





DAFTAR PUSTAKA

- Agustina, C., Kusumarini, N., & Rayes, M. L. (2022). Pemetaan Kelas Kapabilitas Kesuburan Tanah Sebagai Dasar Identifikasi Permasalahan Dan Strategi Pengelolaan Lahan Sawah. *Jurnal Tanah Dan Sumberdaya Lahan*, 9(2), 421–429. <https://doi.org/10.21776/ub.jtssl.2022.009.2.23>
- BPS Kabupaten Wajo. (2020). *Luas Panen dan Produksi Beras Kabupaten Wajo* (Issue 112).
- BPS Sulawesi Selatan. (2023). Luas Panen dan Produksi Padi di Sulawesi Selatan 2023. In *Badan Pusat Statistik* (Vol. 2023, Issue 21). <https://www.bps.go.id/pressrelease/2023/03/01/2036/pada-2022--luas-panen-padi-mencapai-sekitar-10-45-juta-hektar-dengan-produksi-sebesar-54-75-juta-ton-gkg-.html>
- Effendi, H., Ali, M., & Misliniyati, R. (2014). Analisis Kehilangan Air Pada Saluran Sekunder (Studi Kasus Daerah Irigasi Bendung Air Nipis Bengkulu Selatan). *Jurnal Inersia April*, 6(1), 1–14.
- Fausan, A., Setiawan, B. I., Arif, C., & Saptomo, S. K. (2021). Analisa Model Evaporasi dan Evapotranspirasi Menggunakan Pemodelan Matematika pada Visual Basic di Kabupaten Maros. *Jurnal Teknik Sipil Dan Lingkungan*, 5(3), 179–196. <https://doi.org/10.29244/jsil.5.3.179-196>
- Karim, H. A., & Aliyah, M. (2018). Evaluasi Penentuan Waktu Tanam Padi Berdasarkan Curah Hujan. *Jurnal Ilmu Pertanian Universitas Al Asyariah*, 3(2), 41–46.
- Kusuma, W., Faridah, Nur, S., & Suhardi. (2015). Analisis Efisiensi Penyaluran Air Di Daerah Irigasi Bila Kalola Kabupaten Wajo. *Jurnal AgriTechno*, 8(2), 59–66.
- MENTERI PEKERJAAN UMUM DAN PERUMAHAN RAKYAT REPUBLIK INDONESIA** (pp. 1–288). (2015).
- Nurfaizi, A., & Hakim, D. K. (2023). Analisis Frekuensi Curah Hujan Kecamatan Nusawungu Menggunakan Metode Gumbel Dan Peramalan Menggunakan Exponential Smoothing. *Jurnal Media Pratama*, 17(2), 125. <https://jurnal.inf.co.id/index.php/jurnalmediapratama/article/view/395%0Ahttps://jurnal.inf.co.id/index.php/jurnalmediapratama/article/download/395/267>
- Ruhiat, D. (2022). Implementasi Distribusi Peluang Gumbel Untuk Analisis Data Curah Hujan Rencana. *Teorema: Teori Dan Riset Matematika*, 7(1), 213. <https://doi.org/10.25157/teorema.v7i1.7137>
- Ruminta, & Handoko. (2016). Vulnerability assessment of climate change on agriculture sector in the South Sumatra province, Indonesia. *Asian Journal of Crop Science*, 8(2), 31–42. <https://doi.org/10.3923/ajcs.2016.31.42>

- Ruminta, Handoko, & Nurmala, T. (2018). Indikasi perubahan iklim dan dampaknya terhadap produksi padi di Indonesia (Studi kasus: Sumatera Selatan dan Malang Raya). *Jurnal Agro*, 5(1), 48–60. <https://doi.org/10.15575/1607>
- Shalsabillah, H., Amri, K., & Gunawan, G. (2018). ANALISIS KEBUTUHAN AIR IRIGASI MENGGUNAKAN METODE CROPWAT VERSION 8.0 (Studi Kasus Pada Daerah Irigasi Air Nipis Kabupaten Bengkulu Selatan). *Jurnal Inersia Oktober*, 10(2), 61–68.

LAMPIRAN**Lampiran 1. Titik pengambilan sampel**

Kode Sampel	Koordinat	Gambar
TP 1 (Kalola)	3°55'21" S 120°3'23" T	
TP 2 (Salodua)	3°56'25.67" S 120°3'54.46" T	
TP 3 (Anabanua)	3°57'13.99" S 120°04'1.90" T	
TP 4 (Tancung)	4°03'58.07" S 120°01'30.87" T	

Lampiran 2. Analisis tekstur tanah di Laboratorium**Lampiran 3.** Luas areal pada daerah irigasi Kalola

Juru Pengairan	Luas area
Juru Suplesi Kalola	231
Juru Salodua	851
Juru Anabanua	609
Juru Tancung	1243
Total	2934

Lampiran 4. Waktu tanam pada daerah irigasi Kalola

Musim Tanam	Periode tanam
Gadu Okmar 2019/2020	NOV II-MAR II
Rendeng Asep 2021	APR III-SEP III
Gadu Okmar 2021/2022	NOV II-MAR III
Rendeng Asep 2022	APR II-SEP III
Gadu Okmar 2022/2023	NOV II-APR III
Rendeng Asep 2023	MEI III-SEP III

Lampiran 5. Luas pengaruh tiap stasiun hujan

No	Nama Stasiun	Luas Pengaruh km ²
1	Tingaraposi	45.156
2	Watang Kalola	92.253
3	Wele I	413.45

Lampiran 6. Curah Hujan Bulanan Stasiun Tingaraposi

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	0	0	100	35	45	70	45	0	15	65	75	25
2012	6	13	4	35	125	95	115	50	0	10	15	40
2013	40	10	15	60	73	75	15	65	20	15	10	5
2014	5	0	30	30	140	120	129	5	33	19	5	29
2015	0	0	41	42	19	77	2	0	0	0	15	2
2016	7	14	8	51	76	79	52	36	25	47	7	0
2017	6	8	9	20	65	89	194	15	13	38	7	6
2018	36	0	7	32	124	73	29	0	0	0	3	7
2019	0	0	3	14	45	0	0	0	3	0	0	0
2020	4	0	8	31	50	92	44	41	14	47	47	25
2021	32	14	14	23	530	403	97	268	143	81	118	51
2022	14	31	0	51	134	70	158	77	110	141	125	183
2023	17	7	37	41	86	58	91	0	0	0	83	58

Lampiran 7. Curah Hujan Bulanan Stasiun Watang Kalola

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	35	20	30	260	397	285	355	2	90	697	467	236
2012	0	449	120	647	245	332	585	16	230	122	250	367
2013	185	155	130	0	881	254	1162	445	190	80	450	160
2014	45	0	199	175	797	845	240	137	0	120	265	110
2015	0	80	310	490	355	12	0	0	0	0	385	148
2016	35	20	30	260	397	285	355	2	90	697	467	236
2017	0	215	35	102	1125	710	375	445	210	345	125	70
2018	120	55	45	390	575	520	370	22	36	70	90	160
2019	73	10	35	327	375	499	5	75	0	105	30	150
2020	187	95	385	469	630	945	715	170	429	25	265	160
2021	170	140	7	165	935	670	422	1075	770	349	390	420
2022	35	115	35	130	162	535	200	118	200	245	130	210
2023	24	30	247	197	145	207	142	18	0	55	127	82

Lampiran 8. Curah Hujan Bulanan Stasiun Wele I

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	93	45	10	141	234	204	196	48	0	546	402	103
2012	56	286	275	544	92	167	346	26	68	303	183	177
2013	216	174	59	406	683	364	628	215	32	80	321	151
2014	50	226	125	120	616	510	129	73	0	62	143	225
2015	50	123	314	306	342	658	0	0	0	0	233	470
2016	175	368	70	682	372	348	220	70	263	612	393	36
2017	15	112	147	299	1052	600	221	102	75	167	121	255
2018	88	157	97	316	450	559	252	23	35	66	134	45
2019	103	50	75	456	204	537	38	0	0	120	110	92
2020	257	74	242	391	596	587	636	225	267	173	149	235
2021	437	240	148	80	739	501	587	569	350	348	334	227
2022	145	214	150	111	360	466	484	234	329	368	204	262
2023	42	201	227	67	206	280	139	0	0	4	194	276

Lampiran 9. Temperatur rata-rata bulanan Stasiun Sengkang

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	29.2	28.5	28.5	28.0	28.2	27.6	26.6	28.1	27.7	29.1	29.3	29.1
2013	28.2	28.6	29.0	28.5	27.5	27.8	25.8	27.1	27.9	28.8	28.7	27.9
2014	28.7	29.8	29.6	29.3	28.0	28.9	29.0	27.4	27.9	28.5	29.3	29.7
2015	29.6	28.7	29.4	29.1	28.7	27.7	28.7	29.0	28.7	29.1	29.8	28.5
2016	29.2	29.4	28.8	33.9	29.0	28.6	28.3	28.4	28.8	28.8	29.8	29.4
2017	29.3	28.8	29.0	28.4	27.6	27.6	27.2	26.7	27.7	28.3	29.0	29.3
2018	28.6	28.5	28.5	28.3	28.1	27.8	27.3	27.8	28.1	29.4	29.6	29.4
2019	28.8	29.2	29.3	28.5	27.9	27.7	27.0	27.4	28.3	29.4	30.4	31.1
2020	29.5	30.3	29.8	29.2	29.9	27.8	27.7	28.1	28.9	29.3	30.4	29.0
2021	29.2	29.2	29.4	29.9	29.0	28.6	27.6	27.9	27.9	28.5	29.1	28.4
2022	28.9	28.9	29.8	29.4	28.9	28.4	28.0	27.8	29.5	29.9	30.6	30.2

Lampiran 10. Kelembaban udara bulanan Stasiun Sengkang

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	89	91	89	91	90	90	89	89	90	82	86	87
2013	89	87	89	89	89	88	90	88	84	87	87	88
2014	88	89	90	90	90	90	89	90	89	89	90	88
2015	87	87	88	90	90	89	90	89	90	89	87	88
2016	88	86	86	87	81	89	90	87	83	88	86	86
2017	88	90	89	81	73	88	90	89	89	90	93	88
2018	86	89	88	86	86	87	88	81	84	81	86	86
2019	85	88	87	86	89	88	88	87	88	97	89	90
2020	85	83	86	87	88	89	89	88	88	84	89	89
2021	88	84	90	88	88	88	88	89	88	89	86	90
2022	88	85	87	84	84	83	86	88	91	87	87	92

Lampiran 11. Kecepatan angin bulanan Stasiun Sengkang

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	67	52	54	38	44	47	48	74	66	65	48	53
2013	100	66	69	45	44	34	52	76	52	57	71	69
2014	74	71	64	64	60	80	81	98	93	122	64	70
2015	96	58	56	40	75	69	98	99	146	112	77	71
2016	31	43	50	50	57	54	64	86	75	52	45	66
2017	88	69	55	53	53	57	84	97	103	61	62	74
2018	91	80	69	51	54	50	64	73	69	58	42	56
2019	53	45	48	43	48	48	57	71	71	67	51	42
2020	48	41	39	35	40	44	50	51	51	40	38	61
2021	70	66	47	39	14	8	12	22	20	12	18	53
2022	67	64	56	32	24	23	27	38	38	40	44	56

Lampiran 12. Kecepatan angin bulanan Stasiun Sengkang

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	47	49	47	47	35	33	51	0	61	67	50	47
2013	45	44	47	49	49	25	29	47	64	54	50	5
2014	42	34	54	42	34	23	40	38	61	69	60	48
2015	46	49	39	57	34	33	67	77	68	65	61	51
2016	52	52	52	42	53	49	53	53	50	36	18	28
2017	28	38	46	51	39	24	28	37	50	46	52	35
2018	35	47	43	33	45	35	39	55	60	62	52	43
2019	42	40	54	41	52	38	57	65	71	64	46	39
2020	33	37	34	43	43	40	43	61	49	49	30	29
2021	25	32	53	60	52	57	44	42	55	53	53	41
2022	49	54	51	48	52	55	39	42	41	60	51	45

Lampiran 13. Evapotranspirasi potensial berdasarkan software Cropwat 8.0

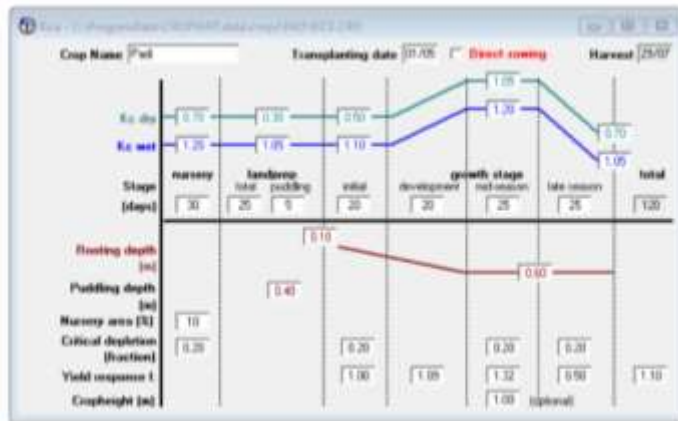
Month	Avg Temp °C	Humidity %	Wind km/day	Sun hours	Rad MJ/m ² /day	ETo mm/day
January	29.0	87	71	4.7	15.5	3.40
February	29.1	87	60	5.1	16.9	3.67
March	29.2	88	55	5.6	18.2	3.93
April	29.3	87	45	5.7	18.1	3.95
May	28.4	86	47	5.4	17.0	3.64
June	28.0	88	57	4.7	15.5	3.31
July	27.6	89	58	5.5	16.8	3.49
August	27.8	88	71	5.7	17.7	3.69
September	28.3	88	71	6.9	20.0	4.15
October	29.0	87	62	6.8	19.5	4.12
November	29.6	88	51	5.5	16.8	3.65
December	29.3	88	61	4.4	14.8	3.26
Average	28.7	88	59	5.5	17.2	3.69

Lampiran 14. Curah hujan efektif berdasarkan software Cropwat 8.0

	Rain mm	Eff rain mm
January	37.4	26.2
February	65.0	45.5
March	61.6	43.1
April	105.3	73.7
May	212.9	149.0
June	241.0	168.7
July	114.3	80.0
August	10.7	7.5
September	0.2	0.1
October	51.5	36.0
November	115.2	80.6
December	88.6	62.0
Total	1103.7	772.6

Lampiran 15. Data input Jenis tanah pada software Cropwat 8.0

Lampiran 16. Data input jenis tanaman dan waktu tanam pada software Cropwat 8.0



Lampiran 17. Kebutuhan air tanaman padi awal musim tanam April I

Month	Decade	Stage	Kc	ETc	ETc	ETc rain	Irr. Req.
			coeff	mm/day	mm/dec	mm/dec	mm/dec
Apr	1	Nurs/Pl	1.13	2.34	23.4	19.8	52.6
Apr	2	Nurs/Pl	1.06	4.21	42.1	22.5	19.6
Apr	3	Nurs/Pl	1.06	4.10	41.0	31.5	159.2
May	1	Ini	1.10	4.12	41.2	43.8	0.0
May	2	Ini	1.10	4.01	40.1	52.3	0.0
May	3	Deve	1.07	3.70	41.6	53.6	0.0
Jun	1	Mid	1.02	3.49	34.9	67.4	0.0
Jun	2	Mid	1.00	3.32	33.2	61.3	0.0
Jun	3	Mid	1.00	3.38	33.8	49.9	0.0
Jul	1	Late	0.99	3.40	34.0	36.0	0.0
Jul	2	Late	0.93	3.26	32.6	25.9	6.7
Jul	3	Late	0.99	2.12	28.1	14.9	10.0
					425.8	468.0	248.1

Lampiran 18. Neraca air tanaman padi awal musim tanam April I

Bulan	Periode	Kebutuhan	Debit Andalan	Imbangan	Kondisi	
		Air Irigasi	(m ³ /dt)	(m ³ /dt)		Air
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)		
Apr	I	1.79	0.00	-1.79	Defisit	
	II	0.67	0.99	0.33	Surplus	
	III	5.41	0.57	-4.84	Defisit	
May	I	0.00	2.67	2.67	Surplus	
	II	0.00	3.15	3.15	Surplus	
	III	0.00	4.37	4.37	Surplus	
Jun	I	0.00	1.93	1.93	Surplus	
	II	0.00	5.12	5.12	Surplus	
	III	0.00	4.23	4.23	Surplus	
Jul	I	0.00	1.78	1.78	Surplus	
	II	0.23	2.10	1.87	Surplus	
	III	0.31	2.09	1.79	Surplus	

Lampiran 19. Kebutuhan air tanaman padi awal musim tanam April I

Month	Decade	Stage	Kc	Etc	Etc	Eff rain	In. Req.
			coeff	mm/day	mm/dec	mm/dec	mm/dec
Apr	1	Non/LPr	1.13	2.34	23.4	19.8	52.6
Apr	2	Non/LPr	1.06	4.21	42.1	22.5	19.6
Apr	3	Non/LPr	1.06	4.10	41.0	31.5	159.2
May	1	Ini	1.10	4.12	41.2	43.0	0.0
May	2	Ini	1.10	4.01	40.1	52.3	0.0
May	3	Deve	1.07	3.79	41.6	53.6	0.0
Jun	1	Mid	1.02	3.48	34.9	57.4	0.0
Jun	2	Mid	1.00	3.32	33.2	61.3	0.0
Jun	3	Mid	1.00	3.38	33.8	49.8	0.0
Jul	1	Late	0.99	3.40	34.0	36.0	0.0
Jul	2	Late	0.99	3.26	32.6	25.9	6.7
Jul	3	Late	0.88	2.12	26.1	14.9	10.0
					425.0	460.0	248.1

Lampiran 20. Neraca air tanaman padi awal musim tanam April I

Bulan	Periode	Kebutuhan	Debit Andalan	Imbangan	Kondisi	
		Air Irigasi	(m ³ /dt)	(m ³ /dt)		Air
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)		
Apr	I	1.79	0.00	-1.79	Defisit	
	II	0.67	0.99	0.33	Surplus	
	III	5.41	0.57	-4.84	Defisit	
May	I	0.00	2.67	2.67	Surplus	
	II	0.00	3.15	3.15	Surplus	
	III	0.00	4.37	4.37	Surplus	
Jun	I	0.00	1.93	1.93	Surplus	
	II	0.00	5.12	5.12	Surplus	
	III	0.00	4.23	4.23	Surplus	
Jul	I	0.00	1.78	1.78	Surplus	
	II	0.23	2.10	1.87	Surplus	
	III	0.31	2.09	1.79	Surplus	

Lampiran 21. Kebutuhan air tanaman padi awal musim tanam April II

Month	Decade	Stage	Kc coef	ETc mm/day	ETc mm/dec	EB rain mm/dec	Ir. Req. mm/dec
Apr	2	Man/LP	1.13	2.34	23.4	22.5	50.0
Apr	3	Man/LP	1.06	4.10	41.0	31.5	3.5
May	1	Man/LP	1.06	3.99	39.9	43.0	90.0
May	2	Ini	1.10	4.01	40.1	92.3	0.0
May	3	Deve	1.10	3.99	42.7	53.6	0.0
Jun	1	Deve	1.07	3.65	36.5	57.4	0.0
Jun	2	Mid	1.02	3.37	33.7	61.3	0.0
Jun	3	Mid	1.00	3.38	33.8	49.8	0.0
Jul	1	Mid	1.00	3.44	34.4	36.0	0.0
Jul	2	Late	0.99	3.46	34.6	25.9	0.7
Jul	3	Late	0.93	3.32	36.5	18.1	18.4
Aug	1	Late	0.88	3.19	25.4	6.1	17.9
					422.0	457.6	282.3

Lampiran 22. Kebutuhan air tanaman padi awal musim tanam April III

Month	Decade	Stage	Kc coef	ETc mm/day	ETc mm/dec	EB rain mm/dec	Ir. Req. mm/dec
Apr	3	Man/LP	1.13	2.28	22.8	31.5	45.0
May	1	Man/LP	1.06	3.99	39.9	43.0	0.0
May	2	Man/LP	1.06	3.99	39.9	92.3	90.0
May	3	Ini	1.10	3.88	42.7	53.6	0.0
Jun	1	Deve	1.10	3.76	37.6	57.4	0.0
Jun	2	Deve	1.07	3.53	35.3	61.3	0.0
Jun	3	Mid	1.02	3.44	34.4	49.8	0.0
Jul	1	Mid	1.00	3.44	34.4	36.0	0.0
Jul	2	Mid	1.00	3.50	35.0	25.9	9.1
Jul	3	Late	0.99	3.52	36.7	10.1	20.6
Aug	1	Late	0.93	3.37	33.7	7.6	26.1
Aug	2	Late	0.88	3.24	25.9	0.0	25.9
					419.3	436.6	228.7

Lampiran 23. Neraca air tanaman padi awal musim tanam April III

Bulan	Periode	Kebutuhan Air Irigasi	Debit Andalan	Iimbangan Air	Kondisi
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)	
Apr	III	1.66	0.57	-1.10	Defisit
	I	0.00	2.67	2.67	Surplus
	II	3.33	3.15	-0.18	Defisit
May	III	0.00	4.37	4.37	Surplus
	I	0.00	1.93	1.93	Surplus
	II	0.00	5.12	5.12	Surplus
Jun	III	0.00	4.23	4.23	Surplus
	I	0.00	1.78	1.78	Surplus
	II	0.31	2.10	1.79	Surplus
Jul	III	0.64	2.09	1.46	Surplus
	I	0.89	0.91	0.02	Surplus
Aug	II	0.88	0.46	-0.42	Defisit

Lampiran 24. Kebutuhan air tanaman padi awal musim tanam Mei I

Month	Decade	Stage	Kc coeff	ETc mm/day	ETc mm/dec	Eff. rain mm/dec	In. Req. mm/dec
May	1	Non/Ph	1.14	2.02	19.2	38.7	43.6
May	2	Non/Ph	1.06	3.88	38.8	52.3	0.0
May	3	Non/Ph	1.06	3.76	41.4	53.6	153.1
Jun	1	Ini	1.10	3.76	37.6	57.4	0.0
Jun	2	Ini	1.10	3.64	36.4	61.3	0.0
Jun	3	Deve	1.07	3.61	36.1	49.8	0.0
Jul	1	Deve	1.00	3.52	35.2	36.0	0.0
Jul	2	Mid	1.00	3.50	35.0	25.9	9.1
Jul	3	Mid	1.00	3.57	35.3	18.1	21.3
Aug	1	Late	0.99	3.60	36.0	7.6	28.4
Aug	2	Late	0.94	3.46	34.6	0.0	34.6
Aug	3	Late	0.88	3.39	33.9	0.0	30.5
					419.1	408.8	320.5

Lampiran 25. Neraca air tanaman padi awal musim tanam Mei I

Bulan	Periode	Kebutuhan Air Irigasi	Debit Andalan	Iimbangan Air	Kondisi
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)	
May	I	1.48	2.67	1.19	Surplus
	II	0.00	3.15	3.15	Surplus
	III	4.73	4.37	-0.36	Defisit
Jun	I	0.00	1.93	1.93	Surplus
	II	0.00	5.12	5.12	Surplus
	III	0.00	4.23	4.23	Surplus
Jul	I	0.00	1.78	1.78	Surplus
	II	0.31	2.10	1.79	Surplus
	III	0.65	2.09	1.44	Surplus
Aug	I	0.96	0.91	-0.06	Defisit
	II	1.17	0.46	-0.72	Defisit
	III	0.94	0.24	-0.70	Defisit

Lampiran 26. Kebutuhan air tanaman padi awal musim tanam Mei II

Month	Decade	Stage	Kc coeff	ETc mm/day	ETc mm/dec	Eff. rain mm/dec	In. Req. mm/dec
May	2	Non/Ph	1.14	1.97	17.7	47.0	42.5
May	3	Non/Ph	1.06	3.76	41.4	53.6	0.0
Jun	1	Non/Ph	1.06	3.64	36.4	57.4	90.0
Jun	2	Ini	1.10	3.64	36.4	61.3	0.0
Jun	3	Ini	1.10	3.70	37.0	49.8	0.0
Jul	1	Deve	1.07	3.60	36.0	36.0	0.0
Jul	2	Deve	1.00	3.58	35.8	25.9	9.9
Jul	3	Mid	1.01	3.58	35.4	18.1	21.3
Aug	1	Mid	1.01	3.45	34.5	7.6	28.9
Aug	2	Late	0.99	3.47	34.7	0.0	34.7
Aug	3	Late	0.93	3.60	35.5	0.0	39.5
Sep	1	Late	0.88	3.51	35.1	0.1	20.0
					421.7	366.9	305.6

Lampiran 27. Neraca air tanaman padi awal musim tanam Mei II

Bulan	Periode	Kebutuhan	Debit Andalan	Imbangan	Kondisi
		Air Irigasi			
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)	
May	II	1.44	3.15	1.71	Surplus
	III	0.00	4.37	4.37	Surplus
Jun	I	3.33	1.93	-1.39	Defisit
	II	0.00	5.12	5.12	Surplus
	III	0.00	4.23	4.23	Surplus
Jul	I	0.03	1.78	1.76	Surplus
	II	0.34	2.10	1.76	Surplus
	III	0.66	2.09	1.44	Surplus
Aug	I	0.98	0.91	-0.08	Defisit
	II	1.25	0.46	-0.79	Defisit
	III	1.22	0.24	-0.98	Defisit
Sep	I	0.95	0.00	-0.95	Defisit

Lampiran 28. Kebutuhan air tanaman padi awal musim tanam Mei III

Month	Decade	Stage	Kc	Etc	Etc	ER rain	In. Req.
			coeff	mm/day	mm/day	mm/day	mm/day
May	3	Non/Pr	1.13	2.09	20.9	40.7	42.3
Jun	1	Non/Pr	1.06	3.64	36.4	57.4	0.0
Jun	2	Non/Pr	1.06	3.52	35.2	61.3	96.0
Jun	3	Ini	1.10	3.70	37.0	49.8	0.0
Jul	1	Ini	1.10	3.77	37.7	36.0	1.7
Jul	2	Deve	1.07	3.75	37.5	25.9	11.6
Jul	3	Mad	1.03	3.65	40.2	18.1	22.1
Aug	1	Mad	1.01	3.65	36.5	7.6	29.0
Aug	2	Mad	1.01	3.72	37.2	0.0	37.2
Aug	3	Late	0.99	3.60	42.0	0.0	41.9
Sep	1	Late	0.93	3.73	37.3	0.1	37.2
Sep	2	Late	0.98	3.65	29.2	0.0	29.2
					427.2	305.0	350.2

Lampiran 29. Neraca air tanaman padi awal musim tanam Mei III

Bulan	Periode	Kebutuhan	Debit Andalan	Imbangan	Kondisi
		Air Irigasi			
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)	
May	III	1.44	4.37	2.93	Surplus
Jun	I	0.00	1.93	1.93	Surplus
	II	3.33	5.12	1.79	Surplus
Jul	III	0.00	4.23	4.23	Surplus
	I	0.06	1.78	1.73	Surplus
	II	0.39	2.10	1.70	Surplus
Aug	III	0.75	2.09	1.34	Surplus
	I	0.98	0.91	-0.08	Defisit
	II	1.26	0.46	-0.80	Defisit
Sep	III	1.42	0.24	-1.18	Defisit
	I	1.26	0.00	-1.26	Defisit
Sep	II	0.99	0.00	-0.99	Defisit

Lampiran 30. Kebutuhan air tanaman padi awal musim tanam Oktober I

Month	Decade	Stage	Kc coeff	ETc mm/day	ETc mm/dec	Eff rain mm/dec	In. Req. mm/dec
Oct	1	Non/LP	1.14	2.23	20.1	7.0	60.2
Oct	2	Non/LP	1.06	4.30	43.8	11.7	32.3
Oct	3	Non/LP	1.06	4.22	46.5	16.7	188.1
Nov	1	Ini	1.10	4.19	41.8	23.0	18.0
Nov	2	Ini	1.10	4.02	40.2	29.8	10.3
Nov	3	Deve	1.07	3.70	37.8	26.0	11.0
Dec	1	Deve	1.03	3.48	34.8	23.3	11.5
Dec	2	Mid	1.01	3.27	30.7	21.5	11.3
Dec	3	Mid	1.01	3.32	36.5	17.2	19.3
Jan	1	Late	0.99	3.30	33.3	11.0	22.3
Jan	2	Late	0.94	3.18	31.8	6.1	25.7
Jan	3	Late	0.80	3.07	27.7	7.5	18.5
					427.1	202.5	429.5

Lampiran 31. Neraca air tanaman padi awal musim tanam Oktober I

Bulan	Periode	Kebutuhan Air Irigasi	Debit Andalan	Iimbangan Air	Kondisi
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)	
Oct	I	2.04	0.00	-2.04	Defisit
	II	1.10	0.11	-0.99	Defisit
	III	5.84	0.21	-5.63	Defisit
Nov	I	0.61	0.45	-0.16	Defisit
	II	0.35	0.60	0.25	Surplus
	III	0.37	0.33	-0.05	Defisit
Dec	I	0.39	0.10	-0.29	Defisit
	II	0.38	0.45	0.07	Defisit
	III	0.60	0.00	-0.60	Defisit
Jan	I	0.76	0.01	-0.74	Defisit
	II	0.87	0.00	-0.87	Defisit
	III	0.57	0.00	-0.57	Defisit

Lampiran 32. Kebutuhan air tanaman padi awal musim tanam Oktober II

Month	Decade	Stage	Kc coeff	ETc mm/day	ETc mm/dec	Eff rain mm/dec	In. Req. mm/dec
Oct	2	Non/LP	1.14	2.23	20.0	10.5	55.8
Oct	3	Non/LP	1.06	4.22	46.5	16.7	29.7
Nov	1	Non/LP	1.06	4.05	40.6	23.9	171.8
Nov	2	Ini	1.10	4.02	40.2	29.8	10.3
Nov	3	Ini	1.10	3.67	36.7	26.0	11.9
Dec	1	Deve	1.07	3.64	36.4	23.3	13.1
Dec	2	Deve	1.03	3.35	33.5	21.5	12.0
Dec	3	Mid	1.01	3.32	36.6	17.2	19.4
Jan	1	Mid	1.01	3.37	33.7	11.0	22.7
Jan	2	Late	0.98	3.30	33.0	6.1	27.6
Jan	3	Late	0.90	3.26	35.8	9.1	26.7
Feb	1	Late	0.88	3.14	25.1	10.9	11.4
					428.8	206.9	412.6

Lampiran 33. Neraca air tanaman padi awal musim tanam Oktober II

Bulan	Periode	Kebutuhan	Debit Andalan	Iimbangan	Kondisi
		Air Irigasi	(m ³ /dt)	(m ³ /dt)	
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)	
Oct	II	1.89	0.11	-1.79	Defisit
	III	0.92	0.21	-0.71	Defisit
Nov	I	5.83	0.45	-5.38	Defisit
	II	0.35	0.60	0.25	Defisit
	III	0.40	0.33	-0.08	Defisit
Dec	I	0.44	0.10	-0.34	Defisit
	II	0.41	0.45	0.04	Surplus
	III	0.60	0.00	-0.60	Defisit
Jan	I	0.77	0.01	-0.76	Defisit
	II	0.94	0.00	-0.94	Defisit
Feb	III	0.82	0.00	-0.82	Defisit
	I	0.39	0.03	-0.36	Defisit

Lampiran 34. Kebutuhan air tanaman padi awal musim tanam Oktober III

Month	Decade	Stage	Kc	ETc	ETo	Eff rain	In. Req.
			coeff	mm/day	mm/dec	mm/dec	mm/dec
Oct	3	Manu/LP	1.13	2.35	23.5	15.2	93.6
Nov	1	Manu/LP	1.08	4.08	40.8	23.9	16.7
Nov	2	Manu/LP	1.06	3.89	38.9	29.8	158.9
Nov	3	Ini	1.10	3.07	30.7	26.0	11.9
Dec	1	Ini	1.10	2.73	27.3	23.3	14.0
Dec	2	Deve	1.07	2.90	29.0	21.5	13.5
Dec	3	Mid	1.03	3.29	32.9	17.2	32.1
Jan	1	Mid	1.01	3.30	33.0	11.0	22.0
Jan	2	Mid	1.01	3.42	34.2	6.1	35.1
Jan	3	Late	0.99	3.46	34.6	9.1	28.9
Feb	1	Late	0.93	3.33	33.3	13.7	19.6
Feb	2	Late	0.88	3.21	32.1	12.9	9.6
					416.3	250.6	397.7

Lampiran 35. Kebutuhan air tanaman padi awal musim tanam November I

Month	Decade	Stage	Kc	ETc	ETo	Eff rain	In. Req.
			coeff	mm/day	mm/dec	mm/dec	mm/dec
Nov	1	Manu/LP	1.13	2.26	22.6	23.9	49.0
Nov	2	Manu/LP	1.06	3.89	38.9	29.8	9.0
Nov	3	Manu/LP	1.06	3.75	37.5	26.8	162.1
Dec	1	Ini	1.10	3.73	37.3	23.3	14.0
Dec	2	Ini	1.10	3.58	35.8	21.5	14.4
Dec	3	Deve	1.07	3.54	35.0	17.2	21.7
Jan	1	Mid	1.02	3.43	34.3	11.0	23.3
Jan	2	Mid	1.01	3.42	34.2	6.1	39.1
Jan	3	Mid	1.01	3.51	35.6	9.1	29.9
Feb	1	Late	0.99	3.54	35.4	13.7	21.7
Feb	2	Late	0.93	3.41	34.1	16.2	18.0
Feb	3	Late	0.88	3.29	32.9	15.6	10.7
					414.1	214.1	481.6

Lampiran 36. Neraca air tanaman padi awal musim tanam November I

Bulan	Periode	Kebutuhan	Debit Andalan	Imbangan	Kondisi	
		Air Irigasi	(m ³ /dt)	(m ³ /dt)		Air
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)		
Nov	I	1.66	0.45	-1.21	Defisit	
	II	0.31	0.60	0.29	Surplus	
	III	5.50	0.33	-5.18	Defisit	
Dec	I	0.48	0.10	-0.37	Defisit	
	II	0.49	0.45	-0.04	Surplus	
	III	0.67	0.00	-0.67	Defisit	
Jan	I	0.79	0.00	-0.79	Defisit	
	II	0.95	0.00	-0.95	Defisit	
	III	0.91	0.00	-0.91	Defisit	
Feb	I	0.74	0.00	-0.74	Defisit	
	II	0.61	0.00	-0.61	Defisit	
	III	0.45	0.00	-0.45	Defisit	

Lampiran 37. Kebutuhan air tanaman padi awal musim tanam November II

Month	Decade	Stage	Kc coeff	ETo mm/day	ETo mm/dec	ETo mm/dec	In. Req. mm/dec
Nov	2	Nurs/Pl	1.13	2.16	21.6	29.9	48.9
Nov	3	Nurs/Pl	1.06	3.75	37.5	35.8	10.7
Dec	1	Nurs/Pl	1.06	3.61	36.1	23.3	166.1
Dec	2	Inf	1.10	3.58	35.8	21.5	14.4
Dec	3	Dirv	1.10	3.63	40.6	17.2	22.7
Jan	1	Dirv	1.07	3.58	35.8	11.0	24.8
Jan	2	Mid	1.02	3.47	34.7	6.1	26.6
Jan	3	Mid	1.01	3.51	38.6	9.1	29.4
Feb	1	Mid	1.01	3.60	36.0	13.7	22.3
Feb	2	Late	0.99	3.63	36.3	16.2	20.1
Feb	3	Late	0.94	3.51	38.1	15.6	12.6
Mar	1	Late	0.88	3.39	33.9	13.6	20.3
					414.4	203.9	421.9

Lampiran 38. Neraca air tanaman padi awal musim tanam November II

Bulan	Periode	Kebutuhan	Debit Andalan	Imbangan	Kondisi	
		Air Irigasi	(m ³ /dt)	(m ³ /dt)		Air
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)		
Nov	II	1.66	0.60	-1.06	Defisit	
	III	0.36	0.33	-0.04	Defisit	
Dec	I	5.64	0.10	-5.54	Defisit	
	II	0.49	0.45	-0.04	Defisit	
	III	0.70	0.00	-0.70	Defisit	
Jan	I	0.85	0.01	-0.83	Defisit	
	II	0.97	0.00	-0.97	Defisit	
	III	0.91	0.00	-0.91	Defisit	
Feb	I	0.76	0.03	-0.73	Defisit	
	II	0.68	0.00	-0.68	Defisit	
	III	0.53	0.00	-0.53	Defisit	
Mar	I	0.69	0.00	-0.69	Defisit	

Lampiran 39. Kebutuhan air tanaman padi awal musim tanam November II

Month	Decade	Stage	Kc coef	ETc mm/day	ETc mm/dec	Eff rain mm/dec	Ir. Req. mm/dec
Nov	3	Non/LPI	1.13	2.89	26.9	26.8	48.9
Dec	1	Non/LPI	1.06	3.61	36.1	23.3	12.8
Dec	2	Non/LPI	1.06	3.47	34.7	21.5	167.2
Dec	3	Ini	1.10	3.63	40.0	17.2	22.8
Jan	1	Deve	1.10	3.68	36.8	11.0	25.9
Jan	2	Deve	1.07	3.63	36.3	6.1	30.2
Jan	3	Mai	1.02	3.58	35.1	9.1	30.0
Feb	1	Mai	1.00	3.59	35.9	13.7	22.2
Feb	2	Mai	1.00	3.68	36.8	16.2	20.7
Feb	3	Late	0.99	3.73	29.8	15.6	14.3
Mar	1	Late	0.94	3.62	36.2	13.6	22.6
Mar	2	Late	0.89	3.46	34.6	12.8	21.8
					417.3	186.8	439.2

Lampiran 40. Neraca air tanaman padi awal musim tanam November III

Bulan	Periode	Kebutuhan	Debit Andalan	Iimbangan	Kondisi	
		Air Irigasi		Air		
		(m ³ /dt)	(m ³ /dt)	(m ³ /dt)		
Nov	0	1.66	0.33	-1.33	Defisit	
	0	0.43	0.10	-0.33	Defisit	
Dec	0	5.68	0.45	-5.23	Defisit	
	0	0.70	0.00	-0.70	Defisit	
	0	0.88	0.01	-0.87	Defisit	
Jan	0	1.03	0.00	-1.02	Defisit	
	0	0.93	0.00	-0.93	Defisit	
	0	0.75	0.03	-0.73	Defisit	
Feb	0	0.70	0.00	-0.70	Defisit	
	0	0.61	0.00	-0.61	Defisit	
Mar	0	0.77	0.00	-0.77	Defisit	
	0	0.74	0.00	-0.74	Defisit	

Lampiran 41. Volume efektif waduk Januari-Juni

Urutan	Probabilitas	JAN			FEB		
		I	II	III	I	II	III
1	5%	59,977,281	54,682,811	49,866,362	46,247,748	43,616,020	39,636,497
2	11%	53,657,425	52,406,056	48,723,970	44,223,426	40,836,484	36,557,350
3	16%	53,226,311	49,578,469	46,199,566	43,781,463	39,231,157	35,839,750
4	21%	53,039,808	47,847,105	43,904,742	38,029,977	33,864,537	31,645,677
5	26%	51,126,449	46,275,100	42,758,632	35,513,770	33,195,732	30,759,046
6	32%	47,987,285	42,146,571	38,991,799	35,459,471	33,040,621	30,373,138
7	37%	43,735,874	41,941,191	38,905,624	34,842,083	27,399,926	25,120,825
8	42%	43,299,722	41,357,831	38,390,221	31,191,334	27,257,726	23,882,366
9	47%	42,673,086	39,534,177	35,977,867	31,191,334	25,423,850	22,886,026
10	53%	39,410,854	36,694,728	34,909,529	30,226,252	25,423,850	22,412,880
11	58%	37,947,412	33,701,914	30,616,011	27,767,915	25,048,441	22,106,392
12	63%	37,057,087	33,560,024	29,449,266	26,208,947	24,625,867	21,545,771
13	68%	34,482,577	30,576,654	27,517,223	25,151,224	23,350,616	21,487,525
14	74%	29,975,530	25,975,622	22,559,918	19,603,570	18,800,777	20,270,326
15	79%	27,196,916	23,406,356	20,752,105	19,437,127	18,555,000	18,795,576
16	84%	20,866,300	19,239,181	15,310,925	16,162,779	15,700,366	16,535,822
17	89%	16,493,366	16,157,661	15,039,401	14,129,334	13,813,405	14,884,545
18	95%	11,977,238	11,977,238	11,977,238	11,977,238	12,392,141	12,671,921
Probabilitas 80%		25,930,793	22,572,921	19,663,869	18,782,257	17,984,073	18,343,625
Volume Efektif		17,803,796	14,445,924	11,536,872	10,655,260	9,857,076	10,216,628

Urutan	Probabilitas	MAR			APR		
		I	II	III	I	II	III
1	5%	36,636,545	35,998,836	38,380,436	38,997,365	39,243,341	48,155,562
2	11%	35,520,780	35,526,249	35,591,634	35,708,290	39,067,665	42,607,576
3	16%	35,274,125	34,794,908	35,311,045	35,623,385	37,525,257	41,795,363
4	21%	34,876,131	33,909,841	33,595,425	35,014,211	35,521,112	40,354,904
5	26%	30,633,819	29,952,870	30,042,288	31,527,449	35,445,357	40,316,614
6	32%	28,429,345	27,340,972	26,536,055	27,237,890	33,180,426	38,321,738
7	37%	27,974,622	25,796,190	25,911,178	26,602,701	29,287,989	36,069,128
8	42%	24,600,267	25,469,009	25,377,346	26,552,025	28,705,671	29,841,982
9	47%	23,479,818	23,231,226	23,266,346	25,501,203	25,202,645	29,509,403
10	53%	22,823,378	22,497,602	22,680,786	22,553,986	24,343,623	27,899,004
11	58%	22,647,012	22,044,852	22,373,442	22,359,773	23,388,466	25,928,683
12	63%	21,789,665	21,758,340	21,758,340	21,676,895	22,886,028	25,772,019
13	68%	21,341,191	20,257,245	21,167,552	21,158,311	22,008,937	24,070,350
14	74%	20,748,448	20,148,853	19,532,399	20,335,625	21,497,348	22,848,438
15	79%	18,043,604	17,738,527	18,801,587	19,274,994	21,306,266	22,215,680
16	84%	17,032,587	17,032,587	17,081,867	18,955,227	18,702,873	22,197,210
17	89%	16,464,456	14,826,665	13,161,000	14,066,148	14,863,050	18,142,853
18	95%	11,949,880	11,899,073	11,899,073	11,899,073	12,177,188	13,664,491
Probabilitas 80%		17,841,401	17,597,339	18,457,643	19,211,041	20,785,587	22,211,986
Volume Efektif		9,714,404	9,470,342	10,330,646	11,084,044	12,658,590	14,084,989

Urutan	Probabilitas	MAY			JUN		
		I	II	III	I	II	III
1	5%	53,380,432	72,778,957	72,602,826	75,442,866	79,217,094	74,735,065
2	11%	50,289,182	66,179,671	70,674,973	72,614,736	75,257,352	74,432,140
3	16%	49,933,467	56,778,663	68,179,466	72,268,932	75,018,839	74,155,120
4	21%	49,692,364	54,002,244	67,871,851	72,108,421	74,222,699	73,997,965
5	26%	48,503,033	51,588,183	66,601,726	70,359,505	73,976,703	73,616,353
6	32%	45,815,394	51,412,208	65,223,274	70,091,103	73,656,437	72,797,796
7	37%	41,356,353	51,308,173	60,444,084	67,653,497	73,011,854	72,644,693
8	42%	41,111,006	51,225,863	58,096,454	65,938,615	72,056,256	72,498,595
9	47%	38,944,900	50,100,199	55,211,575	65,676,580	71,872,399	72,361,575
10	53%	32,972,624	45,802,982	51,524,423	63,871,099	69,080,465	70,631,287
11	58%	30,958,679	44,256,429	50,130,857	62,073,463	67,207,347	70,175,317
12	63%	29,669,243	44,251,111	48,670,912	56,089,040	66,387,254	66,903,749
13	68%	28,733,271	33,969,088	45,182,593	50,289,182	57,805,728	64,869,494
14	74%	28,516,495	33,426,879	36,418,342	50,035,703	55,942,063	60,613,371
15	79%	27,597,435	30,785,142	34,456,582	41,365,022	51,656,500	58,484,719
16	84%	22,585,311	28,525,256	33,398,305	41,052,359	51,225,863	50,130,857
17	89%	20,987,859	27,108,467	29,177,231	31,113,413	30,860,803	27,975,784
18	95%	17,161,930	24,025,233	26,252,793	25,045,333	21,798,831	27,442,998
Probabilitas 80%		26,595,010	30,333,164	34,244,927	41,302,490	51,570,373	56,813,947
Volume Efektif		18,468,013	22,206,167	26,117,930	33,175,493	43,443,376	48,686,950

Lampiran 42. Volume efektif waduk Juli-Desember

Urutan	Probabilitas	JUL			AUG		
		I	II	III	I	II	III
1	5%	74,407,729	76,711,929	75,338,862	75,186,702	73,384,272	74,206,251
2	11%	73,901,449	75,422,318	75,004,032	73,264,078	72,607,197	73,794,480
3	16%	73,268,100	74,500,583	72,430,304	72,518,369	72,336,511	73,450,035
4	21%	72,976,223	73,951,902	72,123,940	72,023,413	71,225,088	72,484,831
5	26%	72,834,119	72,227,044	71,961,866	71,535,504	70,915,566	71,780,714
6	32%	72,714,507	72,112,107	71,444,808	71,494,957	69,972,981	70,042,394
7	37%	72,441,062	71,901,325	71,138,722	70,806,993	68,251,980	69,810,429
8	42%	72,322,509	71,743,840	71,108,979	70,503,729	67,869,799	69,489,921
9	47%	72,170,746	71,670,662	70,979,616	70,379,630	67,538,560	67,318,419
10	53%	70,967,838	70,907,756	70,444,673	70,078,034	66,383,931	65,213,308
11	58%	69,829,727	70,684,904	69,674,240	67,908,609	65,842,194	63,866,242
12	63%	68,483,442	70,624,924	69,633,320	67,829,996	65,431,379	62,843,420
13	68%	67,886,395	69,993,705	69,305,942	67,554,090	64,732,711	62,412,056
14	74%	62,345,792	66,437,759	64,610,739	63,305,438	59,011,258	55,574,195
15	79%	61,530,163	65,680,005	63,720,739	62,320,630	58,849,805	54,996,352
16	84%	58,241,112	58,688,924	61,171,285	60,639,850	55,405,487	53,031,209
17	89%	37,589,039	40,096,306	38,989,981	37,345,110	35,196,219	32,732,787
18	95%	24,630,938	25,658,844	29,741,045	27,638,114	22,109,448	16,569,530
Probabilitas 80%		60,872,353	64,281,788	63,210,848	61,984,474	58,160,941	54,603,323
Volume Efektif		52,745,356	56,154,791	55,083,851	53,857,477	50,033,944	46,476,326

Urutan	Probabilitas	SEP			OCT		
		I	II	III	I	II	III
1	5%	75,910,792	74,256,876	74,432,141	75,273,909	72,276,872	73,626,213
2	11%	75,211,734	73,875,602	72,843,535	72,436,039	72,238,763	72,927,882
3	16%	74,882,564	73,060,447	72,708,590	72,066,643	71,901,325	72,787,132
4	21%	73,398,342	72,184,262	70,927,294	71,682,178	71,750,757	72,521,093
5	26%	71,940,978	72,171,193	70,644,262	70,521,819	71,564,771	71,138,129
6	32%	71,840,430	71,658,934	70,643,462	70,400,178	71,425,378	70,966,612
7	37%	71,453,409	71,507,473	70,548,852	70,234,307	71,253,013	70,561,139
8	42%	68,300,681	71,089,483	70,346,115	70,117,240	70,900,709	70,426,794
9	47%	68,099,566	67,467,439	68,336,717	69,359,251	68,157,316	70,091,842
10	53%	67,949,670	64,405,307	63,111,995	62,625,001	64,239,545	64,445,303
11	58%	64,717,854	63,814,389	62,381,454	61,334,471	61,023,738	60,432,222
12	63%	63,784,842	63,416,364	61,955,287	60,596,726	60,714,898	58,590,817
13	68%	63,111,993	62,527,603	60,948,776	57,221,462	54,490,861	49,309,376
14	74%	52,307,384	51,433,097	49,442,028	47,967,059	46,951,315	46,170,177
15	79%	48,674,772	46,992,193	46,488,461	46,590,081	44,696,974	43,497,976
16	84%	48,527,810	42,041,484	41,449,006	40,984,012	40,409,609	40,624,843
17	89%	29,879,811	29,436,258	30,066,362	30,104,192	30,444,670	39,447,081
18	95%	15,459,250	15,362,935	15,256,988	15,141,409	15,098,067	16,311,417
Probabilitas 80%		48,645,380	46,002,051	45,480,570	45,468,867	43,839,501	42,923,350
Volume Efektif		40,518,383	37,875,054	37,353,573	37,341,870	35,712,504	34,796,353

Urutan	Probabilitas	NOV			DEC		
		I	II	III	I	II	III
1	5%	73,607,784	73,197,473	71,115,515	70,081,610	68,235,335	69,036,804
2	11%	72,999,232	72,625,153	70,354,939	69,254,701	67,973,759	64,898,929
3	16%	71,901,218	71,089,483	69,778,240	67,344,863	63,065,393	58,772,252
4	21%	71,347,624	70,661,342	69,755,764	66,124,902	62,653,714	57,735,544
5	26%	71,021,904	68,134,347	68,705,811	64,539,255	60,473,979	57,695,240
6	32%	70,684,010	67,564,498	63,287,754	59,533,705	58,724,040	57,657,738
7	37%	70,020,736	66,077,326	60,748,091	56,272,584	52,927,668	48,101,892
8	42%	69,636,824	65,510,038	58,787,290	55,663,218	51,446,365	47,101,860
9	47%	67,490,981	63,122,933	58,338,860	55,615,648	50,885,137	47,050,776
10	53%	60,736,847	59,551,073	58,228,158	54,549,341	49,997,747	45,245,740
11	58%	60,137,554	56,911,631	52,778,970	51,876,904	46,798,639	44,357,465
12	63%	55,761,897	54,437,361	52,282,489	50,130,858	46,627,216	41,829,474
13	68%	52,415,847	52,720,923	49,882,182	47,845,707	44,387,070	39,794,143
14	74%	45,668,679	45,287,221	43,857,388	42,350,805	42,245,055	36,548,704
15	79%	44,170,260	41,633,399	39,192,523	40,678,993	38,637,191	35,827,031
16	84%	42,331,581	39,430,222	36,255,952	37,208,938	33,903,985	30,750,733
17	89%	38,364,832	37,855,256	35,174,953	31,913,097	28,431,407	23,998,346
18	95%	15,141,409	15,098,067	16,311,417	18,658,338	17,536,723	16,655,694
Probabilitas 80%		43,802,524	41,192,764	38,605,209	39,984,982	37,690,550	34,811,772
Volume Efektif		35,675,527	33,065,767	30,478,212	31,857,985	29,563,553	26,684,775

Lampiran 43. Debit andalan waduk Kalola

Urutan	Probabilitas	JANUARI			FEBRUARI			MARET			APRIL		
		I	II	III	I	II	III	I	II	III	I	II	III
1	5%	5.83	4.23	1.82	2.47	3.46	6.57	6.51	3.49	7.36	5.76	13.00	20.93
2	11%	4.26	3.01	1.50	1.42	1.98	5.40	2.21	3.10	2.17	5.69	7.21	19.12
3	16%	2.41	2.29	1.47	1.03	1.35	2.81	1.60	2.93	1.66	5.43	6.73	13.76
4	21%	1.98	1.99	1.36	0.89	1.12	2.15	1.03	2.54	1.46	4.70	6.57	12.95
5	26%	1.40	1.90	1.29	0.84	1.05	1.87	0.92	1.68	1.37	3.25	4.74	7.73
6	32%	1.18	1.80	1.00	0.71	0.98	1.57	0.46	1.67	1.34	2.30	2.83	5.95
7	37%	1.14	0.65	0.79	0.70	0.80	1.21	0.20	1.52	0.61	1.32	2.25	5.77
8	42%	1.01	0.31	0.76	0.48	0.60	0.87	0.16	1.32	0.57	1.13	2.21	5.27
9	47%	1.00	0.25	0.44	0.44	0.51	0.76	0.07	0.80	0.40	0.94	1.85	3.20
10	53%	0.76	0.15	0.07	0.35	0.43	0.59	0.04	0.49	0.40	0.80	1.53	3.02
11	58%	0.72	0.08	0.02	0.26	0.30	0.29	0.04	0.47	0.26	0.51	1.45	2.89
12	63%	0.19	0.08	0.00	0.19	0.19	0.26	0.00	0.40	0.25	0.20	1.41	2.39
13	68%	0.08	0.06	0.00	0.04	0.15	0.21	0.00	0.07	0.13	0.09	1.36	1.51
14	74%	0.03	0.02	0.00	0.04	0.10	0.03	0.00	0.00	0.00	0.07	1.18	1.11
15	79%	0.02	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	1.03	0.71
16	84%	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00
17	89%	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00
18	95%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Probabilitas 80%		0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.57

Urutan	Probabilitas	MEI			JUNI			JULI			AGUSTUS		
		I	II	III	I	II	III	I	II	III	I	II	III
1	5%	45.55	32.64	52.25	61.26	110.38	52.92	44.28	82.46	59.37	58.50	37.40	49.35
2	11%	33.00	32.08	32.89	59.49	59.75	48.93	37.74	65.45	58.76	30.99	29.10	40.86
3	16%	21.55	24.18	31.45	57.59	53.31	46.50	36.87	46.84	22.99	23.84	23.04	36.70
4	21%	21.18	21.12	22.35	50.68	48.78	40.54	35.74	35.96	20.63	23.44	13.66	28.70
5	26%	18.68	16.67	13.52	29.13	48.10	31.66	28.76	32.17	18.76	22.17	9.45	18.02
6	32%	16.07	12.94	12.11	26.13	39.59	28.53	28.25	29.24	13.80	14.21	6.91	12.30
7	37%	11.59	12.39	11.86	23.97	34.10	25.67	22.04	21.95	13.74	8.01	6.54	5.70
8	42%	10.93	11.86	10.34	20.68	24.86	24.01	22.03	15.41	11.87	7.91	4.86	4.32
9	47%	9.02	10.60	9.66	20.24	24.59	22.03	19.67	14.21	9.96	6.86	2.37	3.98
10	53%	5.85	8.57	9.23	13.26	19.65	15.53	15.77	13.50	9.66	2.03	1.63	1.70
11	58%	5.81	8.37	9.19	9.03	17.25	13.89	12.67	8.70	7.65	2.01	1.25	1.09
12	63%	5.40	6.12	8.76	8.33	12.37	11.55	12.23	8.37	2.95	1.81	1.11	0.98
13	68%	4.21	5.06	5.87	6.34	7.27	4.98	9.30	7.18	2.91	1.79	1.05	0.85
14	74%	4.04	4.67	5.17	3.67	6.30	4.71	2.92	5.94	2.77	1.15	0.63	0.73
15	79%	2.80	3.39	4.40	2.10	5.84	4.55	1.85	2.23	2.33	0.94	0.46	0.24
16	84%	2.15	2.19	4.23	1.27	2.22	2.94	1.51	1.56	1.14	0.78	0.44	0.23
17	89%	0.82	1.80	2.08	1.15	2.01	2.22	0.75	0.22	1.03	0.57	0.10	0.13
18	95%	0.69	1.21	0.16	0.21	0.16	0.04	0.03	0.00	0.34	0.13	0.03	0.00
Probabilitas 80%		2.67	3.15	4.37	1.93	5.12	4.23	1.78	2.10	2.09	0.91	0.46	0.24

Urutan	Probabilitas	SEPTEMBER			OKTOBER			NOVEMBER			DESEMBER		
		I	II	III	I	II	III	I	II	III	I	II	III
1	5%	65.14	41.67	54.38	60.19	24.72	45.60	38.53	41.63	11.26	16.02	3.43	7.04
2	11%	40.07	30.58	29.85	18.42	24.69	35.01	32.25	14.97	10.35	4.12	2.37	5.00
3	16%	38.57	25.72	11.04	17.00	15.79	31.31	8.68	12.42	6.24	2.73	1.86	2.84
4	21%	31.29	23.46	3.91	11.91	14.03	20.74	8.06	8.80	4.06	2.43	1.65	2.13
5	26%	23.62	13.91	3.61	7.76	10.25	15.10	5.58	2.89	3.96	1.91	1.49	1.75
6	32%	22.67	10.95	3.31	4.69	8.07	13.30	3.75	2.10	3.46	1.75	1.27	1.42
7	37%	21.21	9.06	2.57	3.28	5.51	11.30	3.22	1.73	3.00	1.50	1.08	1.13
8	42%	15.94	7.80	2.35	1.31	3.93	6.53	3.09	1.71	1.41	1.43	1.05	1.09
9	47%	0.40	1.27	2.19	0.32	3.73	1.94	2.75	1.61	1.35	1.43	1.05	1.00
10	53%	0.35	0.85	1.80	0.31	1.82	1.02	2.68	1.60	1.33	1.02	0.88	0.68
11	58%	0.29	0.14	0.44	0.08	1.60	0.73	1.34	1.09	1.11	0.45	0.81	0.39
12	63%	0.18	0.13	0.00	0.00	0.88	0.52	1.30	0.91	1.00	0.39	0.75	0.24
13	68%	0.14	0.00	0.00	0.00	0.27	0.43	1.14	0.85	0.96	0.36	0.69	0.23
14	74%	0.00	0.00	0.00	0.00	0.12	0.28	0.93	0.74	0.80	0.21	0.47	0.21
15	79%	0.00	0.00	0.00	0.00	0.11	0.21	0.54	0.71	0.40	0.12	0.45	0.00
16	84%	0.00	0.00	0.00	0.00	0.09	0.20	0.07	0.15	0.05	0.03	0.45	0.00
17	89%	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.02	0.00	0.03	0.13	0.00
18	95%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Probabilitas 80%		0.00	0.00	0.00	0.00	0.11	0.21	0.45	0.60	0.33	0.10	0.45	0.00