	20,4509	15,6779	0,0754	0,2430
Feb	77,21	22,53	20,4767	15,8110	0,0325	0,2037
Mar	78,71	22,29	20,1731	15,8782	0,0271	0,1970
Apr	80,47	22,15	20,0045	16,0970	0,0274	0,1952
May	75,77	22,15	20,0029	15,1570	0,0351	0,2071
Jun	75,50	21,51	19,2409	14,5268	0,0492	0,2189
Jul	73,85	21,04	18,6934	13,8060	0,0181	0,1917
Aug	69,61	20,99	18,6410	12,9765	0,0332	0,2105
Sep	68,70	21,49	19,2272	13,2091	0,0588	0,2419
Oct	61,71	23,53	21,7013	13,3918	0,0903	0,3168
Nov	73,05	23,02	21,0744	15,3948	0,0219	0,1985
Dec	75,03	22,39	20,3021	15,2331	0,0055	0,1803

LAMPIRAN B.2

Perhitungan Evaporasi dengan Transfer Massa Stasiun Barongan.

Bulan	R.H (%)	Temperatur (°C)	e _s mmHg	e _d mmHg	u ₂ m/dtk	E mm/hari
Jan	94,19	27,80	28,20	26,5655	0,37472	0,2910
Feb	92,68	28,22	28,70	26,6003	0,38881	0,3294
Mar	91,26	28,28	28,79	26,2742	0,40987	0,3699
Apr	91,13	28,52	29,20	26,6152	0,36636	0,3543
May	88,65	28,23	28,71	25,4466	0,3318	0,3794
Jun	88,05	27,53	28,04	24,6932	0,41512	0,4379
Jul	95,77	26,87	27,43	26,2675	0,38463	0,2593
Aug	95,19	27,15	27,83	26,4908	0,41286	0,2794
Sep	91,97	27,83	28,22	25,9516	0,4637	0,3737
Oct	91,03	28,78	29,66	26,9980	0,45822	0,4053
Nov	93,27	29,88	31,61	29,4827	0,39275	0,3329
Dec	94,93	28,50	29,18	27,6954	0,33106	0,2676

LAMPIRAN B.3

Perhitungan Evaporasi dengan Transfer Massa Stasiun Playen.

Bulan	R.H (%)	Temperatur (°C)	e _s mmHg	e _d mmHg	u ₂ m/dtk	E mm/hari
Jan	94,19	27,80	28,20	26,56547	0,37472	0,2909792
Feb	92,68	28,22	28,70	26,60032	0,38881	0,3294182
Mar	91,26	28,28	28,79	26,27418	0,40987	0,3699733
Apr	91,13	28,52	29,20	26,61516	0,36636	0,3542998
May	88,65	28,23	28,71	25,44659	0,3318	0,3794077
Jun	88,05	27,53	28,04	24,69318	0,41512	0,4379388
Jul	95,77	26,87	27,43	26,26746	0,38463	0,2592533
Aug	95,19	27,15	27,83	26,49084	0,41286	0,27937
Sep	91,97	27,83	28,22	25,95161	0,4637	0,3736666
Oct	91,03	28,78	29,66	26,99804	0,45822	0,4053335
Nov	93,27	29,88	31,61	29,48268	0,39275	0,3329957
Dec	94,93	28,50	29,18	27,69541	0,33106	0,2675772

LAMPIRAN C.1

Perhitungan Evapotranspirasi di Stasiun Plunyon.

Bulan	β	En mm/hari	Eto mm/hari	n	Eto mm/bulan
Jan	2,5267	5,4845	3,9983	31	123,9485
Feb	2,5295	5,0562	3,6814	28	103,0793
Mar	2,4965	3,8995	2,8406	31	88,0586
Apr	2,4781	4,1531	3,0152	30	90,4554
May	2,4779	4,8273	3,4989	31	108,4663
Jun	2,3917	3,1467	2,2835	30	68,5046
Jul	2,3290	2,4874	1,7978	31	55,7326
Aug	2,3229	5,7274	4,0672	31	126,0825
Sep	2,3901	2,1993	1,6219	30	48,6579
Oct	2,6635	5,9821	4,4357	31	137,5067
Nov	2,5947	4,8117	3,5284	30	105,8514
Dec	2,5105	3,8781	2,8247	31	87,5665

LAMPIRAN C.2

Perhitungan Evapotranspirasi di Stasiun Barongan.

Bulan	β	En mm/hari	Eto mm/hari	n	Eto mm/bulan
Jan	3,32	9,2793163	7,2008633	31	223,2267614
Feb	3,40	9,280394	7,2437918	28	202,8261707
Mar	3,40	8,2948243	6,4952475	31	201,3526711
Apr	3,44	5,4278831	4,2861812	30	128,5854348
May	3,40	5,6248283	4,4314624	31	137,3753334
Jun	3,28	6,8407214	5,344447	30	160,3334095
Jul	3,17	6,7146023	5,1667725	31	160,1699483
Aug	3,22	5,2129184	4,043083	31	125,3355745
Sep	3,33	10,042785	7,809191	30	234,2757297
Oct	3,49	10,057613	7,906857	31	245,1125663
Nov	3,67	9,1646036	7,2737234	30	218,2117032
Dec	3,44	7,3955403	5,7905047	31	179,5056461

LAMPIRAN C.3

Perhitungan Evapotranspirasi di Stasiun Playen.

Bulan	β	En mm/hari	Eto mm/hari	n	Eto mm/bulan
Jan	2,53	5,4845722	3,9971935	31	123,9129994
Feb	2,78	15,510778	11,640431	28	325,9320548
Mar	2,75	14,496979	10,85458	31	336,4919747
Apr	2,84	11,734113	8,9173631	30	267,5208941
May	2,68	15,414246	11,464334	31	355,3943614
Jun	2,54	13,857048	10,266557	30	307,996701
Jul	2,39	15,331478	11,224056	31	347,9457379
Aug	2,59	16,135051	12,012824	31	372,3975549
Sep	2,65	18,085596	13,260047	30	397,8013985
Oct	2,95	19,287731	14,685216	31	455,2417005
Nov	3,14	13,501447	10,4667	30	314,0009956
Dec	3,13	13,747728	11,37432	31	352,6039258

LAMPIRAN D.1

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2001

TAHUN 2001															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/bulan	377	313	452	234	118	134	44	2	7	403	325	270
2	Jumlah Hari Hujan	n	hari	22	16	21	11	3	8	3	0	0	15	18	12
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			-0,065	0,03	-0,045	0,1	0,225	0,15	0,22	0,265	0,265	0,05	0	0,095
6	dE	5x3	mm	-10,207	6,318	-9,389	16,219	45,093	26,842	41,349	55,104	60,132	13,964	0,000	19,623
7	Etl=Eto-dE	3-(6)	mm	167,236	204,294	218,023	145,969	155,319	152,103	146,601	152,835	166,780	265,323	212,688	186,936
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	209,525	109,091	233,736	88,022	-37,522	-18,549	-102,632	-151,031	-160,040	137,722	111,996	82,713
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	-37,5218	-18,5494	-102,632	-151,031	-160,04	60	60	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	149,525	49,091	173,736	28,022	0	0	0	0	0	77,722	51,996	22,713
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	74,763	24,545	86,868	14,011	0	0	0	0	0	38,861	25,998	11,357
13	$0.5 \times (1+k) \times I$		mm	63,548	20,864	73,838	11,909	0	0	0	0	0	33,032	22,098	9,653
14	$K \times (Vn-1)$		mm	32,900	67,514	61,864	94,991	74,830	52,381	36,667	25,667	17,967	12,577	31,926	37,817
15	<i>Storage Volume</i>	Vn	mm	96,448	88,377	135,702	106,901	74,830	52,381	36,667	25,667	17,967	45,608	54,024	47,470
16	dVn		mm	49,448	-8,071	47,324	-28,801	-32,070	-22,449	-15,714	-11	-7,7	27,642	8,416	-6,554
17	<i>Base Flow</i>	(12)-(16)	mm	25,314	32,616	39,543	42,812	32,070	22,449	15,714	11	7,7	11,219	17,582	17,911
18	<i>Direct Runoff</i>	(11)-(12)	mm	74,763	24,545	86,868	14,011	0	0	0	0	0	38,861	25,998	11,357
19	<i>Runoff</i>	(17)+(18)	mm	100,077	57,162	126,411	56,823	32,070	22,449	15,714	11	7,7	50,080	43,580	29,267
20	CA	km ²		19,750	19,750	19,750	19,750	19,750	19,750	19,750	19,750	19,750	19,750	19,750	19,750
21	Debit Efektif	(19)x(A)	m ³ /dt	0,763	0,436	0,963	0,433	0,244	0,171	0,120	0,084	0,059	0,382	0,332	0,223

LAMPIRAN D.2

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2002

TAHUN 2002															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	454	588	231	242	124	0	0	0	4	20	166	261
2	Jumlah Hari Hujan	n	hari	18	18	13	9	3	0	0	0	1	6	7	13
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			0	0	0,08	0,135	0,23	0,27	0,27	0,27	0,255	0,175	0,16	0,08
6	dE	5x3	mm	0	0	16,691	21,895	46,095	48,315	50,746	56,143	57,862	48,875	34,030	16,525
7	Etl=Eto-dE	3-(6)	mm	157,029	210,613	191,944	140,292	154,317	130,630	137,203	151,795	169,049	230,412	178,658	190,034
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	297,269	377,032	38,947	101,854	-30,713	-130,630	-137,203	-151,795	-165,049	-210,456	-12,183	70,565
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	-30,713	-130,630	-137,203	-151,795	-165,049	-210,456	-12,183	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	237,269	317,033	-21,053	41,854	0	0	0	0	0	0	0	10,566
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	118,634	158,516	-10,527	20,927	0	0	0	0	0	0	0	5,283
13	$0.5 \times (1+k) \times I$		mm	100,839	134,739	-8,948	17,788	0	0	0	0	0	0	0	4,490
14	$K \times (Vn-1)$		mm	33,229	93,848	160,011	105,744	86,472	60,531	42,372	29,660	20,762	14,533	10,173	7,121
15	<i>Storage Volume</i>	Vn	mm	134,068	228,586	151,063	123,532	86,472	60,531	42,372	29,660	20,762	14,533	10,173	11,612
16	dVn		mm	86,598	94,518	-77,524	-27,531	-37,060	-25,942	-18,159	-12,711	-8,898	-6,229	-4,360	1,438
17	<i>Base Flow</i>	(12)-(16)	mm	32,036	63,998	66,997	48,458	37,060	25,942	18,159	12,711	8,898	6,229	4,360	3,844
18	<i>Direct Runoff</i>	(11)-(12)	mm	118,634	158,516	-10,527	20,927	0	0	0	0	0	0	0	5,283
19	<i>Runoff</i>	(17)+(18)	mm	150,670	222,514	56,470	69,385	37,060	25,942	18,159	12,711	8,898	6,229	4,360	9,127
20	CA	km ²	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	1,148	1,695	0,430	0,529	0,282	0,198	0,138	0,097	0,068	0,047	0,033	0,070

LAMPIRAN D.3

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2003

TAHUN 2003															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	324	424	374	108	120	24	0	0	3	15	179	307
2	Jumlah Hari Hujan	n	hari	13	17	17	6	5	2	0	0	2	5	12	17
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			0,075	0,015	0,02	0,18	0,19	0,245	0,27	0,27	0,245	0,2	0,085	0,02
6	dE	5x3	mm	11,777	3,159	4,173	29,194	38,078	43,842	50,746	56,143	55,593	55,857	18,078	4,131
7	Etl=Eto-dE	3-(6)	mm	145,252	207,453	204,462	132,994	162,334	135,103	137,203	151,795	171,318	223,430	194,610	202,428
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	178,510	216,854	169,260	-24,516	-42,242	-110,974	-137,203	-151,795	-168,467	-208,205	-16,1	104,711
9	<i>Soil Storage</i>	IS	mm	60	60	60	-24,516	-42,242	-110,974	-137,203	-151,795	-168,467	-208,205	-16,1	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	118,510	156,854	109,260	0	0	0	0	0	0	0	0	44,711
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	59,255	78,427	54,630	0	0	0	0	0	0	0	0	22,355
13	$0.5 \times (1+k) \times I$		mm	50,367	66,663	46,435	0	0	0	0	0	0	0	0	19,002
14	$K \times (Vn-1)$		mm	8,128	40,947	75,327	85,233	59,663	41,764	29,235	20,465	14,325	10,028	7,019	4,914
15	<i>Storage Volume</i>	Vn	mm	58,495	107,609	121,762	85,233	59,663	41,764	29,235	20,465	14,325	10,028	7,019	23,916
16	dVn		mm	46,883	49,114	14,153	-36,529	-25,570	-17,899	-12,529	-8,771	-6,139	-4,298	-3,008	16,896
17	<i>Base Flow</i>	(12)-(16)	mm	12,372	29,313	40,477	36,529	25,570	17,899	12,529	8,771	6,139	4,298	3,008	5,459
18	<i>Direct Runoff</i>	(11)-(12)	mm	59,255	78,427	54,630	0	0	0	0	0	0	0	0	22,355
19	<i>Runoff</i>	(17)+(18)	mm	71,627	107,739	95,107	36,529	25,570	17,899	12,529	8,771	6,139	4,298	3,008	27,815
20	CA	km ²	mm	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	0,546	0,821	0,725	0,278	0,195	0,136	0,095	0,067	0,047	0,033	0,023	0,212

LAMPIRAN D.4

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2004

TAHUN 2004															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	291	463	317	47	179	21	43	2	7	17	269	469
2	Jumlah Hari Hujan	n	hari	15	18	16	7	10	1	4	1	2	3	15	17
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			0,045	0	0,035	0,17	0,12	0,25	0,205	0,26	0,235	0,225	0,05	0,01
6	dE	5x3	mm	7,066	0	7,302	27,572	24,049	44,736	38,530	54,064	53,324	62,840	10,634	2,066
7	Etl=Eto-dE	3-(6)	mm	149,963	210,613	201,332	134,615	176,363	134,209	149,420	153,875	173,587	216,447	202,054	204,493
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	141,067	252,837	115,888	-87,209	2,563	-112,710	-106,518	-152,077	-166,382	-199,814	67,076	264,809
9	<i>Soil Storage</i>	IS	mm	60	60	60	-87,209	2,563	-112,710	-106,518	-152,077	-166,382	-199,814	60	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	81,067	192,837	55,888	0	0	0	0	0	0	0	7,076	204,809
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	40,533	96,418	27,944	0	0	0	0	0	0	0	3,538	102,405
13	$0.5 \times (1+k) \times I$		mm	34,453	81,956	23,752	0	0	0	0	0	0	0	3,007	87,044
14	$K \times (Vn-1)$		mm	16,741	35,836	82,454	74,345	52,041	36,429	25,500	17,850	12,495	8,747	6,123	6,391
15	<i>Storage Volume</i>	Vn	mm	51,194	117,792	106,207	74,345	52,041	36,429	25,500	17,850	12,495	8,747	9,130	93,435
16	dVn		mm	27,279	66,597	-11,585	-31,862	-22,303	-15,612	-10,929	-7,650	-5,355	-3,749	0,383	84,305
17	<i>Base Flow</i>	(12)-(16)	mm	13,255	29,821	39,529	31,862	22,303	15,612	10,929	7,650	5,355	3,749	3,155	18,100
18	<i>Direct Runoff</i>	(11)-(12)	mm	40,533	96,418	27,944	0	0	0	0	0	0	0	3,538	102,405
19	<i>Runoff</i>	(17)+(18)	mm	53,788	126,240	67,473	31,862	22,303	15,612	10,929	7,650	5,355	3,749	6,693	120,504
20	CA	km ²		19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	0,410	0,962	0,514	0,243	0,170	0,119	0,083	0,058	0,041	0,029	0,051	0,918

LAMPIRAN D.5

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2005

TAHUN 2005															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	317	405	302	234	3	84	67	1	24	146	118	498
2	Jumlah Hari Hujan	n	hari	16	19	15	14	1	6	6	1	4	8	8	21
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			0,03	-0,01	0,045	0,065	0,255	0,175	0,18	0,255	0,205	0,145	0,145	-0,05
6	dE	5x3	mm	4,711	-2,106	9,389	10,542	51,105	31,315	33,831	53,024	46,517	40,497	30,840	-10,328
7	Etl=Eto-dE	3-(6)	mm	152,319	212,719	199,246	151,645	149,307	147,630	154,119	154,914	180,395	238,790	181,848	216,887
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	164,898	192,720	102,257	82,464	-146,161	-63,250	-87,179	-153,713	-156,518	-93,057	-63,383	281,387
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	-146,161	-63,250	-87,179	-153,713	-156,518	-93,057	-63,383	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	104,898	132,720	42,257	22,464	0	0	0	0	0	0	0	221,387
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	52,449	66,360	21,129	11,232	0	0	0	0	0	0	0	110,694
13	$0.5 \times (1+k) \times I$		mm	44,582	56,406	17,959	9,547	0	0	0	0	0	0	0	94,090
14	$K \times (Vn-1)$		mm	65,404	76,990	93,377	77,936	61,238	42,867	30,007	21,005	14,703	10,292	7,205	5,043
15	<i>Storage Volume</i>	Vn	mm	109,986	133,396	111,337	87,483	61,238	42,867	30,007	21,005	14,703	10,292	7,205	99,133
16	dVn		mm	16,551	23,410	-22,060	-23,854	-26,245	-18,371	-12,860	-9,002	-6,301	-4,411	-3,088	91,928
17	<i>Base Flow</i>	(12)-(16)	mm	35,898	42,950	43,188	35,086	26,245	18,371	12,860	9,002	6,301	4,411	3,088	18,765
18	<i>Direct Runoff</i>	(11)-(12)	mm	52,449	66,360	21,129	11,232	0	0	0	0	0	0	0	110,694
19	<i>Runoff</i>	(17)+(18)	mm	88,347	109,310	64,317	46,318	26,245	18,371	12,860	9,002	6,301	4,411	3,088	129,459
20	CA		km ²	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	0,673	0,833	0,490	0,353	0,200	0,140	0,098	0,069	0,048	0,034	0,024	0,986

LAMPIRAN D.6

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2006

TAHUN 2006															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	385	351	272	360	175	33	14	1	17	2	75	409
2	Jumlah Hari Hujan	n	hari	21	21	14	19	17	3	3	1	4	1	8	19
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) * (18-n)$			-0,05	-0,045	0,055	-0,015	0,02	0,225	0,225	0,26	0,215	0,25	0,15	-0,015
6	dE	5x3	mm	-7,851	-9,478	11,475	-2,433	4,008	40,263	42,289	54,064	48,786	69,822	31,903	-3,098
7	Etl=Eto-dE	3-(6)	mm	164,881	220,090	197,160	164,620	196,404	138,682	145,661	153,875	178,126	209,465	180,785	209,657
WATER BALANCED															
8	$S = Rs-Etl$	1-(7)	mm	220,527	130,842	75,314	195,334	-21,663	-105,546	-131,645	-153,123	-160,903	-207,623	-106,203	199,817
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	-21,663	-105,546	-131,645	-153,123	-160,903	-207,623	-106,203	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	160,527	70,842	15,314	135,334	0	0	0	0	0	0	0	139,817
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	80,264	35,421	7,657	67,667	0	0	0	0	0	0	0	69,908
13	$0.5 \times (1+k) \times I$		mm	68,224	30,108	6,508	57,517	0	0	0	0	0	0	0	59,422
14	$K \times (Vn-1)$		mm	69,393	96,332	88,508	66,511	86,820	60,774	42,542	29,779	20,845	14,592	10,214	7,150
15	<i>Storage Volume</i>	Vn	mm	137,617	126,440	95,016	124,028	86,820	60,774	42,542	29,779	20,845	14,592	10,214	66,572
16	dVn		mm	38,484	-11,177	-31,424	29,012	-37,208	-26,046	-18,232	-12,763	-8,934	-6,254	-4,378	56,358
17	<i>Base Flow</i>	(12)-(16)	mm	41,779	46,598	39,080	38,655	37,208	26,046	18,232	12,763	8,934	6,254	4,378	13,551
18	<i>Direct Runoff</i>	(11)-(12)	mm	80,264	35,421	7,657	67,667	0	0	0	0	0	0	0	69,908
19	<i>Runoff</i>	(17)+(18)	mm	122,043	82,019	46,737	106,322	37,208	26,046	18,232	12,763	8,934	6,254	4,378	83,459
20	CA		km ²	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	0,930	0,625	0,356	0,810	0,284	0,198	0,139	0,097	0,068	0,048	0,033	0,636

LAMPIRAN D.7

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2007

TAHUN 2007															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	433	379	290	490	59	47	4	0	1	135	319	622
2	Jumlah Hari Hujan	n	hari	8	18	16	19	4	3	1	0	1	5	13	20
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	Exposed surface	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	(m/20)*(18-n)			0,155	0	0,025	-0,015	0,215	0,22	0,255	0,265	0,26	0,2	0,075	-0,035
6	dE	5x3	mm	24,340	0	5,216	-2,433	43,089	39,368	47,927	55,104	58,997	55,857	15,952	-7,230
7	Etl=Eto-dE	3-(6)	mm	132,690	210,613	203,419	164,620	157,323	139,577	140,022	152,835	167,915	223,430	196,736	213,788
WATER BALANCED															
8	S = Rs-Etl	1-(7)	mm	300,187	168,418	86,610	325,253	-98,811	-92,455	-136,268	-152,385	-167,016	-88,007	121,832	408,497
9	Soil Storage	IS	mm	60	60	60	60	-98,811	-92,455	-136,268	-152,385	-167,016	-88,007	60	60
10	Soil Moisture	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	Water Surplus	8-(9)	mm	240,187	108,418	26,610	265,253	0	0	0	0	0	0	61,832	348,497
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	120,093	54,209	13,305	132,627	0	0	0	0	0	0	30,916	174,248
13	0.5 x (1+k) x I		mm	102,079	46,077	11,309	112,733	0	0	0	0	0	0	26,278	148,111
14	K x (Vn-1)		mm	46,600	104,076	105,107	81,492	135,957	95,170	66,619	46,633	32,643	22,850	15,995	29,592
15	Storage Volume	Vn	mm	148,680	150,153	116,417	194,224	135,957	95,170	66,619	46,633	32,643	22,850	42,274	177,703
16	dVn		mm	82,108	1,474	-33,737	77,808	-58,267	-40,787	-28,551	-19,986	-13,990	-9,793	19,423	135,429
17	Base Flow	(12)-(16)	mm	37,986	52,735	47,042	54,819	58,267	40,787	28,551	19,986	13,990	9,793	11,492	38,819
18	Direct Runoff	(11)-(12)	mm	120,093	54,209	13,305	132,627	0	0	0	0	0	0	30,916	174,248
19	Runoff	(17)+(18)	mm	158,079	106,944	60,347	187,446	58,267	40,787	28,551	19,986	13,990	9,793	42,408	213,068
20	CA		km ²	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	1,204	0,815	0,460	1,428	0,444	0,311	0,218	0,152	0,107	0,075	0,323	1,623

LAMPIRAN D.8

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2008

TAHUN 2008															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	376	361	355	291	153	11	0	0	0	252	419	470
2	Jumlah Hari Hujan	n	hari	12	14	19	11	6	1	0	0	0	10	18	10
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			0,085	0,055	-0,01	0,1	0,18	0,26	0,27	0,27	0,27	0,115	0	0,115
6	dE	5x3	mm	13,348	11,584	-2,086	16,219	36,074	46,526	50,746	56,143	61,266	32,118	0	23,754
7	Etl=Eto-dE	3-(6)	mm	143,682	199,029	210,721	145,969	164,338	132,419	137,203	151,795	165,646	247,169	212,688	182,804
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	232,339	161,642	144,586	144,878	-11,228	-121,347	-137,203	-151,795	-165,646	4,889	205,948	287,148
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	-11,228	-121,347	-137,203	-151,795	-165,646	4,889	60	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	172,339	101,642	84,586	84,878	0	0	0	0	0	0	145,948	227,148
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	86,169	50,821	42,293	42,439	0	0	0	0	0	0	72,974	113,574
13	$0.5 \times (1+k) \times I$		mm	73,244	43,198	35,949	36,073	0	0	0	0	0	0	62,028	96,538
14	$K \times (Vn-1)$		mm	124,392	138,345	127,080	114,120	105,135	73,595	51,516	36,061	25,243	17,670	12,369	52,078
15	<i>Storage Volume</i>	Vn	mm	197,636	181,543	163,029	150,193	105,135	73,595	51,516	36,061	25,243	17,670	74,397	148,616
16	dVn		mm	19,933	-16,093	-18,514	-12,835	-45,058	-31,541	-22,078	-15,455	-10,818	-7,573	56,727	74,219
17	<i>Base Flow</i>	(12)-(16)	mm	66,236	66,914	60,807	55,275	45,058	31,541	22,078	15,455	10,818	7,573	16,247	39,355
18	<i>Direct Runoff</i>	(11)-(12)	mm	86,169	50,821	42,293	42,439	0	0	0	0	0	0	72,974	113,574
19	<i>Runoff</i>	(17)+(18)	mm	152,405	117,735	103,100	97,714	45,058	31,541	22,078	15,455	10,818	7,573	89,221	152,929
20	CA	km ²		19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	1,161	0,897	0,786	0,745	0,343	0,240	0,168	0,118	0,082	0,058	0,680	1,165

LAMPIRAN D.9

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2009

TAHUN 2009															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	379	320	236	322	133	20	3	0	0	72	176	245
2	Jumlah Hari Hujan	n	hari	13	15	9	13	3	1	0	0	0	5	9	6
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			0,08	0,05	0,14	0,08	0,225	0,255	0,265	0,27	0,27	0,19	0,135	0,175
6	dE	5x3	mm	12,562	10,531	29,209	12,975	45,093	45,631	49,807	56,143	61,266	53,065	28,713	36,148
7	Etl=Eto-dE	3-(6)	mm	144,467	200,082	179,426	149,212	155,319	133,314	138,143	151,795	165,646	226,222	183,975	170,411
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	234,459	120,071	56,376	172,936	-22,090	-113,216	-135,463	-151,795	-165,646	-154,527	-7,657	74,460
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	-22,090	-113,216	-135,463	-151,795	-165,646	-154,527	-7,657	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	174,459	60,071	-3,624	112,936	0	0	0	0	0	0	0	14,460
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	87,230	30,036	-1,812	56,468	0	0	0	0	0	0	0	7,230
13	$0.5 \times (1+k) \times I$		mm	74,145	25,530	-1,540	47,998	0	0	0	0	0	0	0	6,145
14	$K \times (Vn-1)$		mm	104,031	124,723	105,178	72,546	84,381	59,066	41,347	28,943	20,260	14,182	9,927	6,949
15	<i>Storage Volume</i>	Vn	mm	178,176	150,254	103,637	120,544	84,381	59,066	41,347	28,943	20,260	14,182	9,927	13,095
16	dVn		mm	29,560	-27,923	-46,617	16,907	-36,163	-25,314	-17,720	-12,404	-8,683	-6,078	-4,255	3,167
17	<i>Base Flow</i>	(12)-(16)	mm	57,669	57,958	44,804	39,561	36,163	25,314	17,720	12,404	8,683	6,078	4,255	4,063
18	<i>Direct Runoff</i>	(11)-(12)	mm	87,230	30,036	-1,812	56,468	0	0	0	0	0	0	0	7,230
19	<i>Runoff</i>	(17)+(18)	mm	144,899	87,994	42,992	96,029	36,163	25,314	17,720	12,404	8,683	6,078	4,255	11,293
20	CA	km ²		19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	1,104	0,670	0,328	0,732	0,276	0,193	0,135	0,095	0,066	0,046	0,032	0,086

LAMPIRAN D.10

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2010

TAHUN 2010															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	365	308	143	282	109	0	0	0	20	0	147	328
2	Jumlah Hari Hujan	n	hari	14	16	10	16	3	0	0	0	2	13	15	20
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			0,055	0,03	0,115	0,025	0,225	0,27	0,27	0,27	0,24	0,08	0,045	-0,035
6	dE	5x3	mm	8,637	6,318	23,993	4,055	45,093	48,315	50,746	56,143	54,459	22,343	9,571	-7,230
7	Etl=Eto-dE	3-(6)	mm	148,393	204,294	184,641	158,133	155,319	130,630	137,203	151,795	172,453	256,944	203,117	213,788
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	216,110	103,756	-41,226	124,069	-46,723	-130,630	-137,203	-151,795	-152,453	-256,944	-56,536	114,131
9	<i>Soil Storage</i>	IS	mm	60	60	-41,226	60	-46,723	-130,630	-137,203	-151,795	-152,453	-256,944	-56,536	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	156,110	43,756	0	64,069	0	0	0	0	0	0	0	54,131
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	78,055	21,878	0	32,034	0	0	0	0	0	0	0	27,065
13	$0.5 \times (1+k) \times I$		mm	66,347	18,596	0	27,229	0	0	0	0	0	0	0	23,006
14	$K \times (Vn-1)$		mm	9,166	52,859	50,019	35,013	43,570	30,499	21,349	14,944	10,461	7,323	5,126	3,588
15	<i>Storage Volume</i>	Vn	mm	75,513	71,456	50,019	62,242	43,570	30,499	21,349	14,944	10,461	7,323	5,126	26,594
16	dVn		mm	62,418	-4,057	-21,437	12,224	-18,673	-13,071	-9,150	-6,405	-4,483	-3,138	-2,197	21,468
17	<i>Base Flow</i>	(12)-(16)	mm	15,637	25,936	21,437	19,811	18,673	13,071	9,150	6,405	4,483	3,138	2,197	5,598
18	<i>Direct Runoff</i>	(11)-(12)	mm	78,055	21,878	0	32,034	0	0	0	0	0	0	0	27,065
19	<i>Runoff</i>	(17)+(18)	mm	93,692	47,814	21,437	51,845	18,673	13,071	9,150	6,405	4,483	3,138	2,197	32,663
20	CA	km ²		19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	0,714	0,364	0,163	0,395	0,142	0,100	0,070	0,049	0,034	0,024	0,017	0,249

LAMPIRAN D.11

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2011

TAHUN 2011															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	476	310	431	178	317	11	0	0	5	37	409	379
2	Jumlah Hari Hujan	n	hari	18	12	13	12	14	0	0	0	0	4	20	18
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			0	0,09	0,075	0,09	0,065	0,265	0,27	0,27	0,265	0,21	-0,025	0
6	dE	5x3	mm	0	18,955	15,648	14,597	13,027	47,420	50,746	56,143	60,132	58,650	-5,317	0
7	Etl=Eto-dE	3-(6)	mm	157,029	191,657	192,987	147,590	187,385	131,525	137,203	151,795	166,780	220,637	218,005	206,559
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	319,199	118,140	238,396	29,979	129,289	-120,270	-137,203	-151,795	-161,957	-183,552	190,812	172,389
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	60	-120,270	-137,203	-151,795	-161,957	-183,552	60	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	259,199	58,140	178,396	-30,021	69,289	0	0	0	0	0	130,812	112,389
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	129,600	29,070	89,198	-15,011	34,645	0	0	0	0	0	65,406	56,194
13	$0.5 \times (1+k) \times I$		mm	110,160	24,709	75,818	-12,759	29,448	0	0	0	0	0	55,595	47,765
14	$K \times (Vn-1)$		mm	18,616	90,143	80,397	109,350	67,614	67,943	47,560	33,292	23,305	16,313	11,419	46,910
15	<i>Storage Volume</i>	Vn	mm	128,775	114,852	156,215	96,592	97,062	67,943	47,560	33,292	23,305	16,313	67,014	94,675
16	dVn		mm	102,182	-13,923	41,363	-59,623	0,470	-29,119	-20,383	-14,268	-9,988	-6,991	50,701	27,661
17	<i>Base Flow</i>	(12)-(16)	mm	27,418	42,993	47,835	44,613	34,174	29,119	20,383	14,268	9,988	6,991	14,705	28,534
18	<i>Direct Runoff</i>	(11)-(12)	mm	129,600	29,070	89,198	-15,011	34,645	0	0	0	0	0	65,406	56,194
19	<i>Runoff</i>	(17)+(18)	mm	157,018	72,063	137,034	29,602	68,819	29,119	20,383	14,268	9,988	6,991	80,111	84,728
20	CA	km ²	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)xA	m ³ /dt	1,196	0,549	1,044	0,226	0,524	0,222	0,155	0,109	0,076	0,053	0,610	0,646

LAMPIRAN D.12

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2012

TAHUN 2012															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	316	331	204	81	94	5	0	0	3	112	451	345
2	Jumlah Hari Hujan	n	hari	19	14	15	6	7	2	0	0	0	8	14	14
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) * (18-n)$			-0,01	0,065	0,05	0,185	0,165	0,24	0,27	0,27	0,27	0,145	0,065	0,055
6	dE	5x3	mm	-1,570	13,690	10,432	30,005	33,068	42,947	50,746	56,143	61,266	40,497	13,825	11,361
7	Etl=Eto-dE	3-(6)	mm	158,600	196,923	198,203	132,183	167,344	135,998	137,203	151,795	165,646	238,790	198,863	195,198
WATER BALANCED															
8	$S = Rs-Etl$	1-(7)	mm	157,617	133,811	5,767	-50,852	-73,516	-131,194	-137,203	-151,795	-162,646	-127,284	252,077	149,815
9	<i>Soil Storage</i>	IS	mm	60	60	5,767	-50,852	-73,516	-131,194	-137,203	-151,795	-162,646	-127,284	60	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	97,617	73,811	0	0	0	0	0	0	0	0	192,077	89,815
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	48,809	36,906	0	0	0	0	0	0	0	0	96,038	44,907
13	$0.5 \times (1+k) \times I$		mm	41,487	31,370	0	0	0	0	0	0	0	0	81,633	38,171
14	$K \times (Vn-1)$		mm	66,273	75,432	74,761	52,333	36,633	25,643	17,950	12,565	8,796	6,157	4,310	60,160
15	<i>Storage Volume</i>	Vn	mm	107,760	106,802	74,761	52,333	36,633	25,643	17,950	12,565	8,796	6,157	85,942	98,331
16	dVn		mm	13,085	-0,958	-32,041	-22,428	-15,700	-10,990	-7,693	-5,385	-3,770	-2,639	79,785	12,389
17	<i>Base Flow</i>	(12)-(16)	mm	35,724	37,864	32,041	22,428	15,700	10,990	7,693	5,385	3,770	2,639	16,253	32,519
18	<i>Direct Runoff</i>	(11)-(12)	mm	48,809	36,906	0	0	0	0	0	0	0	0	96,038	44,907
19	<i>Runoff</i>	(17)+(18)	mm	84,532	74,770	32,041	22,428	15,700	10,990	7,693	5,385	3,770	2,639	112,291	77,426
20	CA		km ²	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	0,644	0,570	0,244	0,171	0,120	0,084	0,059	0,041	0,029	0,020	0,856	0,590

LAMPIRAN D.13

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2013

TAHUN 2013															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	367	441	294	218	102	173	59	3	0	42	319	379
2	Jumlah Hari Hujan	n	hari	20	19	16	16	11	11	7	1	0	5	18	19
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) * (18-n)$			-0,025	-0,015	0,035	0,035	0,11	0,1	0,17	0,26	0,265	0,2	0,005	-0,015
6	dE	5x3	mm	-3,926	-3,159	7,302	5,677	22,045	17,894	31,951	54,064	60,132	55,857	1,063	-3,098
7	Etl=Eto-dE	3-(6)	mm	160,955	213,772	201,332	156,511	178,367	161,050	155,998	153,875	166,780	223,430	211,625	209,657
WATER BALANCED															
8	$S = Rs-Etl$	1-(7)	mm	205,907	227,076	93,136	61,477	-76,726	11,575	-97,367	-151,327	-166,329	-181,599	107,295	169,414
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	-76,726	11,575	-97,367	-151,327	-166,329	-181,599	60	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	145,907	167,076	33,136	1,477	0	0	0	0	0	0	47,295	109,414
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	72,954	83,538	16,568	0,738	0	0	0	0	0	0	23,647	54,707
13	$0.5 \times (1+k) \times I$		mm	62,011	71,007	14,083	0,628	0	0	0	0	0	0	20,100	46,501
14	$K \times (Vn-1)$		mm	68,832	91,590	113,818	89,531	63,111	44,177	30,924	21,647	15,153	10,607	7,425	19,268
15	<i>Storage Volume</i>	Vn	mm	130,842	162,597	127,901	90,158	63,111	44,177	30,924	21,647	15,153	10,607	27,525	65,769
16	dVn		mm	32,511	31,755	-34,696	-37,743	-27,047	-18,933	-13,253	-9,277	-6,494	-4,546	16,918	38,243
17	<i>Base Flow</i>	(12)-(16)	mm	40,442	51,783	51,264	38,481	27,047	18,933	13,253	9,277	6,494	4,546	6,729	16,464
18	<i>Direct Runoff</i>	(11)-(12)	mm	72,954	83,538	16,568	0,738	0	0	0	0	0	0	23,647	54,707
19	<i>Runoff</i>	(17)+(18)	mm	113,396	135,322	67,832	39,219	27,047	18,933	13,253	9,277	6,494	4,546	30,377	71,171
20	CA	km ²		19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	0,864	1,031	0,517	0,299	0,206	0,144	0,101	0,071	0,049	0,035	0,231	0,542

LAMPIRAN D.14

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2014

TAHUN 2014															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	397	225	152	221	68	70	49	0	0	5	369	390
2	Jumlah Hari Hujan	n	hari	21	14	7	10	5	5	5	0	0	1	18	23
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) \times (18-n)$			-0,05	0,065	0,16	0,115	0,19	0,195	0,195	0,27	0,27	0,255	0	-0,07
6	dE	5x3	mm	-7,851	13,690	33,382	18,652	38,078	34,894	36,650	56,143	61,266	71,218	0	-14,459
7	Etl=Eto-dE	3-(6)	mm	164,881	196,923	175,253	143,536	162,334	144,051	151,299	151,795	165,646	208,069	212,688	221,018
WATER BALANCED															
8	$S = Rs - Etl$	1-(7)	mm	231,764	28,264	-22,995	77,314	-94,242	-74,014	-102,285	-151,795	-165,646	-203,069	155,856	169,321
9	<i>Soil Storage</i>	IS	mm	60	60	-22,995	60	-94,242	-74,014	-102,285	-151,795	-165,646	-203,069	60	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	8-(9)	mm	171,764	-31,736	0	17,314	0	0	0	0	0	0	95,856	109,321
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	85,882	-15,868	0	8,657	0	0	0	0	0	0	47,928	54,660
13	$0.5 \times (1+k) \times I$		mm	73,000	-13,488	0	7,358	0	0	0	0	0	0	40,739	46,461
14	$K \times (Vn-1)$		mm	46,038	83,327	48,887	34,221	29,106	20,374	14,262	9,983	6,988	4,892	3,424	30,914
15	<i>Storage Volume</i>	Vn	mm	119,038	69,839	48,887	41,579	29,106	20,374	14,262	9,983	6,988	4,892	44,163	77,376
16	dVn		mm	53,269	-49,199	-20,952	-7,308	-12,474	-8,732	-6,112	-4,279	-2,995	-2,096	39,271	33,212
17	<i>Base Flow</i>	(12)-(16)	mm	32,613	33,331	20,952	15,965	12,474	8,732	6,112	4,279	2,995	2,096	8,657	21,448
18	<i>Direct Runoff</i>	(11)-(12)	mm	85,882	-15,868	0	8,657	0	0	0	0	0	0	47,928	54,660
19	<i>Runoff</i>	(17)+(18)	mm	118,495	17,463	20,952	24,622	12,474	8,732	6,112	4,279	2,995	2,096	56,585	76,108
20	CA		km ²	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	0,903	0,133	0,160	0,188	0,095	0,067	0,047	0,033	0,023	0,016	0,431	0,580

LAMPIRAN D.15

Perhitungan Debit dengan Menggunakan Metode Mock Tahun 2015

TAHUN 2015															
No	Uraian		Satuan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Curah Hujan	Rs	mm/hari	477	410	434	366	111	18	0	0	0	6	131	412
2	Jumlah Hari Hujan	n	hari	22	15	22	16	8	2	0	0	0	2	14	20
LIMITED EVAPOTRANSPIRATION															
3	Evapotranspirasi	Eto	mm	157,029	210,613	208,634	162,187	200,412	178,945	187,949	207,939	226,912	279,287	212,688	206,559
4	<i>Exposed surface</i>	m	%	30	30	30	30	30	30	30	30	30	30	30	30
5	$(m/20) * (18-n)$			-0,06	0,05	-0,055	0,035	0,15	0,235	0,27	0,27	0,27	0,24	0,055	-0,035
6	dE	(5)x(3)	mm	-9,422	10,531	-11,475	5,677	30,062	42,052	50,746	56,143	61,266	67,029	11,698	-7,230
7	Etl=Eto-dE	(3)-(6)	mm	166,451	200,082	220,109	156,511	170,350	136,893	137,203	151,795	165,646	212,258	200,990	213,788
WATER BALANCED															
8	$S = Rs-Etl$	(1)-(7)	mm	310,482	210,173	213,565	209,679	-59,015	-119,352	-137,203	-151,795	-165,646	-206,258	-70,058	198,212
9	<i>Soil Storage</i>	IS	mm	60	60	60	60	-59,015	-119,352	-137,203	-151,795	-165,646	-206,258	-70,058	60
10	<i>Soil Moisture</i>	SMC	mm	200	200	200	200	200	200	200	200	200	200	200	200
11	<i>Water Surplus</i>	(8)-(9)	mm	250,482	150,173	153,565	149,679	0	0	0	0	0	0	0	138,212
RUNOFF AND GROUNDWATER STORAGE															
12	Infiltrasi	0.5x(11)	mm	125,241	75,086	76,782	74,840	0	0	0	0	0	0	0	69,106
13	$0.5 \times (1+k) \times I$		mm	106,455	63,823	65,265	63,614	0	0	0	0	0	0	0	58,740
14	$K \times (Vn-1)$		mm	54,163	112,433	123,379	132,051	136,965	95,876	67,113	46,979	32,885	23,020	16,114	11,280
15	<i>Storage Volume</i>	Vn	mm	160,618	176,256	188,644	195,665	136,965	95,876	67,113	46,979	32,885	23,020	16,114	70,020
16	dVn		mm	83,242	15,638	12,388	7,020	-58,699	-41,090	-28,763	-20,134	-14,094	-9,866	-6,906	53,906
17	<i>Base Flow</i>	(12)-(16)	mm	41,999	59,448	64,394	67,819	58,699	41,090	28,763	20,134	14,094	9,866	6,906	15,200
18	<i>Direct Runoff</i>	(11)-(12)	mm	125,241	75,086	76,782	74,840	0	0	0	0	0	0	0	69,106
19	<i>Runoff</i>	(17)+(18)	mm	167,240	134,535	141,177	142,659	58,699	41,090	28,763	20,134	14,094	9,866	6,906	84,306
20	CA	km ²	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75	19,75
21	Debit Efektif	(19)x(A)	m ³ /dt	1,274	1,025	1,076	1,087	0,447	0,313	0,219	0,153	0,107	0,075	0,053	0,642

LAMPIRAN E.

Total Kebutuhan Air Embung Tambakboyo.

Tahun	Irigasi	Peternakan	Penduduk	Sekolah	Rumah Ibadah	Puskesmas	Rumah Sakit	Total Kebutuhan Air	
	(lt/dtk)	(lt/dtk)	(lt/dtk)	(lt/dtk)	(lt/dtk)	(lt/dtk)	(lt/dtk)	(lt/dtk)	(m ³ /dtk)
2001	115	0,3234	113,0063	3,2317	11,0069	0,4861	0,2083	243,2629	0,2433
2002	115	0,3234	114,2368	3,2317	11,0069	0,4861	0,2083	244,4933	0,2445
2003	115	0,3234	115,4806	3,2317	11,0069	0,4861	0,2083	245,7372	0,2457
2004	115	0,3234	116,7380	3,2317	11,0069	0,4861	0,2083	246,9946	0,2470
2005	115	0,3234	118,0091	3,2317	11,0069	0,4861	0,2083	248,2657	0,2483
2006	115	0,3234	119,2792	3,2317	11,0069	0,4861	0,2083	249,5358	0,2495
2007	115	0,3234	120,7434	3,2317	11,0069	0,4861	0,2083	250,9999	0,2510
2008	115	0,3234	122,4734	3,2317	11,0069	0,4861	0,2083	252,7199	0,2527
2009	115	0,3234	123,0616	3,2317	11,0069	0,4861	0,2083	253,3182	0,2523
2010	115	0,3234	123,6588	3,2317	11,0069	0,4861	0,2083	253,9154	0,2539
2011	115	0,3234	125,9671	3,2317	11,0069	0,4861	0,2083	256,2236	0,2562
2012	115	0,3234	124,0222	3,2317	11,0069	0,4861	0,2083	254,2787	0,2543
2013	115	0,3234	128,1131	3,2317	11,0069	0,4861	0,2083	258,3697	0,2584
2014	115	0,3234	126,3712	3,2317	11,0069	0,4861	0,2083	256,6278	0,2566
2015	115	0,3234	122,5819	3,2317	11,0069	0,4861	0,2083	252,8384	0,2528

LAMPIRAN F.1

Neraca Air Tahun 2001

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,6100	52707,26	21017,9	31689,35	40000	31689,35203	31689,35203	Terisi
Feb	0,3484	30105,12	21017,91	9087,21	40000	40776,56	40776,56203	Terisi
Mar	0,7706	66576,54	21017,91	45558,63	40000	86335,19	86335,19429	Terisi
Apr	0,3464	29926,87	21017,91	8908,959	40000	95244,15	95244,15378	Terisi
May	0,1955	16890,29	21017,91	-4127,621	40000	91116,53	91116,53319	Terisi
Jun	0,1368	11823,2	21017,91	-9194,708	40000	81921,83	81921,8253	Terisi
Jul	0,0958	8276,243	21017,91	-12741,67	40000	69180,16	69180,15629	Terisi
Aug	0,0671	5793,333	21017,91	-15224,58	40000	53956	53955,57803	Terisi
Sep	0,0469	4055,359	21017,91	-16962,55	40000	36993,03	36993,0253	Terisi
Oct	0,3053	26375,46	21017,91	5357,548	40000	42350,57	42350,57364	Terisi
Nov	0,2656	22952,11	21017,91	1934,203	40000	44284,78	44284,77622	Terisi
Dec	0,1784	15414,09	21017,91	-5603,825	40000	38680,95	38680,95075	Terisi

LAMPIRAN F.2

Neraca Air Tahun 2002

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,9184	79353,09	21124,22	58228,87	40000	96909,82	96909,81789	Terisi
Feb	1,3564	117190,8	21124,22	96066,53	40000	192976,35	192976,3477	Terisi
Mar	0,3442	29741,04	21124,22	8616,814	40000	201593,16	201593,1615	Terisi
Apr	0,4229	36542,83	21124,22	15418,61	40000	217011,77	217011,7701	Terisi
May	0,2259	19518,08	21124,22	-1606,147	40000	215405,62	215405,623	Terisi
Jun	0,1581	13662,65	21124,22	-7461,57	40000	207944,05	207944,0532	Terisi
Jul	0,1107	9563,857	21124,22	-11560,37	40000	196383,69	196383,6874	Terisi
Aug	0,0775	6694,7	21124,22	-14429,52	40000	181954	181954,1644	Terisi
Sep	0,0542	4686,29	21124,22	-16437,93	40000	165516,23	165516,2315	Terisi
Oct	0,0380	3280,403	21124,22	-17843,82	40000	147672,41	147672,4115	Terisi
Nov	0,0266	2296,282	21124,22	-18827,94	40000	128844,47	128844,4706	Terisi
Dec	0,0556	4806,974	21124,22	-16317,25	40000	112527,22	112527,2216	Terisi

LAMPIRAN F.3

Neraca Air Tahun 2003

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,4366	37723,56	21231,69	16491,87	400000	129019,09	129019,0883	Terisi
Feb	0,6567	56742,74	21231,69	35511,05	400000	164530,14	164530,1378	Terisi
Mar	0,5797	50089,79	21231,69	28858,1	400000	193388,24	193388,2364	Terisi
Apr	0,2227	19238,39	21231,69	-1993,299	400000	191394,94	191394,9379	Terisi
May	0,1559	13466,88	21231,69	-7764,817	400000	183630,12	183630,1213	Terisi
Jun	0,1091	9426,813	21231,69	-11804,88	400000	171825,24	171825,2421	Terisi
Jul	0,0764	6598,769	21231,69	-14632,92	400000	157192,32	157192,3191	Terisi
Aug	0,0535	4619,138	21231,69	-16612,55	400000	140580	140579,7654	Terisi
Sep	0,0374	3233,397	21231,69	-17998,3	400000	122581,47	122581,4703	Terisi
Oct	0,0262	2263,378	21231,69	-18968,31	400000	103613,16	103613,1561	Terisi
Nov	0,0183	1584,364	21231,69	-19647,33	400000	83965,83	83965,82865	Terisi
Dec	0,1695	14649,02	21231,69	-6582,674	400000	77383,15	77383,15499	Terisi

LAMPIRAN F.4

Neraca Air Tahun 2004

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,3279	28328,45	21340,33	6988,123	400000	84371,28	84371,27801	Terisi
Feb	0,7695	66486,15	21340,33	45145,82	400000	129517,10	129517,0966	Terisi
Mar	0,1942	16780,63	21340,33	-4559,7	400000	124957,40	124957,3962	Terisi
Apr	0,1942	16780,63	21340,33	-4559,7	400000	120397,70	120397,6958	Terisi
May	0,1360	11746,44	21340,33	-9593,89	400000	110803,81	110803,8062	Terisi
Jun	0,0952	8222,509	21340,33	-13117,82	400000	97685,98	97685,98421	Terisi
Jul	0,0666	5755,756	21340,33	-15584,57	400000	82101,41	82101,4095	Terisi
Aug	0,0466	4029,029	21340,33	-17311,3	400000	64790	64790,1079	Terisi
Sep	0,0326	2820,321	21340,33	-18520,01	400000	46270,10	46270,09748	Terisi
Oct	0,0228	1974,224	21340,33	-19366,11	400000	26903,99	26903,99089	Terisi
Nov	0,0408	3524,845	21340,33	-17815,49	400000	9088,51	9088,505368	Terisi
Dec	0,7346	63465,56	21340,33	42125,23	400000	51213,73	51213,7349	Terisi

LAMPIRAN F.5

Neraca Air Tahun 2005

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3	m3	m3	m3	m3	m3	
Jan	0,5385	46529,38	21450,15	25079,23	400000	76292,96	76292,96472	Terisi
Feb	0,6663	57569,94	21450,15	36119,78	400000	112412,75	112412,7489	Terisi
Mar	0,3921	33873,55	21450,15	12423,4	400000	124836,15	124836,1485	Terisi
Apr	0,2823	24394,1	21450,15	2943,95	400000	127780,10	127780,0985	Terisi
May	0,1600	13822,32	21450,15	-7627,833	400000	120152,27	120152,2655	Terisi
Jun	0,1120	9675,624	21450,15	-11774,53	400000	108377,74	108377,7365	Terisi
Jul	0,0784	6772,937	21450,15	-14677,22	400000	93700,52	93700,52027	Terisi
Aug	0,0549	4741,056	21450,15	-16709,1	400000	76991	76991,42303	Terisi
Sep	0,0384	3318,739	21450,15	-18131,41	400000	58860,01	58860,00906	Terisi
Oct	0,0269	2323,117	21450,15	-19127,04	400000	39732,97	39732,97338	Terisi
Nov	0,0188	1626,182	21450,15	-19823,97	400000	19909,00	19909,00251	Terisi
Dec	0,7891	68181,73	21450,15	46731,57	400000	66640,58	66640,57576	Terisi

LAMPIRAN F.6
Neraca Air Tahun 2006

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,7439	64276	21559,89	42716,11	400000	109356,68	109356,6849	Terisi
Feb	0,5000	43196,78	21559,89	21636,89	400000	130993,57	130993,5737	Terisi
Mar	0,2849	24614,94	21559,89	3055,051	400000	134048,62	134048,6243	Terisi
Apr	0,6481	55996,21	21559,89	34436,32	400000	168484,94	168484,9434	Terisi
May	0,2268	19596,46	21559,89	-1963,428	400000	166521,52	166521,5158	Terisi
Jun	0,1588	13717,52	21559,89	-7842,366	400000	158679,15	158679,1497	Terisi
Jul	0,1111	9602,266	21559,89	-11957,62	400000	146721,53	146721,5268	Terisi
Aug	0,0778	6721,586	21559,89	-14838,3	400000	131883	131883,224	Terisi
Sep	0,0545	4705,11	21559,89	-16854,78	400000	115028,45	115028,4454	Terisi
Oct	0,0381	3293,577	21559,89	-18266,31	400000	96762,13	96762,13367	Terisi
Nov	0,0267	2305,504	21559,89	-19254,38	400000	77507,75	77507,74876	Terisi
Dec	0,5087	43955,05	21559,89	22395,16	400000	99902,91	99902,9092	Terisi

LAMPIRAN F.7
Neraca Air Tahun 2007

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,9636	83254,94	21686,4	61568,54	400000	161.471,45	161471,4534	Terisi
Feb	0,6519	56323,87	21686,4	34637,47	400000	196.108,92	196108,9238	Terisi
Mar	0,3921	33873,55	21686,4	12187,16	400000	208.296,08	208296,0813	Terisi
Apr	0,2823	24394,1	21686,4	2707,708	400000	211.003,79	211003,7894	Terisi
May	0,1600	13822,32	21686,4	-7864,075	400000	203.139,71	203139,7144	Terisi
Jun	0,1120	9675,624	21686,4	-12010,77	400000	191.128,94	191128,9434	Terisi
Jul	0,0784	6772,937	21686,4	-14913,46	400000	176.215,49	176215,4852	Terisi
Aug	0,0549	4741,056	21686,4	-16945,34	400000	159.270,15	159270,1459	Terisi
Sep	0,0384	3318,739	21686,4	-18367,66	400000	140.902,49	140902,49	Terisi
Oct	0,0269	2323,117	21686,4	-19363,28	400000	121.539,21	121539,2123	Terisi
Nov	0,0188	1626,182	21686,4	-20060,21	400000	101.479,00	101478,9994	Terisi
Dec	0,7891	68181,73	21686,4	46495,33	400000	147.974,33	147974,3307	Terisi

LAMPIRAN F.8.
Neraca Air Tahun 2008.

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,9290	80266,86	21835	58431,86	400000	206.406,19	206406,1891	Terisi
Feb	0,7177	62006,97	21835	40171,97	400000	246578,16	246578,1584	Terisi
Mar	0,6285	54299,18	21835	32464,18	400000	279042,33	279042,3337	Terisi
Apr	0,5956	51462,5	21835	29627,5	400000	308669,83	308669,8296	Terisi
May	0,2747	23730,57	21835	1895,563	400000	310565,39	310565,3928	Terisi
Jun	0,1923	16611,4	21835	-5223,607	400000	305341,79	305341,7861	Terisi
Jul	0,1346	11627,98	21835	-10207,03	400000	295134,76	295134,7606	Terisi
Aug	0,0942	8139,584	21835	-13695,42	400000	281439	281439,3418	Terisi
Sep	0,0659	5697,709	21835	-16137,29	400000	265302,05	265302,0477	Terisi
Oct	0,0462	3988,396	21835	-17846,61	400000	247455,44	247455,441	Terisi
Nov	0,5439	46989,88	21835	25154,87	400000	272610,31	272610,3135	Terisi
Dec	0,9322	80542,86	21835	58707,86	400000	331318,17	331318,1734	Terisi

LAMPIRAN F.9.
Neraca Air Tahun 2009

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,8833	76313,38	21886,69	54426,7	400000	385744,87	385744,8686	Terisi
Feb	0,5364	46343,51	21886,69	24456,82	400000	410201,69	410201,6913	Meluap
Mar	0,2621	22642,5	21886,69	755,8106	400000	410957,50	410957,5018	Meluap
Apr	0,5854	50575,41	21886,69	28688,72	400000	439646,22	439646,2236	Meluap
May	0,2204	19045,92	21886,69	-2840,767	400000	436805,46	436805,4567	Meluap
Jun	0,1543	13332,15	21886,69	-8554,543	400000	428250,91	428250,9132	Meluap
Jul	0,1080	9332,502	21886,69	-12554,19	400000	415696,73	415696,7261	Meluap
Aug	0,0756	6532,751	21886,69	-15353,94	400000	400343	400342,7884	Meluap
Sep	0,0529	4572,926	21886,69	-17313,76	400000	383029,03	383029,0253	Terisi
Oct	0,0370	3201,048	21886,69	-18685,64	400000	364343,38	364343,3844	Terisi
Nov	0,0259	2240,734	21886,69	-19645,96	400000	344697,43	344697,4291	Terisi
Dec	0,0688	5947,456	21886,69	-15939,23	400000	328758,20	328758,1962	Terisi

LAMPIRAN F.10.
Neraca Air Tahun 2010

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,5711	49344,34	21938,29	27406,05	400000	356164,25	356164,2459	Terisi
Feb	0,2915	25181,96	21938,29	3243,674	400000	359407,92	359407,9195	Terisi
Mar	0,1307	11289,99	21938,29	-10648,3	400000	348759,62	348759,6185	Terisi
Apr	0,3160	27305,15	21938,29	5366,866	400000	354126,48	354126,4844	Terisi
May	0,1138	9834,313	21938,29	-12103,98	400000	342022,51	342022,5084	Terisi
Jun	0,0797	6884,019	21938,29	-15054,27	400000	326968,24	326968,2384	Terisi
Jul	0,1242	10735,05	21938,29	-11203,24	400000	315765,00	315765,0017	Terisi
Aug	0,0390	3373,169	21938,29	-18565,12	400000	297200	297199,8821	Terisi
Sep	0,0273	2361,219	21938,29	-19577,07	400000	277622,81	277622,8116	Terisi
Oct	0,0191	1652,853	21938,29	-20285,44	400000	257337,38	257337,3756	Terisi
Nov	0,0134	1156,997	21938,29	-20781,29	400000	236556,08	236556,0837	Terisi
Dec	0,1991	17202,55	21938,29	-4735,739	400000	231820,34	231820,3448	Terisi

LAMPIRAN F.11.

Neraca Air Tahun 2011

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,9571	82696,05	22137,72	60558,33	400000	292378,67	292378,6698	Terisi
Feb	0,4393	37953,15	22137,72	15815,43	400000	308194,09	308194,0949	Terisi
Mar	0,8353	72171	22137,72	50033,27	400000	358227,37	358227,3679	Terisi
Apr	0,1804	15590,59	22137,72	-6547,129	400000	351680,24	351680,2391	Terisi
May	0,4195	36244,52	22137,72	14106,8	400000	365787,04	365787,0398	Terisi
Jun	0,1775	15335,79	22137,72	-6801,934	400000	358985,11	358985,1058	Terisi
Jul	0,1242	10735,05	22137,72	-11402,67	400000	347582,44	347582,4351	Terisi
Aug	0,0870	7514,537	22137,72	-14623,19	400000	332959	332959,2487	Terisi
Sep	0,0609	5260,176	22137,72	-16877,55	400000	316081,70	316081,7013	Terisi
Oct	0,0426	3682,123	22137,72	-18455,6	400000	297626,10	297626,1013	Terisi
Nov	0,4883	42191,81	22137,72	20054,09	400000	317680,19	317680,19	Terisi
Dec	0,5165	44623,41	22137,72	22485,69	400000	340165,88	340165,8773	Terisi

LAMPIRAN F.12.
Neraca Air Tahun 2012

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,5153	44520,41	21969,68	22550,73	400000	362716,61	362716,6122	Terisi
Feb	0,4558	39378,67	21969,68	17408,99	400000	380125,60	380125,5985	Terisi
Mar	0,1953	16874,7	21969,68	-5094,976	400000	375030,62	375030,6221	Terisi
Apr	0,1367	11812,29	21969,68	-10157,39	400000	364873,23	364873,2349	Terisi
May	0,0957	8268,604	21969,68	-13701,07	400000	351172,16	351172,1602	Terisi
Jun	0,0670	5788,023	21969,68	-16181,66	400000	334990,50	334990,5042	Terisi
Jul	0,0469	4051,616	21969,68	-17918,06	400000	317072,44	317072,4413	Terisi
Aug	0,0328	2836,131	21969,68	-19133,55	400000	297939	297938,8936	Terisi
Sep	0,0230	1985,292	21969,68	-19984,39	400000	277954,51	277954,5065	Terisi
Oct	0,0161	1389,704	21969,68	-20579,97	400000	257374,53	257374,5318	Terisi
Nov	0,6845	59139,98	21969,68	37170,3	400000	294544,84	294544,8362	Terisi
Dec	0,4720	40777,78	21969,68	18808,1	400000	313352,94	313352,9405	Terisi

LAMPIRAN F.13
Neraca Air Tahun 2013

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,6912	59721,84	22323,14	37398,7	400000	350751,64	350751,6421	Terisi
Feb	0,8249	71269,37	22323,14	48946,23	400000	399697,87	399697,8745	Terisi
Mar	0,4135	35725,06	22323,14	13401,92	400000	413099,79	413099,7918	Meluap
Apr	0,2391	20655,5	22323,14	-1667,636	400000	411432,16	411432,1554	Meluap
May	0,1649	14244,98	22323,14	-8078,157	400000	403354,00	403353,9988	Meluap
Jun	0,1154	9971,488	22323,14	-12351,65	400000	391002,35	391002,3475	Terisi
Jul	0,0808	6980,041	22323,14	-15343,1	400000	375659,25	375659,2499	Terisi
Aug	0,0566	4886,029	22323,14	-17437,11	400000	358222	358222,1399	Terisi
Sep	0,0396	3420,22	22323,14	-18902,92	400000	339319,22	339319,2212	Terisi
Oct	0,0277	2394,154	22323,14	-19928,98	400000	319390,24	319390,2363	Terisi
Nov	0,1852	15998,33	22323,14	-6324,811	400000	313065,43	313065,4252	Terisi
Dec	0,4338	37483,23	22323,14	15160,09	400000	328225,51	328225,5114	Terisi

LAMPIRAN F.14.

Neraca Air Tahun 2014

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	0,7223	62407,41	22172,64	40234,77	400000	368460,29	368460,2853	Terisi
Feb	0,1064	9197,272	22172,64	-12975,37	400000	355484,92	355484,918	Terisi
Mar	0,1277	11034,52	22172,64	-11138,12	400000	344346,80	344346,7978	Terisi
Apr	0,1501	12967,41	22172,64	-9205,226	400000	335141,57	335141,572	Terisi
May	0,0760	6569,548	22172,64	-15603,09	400000	319538,48	319538,481	Terisi
Jun	0,0532	4598,684	22172,64	-17573,96	400000	301964,53	301964,5255	Terisi
Jul	0,0373	3219,078	22172,64	-18953,56	400000	283010,96	283010,965	Terisi
Aug	0,0261	2253,355	22172,64	-19919,28	400000	263092	263091,6809	Terisi
Sep	0,0183	1577,348	22172,64	-20595,29	400000	242496,39	242496,3904	Terisi
Oct	0,0128	1104,144	22172,64	-21068,5	400000	221427,90	221427,8953	Terisi
Nov	0,3449	29801,38	22172,64	7628,741	400000	229056,64	229056,6361	Terisi
Dec	0,4639	40083,77	22172,64	17911,13	400000	246967,76	246967,7648	Terisi

LAMPIRAN F.15.

Neraca Air Tahun 2015

Bulan	Inflow		Outflow	Selisih	Kapasitas Embung	Volume Tersedia	Tertampung	Keadaan Embung
	(m3/dtk)	m3						
Jan	1,0194	88079,74	21845,24	66234,51	400000	313202,27	313202,27	Terisi
Feb	0,8201	70854,98	21845,24	49009,74	400000	362212,01	362212,0089	Terisi
Mar	0,8606	74352,97	21845,24	52507,73	400000	414719,74	414719,7417	Meluap
Apr	0,8696	75133,63	21845,24	53288,4	400000	468008,14	468008,138	Meluap
May	0,3578	30915,01	21845,24	9069,77	400000	477077,91	477077,9082	Meluap
Jun	0,2505	21640,51	21845,24	-204,7319	400000	476873,18	476873,1763	Meluap
Jul	0,1753	15148,35	21845,24	-6696,883	400000	470176,29	470176,2928	Meluap
Aug	0,1227	10603,85	21845,24	-11241,39	400000	458935	458934,9033	Meluap
Sep	0,0859	7422,693	21845,24	-14422,54	400000	444512,36	444512,3595	Meluap
Oct	0,0601	5195,885	21845,24	-16649,35	400000	427863,01	427863,0078	Meluap
Nov	0,0421	3637,12	21845,24	-18208,12	400000	409654,89	409654,8905	Meluap
Dec	0,5139	44401,11	21845,24	22555,88	400000	432210,77	432210,7663	Meluap

LAMPIRAN G

Prediksi Usia Pakai

Tahun	Ketersediaan	Kebutuhan	Selisih	Air Tertampung	Keterangan
	m ³	m ³	m ³	m ³	
2001	66576,5439	21017,9116	45558,632	45558,632	Surplus
2002	117190,753	21124,223	96066,53	141625,16	Surplus
2003	56742,7414	21231,6919	35511,05	177136,21	Surplus
2004	66486,1496	21340,331	45145,819	222282,03	Surplus
2005	68181,7263	21450,153	46731,573	269013,6	Surplus
2006	64275,9982	21559,889	42716,109	311729,71	Surplus
2007	112215,615	21686,395	90529,22	402258,93	Surplus
2008	37113,6566	21835,003	15278,654	417537,59	Surplus
2009	21673,3576	21886,689	-213,33143	417324,25	Surplus
2010	13367,1148	21938,289	-8571,1742	408753,08	Surplus
2011	31166,5174	22137,723	9028,7944	417781,87	Surplus
2012	19735,2676	21969,679	-2234,4114	415547,46	Surplus
2013	23562,5199	22323,139	1239,3809	416786,84	Surplus
2014	15401,1601	22172,639	-6771,4789	410015,37	Surplus
2015	37282,1538	21845,237	15436,917	425452,28	Surplus
2016	43602,3547	22228,993	21373,362	446825,64	Surplus
2017	39576,423	22376,9032	17199,52	464025,16	Surplus
2018	24254,1797	22388,522	1865,6577	465890,82	Surplus
2019	15974,5263	22431,907	-6457,3807	459433,44	Surplus
2020	31018,0996	22607,9524	8410,1472	467843,59	Surplus
2021	20514,9754	22489,9643	-1974,9889	465868,6	Surplus
2022	23696,4823	22657,2088	1039,2735	466907,87	Surplus
2023	20328,0362	22612,6472	-2284,611	464623,26	Surplus
2024	33056,1664	22485,5673	10570,599	475193,86	Surplus
2025	43691,1487	22743,1921	20947,957	496141,82	Surplus
2026	39665,217	22891,1023	16774,115	512915,93	Surplus
2027	24342,9736	22902,7211	1440,2525	514356,18	Surplus
2028	16063,3202	22946,1061	-6882,7859	507473,4	Surplus
2029	31106,8935	23122,1515	7984,7421	515458,14	Surplus
2030	20603,7693	23004,1634	-2400,394	513057,75	Surplus
2031	23785,2762	23171,4079	613,86838	513671,62	Surplus
2032	20416,8302	23126,8463	-2710,0161	510961,6	Surplus
2033	33144,9603	22999,7664	10145,194	521106,79	Surplus
2034	43779,9426	23257,3911	20522,551	541629,34	Surplus
2035	39754,0109	23405,3014	16348,71	557978,05	Surplus
2036	24431,7675	23416,9202	1014,8473	558992,9	Surplus
2037	16152,1141	23460,3052	-7308,191	551684,71	Surplus
2038	31195,6875	23636,3506	7559,3369	559244,05	Surplus
2039	20692,5632	23518,3624	-2825,7992	556418,25	Surplus
2040	23874,0702	23685,6069	188,46322	556606,71	Surplus

Prediksi Usia Pakai... (Lanjutan)

Tahun	Ketersediaan	Kebutuhan	Selisih	Air Tertampung	Keterangan
	m³	m³	m³	m³	
2041	20505,6241	23641,0454	-3135,4213	553471,29	Surplus
2042	33233,7543	23513,9654	9719,7888	563191,08	Surplus
2043	43868,7365	23771,5902	20097,146	583288,23	Surplus
2044	39842,8048	23919,5005	15923,304	599211,53	Surplus
2045	24520,5615	23931,1193	589,44218	599800,97	Surplus
2046	16240,9081	23974,5042	-7733,5962	592067,38	Surplus
2047	31284,4814	24150,5496	7133,9318	599201,31	Surplus
2048	20781,3572	24032,5615	-3251,2044	595950,1	Surplus
2049	23962,8641	24199,806	-236,94194	595713,16	Surplus
2050	20594,418	24155,2445	-3560,8265	592152,33	Surplus
2051	33322,5482	24028,1645	9294,3837	601446,72	Surplus
2052	43957,5305	24285,7893	19671,741	621118,46	Surplus
2053	39931,5988	24433,6995	15497,899	636616,36	Surplus
2054	24609,3554	24445,3184	164,03703	636780,4	Surplus
2055	16329,702	24488,7033	-8159,0013	628621,39	Surplus
2056	31373,2753	24664,7487	6708,5266	635329,92	Surplus
2057	20870,1511	24546,7606	-3676,6095	631653,31	Surplus
2058	24051,658	24714,0051	-662,34709	630990,96	Surplus
2059	20683,212	24669,4436	-3986,2316	627004,73	Surplus
2060	33411,3421	24542,3636	8868,9785	635873,71	Surplus
2061	44046,3244	24799,9884	19246,336	655120,05	Surplus
2062	40020,3927	24947,8986	15072,494	670192,54	Surplus
2063	24698,1493	24959,5175	-261,36813	669931,17	Surplus
2064	16418,4959	25002,9024	-8584,4065	661346,77	Surplus
2065	31462,0693	25178,9478	6283,1215	667629,89	Surplus
2066	20943,4935	25048,9773	-4105,4838	663524,4	Surplus
2067	24110,5188	25207,5225	-1097,0037	662427,4	Surplus
2068	20727,578	25174,1828	-4446,6047	657980,8	Surplus
2069	33441,2102	25053,669	8387,5412	666368,34	Surplus
2070	44057,4101	25307,339	18750,071	685118,41	Surplus
2071	40020,1942	25455,5097	14564,685	699683,09	Surplus
2072	24604,8404	25481,3644	-876,52401	698806,57	Surplus
2073	16389,9602	25529,1289	-9139,1687	689667,4	Surplus
2074	31419,3552	25714,4051	5704,95	695372,35	Surplus
2075	20901,7971	25581,6515	-4679,8544	690692,5	Surplus
2076	24068,8223	25740,1967	-1671,3743	689021,12	Surplus
2077	20685,8815	25706,8569	-5020,9754	684000,15	Surplus
2078	33399,5138	25586,3431	7813,1706	691813,32	Surplus
2079	44015,7137	25840,0131	18175,701	709989,02	Surplus
2080	39978,4978	25988,1838	13990,314	723979,33	Surplus
2081	24563,1439	26014,0385	-1450,8946	722528,44	Surplus

Prediksi Usia Pakai... (Lanjutan)

Tahun	Ketersediaan	Kebutuhan	Selisih	Air Tertampung	Keterangan
	m ³	m ³	m ³	m ³	
2082	16348,2637	26061,803	-9713,5393	712814,9	Surplus
2083	31377,6587	26247,0793	5130,5794	717945,48	Surplus
2084	20860,1006	26114,3256	-5254,225	712691,25	Surplus
2085	24027,1259	26272,8708	-2245,7449	710445,51	Surplus
2086	20644,1851	26239,5311	-5595,346	704850,16	Surplus
2087	33357,8173	26119,0173	7238,8	712088,96	Surplus
2088	43974,0172	26372,6873	17601,33	729690,29	Surplus
2089	39936,8013	26520,858	13415,943	743106,23	Surplus
2090	24521,4475	26546,7127	-2025,2652	741080,97	Surplus
2091	16306,5673	26594,4772	-10287,91	730793,06	Surplus
2092	31335,9623	26779,7534	4556,2088	735349,27	Surplus
2093	20818,4041	26646,9998	-5828,5956	729520,67	Surplus
2094	23985,4294	26805,5449	-2820,1155	726700,56	Surplus
2095	20602,4886	26772,2052	-6169,7166	720530,84	Surplus
2096	33316,1208	26651,6914	6664,4294	727195,27	Surplus
2097	43932,3208	26905,3614	17026,959	744222,23	Surplus
2098	39895,1049	27053,5321	12841,573	757063,8	Surplus
2099	24479,751	27079,3868	-2599,6358	754464,17	Surplus
2100	16264,8708	27127,1513	-10862,281	743601,89	Surplus
2101	31294,2658	27312,4276	3981,8382	747583,72	Surplus
2102	20776,7077	27179,6739	-6402,9662	741180,76	Surplus
2103	23943,7329	27338,2191	-3394,4862	737786,27	Surplus
2104	20560,7922	27304,8794	-6744,0872	731042,18	Surplus
2105	33274,4244	27184,3656	6090,0588	737132,24	Surplus
2106	43890,6243	27438,0355	16452,589	753584,83	Surplus
2107	39853,4084	27586,2063	12267,202	765852,03	Surplus

LAMPIRAN H.1

Peta DAS Opak



LAMPIRAN H.2.
DAS TAMBAKBAYAN

