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**JAPAN INTERNATIONAL COOPERATION AGENCY**

**DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT  
MINISTRY OF PUBLIC WORKS  
THE REPUBLIC OF INDONESIA**

**THE STUDY  
ON  
COMPREHENSIVE MANAGEMENT PLAN  
FOR  
THE WATER RESOURCES OF THE BRANTAS RIVER BASIN  
IN  
THE REPUBLIC OF INDONESIA**

**FINAL REPORT**

**VOLUME V**

**DATA BOOK**

**OCTOBER 1998**

**NIPPON KOEI CO., LTD.  
NIKKEN CONSULTANTS, INC.**

**THE STUDY  
ON  
COMPREHENSIVE MANAGEMENT PLAN  
FOR  
THE WATER RESOURCES OF THE BRANTAS RIVER BASIN  
IN  
THE REPUBLIC OF INDONESIA**

**COMPOSITION OF REPORTS**

**Volume I : Executive Summary**

**Volume II : Main Report**

**Volume III : Supporting Report I**

- Annex
1. Meteorology and Hydrology
  2. Watershed Conservation, Sabo, and Flood Control
  3. Water Quality.
  4. Water Demand Forecast
  5. Water Balance Study
  6. Water Resources Development
  7. River Facility
  8. Effective Operation of Water Resources
  9. Monitoring and Information System
  10. River Environment

**Volume IV : Supporting Report II**

- Annex
11. Institutional Study
  12. Organization and Management
  13. Human Resources Development
  14. Financial Plan and Budget Resources
  15. Water Charge Mechanism
  16. Economic Evaluation
  17. Socio-economic Framework



**Volume V : Data Book**

- MH Meteorology and Hydrology  
WQ Water Quality  
IR Irrigation Water Demand  
RS River Survey  
CB Community and Beneficiaries' Participation Survey  
BI Biodiversity Inventory Survey  
AR PJT's Annual Report

**EXCHANGE RATE**

The exchange rates used in this Study are:
US Dollar(US\$) 1.00 = Indonesia Rupiah(Rp.) 2,446.6
Japanese Yen(¥) = Indonesia Rp.21.4
as of June, 1997

**THE STUDY  
ON  
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**VOLUME V  
DATA BOOK**

- MH    Meteorology and Hydrology**
- WQ    Water Quality**
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**MH**  
**METEOROLOGY AND HYDROLOGY**

THE STUDY  
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**FINAL REPORT**

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# 10-day Inflow Rrcords at the Lahor Dam

Unit: m<sup>3</sup>/s

Month	10-day	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
January	1st	-	5.71	10.80	8.86	12.53	12.57	8.02	10.81	12.79	73.22	23.11	7.12	5.84	6.87	7.46	6.69	20.32	4.38	4.00	9.38
	2nd	-	5.70	11.49	8.62	12.04	12.40	7.21	12.09	14.93	10.09	12.67	11.64	4.98	6.09	8.18	9.68	22.54	10.01	3.21	9.88
	3rd	-	5.05	12.03	8.37	11.54	12.22	6.59	16.36	11.71	9.12	11.42	25.94	5.60	5.53	8.89	15.41	20.99	13.54	5.84	7.22
February	1st	-	6.02	12.89	8.13	11.05	12.05	9.93	31.73	15.36	8.73	13.12	23.15	7.95	6.15	9.60	12.34	14.11	17.51	8.27	7.58
	2nd	-	4.78	13.75	7.89	10.55	10.58	13.87	19.79	15.03	10.25	15.37	13.01	3.63	4.96	9.04	18.12	10.69	16.56	8.30	11.88
	3rd	-	7.90	9.75	7.64	10.05	8.97	8.90	14.94	12.13	7.30	11.75	9.36	8.45	3.90	5.52	10.48	8.69	9.78	9.28	10.37
March	1st	-	9.63	10.65	7.40	9.56	11.90	6.64	25.05	12.78	12.74	11.76	11.32	8.80	13.68	12.15	9.29	10.92	13.80	9.00	7.07
	2nd	-	10.64	10.53	8.16	9.66	8.94	8.59	14.63	13.44	12.09	16.44	15.64	5.94	71.98	11.97	16.88	13.64	16.09	11.70	11.59
	3rd	-	13.20	12.38	9.93	8.57	7.00	8.40	18.01	15.75	74.63	10.66	15.70	6.50	7.94	7.69	15.47	15.89	24.22	13.09	9.95
April	1st	-	6.80	11.16	6.92	8.07	6.44	8.57	16.50	9.56	13.82	9.06	11.97	9.94	6.98	8.29	16.02	19.67	17.72	11.15	7.08
	2nd	-	6.70	10.99	11.59	5.32	6.58	7.78	20.42	10.41	15.06	8.56	8.26	6.98	6.95	8.04	18.25	17.38	16.82	9.12	20.32
	3rd	-	6.85	12.43	11.48	11.17	7.90	11.56	13.91	10.98	10.55	7.72	7.93	7.52	5.86	10.43	11.64	14.77	10.79	8.08	10.70
May	1st	-	8.50	16.45	8.06	6.65	4.07	15.69	9.57	6.80	7.10	7.66	10.37	11.87	4.30	9.13	8.80	9.80	7.84	7.54	6.44
	2nd	-	17.69	20.46	4.63	7.78	3.72	14.31	12.21	5.03	5.42	4.66	11.67	6.21	4.67	6.09	6.96	6.79	6.55	7.05	5.34
	3rd	-	10.18	24.43	5.14	6.04	3.96	12.96	8.08	8.28	6.20	4.86	7.16	7.35	12.84	4.74	9.86	5.63	4.79	4.89	5.08
June	1st	-	11.60	19.77	4.22	4.32	4.00	7.97	6.76	9.91	8.14	6.45	6.99	10.98	5.52	4.41	7.59	8.46	4.63	5.56	5.02
	2nd	-	18.37	9.72	3.76	4.77	3.44	5.86	5.91	9.53	9.98	3.57	4.88	11.40	4.41	4.61	4.63	8.71	4.11	8.00	4.42
	3rd	-	13.57	6.83	3.43	6.01	3.36	4.31	3.95	5.21	14.73	4.11	4.27	6.36	5.03	4.01	3.93	4.64	3.93	6.08	4.38
July	1st	-	13.07	5.72	3.04	6.50	3.25	3.70	5.55	4.81	9.12	3.82	4.24	5.10	4.24	3.68	3.66	3.88	3.57	4.89	4.06
	2nd	-	7.00	4.83	2.65	8.58	3.14	3.78	4.37	5.03	6.87	4.33	3.47	7.36	3.70	3.46	4.00	3.72	3.74	4.28	4.43
	3rd	-	6.44	3.53	2.26	4.12	2.71	3.78	3.92	4.67	6.00	3.47	2.91	8.06	3.47	3.24	3.66	3.58	3.77	4.12	4.25
August	1st	-	5.61	4.12	3.17	3.63	2.52	3.35	3.76	4.40	4.77	0.97	3.69	7.68	4.06	3.18	4.82	3.49	3.77	3.49	3.79
	2nd	-	6.38	3.62	3.24	2.71	2.31	3.16	3.80	4.18	3.61	1.09	2.98	4.51	4.06	2.93	4.07	3.56	3.19	3.15	6.64
	3rd	-	3.35	3.24	3.30	3.64	2.66	3.04	3.56	4.17	3.85	1.25	2.83	4.22	4.01	2.35	4.16	3.67	2.56	2.42	3.70
September	1st	-	5.97	3.38	2.74	3.75	2.05	2.70	6.37	3.92	7.05	0.95	3.02	3.98	3.76	2.08	7.67	3.69	2.70	2.00	3.54
	2nd	-	3.68	3.05	2.22	3.83	1.85	2.40	10.62	4.04	4.46	1.20	2.91	3.27	3.28	2.20	4.29	3.44	2.57	1.88	3.16
	3rd	-	3.11	3.59	1.69	4.90	1.97	2.11	6.09	3.92	3.94	1.32	2.97	3.08	2.43	2.16	4.09	3.12	2.34	1.56	2.68
October	1st	-	2.94	3.42	1.34	4.63	1.72	2.53	8.39	3.91	4.83	1.79	4.35	2.54	2.91	1.80	8.15	2.64	2.11	1.37	4.87
	2nd	-	6.18	2.13	1.77	4.91	1.49	6.00	6.86	3.08	5.67	1.04	6.30	3.31	2.09	2.39	5.06	2.44	1.71	3.68	2.78
	3rd	-	9.13	5.42	1.99	5.19	1.63	10.65	4.74	7.11	4.68	1.36	9.39	4.48	4.05	2.52	8.25	2.13	1.25	3.76	6.29
November	1st	-	9.09	6.50	3.73	5.47	1.68	7.11	4.05	4.53	10.58	2.35	4.03	9.07	3.33	2.57	8.80	1.42	2.01	4.11	6.79
	2nd	-	12.36	5.38	6.72	7.85	3.35	7.50	4.74	4.95	11.37	2.26	8.67	4.90	2.10	4.35	23.53	7.40	2.67	9.84	9.49
	3rd	-	10.16	4.95	14.52	12.13	2.26	9.47	9.74	6.34	8.08	6.38	4.39	3.45	2.43	5.71	14.36	6.34	4.26	13.21	5.48
December	1st	-	10.31	6.83	14.02	9.41	14.11	8.32	12.73	11.14	7.06	14.20	5.69	5.29	5.97	12.22	24.74	10.86	6.15	15.81	8.06
	2nd	-	11.13	8.35	13.53	13.33	5.90	7.57	9.27	6.76	11.28	22.56	3.21	3.91	4.12	3.77	18.18	5.94	4.81	7.69	9.81
	3rd	-	10.21	9.11	13.03	12.75	3.71	12.80	10.65	9.85	11.59	11.80	4.36	8.67	6.75	9.48	22.55	4.82	2.50	6.52	5.27
Total Dis. (Mill.m <sup>3</sup> )	-	-	267.11	284.06	200.50	238.44	172.77	234.82	331.31	259.51	274.86	232.60	253.05	195.23	167.67	184.14	347.08	270.84	226.41	204.01	216.24

Source : Calculated from daily records by Brantas Project and PJT. *Italic* is from Monthly report by Brantas Project and PJT. **Bold** is estimated by the Study Team.

Remarks : Completion of the Lahor dam is in 1978.

# 10-day Outflow Records at the Lahor Dam

Unit: m<sup>3</sup>/s

Month	10-day	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
January	1st	0.00	0.00	0.84	0.00	0.10	0.00	0.00	0.00	0.00	10.27	0.00	0.00	0.00	0.00	0.00	0.00	5.14	0.00	0.00	0.00
	2nd	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	9.91	0.00	0.00	0.00	0.00	0.00	0.00	10.29	0.00	0.00	0.00
	3rd	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	10.06	0.00	0.00	0.00	0.00	0.00	0.00	12.91	1.95	0.00	0.00
February	1st	0.00	0.00	2.39	0.00	0.18	0.00	0.00	0.00	0.00	5.37	0.00	18.57	0.00	0.00	0.00	1.96	2.98	1.42	0.00	0.00
	2nd	0.00	0.00	4.78	0.00	0.20	0.00	0.00	0.00	0.00	9.17	0.00	3.92	0.00	0.00	0.00	8.08	0.10	7.93	0.00	0.00
	3rd	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	5.77	9.01	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
March	1st	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	7.55	2.68	4.45	0.00	0.00	0.00	0.00	0.57	0.15	3.76	0.00	0.00
	2nd	0.00	0.00	0.00	0.00	0.28	0.48	0.00	0.00	8.35	7.58	0.00	0.00	0.00	0.00	0.00	11.01	5.74	8.05	0.00	0.00
	3rd	0.00	4.62	0.00	0.00	0.30	0.00	0.00	0.00	7.56	10.05	0.00	0.00	0.00	0.00	0.00	7.36	8.26	16.14	0.00	0.00
April	1st	0.00	0.00	0.00	0.00	0.33	0.00	0.01	0.00	7.77	4.43	0.00	0.20	0.00	0.00	0.00	9.75	11.36	8.27	0.01	0.00
	2nd	0.00	0.00	0.00	2.02	0.33	0.00	0.72	0.00	15.51	7.45	0.00	0.00	0.00	0.00	0.00	11.06	8.71	9.34	1.16	10.68
	3rd	0.00	0.00	3.53	6.38	0.78	0.00	3.83	4.31	0.68	2.68	0.00	0.00	0.00	0.00	0.00	5.11	5.52	3.90	1.31	3.26
May	1st	0.01	0.01	7.42	3.19	0.40	0.00	7.14	0.14	0.00	0.00	0.00	1.42	3.62	0.00	1.02	2.43	2.87	0.29	0.76	0.00
	2nd	13.29	11.31	0.00	0.00	3.44	0.00	5.17	3.69	0.00	0.07	0.00	3.87	7.02	0.00	0.37	0.94	0.24	0.68	0.38	0.00
	3rd	5.95	15.19	0.00	0.00	0.00	0.00	5.55	2.08	0.00	7.10	0.00	0.73	0.56	5.32	0.00	3.05	0.05	0.00	0.00	0.00
June	1st	27.60	16.46	0.00	0.00	0.00	0.00	0.67	0.80	3.44	7.33	0.00	0.44	4.40	0.15	0.00	1.66	1.97	0.00	0.36	0.00
	2nd	7.52	3.79	0.00	0.00	0.00	0.00	1.33	0.65	3.49	3.08	0.00	0.00	4.70	0.00	0.00	0.00	3.29	0.00	1.31	0.00
	3rd	11.91	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	15.61	0.00	0.00	0.23	0.00	0.00	0.00	0.18	0.00	0.48	0.00
July	1st	16.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.77	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
	2nd	5.56	0.00	0.00	0.00	3.98	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3rd	0.00	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
August	1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
September	1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
October	1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
November	1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
December	1st	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2nd	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3rd	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Dis. (Mill.m <sup>3</sup> )		80.82	58.08	10.15	10.41	0.41	22.16	82.11	16.93	102.12	5.18	1.20	55.73	70.73	63.52	4.99	12.04				

Source : Calculated from daily records by Brantas Project and PJT. *Italic* is from Monthly report by Brantas Project and PJT. **Bold** is estimated by the Study Team.

Remark : (1) Outflow does not include tunnel discharge to the Sutami reservoir. (2) Completion of the Lahor dam is in 1978.

# 10-day Inflow Records at the Sutami Dam

Unit: m<sup>3</sup>/s

Month	10-day	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
January	1st	63.58	106.54	121.75	81.57	82.11	95.48	79.44	71.85	77.35	107.42	145.45	82.68	87.32	107.01	106.36	68.32	146.55	55.85	65.40	112.92
	2nd	75.72	67.66	152.99	78.25	79.91	100.88	107.08	107.64	111.06	103.92	88.86	96.94	75.07	78.00	100.84	91.35	137.77	113.26	71.80	110.43
	3rd	84.02	62.67	171.00	74.92	77.71	106.28	58.25	139.65	84.63	103.70	121.48	195.29	72.92	93.83	95.31	123.47	137.33	135.40	86.05	102.63
February	1st	82.16	61.63	150.86	71.60	75.51	111.68	107.03	176.61	119.04	116.75	109.48	158.03	63.73	90.24	89.79	116.41	121.04	148.80	116.64	104.28
	2nd	77.08	71.89	130.72	68.28	73.31	104.69	80.37	133.88	106.58	100.58	127.59	97.55	92.00	77.72	84.67	122.44	85.45	124.79	112.48	124.95
	3rd	89.92	69.12	98.57	64.96	71.12	90.00	88.98	108.14	91.52	79.19	110.14	88.83	114.37	106.29	90.37	73.15	89.60	107.78	132.59	117.28
March	1st	127.53	76.71	92.96	61.63	68.92	101.47	95.23	193.15	227.25	130.93	114.64	97.15	150.30	126.57	105.30	102.79	93.81	163.91	121.70	69.19
	2nd	90.57	90.48	91.40	62.14	66.72	109.80	75.25	130.13	106.36	117.15	98.29	121.06	91.56	107.70	71.08	176.02	93.07	134.70	114.51	105.44
	3rd	96.61	89.51	112.42	59.56	64.52	69.74	76.56	118.45	112.93	133.71	84.26	134.30	84.70	82.18	55.50	107.20	102.09	168.31	125.02	109.72
April	1st	92.57	70.46	86.19	51.39	62.33	83.37	81.21	164.62	72.52	160.10	61.13	73.53	121.92	72.91	95.60	121.17	125.14	107.67	121.49	69.54
	2nd	59.72	62.29	100.13	65.00	45.74	80.16	70.50	172.76	86.25	127.86	62.00	87.20	73.51	102.27	91.54	134.86	117.53	117.71	97.18	159.65
	3rd	62.51	64.36	93.72	85.63	65.13	80.44	106.30	113.86	92.79	91.19	58.75	65.14	67.46	72.04	95.14	92.15	89.34	119.09	86.76	83.93
May	1st	48.70	65.95	102.29	61.45	56.97	49.14	122.82	99.39	59.43	67.86	65.62	83.89	90.53	55.33	39.87	67.41	77.38	81.49	76.08	59.31
	2nd	41.78	100.24	110.87	37.28	92.67	43.31	97.68	107.67	49.46	57.26	47.94	83.12	52.29	53.59	49.18	63.64	57.44	70.26	62.37	52.05
	3rd	41.53	105.51	119.44	59.11	52.31	42.26	103.14	73.94	67.35	60.57	47.65	62.24	72.14	90.87	65.87	76.19	56.02	54.68	47.57	52.13
June	1st	41.61	114.36	121.18	31.92	45.46	39.02	71.83	62.82	84.04	71.15	56.48	64.04	99.06	48.73	38.30	63.09	60.27	51.80	54.88	49.28
	2nd	44.69	115.14	65.70	30.79	51.01	35.81	61.76	62.64	96.56	82.15	41.14	49.62	107.07	43.08	38.17	42.20	74.04	45.43	75.03	45.79
	3rd	41.42	91.14	58.93	29.58	57.81	35.78	46.02	50.81	49.29	113.71	41.24	41.78	62.49	45.78	34.81	41.51	52.49	41.33	57.92	41.36
July	1st	30.53	119.64	51.88	27.83	63.40	34.65	45.67	53.13	44.45	71.27	35.47	38.43	64.34	46.41	32.55	55.74	42.31	38.97	48.29	41.73
	2nd	28.32	64.29	48.23	26.08	109.77	33.51	43.87	41.98	41.84	57.86	36.61	37.65	63.25	35.52	31.60	42.26	43.49	42.20	48.43	45.58
	3rd	27.82	80.91	42.73	24.33	50.68	31.17	40.57	39.59	41.26	54.88	30.58	34.08	68.31	36.22	30.61	37.44	42.63	41.90	55.14	47.04
August	1st	27.36	60.32	42.63	25.57	37.91	34.39	33.07	36.73	39.36	43.37	33.69	38.28	69.69	31.15	28.79	47.42	38.47	38.24	39.70	37.68
	2nd	26.36	64.01	37.31	24.22	35.10	27.36	29.81	37.55	39.37	41.72	27.21	32.32	42.87	34.09	28.23	53.17	38.10	34.75	35.02	66.12
	3rd	25.78	53.93	35.25	22.87	33.36	26.06	29.07	36.83	32.65	50.15	30.11	27.70	39.18	44.05	28.05	57.10	37.50	34.45	30.64	39.60
September	1st	23.42	65.97	32.70	20.43	29.45	26.29	26.15	47.90	30.11	37.20	27.38	26.58	37.26	39.88	27.63	54.60	36.10	34.57	29.06	33.10
	2nd	22.21	53.84	31.01	20.20	26.00	24.70	23.30	87.26	27.70	34.76	23.02	26.81	35.10	30.71	25.73	36.43	34.38	32.88	28.86	31.16
	3rd	21.85	51.80	29.28	18.42	59.00	19.96	22.92	49.95	23.57	37.17	25.53	23.40	30.95	30.72	26.40	54.98	32.80	35.56	26.13	31.77
October	1st	21.52	52.37	26.11	16.97	49.57	20.35	20.89	66.43	25.38	41.67	21.73	15.02	31.04	28.33	49.80	113.26	32.54	29.10	24.35	43.53
	2nd	19.15	52.40	25.45	33.82	43.19	17.92	44.49	49.41	24.02	52.94	22.75	37.59	29.39	25.30	22.81	78.87	29.97	29.67	33.07	43.23
	3rd	21.60	62.82	33.23	30.74	36.81	18.39	67.72	35.20	54.52	44.16	19.97	28.57	60.10	30.15	21.97	68.75	27.87	28.38	41.53	68.69
November	1st	23.48	69.79	41.45	25.01	30.43	17.20	57.07	35.20	49.76	96.94	17.41	33.32	86.72	25.43	22.93	69.66	30.21	28.94	48.43	61.29
	2nd	27.73	97.41	37.05	37.12	63.36	20.53	59.22	38.35	54.60	83.81	23.08	80.67	48.46	26.01	39.56	64.50	38.86	33.31	100.64	74.57
	3rd	41.62	75.46	46.91	90.90	127.82	17.14	77.82	57.09	61.10	74.24	103.50	60.96	33.37	29.44	51.64	114.95	59.79	37.62	124.31	55.52
December	1st	73.09	104.18	68.69	88.70	97.39	38.21	55.43	92.81	78.81	39.26	127.85	136.95	77.95	49.21	104.37	152.38	70.09	53.47	245.64	84.45
	2nd	55.47	76.18	50.32	86.50	106.66	62.52	50.39	69.09	58.35	73.43	158.60	159.60	44.89	69.48	44.95	128.18	54.09	51.51	111.78	102.72
	3rd	74.42	78.84	84.89	84.30	90.08	97.54	103.59	72.19	96.50	77.62	93.89	93.89	63.57	111.89	64.21	126.49	58.11	29.30	75.52	42.84
Total Dis. (Mill.m <sup>3</sup> )		1617.80	2427.31	2407.45	1537.62	1992.00	1700.63	2065.46	2,643.54	2,192.84	2,483.39	2,040.13	2,293.10	2,184.26	1,905.61	1,767.39	2,670.26	2,144.19	2,181.39	2,412.51	2,202.59

Source : Calculated from daily records by PKB and PTT. *Italic* is from Monthly report by PKB and PTT. **Bold** is estimated by the Study Team.

Remark : Inflow does not include tunnel discharge from the Lahor reservoir.

# 10-day Outflow Records at the Sutami Dam

Unit: m<sup>3</sup>/s

Month	10-day	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
January	1st	58.67	41.31	136.45	58.51	51.41	119.79	55.98	88.88	68.78	100.60	120.71	99.09	89.33	95.31	118.59	60.90	136.21	38.81	49.95	108.77
	2nd	64.07	70.98	126.87	55.71	52.07	102.74	60.99	108.00	88.87	119.37	131.90	122.06	76.86	105.73	118.85	63.71	132.25	81.40	56.22	123.37
	3rd	61.39	58.14	149.37	52.91	52.74	85.69	57.76	94.78	112.11	116.92	119.04	133.77	53.08	91.33	119.11	89.30	147.93	138.93	54.37	110.81
February	1st	65.10	60.61	143.01	50.11	53.40	88.63	62.05	99.35	79.47	88.26	124.14	160.20	49.97	96.79	119.37	113.05	136.39	152.90	88.71	88.91
	2nd	57.20	46.33	136.66	47.30	54.06	70.54	95.48	134.51	120.26	110.32	124.06	143.83	67.45	67.53	83.00	142.64	106.47	151.48	135.73	135.71
	3rd	45.29	45.00	120.65	44.50	54.72	81.92	102.35	134.97	96.73	74.64	115.69	121.13	115.39	59.25	59.24	83.61	98.87	117.85	151.07	110.38
March	1st	46.78	48.52	96.54	41.70	55.38	105.75	84.82	177.62	147.16	94.12	100.16	103.48	130.31	93.31	97.07	98.61	92.58	138.62	138.46	70.40
	2nd	55.18	67.84	78.19	42.89	56.05	129.25	68.84	155.43	133.55	108.08	84.10	123.87	107.27	128.26	65.07	174.47	100.30	145.31	102.27	109.61
	3rd	52.19	83.92	67.30	42.10	56.71	66.57	74.35	140.76	132.74	130.74	75.09	135.19	75.62	75.69	62.85	116.47	110.75	173.69	136.84	118.54
April	1st	77.72	79.72	58.84	41.31	57.37	80.89	79.21	156.92	103.24	137.78	66.09	96.03	115.91	73.89	75.83	129.35	110.11	121.86	107.55	73.35
	2nd	79.70	70.73	61.02	64.38	50.80	93.84	89.53	187.52	67.73	137.53	57.48	81.05	80.96	74.60	95.17	136.92	134.20	127.93	104.47	138.52
	3rd	59.16	63.16	84.73	91.75	49.36	84.88	103.99	137.95	94.88	113.33	57.55	64.60	72.41	68.34	98.34	96.90	91.31	121.57	87.52	97.93
May	1st	60.00	42.32	95.74	67.43	62.54	53.32	132.80	104.18	59.76	63.95	71.33	84.23	90.98	56.75	68.98	75.67	85.27	86.24	85.20	64.29
	2nd	53.78	104.79	106.74	43.11	89.25	45.37	98.38	106.66	50.38	60.95	53.54	88.48	58.00	54.76	55.12	71.02	63.03	77.32	69.39	54.43
	3rd	54.95	93.38	117.75	39.03	70.30	46.58	110.24	76.57	71.96	65.31	63.55	64.08	76.77	98.66	45.47	80.33	62.11	58.34	50.95	56.19
June	1st	53.04	134.35	129.13	36.23	67.12	43.95	73.64	68.20	94.12	101.38	94.17	82.12	105.63	54.85	41.92	69.93	63.17	56.87	60.35	54.42
	2nd	49.36	95.23	89.43	37.47	54.15	41.80	72.36	72.36	111.21	101.92	69.73	68.35	118.31	45.63	43.71	53.71	80.64	49.44	80.99	48.57
	3rd	40.62	94.97	60.74	37.44	61.69	45.30	80.19	55.43	53.25	101.57	59.74	41.12	69.90	54.83	45.76	45.29	57.95	44.99	64.37	47.40
July	1st	39.33	133.71	62.43	44.31	52.05	45.64	94.45	61.41	46.84	95.80	60.42	48.27	65.08	58.36	40.23	63.12	46.40	43.22	54.86	48.95
	2nd	47.51	72.06	61.15	51.18	94.51	45.49	73.76	53.05	56.95	71.41	55.49	42.13	75.03	47.78	37.08	49.90	55.80	52.77	61.52	59.92
	3rd	44.03	93.01	64.80	58.05	74.35	74.97	44.43	53.34	54.02	59.31	48.43	41.22	94.13	45.78	37.72	50.77	60.41	58.60	91.15	68.84
August	1st	44.88	50.46	60.40	51.69	64.19	49.87	50.45	53.36	54.35	68.91	29.49	47.07	90.38	41.44	37.89	47.42	51.33	51.43	58.09	52.73
	2nd	39.56	69.18	56.87	53.90	57.17	51.38	49.55	51.37	52.65	59.14	31.83	51.47	62.07	42.10	37.00	53.11	50.75	48.00	51.61	86.65
	3rd	40.37	71.38	44.63	56.11	73.73	51.95	50.04	62.68	60.35	76.62	33.43	56.82	55.53	60.41	38.27	57.10	53.18	46.31	41.17	51.36
September	1st	43.69	56.21	51.40	46.37	61.97	44.90	44.31	68.38	54.59	71.50	31.27	47.16	62.02	54.66	37.72	68.19	57.32	54.22	36.76	43.76
	2nd	39.43	73.54	57.07	48.09	67.68	44.52	40.85	93.73	56.01	52.15	29.78	47.90	55.70	59.81	40.02	61.94	55.77	52.41	40.82	46.67
	3rd	44.14	74.82	61.14	50.68	56.06	40.26	44.01	88.20	52.93	64.69	29.14	42.96	51.27	43.04	40.15	61.57	55.71	50.75	35.66	48.32
October	1st	40.97	71.30	52.94	41.97	62.51	38.28	44.33	91.76	45.24	58.95	36.33	39.65	44.45	41.57	49.80	89.12	54.55	58.63	35.53	57.27
	2nd	39.37	69.60	37.73	39.55	59.41	38.24	42.10	91.22	41.20	73.37	29.76	56.15	43.99	40.09	44.10	90.75	41.20	43.34	37.27	60.46
	3rd	33.70	73.10	33.39	39.60	56.30	35.00	53.43	54.49	60.96	60.94	29.75	67.54	53.61	43.65	41.23	121.76	41.81	38.43	36.12	75.83
November	1st	30.71	78.86	48.01	37.61	53.20	37.57	64.29	41.80	71.83	85.03	35.83	47.07	127.08	55.32	41.92	132.79	41.52	34.83	48.34	75.65
	2nd	32.36	77.10	48.96	58.66	54.18	37.76	78.33	38.43	50.73	94.56	36.80	56.71	69.34	45.36	63.81	96.90	43.13	34.96	85.89	75.68
	3rd	33.74	118.87	55.50	48.77	73.34	35.49	103.32	57.05	74.63	108.14	47.48	49.72	47.06	44.04	52.10	114.41	42.86	34.98	141.31	70.78
December	1st	32.44	69.89	59.90	49.43	75.64	33.69	56.00	113.35	97.18	71.37	88.94	86.94	52.61	47.49	64.92	135.94	47.48	40.71	205.76	58.17
	2nd	45.35	76.69	65.73	50.09	118.39	38.17	52.53	97.67	70.14	71.88	145.03	145.03	52.24	51.00	67.34	135.89	51.26	46.06	147.30	103.20
	3rd	29.71	74.02	61.31	50.75	136.84	43.46	75.63	61.33	85.45	72.85	141.95	141.95	55.86	118.33	63.41	122.01	40.10	44.11	103.04	47.07
Total Dis. (Mill.m <sup>3</sup> )		1519.07	2376.65	2486.82	1551.41	2057.87	1883.49	2238.53	2,904.83	2,427.91	2,752.68	2,205.95	2,564.58	2,363.03	2,053.95	1,967.44	2,852.58	2,360.39	2,392.90	2,555.06	2,396.44

Source : Calculated from daily records by PKB and PJT. *Italic* is from Monthly report by PKB and PJT. **Bold** is estimated by the Study Team.

# 10-DAY DISCHARGES AT THE MRILIP GATE

Unit: m<sup>3</sup>/s

Month	10-day	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
January	1st	33.60	33.07	11.63	5.52	6.74	3.67	24.88	2.56	1.50	24.50	33.76	52.86	28.52	39.28	22.92	31.98	30.17	36.74	39.27	35.69
	2nd	18.32	30.90	8.99	11.77	18.26	2.11	23.87	5.00	1.50	22.80	24.41	58.40	23.42	61.69	13.89	33.25	29.06	68.48	25.09	69.94
	3rd	40.80	11.73	0.00	14.05	14.21	8.36	8.00	2.18	1.40	19.20	27.09	68.06	31.91	74.54	13.32	38.03	24.76	61.69	26.03	69.95
February	1st	34.79	1.00	0.00	9.49	16.97	11.01	6.70	29.66	1.58	25.15	30.05	53.61	19.50	71.88	21.39	24.16	34.05	69.03	33.12	62.33
	2nd	53.19	0.00	0.00	6.51	19.96	11.08	11.40	1.68	3.84	9.26	30.09	45.39	27.06	66.97	20.93	15.68	33.83	68.42	38.53	43.93
	3rd	35.74	0.00	0.00	1.38	3.84	10.51	9.95	1.40	3.93	6.19	19.60	44.96	25.21	71.48	18.09	11.53	39.70	63.53	56.31	46.44
March	1st	37.09	0.00	0.00	14.89	5.61	10.58	10.41	2.71	5.46	6.39	22.50	53.76	20.95	69.79	19.00	44.04	38.28	68.47	61.65	45.98
	2nd	76.62	0.00	0.00	15.53	16.11	12.41	13.32	2.34	5.23	23.06	30.99	54.45	19.78	62.37	16.46	31.82	39.28	55.95	71.46	50.73
	3rd	84.25	0.00	0.00	16.01	27.15	14.50	15.57	1.50	4.00	17.94	36.92	39.68	23.02	64.71	23.22	26.19	55.94	68.72	70.89	61.70
April	1st	64.68	0.00	1.05	22.05	32.79	10.76	16.90	1.50	4.92	7.76	35.19	49.45	26.94	56.07	26.60	30.04	60.07	60.33	61.45	68.54
	2nd	40.38	0.00	10.81	20.04	28.98	8.28	15.22	28.67	5.21	17.56	32.45	52.33	20.49	52.85	28.40	38.02	57.28	56.55	47.05	62.53
	3rd	30.25	0.00	7.69	10.55	20.79	4.06	12.98	1.93	5.59	20.51	28.90	44.95	19.36	75.22	27.14	33.75	32.07	37.53	73.76	61.57
May	1st	35.77	0.00	3.01	8.53	22.46	3.32	11.00	17.99	4.84	18.73	35.48	47.18	12.24	56.09	25.72	50.06	62.01	47.38	75.55	61.62
	2nd	28.44	0.00	0.00	8.13	21.14	7.61	17.32	29.97	4.65	18.38	34.24	44.91	11.70	26.78	25.68	48.72	50.48	45.61	75.55	32.86
	3rd	20.52	0.00	10.39	8.23	15.65	10.70	18.48	29.58	5.00	20.83	25.58	47.53	12.13	27.56	24.86	49.94	50.50	30.53	44.42	33.44
June	1st	30.62	0.00	8.98	9.99	8.12	8.72	16.34	29.10	5.70	26.21	36.53	46.95	12.66	26.68	20.95	48.69	47.99	24.43	49.95	33.46
	2nd	39.60	0.00	13.89	6.88	8.04	9.29	16.39	28.56	7.30	26.81	29.35	48.40	12.67	22.11	22.12	38.04	52.99	24.52	81.02	34.51
	3rd	23.50	0.00	20.45	8.25	26.06	6.34	23.78	25.14	7.40	22.98	15.39	24.77	11.22	30.41	20.83	24.85	47.27	24.55	81.65	32.36
July	1st	12.85	0.00	15.87	6.87	32.30	8.51	24.28	25.93	7.40	22.58	14.64	16.47	9.89	44.16	21.98	40.96	42.16	25.43	66.50	33.38
	2nd	5.10	0.00	4.32	10.58	35.40	9.00	22.49	22.28	7.60	22.70	13.56	16.14	9.86	24.20	18.39	30.61	35.26	26.80	65.17	31.42
	3rd	14.78	0.00	9.66	8.78	31.97	15.78	19.16	16.17	8.50	16.46	12.66	14.47	10.13	17.06	18.45	22.13	37.49	27.58	63.20	31.22
August	1st	13.02	0.00	8.45	17.36	20.88	13.71	15.08	13.78	9.40	17.78	12.32	17.26	17.51	14.48	20.36	23.01	32.68	26.58	38.07	31.86
	2nd	5.26	0.00	7.52	14.65	14.05	11.20	17.06	12.46	9.50	22.33	12.71	16.10	18.30	13.94	19.01	20.90	28.67	23.00	28.54	32.85
	3rd	7.44	0.00	6.57	10.35	13.49	16.36	16.18	17.50	10.40	23.80	23.80	23.80	23.80	23.80	18.36	23.80	34.41	23.01	23.80	23.80
September	1st	10.69	0.00	7.11	8.99	14.56	14.36	14.76	23.83	14.90	25.38	12.66	14.38	16.90	16.90	18.68	61.09	32.07	22.97	21.88	24.67
	2nd	7.80	0.13	7.14	7.30	13.16	14.76	14.23	26.32	6.30	16.06	12.50	12.98	17.20	14.42	19.03	50.31	31.08	22.18	22.45	23.34
	3rd	6.76	1.70	5.20	9.33	17.28	13.05	13.22	21.86	14.50	21.49	11.95	13.29	18.14	14.74	19.10	39.35	27.40	22.13	20.92	27.35
October	1st	5.86	1.27	6.32	9.98	21.79	13.20	14.33	23.22	17.32	17.23	12.27	13.86	16.98	14.20	17.32	57.58	27.13	27.73	21.01	30.70
	2nd	5.18	2.87	8.57	9.93	26.55	10.25	16.58	23.30	17.39	26.75	13.56	23.94	19.34	14.80	17.47	60.76	23.35	20.93	28.19	31.60
	3rd	4.35	1.99	5.85	10.10	16.71	10.55	16.53	21.52	24.40	23.65	12.25	40.80	32.02	15.24	18.13	62.20	20.64	22.99	39.50	36.80
November	1st	4.15	9.57	6.72	10.44	14.08	9.63	12.18	13.28	23.70	23.79	11.87	34.20	67.81	15.25	17.68	60.74	23.25	24.52	39.77	37.50
	2nd	4.63	11.66	4.95	13.08	17.10	11.06	9.17	13.88	16.19	25.49	14.65	43.42	75.20	15.39	22.83	58.61	38.41	23.84	61.97	36.90
	3rd	8.56	7.16	9.18	14.32	14.04	23.22	5.90	10.91	20.99	28.63	36.62	40.62	18.49	15.01	41.04	71.68	41.54	27.17	75.44	37.20
December	1st	21.41	7.60	3.31	12.87	14.32	22.74	8.90	6.96	24.91	24.62	55.90	38.74	46.77	15.52	32.18	46.52	41.85	43.75	49.10	37.24
	2nd	34.14	12.13	3.05	9.63	9.40	28.57	5.62	2.23	18.92	21.43	60.47	20.46	53.54	15.75	22.55	28.59	53.32	40.71	61.80	39.20
	3rd	19.00	10.92	0.00	5.71	9.77	24.65	3.77	2.19	23.89	19.51	55.46	31.17	41.47	15.06	27.03	24.76	59.76	21.16	67.59	55.75
Total Dis. (Mill.m <sup>3</sup> )		804.48	135.79	190.01	341.39	571.68	373.15	457.70	473.36	312.97	648.72	815.46	1,146.79	777.88	1,111.01	684.12	1,231.02	1,241.21	1,209.43	1,581.06	1,322.20

Source : PJT

# 10-DAY DISCHARGES AT THE NEW LENGKONG DAM

Unit: m<sup>3</sup>/s

Month	10-day	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
January	1st	136.57	304.98	594.58	199.62	317.54	395.29	309.64	218.22	225.29	377.97	403.20	56.30	320.80	247.50	192.70	194.70	312.75	60.58	69.98	214.92
	2nd	133.56	263.14	500.58	316.86	329.50	480.08	265.70	334.36	337.82	222.71	227.90	178.70	266.20	151.90	362.80	352.80	352.10	293.42	184.62	207.51
	3rd	308.09	302.10	645.92	392.81	373.80	431.08	137.94	447.71	355.18	271.49	362.90	518.90	199.40	262.40	387.00	425.60	423.67	257.26	302.16	284.15
February	1st	265.20	326.16	549.60	252.91	348.49	495.84	327.81	602.71	379.14	304.84	385.10	408.00	122.70	244.60	331.20	447.20	442.02	371.60	459.70	255.77
	2nd	234.58	381.14	533.00	349.76	256.90	421.72	296.68	568.78	341.59	474.45	650.90	237.20	323.50	172.90	325.90	436.30	182.99	380.00	417.11	314.89
	3rd	238.88	428.47	579.75	456.93	421.51	358.34	314.91	354.07	344.66	254.55	549.90	109.80	367.70	372.90	240.00	282.50	154.04	288.09	362.62	346.25
March	1st	257.89	258.31	425.80	274.68	375.95	435.44	299.65	570.08	549.90	317.53	437.80	142.20	255.30	393.20	270.10	224.00	93.51	500.14	325.09	188.15
	2nd	356.20	412.36	295.65	209.60	266.44	495.22	329.39	404.30	347.70	338.49	229.60	301.20	144.50	249.20	160.40	613.20	205.17	448.03	476.78	289.98
	3rd	383.09	427.74	318.91	144.82	218.16	237.10	352.52	330.95	349.30	522.09	208.70	253.80	140.00	138.80	98.00	308.40	279.56	582.51	444.30	241.72
April	1st	321.20	212.99	295.35	129.54	215.50	244.32	244.65	363.17	283.02	575.88	91.00	161.30	333.40	77.20	250.20	430.50	446.18	260.37	442.72	26.97
	2nd	212.37	261.78	426.00	291.98	92.87	229.64	207.71	574.42	256.68	448.62	30.50	51.40	157.90	75.30	304.90	416.70	400.29	252.17	247.18	326.59
	3rd	152.60	88.34	386.40	269.80	166.55	210.86	276.11	231.06	304.89	262.66	39.50	39.40	119.90	86.00	364.50	227.10	216.28	205.88	69.19	177.35
May	1st	40.32	202.94	542.40	165.48	299.00	77.08	457.24	196.51	121.76	70.47	47.00	132.40	196.90	8.10	165.30	70.70	114.99	80.44	109.58	4.87
	2nd	12.12	368.08	384.60	17.61	293.18	7.91	358.33	163.10	51.86	37.22	22.80	153.10	98.30	65.40	36.20	33.00	14.12	43.43	36.15	0.00
	3rd	9.04	314.07	413.18	1.26	69.09	0.27	354.68	90.30	49.04	16.02	4.20	67.10	162.20	191.30	1.30	94.40	9.03	0.00	1.35	0.10
June	1st	37.23	477.55	373.60	0.00	27.16	0.00	159.08	27.89	275.99	71.77	23.20	31.40	312.50	49.60	0.00	111.20	10.32	0.00	8.65	0.00
	2nd	31.83	440.28	257.00	0.00	17.26	0.00	103.57	54.78	160.45	160.44	2.80	15.40	297.90	0.00	0.00	7.90	131.48	0.00	48.55	0.00
	3rd	37.59	299.02	31.06	0.00	174.54	0.00	29.70	11.33	65.16	89.64	1.30	0.00	144.80	38.20	1.60	0.00	42.30	0.00	110.19	0.00
July	1st	0.00	540.91	12.98	0.00	83.06	0.00	36.35	40.13	11.37	118.27	0.00	0.00	75.20	30.20	0.00	5.90	0.00	0.00	1.54	0.00
	2nd	0.00	251.14	21.95	0.00	193.68	0.00	31.97	1.26	27.55	29.93	0.00	0.00	66.00	0.00	0.00	0.00	0.00	0.00	0.68	0.00
	3rd	0.00	163.07	1.88	1.23	56.91	5.26	0.00	0.00	11.39	15.15	0.00	0.00	135.80	0.00	0.00	0.00	0.00	0.00	0.94	0.27
August	1st	0.00	106.97	21.70	2.72	7.38	0.00	0.55	0.00	9.76	13.29	0.00	0.00	64.40	0.00	0.00	0.00	0.00	0.00	0.00	1.05
	2nd	0.00	80.35	4.48	0.00	1.37	0.00	0.00	0.00	5.65	1.15	0.00	0.00	19.00	0.00	0.00	0.00	0.00	0.00	35.36	0.00
	3rd	0.00	37.06	0.00	0.00	20.38	0.00	0.00	11.13	2.57	10.30	0.00	0.00	0.00	11.50	0.00	0.00	0.00	0.00	0.62	0.00
September	1st	0.00	91.19	0.00	0.00	6.99	0.00	0.00	48.92	1.22	20.40	0.00	0.00	0.00	19.00	0.00	55.80	0.00	0.00	0.00	0.00
	2nd	0.00	55.79	0.00	0.00	2.71	0.00	0.00	167.04	0.00	5.36	0.00	0.00	0.00	18.60	0.00	0.00	0.00	0.00	0.00	0.00
	3rd	0.00	72.62	0.00	0.00	50.04	0.00	0.00	63.42	0.00	14.12	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00
October	1st	0.00	61.07	0.00	0.00	97.88	0.00	0.00	129.10	0.00	8.13	0.00	0.00	0.00	5.20	0.00	64.80	0.00	1.10	0.00	5.27
	2nd	0.00	34.31	0.00	0.00	32.27	0.00	11.90	73.77	0.00	76.82	0.00	0.00	0.00	2.20	0.00	34.90	0.00	4.15	0.00	0.50
	3rd	0.00	75.64	0.00	0.18	27.50	0.00	66.91	15.28	40.37	23.21	0.00	0.00	12.30	2.50	0.00	53.40	0.00	0.00	0.00	38.99
November	1st	0.00	73.17	0.76	1.49	11.66	0.00	105.40	0.00	16.03	107.73	0.00	0.00	131.30	5.90	0.00	57.70	0.00	0.00	0.00	66.07
	2nd	0.00	172.91	1.53	23.37	111.44	0.00	174.48	4.16	0.39	109.73	0.00	174.68	32.80	0.00	1.40	53.60	5.14	0.00	106.53	121.22
	3rd	0.00	15.18	2.09	168.64	228.62	0.00	237.49	85.94	61.77	171.96	19.60	58.20	0.00	8.80	9.50	150.10	27.85	0.61	330.70	104.89
December	1st	5.10	141.41	58.67	380.55	274.73	0.00	85.12	307.70	203.33	48.63	192.20	62.88	2.10	20.60	112.60	257.70	180.52	15.77	325.91	128.17
	2nd	34.36	202.38	72.64	142.21	374.54	47.90	64.08	187.11	38.18	120.07	333.00	30.00	15.40	107.60	48.10	296.50	104.09	42.33	257.08	330.56
	3rd	151.15	414.97	231.19	245.55	253.35	123.78	229.96	279.93	129.09	133.55	222.00	135.55	20.30	308.60	122.20	125.20	66.78	0.00	79.85	18.79
Total Dis. (Mill.m <sup>3</sup> )		2934.39	7471.33	6987.16	3824.76	5283.85	4082.58	5115.51	6049.16	4650.79	5091.27	3,901.82	2,932.82	3,915.61	2,922.85	3,283.85	5,076.86	3,682.60	3,564.21	4,518.26	3,214.24

Source : PJT, *Italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1977

\* Completion of Lodagung irrigation intake is in 1979.

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung Wanajayang - Kertosono	Turi - Tugosono Kiri Kediri	Brantas	Jatimlerek Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	7.90	11.79	7.43	0.86	1.40	2.56	18.92	38.21	91.44
	2nd	1.44	0.60	7.33	13.52	8.20	0.95	1.43	2.53	18.90	38.06	93.28
	3rd	1.44	0.60	7.98	13.00	8.79	0.56	1.42	3.10	19.34	39.04	95.58
February	1st	1.44	0.60	7.97	12.62	8.12	0.56	1.11	3.35	17.85	35.51	89.55
	2nd	1.44	0.60	7.85	12.87	7.24	0.54	0.81	3.24	17.91	36.11	88.91
	3rd	1.44	0.60	7.81	13.66	7.47	0.54	0.81	3.67	19.06	38.79	94.13
March	1st	1.44	0.60	7.96	12.79	7.35	0.58	1.36	3.76	19.24	39.01	94.38
	2nd	1.44	0.60	7.65	12.02	7.71	0.58	1.00	3.08	18.76	37.99	91.11
	3rd	1.44	0.60	7.82	12.52	7.67	0.58	1.04	2.17	18.06	36.43	88.63
April	1st	1.44	0.60	7.02	11.30	7.12	0.53	0.86	1.81	17.52	34.96	83.39
	2nd	1.44	0.60	6.83	11.77	6.73	0.53	0.62	1.49	17.07	33.79	81.09
	3rd	1.44	0.60	6.59	12.59	6.75	0.49	0.09	0.59	16.87	33.91	80.13
May	1st	1.44	0.60	6.33	12.44	6.91	0.41	0.41	0.42	16.61	33.34	79.14
	2nd	1.44	0.60	6.59	11.20	6.86	0.15	0.54	0.43	16.90	33.98	78.96
	3rd	1.44	0.60	7.15	10.50	6.69	0.15	0.75	1.07	15.39	31.08	75.12
June	1st	1.44	0.60	6.59	11.01	7.14	0.15	0.64	0.75	16.75	33.21	78.60
	2nd	1.44	0.60	7.19	10.76	6.95	0.15	0.88	0.74	16.81	33.26	79.16
	3rd	1.44	0.60	6.84	9.95	6.77	0.15	0.86	0.76	15.66	31.52	74.85
July	1st	1.44	0.60	5.57	8.93	5.62	0.15	0.75	0.56	12.62	25.42	61.95
	2nd	1.44	0.60	4.93	8.81	4.94	0.15	0.63	0.54	13.09	25.32	60.77
	3rd	1.44	0.60	4.94	8.57	4.79	0.15	0.69	0.51	11.46	22.50	55.95
August	1st	1.44	0.60	4.77	9.14	4.70	0.15	0.62	0.53	9.20	18.50	49.94
	2nd	1.44	0.60	4.40	9.94	4.31	0.15	0.58	0.49	8.60	17.18	47.98
	3rd	1.44	0.60	4.36	8.76	4.49	0.15	0.52	0.49	8.15	16.17	45.39
September	1st	1.44	0.60	4.30	9.00	5.00	0.15	0.54	0.47	8.78	17.49	48.02
	2nd	1.44	0.60	4.12	8.98	4.08	0.15	0.27	0.98	7.91	15.57	44.33
	3rd	1.44	0.60	3.72	7.70	3.98	0.15	0.08	0.44	8.35	15.86	42.52
October	1st	1.44	0.60	3.54	6.95	2.75	0.15	0.03	0.53	7.33	13.74	37.19
	2nd	1.44	0.60	3.58	7.83	1.52	0.15	0.34	0.40	6.46	12.90	35.36
	3rd	1.44	0.60	2.49	6.86	2.96	0.15	0.32	0.33	6.76	13.27	35.33
November	1st	1.44	0.60	2.44	6.83	3.20	0.15	0.37	0.33	4.31	9.03	28.90
	2nd	1.44	0.60	2.51	7.03	3.97	0.15	0.36	0.32	8.37	13.82	38.86
	3rd	1.44	0.60	3.48	7.71	4.54	0.15	0.39	0.33	12.43	18.61	50.07
December	1st	1.44	0.60	4.23	10.62	5.25	0.27	0.51	0.52	14.73	19.71	58.15
	2nd	1.44	0.60	4.83	11.95	5.98	0.66	0.75	0.59	14.67	22.54	64.39
	3rd	1.44	0.60	5.65	12.15	6.63	0.73	0.88	0.87	20.10	31.22	80.67
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	179.46	327.07	184.30	10.81	21.67	38.77	438.10	845.22	2,118.59

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1978

\* Completion of Lodagung irrigation intake is in 1979.

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung -Kertosono	Warujayeng -Tunggoro	Turi-Kediri	Brantas Kiri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.26	-	11.63	7.00	0.86	0.77	1.12	0.53	19.46	38.65	88.11
	2nd	1.44	0.60	6.55	-	12.15	8.17	0.95	0.88	1.75	0.32	19.32	38.20	90.33
	3rd	1.44	0.60	6.66	-	12.46	8.86	0.56	0.92	1.80	0.32	19.76	42.18	95.56
February	1st	1.44	0.60	6.58	-	11.40	9.31	0.56	1.00	1.87	0.47	20.55	35.29	89.02
	2nd	1.44	0.60	6.62	-	11.03	9.15	0.54	1.04	1.87	0.50	19.81	33.54	85.94
	3rd	1.44	0.60	6.53	-	11.58	8.91	0.54	1.01	1.81	0.28	20.85	34.95	88.49
March	1st	1.44	0.60	6.64	-	10.74	8.74	0.58	0.70	1.73	0.29	23.57	34.68	89.71
	2nd	1.44	0.60	6.61	-	12.20	9.35	0.58	0.74	2.11	0.28	31.47	41.06	106.44
	3rd	1.44	0.60	6.62	-	11.40	9.60	0.58	0.66	2.33	0.29	26.84	39.24	99.60
April	1st	1.44	0.60	6.51	-	11.33	8.62	0.53	0.89	1.17	0.24	23.11	37.01	91.45
	2nd	1.44	0.60	6.43	-	11.54	8.72	0.53	1.08	1.47	0.24	23.51	36.33	91.88
	3rd	1.44	0.60	5.63	-	10.39	8.44	0.49	1.34	0.93	0.22	22.72	33.31	85.50
May	1st	1.44	0.60	5.43	-	12.01	8.30	0.47	1.35	1.47	0.22	23.25	36.77	91.24
	2nd	1.44	0.60	5.47	-	10.99	8.84	0.75	1.57	1.37	0.28	24.20	36.85	91.75
	3rd	1.44	0.60	5.26	-	10.13	9.73	0.75	1.39	0.87	0.30	27.55	38.95	96.17
June	1st	1.44	0.60	5.19	-	9.93	10.67	0.75	1.33	0.78	0.52	25.23	37.53	93.16
	2nd	1.44	0.60	4.75	-	10.30	10.19	0.75	1.29	0.49	0.38	24.94	37.57	92.09
	3rd	1.44	0.60	4.58	-	9.93	10.46	0.75	1.33	0.48	0.30	24.29	36.30	89.85
July	1st	1.44	0.60	4.66	-	10.02	10.48	0.75	1.35	0.60	0.29	27.24	36.55	93.37
	2nd	1.44	0.60	4.57	-	8.07	10.38	0.75	1.37	0.47	0.32	21.71	32.82	81.89
	3rd	1.44	0.60	4.03	-	8.41	10.52	0.75	1.33	0.50	0.31	23.26	37.10	87.64
August	1st	1.44	0.60	4.31	-	7.45	10.44	0.75	1.13	0.49	0.28	21.90	36.72	84.91
	2nd	1.44	0.60	4.39	-	8.19	9.97	0.75	0.93	0.54	0.29	23.32	38.17	87.98
	3rd	1.44	0.60	4.25	-	8.90	8.76	0.75	0.69	0.51	0.26	21.30	33.35	80.20
September	1st	1.44	0.60	3.20	-	7.72	9.20	0.75	0.53	0.50	0.26	21.83	31.78	77.21
	2nd	1.44	0.60	4.14	-	8.40	9.18	0.75	0.57	0.52	0.23	21.30	31.36	77.90
	3rd	1.44	0.60	4.41	-	7.73	7.88	0.75	0.57	0.52	0.20	20.22	32.68	76.41
October	1st	1.44	0.60	4.37	-	6.68	7.49	0.75	0.57	0.54	0.13	19.89	32.09	73.95
	2nd	1.44	0.60	4.43	-	8.54	5.39	0.75	0.10	0.57	0.15	18.79	31.88	72.03
	3rd	1.44	0.60	4.28	-	8.01	3.29	0.75	0.27	0.55	0.15	20.04	33.12	71.89
November	1st	1.44	0.60	4.36	-	8.61	8.05	0.75	0.48	0.45	0.20	24.29	33.75	82.39
	2nd	1.44	0.60	4.64	-	6.11	9.08	0.75	0.77	0.47	0.30	20.85	35.05	79.46
	3rd	1.44	0.60	4.48	-	9.10	9.65	0.75	0.48	0.61	0.39	20.26	35.13	82.29
December	1st	1.44	0.60	4.60	-	8.15	9.75	0.27	1.16	0.52	0.28	20.10	34.50	81.38
	2nd	1.44	0.60	5.10	-	10.63	9.09	0.66	1.30	0.64	0.38	19.41	36.80	86.05
	3rd	1.44	0.60	5.58	-	10.09	11.17	0.23	1.27	0.97	0.47	21.63	40.32	94.21
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	164.58	-	308.04	282.71	10.81	29.93	30.91	8.91	707.96	1,132.71	2,740.85

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team



# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1979

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung -Kertosono	Turi- Tunggoro	Brantas Kiri Kediri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.25	2.00	9.35	10.50	0.86	1.26	2.69	0.33	19.46	93.37
	2nd	1.44	0.60	6.61	1.94	10.19	10.42	0.95	1.24	2.84	0.32	19.32	94.05
	3rd	1.44	0.60	6.51	1.00	9.92	10.50	0.56	1.20	2.96	0.32	19.76	96.98
February	1st	1.44	0.60	6.40	1.67	9.84	11.09	0.56	1.05	2.47	0.41	18.11	92.04
	2nd	1.44	0.60	6.61	1.00	10.10	11.18	0.54	1.04	2.35	0.30	19.05	93.79
	3rd	1.44	0.60	6.66	1.00	10.48	11.38	0.54	1.39	2.16	0.28	19.59	96.14
March	1st	1.44	0.60	6.44	1.00	10.53	11.03	0.58	1.09	2.07	0.29	33.32	123.13
	2nd	1.44	0.60	6.40	1.00	10.32	10.71	0.58	1.45	2.16	0.28	21.33	98.95
	3rd	1.44	0.60	6.56	1.00	10.20	8.57	0.58	1.66	2.23	0.29	21.23	100.05
April	1st	1.44	0.60	6.10	1.00	10.53	10.64	0.53	0.53	1.56	0.24	20.75	95.58
	2nd	1.44	0.60	5.96	1.00	9.89	10.79	0.53	0.58	1.23	0.24	20.94	96.82
	3rd	1.44	0.60	5.78	1.00	9.73	10.63	0.49	0.77	0.76	0.22	26.64	88.57
May	1st	1.44	0.60	5.73	1.00	9.53	10.63	0.41	0.25	0.69	0.22	26.91	111.26
	2nd	1.44	0.60	5.53	1.00	8.61	10.41	0.15	1.45	0.39	0.28	21.45	94.85
	3rd	1.44	0.60	5.52	1.00	9.60	10.59	0.15	1.38	0.30	0.30	21.73	96.25
June	1st	1.44	0.60	5.20	1.00	9.94	10.76	0.15	1.07	0.39	0.32	21.33	95.11
	2nd	1.44	0.60	4.80	1.00	9.57	10.12	0.15	1.20	0.44	0.38	20.93	92.80
	3rd	1.44	0.60	4.70	1.55	9.30	9.79	0.15	1.39	0.38	0.30	20.52	91.58
July	1st	1.44	0.60	4.79	2.40	8.65	10.18	0.15	0.93	0.38	0.29	20.12	90.68
	2nd	1.44	0.60	4.84	2.40	9.27	10.42	0.15	0.89	0.41	0.32	19.72	90.47
	3rd	1.44	0.60	4.79	2.40	8.86	10.01	0.15	0.92	0.41	0.31	19.32	88.51
August	1st	1.44	0.60	4.52	2.40	8.96	10.40	0.15	0.86	0.41	0.28	18.92	87.50
	2nd	1.44	0.60	4.48	2.40	9.61	9.12	0.15	0.72	0.38	0.29	19.67	89.14
	3rd	1.44	0.60	4.61	2.40	8.58	6.72	0.15	0.56	0.44	0.26	14.16	68.57
September	1st	1.44	0.60	4.75	2.49	8.87	6.47	0.15	0.44	0.31	0.26	11.08	59.65
	2nd	1.44	0.60	4.30	2.48	9.79	6.76	0.15	0.27	0.44	0.23	13.30	67.41
	3rd	1.44	0.60	4.37	2.40	10.09	6.95	0.15	0.27	0.50	0.20	13.29	68.46
October	1st	1.44	0.60	4.17	2.40	9.90	3.08	0.15	0.25	0.44	0.13	13.28	64.55
	2nd	1.44	0.60	4.17	2.40	8.10	4.21	0.15	0.07	0.44	0.15	9.01	49.92
	3rd	1.44	0.60	4.20	2.40	6.94	5.34	0.15	0.22	0.36	0.15	10.53	53.90
November	1st	1.44	0.60	5.08	2.40	7.86	7.03	0.15	0.44	0.39	0.20	15.48	72.34
	2nd	1.44	0.60	5.18	2.40	7.34	7.32	0.15	0.70	0.39	0.30	16.89	76.43
	3rd	1.44	0.60	5.65	2.35	7.79	7.33	0.15	0.93	0.44	0.39	18.79	83.85
December	1st	1.44	0.60	5.07	3.00	8.55	8.99	0.27	0.97	1.04	0.28	20.68	93.16
	2nd	1.44	0.60	6.06	3.00	13.44	9.10	0.66	1.15	1.46	0.38	21.69	102.26
	3rd	1.44	0.60	6.29	2.97	10.66	9.60	0.73	2.16	2.59	0.41	21.72	102.61
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	170.72	58.21	298.29	287.37	10.81	28.73	34.40	8.91	603.88	2,766.77

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1980

Unit: m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng - Kertosono	Turi - Tunggorono	Brantas Kiri Kediri	Jatimirek Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.81	3.00	12.51	11.20	0.86	1.90	2.56	22.18	44.41	107.78
	2nd	1.44	0.60	6.79	3.00	12.50	11.20	0.95	1.50	1.85	22.05	42.12	104.32
	3rd	1.44	0.60	6.91	3.00	11.85	11.20	0.56	1.50	2.37	22.06	44.23	106.04
February	1st	1.44	0.60	6.80	3.00	12.51	11.20	0.56	1.50	2.47	20.25	42.25	103.00
	2nd	1.44	0.60	7.02	3.00	11.56	11.20	0.54	1.50	2.29	20.62	41.82	101.89
	3rd	1.44	0.60	7.17	3.00	7.01	11.20	0.54	1.60	2.51	23.84	47.82	107.01
March	1st	1.44	0.60	7.05	3.00	8.92	7.90	0.58	1.40	1.92	19.90	43.80	96.80
	2nd	1.44	0.60	7.07	3.30	9.22	5.80	0.58	1.00	1.92	19.13	43.37	93.72
	3rd	1.44	0.60	6.76	3.00	9.36	7.00	0.58	1.10	2.63	20.05	45.03	97.84
April	1st	1.44	0.60	5.56	3.00	9.53	8.00	0.53	0.70	2.49	34.28	46.70	113.06
	2nd	1.44	0.60	5.67	2.96	11.27	7.00	0.53	0.60	2.11	27.26	60.71	120.38
	3rd	1.44	0.60	5.62	5.72	10.88	5.90	0.49	1.00	1.91	23.62	50.81	108.20
May	1st	1.44	0.60	5.40	5.75	9.38	8.40	0.41	1.20	1.69	19.46	42.96	96.91
	2nd	1.44	0.60	5.04	5.75	6.92	8.30	0.15	1.20	1.34	19.38	42.01	92.40
	3rd	1.44	0.60	6.04	5.75	8.13	8.10	0.15	1.00	0.97	17.80	36.05	86.33
June	1st	1.44	0.60	4.60	5.75	8.20	7.60	0.15	0.70	0.56	16.85	35.05	81.82
	2nd	1.44	0.60	4.46	5.75	8.97	6.00	0.15	0.30	0.38	12.68	23.16	64.26
	3rd	1.44	0.60	4.44	5.75	8.91	6.00	0.15	0.40	0.39	11.49	23.08	62.95
July	1st	1.44	0.60	4.31	5.75	9.21	5.10	0.15	0.40	0.39	10.98	21.44	60.07
	2nd	1.44	0.60	4.30	4.64	9.31	6.50	0.15	0.30	0.41	11.21	22.77	61.94
	3rd	1.44	0.60	4.18	4.00	9.96	6.00	0.15	0.30	0.40	11.22	23.07	61.64
August	1st	1.44	0.60	4.31	4.00	9.88	6.90	0.15	0.30	0.37	17.20	32.42	77.85
	2nd	1.44	0.60	4.11	4.00	7.55	5.30	0.15	0.20	0.32	14.45	24.61	63.02
	3rd	1.44	0.60	3.54	4.00	7.34	5.60	0.15	0.10	0.32	10.05	20.52	53.92
September	1st	1.44	0.60	3.46	4.00	11.03	4.70	0.15	0.00	0.30	8.94	18.65	53.53
	2nd	1.44	0.60	3.16	4.00	9.29	4.50	0.15	0.10	0.29	8.98	17.80	50.54
	3rd	1.44	0.60	2.98	4.00	7.46	4.40	0.15	0.00	0.30	10.37	18.17	50.06
October	1st	1.44	0.60	3.05	4.00	6.50	4.40	0.15	0.00	0.31	9.13	17.63	47.34
	2nd	1.44	0.60	3.91	2.10	7.52	3.90	0.15	0.00	0.28	8.64	17.46	46.15
	3rd	1.44	0.60	3.77	2.00	4.58	3.40	0.15	0.00	0.29	8.69	17.70	42.76
November	1st	1.44	0.60	3.74	2.00	4.11	3.40	0.15	0.00	0.29	9.98	17.38	43.28
	2nd	1.44	0.60	3.83	2.00	4.39	5.30	0.15	0.30	0.29	18.02	26.05	62.66
	3rd	1.44	0.60	4.00	3.32	10.98	7.30	0.15	0.90	0.28	20.44	29.22	79.02
December	1st	1.44	0.60	4.35	4.00	10.50	9.40	0.27	1.40	0.25	20.50	29.20	82.19
	2nd	1.44	0.60	6.56	4.00	10.64	9.90	0.66	1.80	0.39	20.33	29.40	86.11
	3rd	1.44	0.60	7.23	4.00	11.62	6.90	0.73	1.90	0.54	22.25	37.02	94.63
Total Discharge (Million m <sup>3</sup> )		45.60	18.88	161.64	122.31	289.48	224.47	10.85	24.65	33.60	538.37	1,031.15	2,509.93

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1981

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung Warujayeng -Kertosono	Turi-Tunggoro	Brantas Kiri Kediri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.47	4.00	11.70	10.50	0.86	1.30	2.32	23.70	37.83	101.04
	2nd	1.44	0.60	7.77	4.00	11.80	9.70	0.95	1.30	1.12	22.37	35.55	96.93
	3rd	1.44	0.60	7.52	4.00	11.70	7.90	0.56	1.10	1.98	23.23	38.65	98.99
February	1st	1.44	0.60	7.57	4.00	12.20	8.90	0.56	1.00	2.24	24.73	39.68	103.33
	2nd	1.44	0.60	7.48	4.00	11.40	9.00	0.54	1.00	2.03	23.53	37.98	99.30
	3rd	1.44	0.60	7.70	4.00	11.80	9.40	0.54	1.00	1.89	24.65	39.71	103.01
March	1st	1.44	0.60	7.59	4.00	8.90	9.30	0.58	0.90	1.88	23.57	36.21	95.25
	2nd	1.44	0.60	7.45	4.00	10.40	8.90	0.58	0.80	1.82	22.45	38.52	97.24
	3rd	1.44	0.60	7.43	5.21	10.40	8.60	0.58	0.70	1.80	22.85	26.32	86.23
April	1st	1.44	0.60	6.20	6.00	10.10	7.50	0.53	0.80	1.49	30.58	27.08	92.55
	2nd	1.44	0.60	6.60	6.00	10.20	7.50	0.53	0.60	1.78	27.30	26.03	88.81
	3rd	1.44	0.60	6.70	5.96	9.50	7.30	0.49	0.50	1.49	25.42	32.29	91.91
May	1st	1.44	0.60	5.99	6.00	10.00	8.50	0.41	0.80	0.81	27.23	36.19	98.19
	2nd	1.44	0.60	5.05	6.00	10.50	10.10	0.15	0.90	0.69	27.34	35.73	98.78
	3rd	1.44	0.60	5.97	6.00	10.40	9.00	0.15	0.80	0.48	26.04	34.82	95.99
June	1st	1.44	0.60	5.14	6.00	9.60	8.80	0.15	0.80	0.49	25.38	34.84	95.57
	2nd	1.44	0.60	5.27	6.38	8.60	8.30	0.15	0.90	0.40	21.64	30.40	84.46
	3rd	1.44	0.60	5.81	6.50	9.70	8.60	0.15	0.90	0.46	26.33	37.40	98.18
July	1st	1.44	0.60	5.77	6.50	10.40	8.60	0.15	0.90	0.46	21.97	31.91	88.99
	2nd	1.44	0.60	5.79	6.50	9.10	8.60	0.15	1.00	0.49	20.50	29.51	83.99
	3rd	1.44	0.60	6.42	6.50	9.10	8.70	0.15	0.70	0.50	20.21	31.89	86.51
August	1st	1.44	0.60	5.09	6.50	9.50	9.20	0.15	0.60	0.50	17.12	24.79	75.77
	2nd	1.44	0.60	3.72	6.50	9.30	8.70	0.15	0.40	0.52	14.01	24.25	69.87
	3rd	1.44	0.60	4.73	6.50	9.60	6.70	0.15	0.40	0.26	18.61	30.62	80.10
September	1st	1.44	0.60	4.54	6.50	8.90	6.60	0.15	0.20	0.52	11.83	21.61	63.16
	2nd	1.44	0.60	4.62	6.50	9.20	5.60	0.15	0.50	0.51	11.44	21.26	62.05
	3rd	1.44	0.60	4.58	6.50	8.90	6.20	0.15	0.40	0.57	13.26	23.15	65.95
October	1st	1.44	0.60	5.19	6.50	7.60	4.10	0.15	0.20	0.56	12.10	18.42	56.99
	2nd	1.44	0.60	5.29	6.50	8.60	2.00	0.15	0.70	0.56	11.27	17.73	54.98
	3rd	1.44	0.60	4.89	6.50	7.60	5.80	0.15	0.60	0.59	12.96	20.06	61.34
November	1st	1.44	0.60	5.01	6.50	8.60	5.80	0.15	0.60	0.62	14.54	23.68	67.73
	2nd	1.44	0.60	5.40	6.50	8.80	6.20	0.15	0.60	0.54	18.41	30.51	79.45
	3rd	1.44	0.60	5.06	6.50	8.40	6.80	0.15	0.70	0.65	21.95	30.57	83.21
December	1st	1.44	0.60	5.69	6.50	9.70	8.00	0.27	0.70	1.16	23.64	30.87	88.85
	2nd	1.44	0.60	5.79	6.50	10.70	8.50	0.66	0.80	1.82	22.93	31.87	91.99
	3rd	1.44	0.60	7.58	7.70	10.90	8.60	0.73	1.40	2.40	22.63	31.88	96.28
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	188.13	184.63	309.67	247.23	10.81	24.08	33.74	663.07	961.89	2,596.46

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1982

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng -Kertosono	Turi- Tunggono Kiri Kediri	Brantas	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.89	9.00	11.50	9.00	0.86	1.44	3.08	0.26	22.33	31.89	98.29
	2nd	1.44	0.60	6.63	9.00	11.90	9.30	0.95	1.61	2.54	0.33	23.78	32.50	100.57
	3rd	1.44	0.60	6.53	9.00	11.30	9.50	0.56	1.40	2.45	0.32	26.43	34.91	104.43
February	1st	1.44	0.60	6.51	9.00	10.50	9.80	0.56	1.26	2.45	0.40	28.65	40.18	111.35
	2nd	1.44	0.60	6.54	9.00	9.50	9.60	0.54	1.26	2.33	0.34	27.05	37.53	105.72
	3rd	1.44	0.60	6.46	9.00	9.30	9.70	0.54	1.26	2.31	0.30	21.40	32.50	94.81
March	1st	1.44	0.60	6.47	9.00	8.80	10.10	0.58	1.50	2.24	0.29	20.62	31.38	93.01
	2nd	1.44	0.60	5.58	9.00	9.20	8.00	0.58	1.44	2.23	0.29	19.34	27.40	85.10
	3rd	1.44	0.60	5.64	9.00	6.70	7.70	0.58	1.03	2.05	0.28	20.32	27.83	83.17
April	1st	1.44	0.60	5.73	9.00	8.30	8.10	0.53	0.80	1.84	0.28	20.75	30.89	88.26
	2nd	1.44	0.60	2.11	9.00	10.20	6.10	0.53	0.44	1.58	0.28	14.88	21.67	68.82
	3rd	1.44	0.60	5.62	9.00	10.90	4.70	0.49	0.60	0.89	0.27	22.43	31.74	88.68
May	1st	1.44	0.60	5.50	9.00	8.40	0.60	0.41	0.81	0.33	0.24	22.43	32.03	81.78
	2nd	1.44	0.60	5.27	9.00	7.80	8.40	0.15	1.26	0.22	0.20	22.14	31.02	87.49
	3rd	1.44	0.60	5.33	9.00	6.90	7.90	0.15	1.29	0.22	0.17	19.54	29.57	82.10
June	1st	1.44	0.60	5.40	9.00	8.60	6.70	0.15	1.08	0.27	0.13	19.24	29.56	82.17
	2nd	1.44	0.60	5.32	9.00	8.90	6.00	0.15	0.84	0.32	0.10	16.20	25.03	73.90
	3rd	1.44	0.60	5.26	9.00	8.10	5.70	0.15	0.90	0.31	0.06	14.31	23.03	68.86
July	1st	1.44	0.60	5.00	9.00	6.70	6.00	0.15	0.74	0.27	0.03	12.82	19.81	62.56
	2nd	1.44	0.60	5.50	7.61	6.90	5.30	0.15	1.18	0.25	0.03	13.27	16.55	58.77
	3rd	1.44	0.60	5.64	6.00	7.50	8.40	0.15	0.85	0.16	0.04	20.37	24.52	75.67
August	1st	1.44	0.60	5.24	6.00	7.00	5.80	0.15	0.71	0.23	0.05	12.28	16.95	56.45
	2nd	1.44	0.60	4.64	6.00	6.80	5.70	0.15	0.16	0.24	0.05	12.86	16.55	55.19
	3rd	1.44	0.60	4.23	6.00	6.90	5.20	0.15	0.20	0.23	0.06	12.87	16.09	53.97
September	1st	1.44	0.60	3.92	6.00	6.90	4.30	0.15	0.36	0.24	0.06	9.14	12.68	45.78
	2nd	1.44	0.60	4.29	6.00	6.80	5.40	0.15	0.25	0.25	0.07	8.85	11.77	45.87
	3rd	1.44	0.60	4.19	6.00	6.80	3.70	0.15	0.22	0.21	0.08	9.77	11.90	45.05
October	1st	1.44	0.60	3.71	6.00	6.90	2.65	0.15	0.04	0.21	0.08	9.65	12.33	43.77
	2nd	1.44	0.60	3.40	6.00	7.00	1.60	0.15	0.20	0.21	0.09	9.81	13.48	43.98
	3rd	1.44	0.60	3.33	6.00	6.60	2.70	0.15	0.20	0.21	0.10	8.91	12.18	42.43
November	1st	1.44	0.60	3.64	6.00	6.40	4.10	0.15	0.14	0.20	0.10	7.76	11.36	41.89
	2nd	1.44	0.60	3.97	6.00	6.60	3.50	0.15	0.19	0.19	0.11	8.17	12.32	43.24
	3rd	1.44	0.60	3.82	6.00	6.10	3.70	0.15	0.18	0.20	0.19	4.64	8.00	35.02
December	1st	1.44	0.60	5.02	6.00	5.20	3.40	0.27	0.30	0.20	0.13	6.66	8.78	38.01
	2nd	1.44	0.60	5.09	6.00	10.00	3.60	0.66	0.81	0.47	0.14	19.88	26.95	75.64
	3rd	1.44	0.60	6.56	6.00	12.90	5.30	0.73	1.14	0.81	0.04	22.76	32.76	91.05
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	161.05	240.11	259.91	190.06	10.81	24.56	28.16	5.21	519.39	731.75	2,235.32

Source : PJT, DPU Pengairan. *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1983

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung Warujayeng -Kertosono	Turi-Tunggoro	Brantas Kiri Kediri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.78	8.60	13.20	7.30	0.86	1.58	0.76	22.83	32.83	97.13
	2nd	1.44	0.60	7.06	9.00	13.20	8.40	0.95	1.98	1.50	21.71	31.15	97.38
	3rd	1.44	0.60	6.38	9.00	13.00	8.30	0.56	3.10	1.34	20.05	28.25	92.32
February	1st	1.44	0.60	7.73	7.10	13.40	9.20	0.56	1.18	1.78	22.37	30.59	96.30
	2nd	1.44	0.60	7.15	6.00	13.40	9.80	0.54	1.65	1.60	20.62	27.87	91.01
	3rd	1.44	0.60	8.75	6.00	13.40	10.10	0.54	1.70	1.56	23.21	31.64	99.33
March	1st	1.44	0.60	7.59	6.00	13.30	9.50	0.58	1.69	1.46	25.12	32.06	99.64
	2nd	1.44	0.60	7.42	6.00	25.20	8.90	0.58	1.69	1.49	21.02	27.69	102.33
	3rd	1.44	0.60	8.08	6.65	12.60	8.80	0.58	1.66	1.55	24.08	30.89	97.23
April	1st	1.44	0.60	5.19	8.00	10.60	7.30	0.53	1.30	1.54	19.41	31.43	87.63
	2nd	1.44	0.60	7.85	8.00	11.10	6.90	0.53	0.89	1.14	32.53	52.69	123.96
	3rd	1.44	0.60	7.59	8.00	9.60	6.80	0.49	0.49	1.32	18.21	24.99	79.78
May	1st	1.44	0.60	5.40	8.00	9.80	8.30	0.41	1.12	1.16	17.86	26.62	80.96
	2nd	1.44	0.60	6.07	8.00	9.70	8.10	0.15	1.67	0.80	17.54	23.62	78.03
	3rd	1.44	0.60	6.38	8.00	9.60	8.00	0.15	1.63	0.58	16.45	23.27	76.41
June	1st	1.44	0.60	6.14	8.96	9.90	8.30	0.15	1.26	0.47	17.44	24.67	79.65
	2nd	1.44	0.60	5.92	9.00	10.80	8.30	0.15	1.41	0.48	17.60	28.24	84.26
	3rd	1.44	0.60	5.39	9.00	10.50	8.60	0.15	1.31	0.38	18.20	29.19	85.15
July	1st	1.44	0.60	5.41	9.00	10.30	9.70	0.15	0.66	0.20	18.33	29.44	85.63
	2nd	1.44	0.60	5.50	9.00	8.20	7.90	0.15	0.63	0.47	17.23	26.87	78.43
	3rd	1.44	0.60	5.41	9.00	7.00	4.90	0.15	0.73	0.16	13.58	20.18	63.59
August	1st	1.44	0.60	3.78	8.46	9.60	3.80	0.15	0.71	0.05	10.82	16.93	56.71
	2nd	1.44	0.60	3.92	8.00	9.30	4.00	0.15	0.75	0.00	11.57	16.95	57.04
	3rd	1.44	0.60	3.65	8.00	7.40	4.30	0.15	0.63	0.00	10.53	15.27	52.25
September	1st	1.44	0.60	3.21	8.00	7.30	2.30	0.15	0.53	0.09	10.43	15.20	49.50
	2nd	1.44	0.60	3.27	8.00	7.20	1.20	0.15	0.25	0.11	10.07	12.06	44.60
	3rd	1.44	0.60	3.27	8.00	7.30	2.60	0.15	0.44	0.10	9.40	11.50	44.97
October	1st	1.44	0.60	3.49	8.00	7.50	2.30	0.15	0.40	0.11	10.74	12.58	47.59
	2nd	1.44	0.60	5.04	6.35	7.50	1.10	0.15	0.19	0.08	13.34	15.85	51.91
	3rd	1.44	0.60	4.08	6.50	7.60	0.30	0.15	0.13	0.12	16.98	20.53	58.64
November	1st	1.44	0.60	5.76	6.50	8.90	2.80	0.15	0.21	0.17	18.92	22.23	68.00
	2nd	1.44	0.60	6.62	6.50	10.60	3.40	0.15	0.98	0.19	18.95	25.99	75.85
	3rd	1.44	0.60	6.13	6.50	10.90	5.50	0.15	2.20	0.27	19.38	25.40	78.77
December	1st	1.44	0.60	6.91	6.50	10.90	5.70	0.27	2.64	0.38	24.61	33.85	94.07
	2nd	1.44	0.60	6.46	7.50	11.30	7.20	0.66	2.94	0.39	27.12	35.98	102.02
	3rd	1.44	0.60	6.08	8.00	11.90	8.50	0.73	2.10	0.69	27.71	38.65	106.85
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	184.15	243.16	334.57	199.32	10.81	38.94	21.27	582.56	816.08	2,505.41

Source : PJT, DPU Pengairan, *Italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1984

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng -Kertosono-	Turi- Tunggoro-	Brantas Kiri Kediri	Jatimreke	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.30	8.60	11.90	2.39	0.86	2.58	0.84	0.41	24.60	34.64	98.15
	2nd	1.44	0.60	6.87	9.00	12.30	2.48	0.95	2.52	0.70	0.19	22.40	35.88	95.32
	3rd	1.44	0.60	6.92	9.00	12.00	2.13	0.56	2.11	1.42	0.19	24.47	35.84	96.66
February	1st	1.44	0.60	6.16	7.10	11.70	2.29	0.56	1.48	1.79	0.20	24.39	34.80	92.51
	2nd	1.44	0.60	5.69	6.00	10.40	2.21	0.54	2.06	2.18	0.19	24.50	36.41	92.21
	3rd	1.44	0.60	7.28	6.00	10.30	2.23	0.54	2.06	2.14	0.14	24.63	36.23	93.59
March	1st	1.44	0.60	6.77	6.00	11.30	1.73	0.58	1.92	1.94	0.19	20.31	36.75	89.53
	2nd	1.44	0.60	6.18	6.00	10.30	1.75	0.58	1.73	1.78	0.21	15.78	27.58	73.93
	3rd	1.44	0.60	6.18	6.65	11.50	1.43	0.58	1.16	1.80	0.20	22.48	40.60	94.62
April	1st	1.44	0.60	6.64	8.00	13.30	1.22	0.53	0.87	1.60	0.13	18.64	79.39	132.37
	2nd	1.44	0.60	5.32	8.00	12.80	0.82	0.53	0.95	1.48	0.16	20.22	34.62	86.94
	3rd	1.44	0.60	5.32	8.00	10.00	1.01	0.49	1.48	1.32	0.27	38.95	55.84	124.70
May	1st	1.44	0.60	6.07	8.00	10.00	1.66	0.41	2.00	1.20	0.27	12.77	34.42	78.84
	2nd	1.44	0.60	3.70	8.00	10.10	1.60	0.15	1.89	0.92	0.32	12.20	34.67	75.59
	3rd	1.44	0.60	5.73	8.00	10.10	1.37	0.15	0.40	0.56	0.28	11.80	34.14	74.57
June	1st	1.44	0.60	5.86	8.96	10.70	1.54	0.15	1.10	0.15	0.28	11.70	36.43	78.91
	2nd	1.44	0.60	5.97	9.00	10.30	1.05	0.15	1.24	0.29	0.39	11.88	37.17	79.48
	3rd	1.44	0.60	5.62	9.00	9.70	1.56	0.15	1.07	0.00	0.39	11.59	35.64	76.75
July	1st	1.44	0.60	5.64	9.00	10.10	1.55	0.15	1.26	0.07	0.32	12.49	37.17	79.78
	2nd	1.44	0.60	5.52	9.00	10.40	1.54	0.15	1.23	0.16	0.32	11.70	33.45	75.52
	3rd	1.44	0.60	4.97	9.00	10.40	1.51	0.15	0.98	0.18	0.35	10.92	29.74	70.23
August	1st	1.44	0.60	3.35	9.00	10.10	1.29	0.15	0.74	0.18	0.33	9.91	25.62	62.70
	2nd	1.44	0.60	5.11	9.00	10.30	1.15	0.15	0.54	0.18	0.31	9.84	27.39	66.01
	3rd	1.44	0.60	5.63	9.00	9.60	0.96	0.15	0.33	0.19	0.24	14.34	32.12	74.58
September	1st	1.44	0.60	5.37	9.00	8.90	0.69	0.15	0.28	0.60	0.23	15.47	31.30	74.04
	2nd	1.44	0.60	5.99	9.00	7.80	0.50	0.15	0.32	0.23	0.17	14.34	26.07	66.60
	3rd	1.44	0.60	5.54	9.00	8.90	0.46	0.15	0.32	0.29	0.24	17.29	29.68	73.91
October	1st	1.44	0.60	5.16	9.00	8.60	0.36	0.15	0.16	0.24	0.24	16.90	27.42	70.26
	2nd	1.44	0.60	5.63	9.00	8.00	0.40	0.15	0.15	0.28	0.30	19.96	29.95	75.85
	3rd	1.44	0.60	5.69	9.00	8.00	0.43	0.15	0.00	0.30	0.27	22.33	28.51	76.72
November	1st	1.44	0.60	4.07	9.00	8.80	0.47	0.15	0.91	0.32	0.30	16.93	21.41	64.41
	2nd	1.44	0.60	5.49	9.00	8.60	0.49	0.15	0.85	0.09	0.29	15.26	20.23	62.49
	3rd	1.44	0.60	5.93	9.00	8.70	0.46	0.15	1.25	0.07	0.26	20.64	28.05	76.54
December	1st	1.44	0.60	5.73	8.34	9.80	1.78	0.27	0.55	0.25	0.09	22.72	30.82	82.40
	2nd	1.44	0.60	6.33	8.65	9.90	1.84	0.66	1.14	0.58	0.23	22.27	30.58	84.22
	3rd	1.44	0.60	6.33	10.92	10.10	1.62	0.73	2.80	0.97	0.33	22.31	30.38	88.52
Total Discharge (Million m <sup>3</sup> )		45.60	18.88	180.97	265.92	321.27	42.07	10.85	37.14	23.84	8.09	569.65	1,071.74	2,596.03

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1985

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Moek	Lodagung	Warujayeng -Kertosono	Turi-Tunggoro	Brantas Jatimlereki Kiri Kediri	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.34	9.45	10.20	1.88	0.86	2.57	0.98	22.96	30.51	88.02
	2nd	1.44	0.60	6.06	9.00	10.50	2.08	0.95	3.06	1.73	21.86	29.84	87.39
	3rd	1.44	0.60	6.27	9.00	10.00	2.02	0.56	2.09	1.36	16.69	30.57	80.37
February	1st	1.44	0.60	6.06	9.00	11.80	1.84	0.56	2.01	1.48	11.51	31.30	78.55
	2nd	1.44	0.60	6.35	8.06	11.60	1.84	0.54	2.21	1.38	17.99	34.76	87.06
	3rd	1.44	0.60	7.18	9.00	11.00	1.82	0.54	1.61	1.18	10.99	16.03	61.66
March	1st	1.44	0.60	5.55	9.00	12.20	1.73	0.58	1.94	1.40	15.88	21.71	72.22
	2nd	1.44	0.60	6.96	9.00	8.20	1.65	0.58	1.34	1.38	13.17	18.42	62.93
	3rd	1.44	0.60	7.19	9.00	10.30	1.29	0.58	0.91	1.16	16.72	22.57	72.00
April	1st	1.44	0.60	7.02	8.00	11.30	1.26	0.53	0.64	1.23	19.36	31.52	83.14
	2nd	1.44	0.60	6.87	8.00	10.90	0.46	0.53	0.38	1.48	20.80	40.95	92.65
	3rd	1.44	0.60	7.09	8.00	11.40	0.23	0.49	0.00	0.83	22.79	41.08	94.19
May	1st	1.44	0.60	6.97	8.76	10.30	1.10	0.41	0.94	0.49	19.04	25.33	75.63
	2nd	1.44	0.60	7.38	9.00	9.20	1.39	0.15	1.03	0.14	20.46	26.89	77.96
	3rd	1.44	0.60	8.40	9.00	9.60	1.46	0.15	1.95	0.09	20.37	26.18	79.58
June	1st	1.44	0.60	7.13	11.85	11.90	0.73	0.15	0.89	0.15	20.57	26.71	82.44
	2nd	1.44	0.60	6.17	12.00	11.50	1.10	0.15	1.14	0.16	20.56	26.79	81.89
	3rd	1.44	0.60	5.84	12.00	9.60	1.08	0.15	1.18	0.17	20.49	27.06	79.90
July	1st	1.44	0.60	5.41	8.66	8.80	1.50	0.15	1.06	0.09	20.73	27.59	76.33
	2nd	1.44	0.60	5.52	7.27	9.20	1.54	0.15	1.08	0.12	19.46	25.47	72.15
	3rd	1.44	0.60	6.09	9.50	8.10	1.09	0.15	1.19	0.13	19.98	26.17	74.75
August	1st	1.44	0.60	5.93	9.50	8.50	1.44	0.15	1.01	0.15	20.21	26.29	75.51
	2nd	1.44	0.60	3.96	9.50	8.40	1.02	0.15	0.36	0.16	18.66	24.88	69.46
	3rd	1.44	0.60	6.60	9.50	8.40	0.75	0.15	0.25	0.14	18.24	24.09	70.48
September	1st	1.44	0.60	5.83	9.50	8.20	0.49	0.15	0.24	0.19	16.53	22.56	66.02
	2nd	1.44	0.60	5.38	9.50	7.80	0.24	0.15	0.19	0.13	14.12	19.75	59.60
	3rd	1.44	0.60	4.63	9.50	8.00	0.00	0.15	0.22	0.15	12.15	17.97	55.08
October	1st	1.44	0.60	4.11	9.00	7.40	0.20	0.15	0.22	0.18	10.06	15.37	48.84
	2nd	1.44	0.60	4.03	2.32	7.20	0.13	0.15	0.19	0.18	9.92	15.58	41.96
	3rd	1.44	0.60	3.50	8.75	6.80	0.04	0.15	0.17	0.22	19.01	25.08	66.00
November	1st	1.44	0.60	5.71	8.74	6.30	0.22	0.15	0.21	0.22	20.25	26.38	70.50
	2nd	1.44	0.60	6.01	9.97	6.40	0.37	0.15	0.18	0.11	16.45	22.48	64.48
	3rd	1.44	0.60	6.07	10.00	7.10	1.03	0.15	0.07	0.10	16.29	21.77	64.90
December	1st	1.44	0.60	7.31	10.00	7.50	1.56	0.27	0.55	0.54	15.27	16.97	62.29
	2nd	1.44	0.60	7.25	10.18	10.80	1.16	0.66	0.86	0.15	23.77	34.49	91.62
	3rd	1.44	0.60	7.03	13.00	17.80	1.13	0.73	0.86	0.52	28.83	39.51	111.78
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	193.78	290.72	301.62	33.93	10.81	30.41	17.61	573.62	826.70	2,352.71

Source : PJT, DPU Pengairan. *Italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1986

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng -Kertosono	Turi-Tunggoro	Brantas Kiri Kediri	Jatimirek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	7.17	13.00	11.70	1.65	0.86	1.72	0.91	0.22	22.40	28.90	90.57
	2nd	1.44	0.60	6.50	13.00	12.80	1.69	0.95	0.98	1.21	0.25	27.30	34.90	101.61
	3rd	1.44	0.60	7.60	14.93	12.90	1.75	0.56	1.07	1.39	0.32	27.30	35.10	104.95
February	1st	1.44	0.60	7.03	15.00	13.50	1.67	0.56	1.22	1.64	0.32	16.40	27.50	86.87
	2nd	1.44	0.60	6.36	15.00	14.30	1.55	0.54	1.12	1.78	0.34	9.60	19.50	72.13
	3rd	1.44	0.60	3.96	15.00	14.20	1.58	0.54	1.38	1.66	0.19	11.80	26.10	78.44
March	1st	1.44	0.60	4.95	12.90	12.80	1.61	0.58	1.38	1.67	0.22	32.90	55.80	126.84
	2nd	1.44	0.60	5.76	10.66	9.80	1.60	0.58	1.38	1.58	0.21	23.90	35.40	92.91
	3rd	1.44	0.60	5.86	12.00	9.00	1.19	0.58	1.01	1.48	0.27	16.80	25.10	75.33
April	1st	1.44	0.60	5.91	12.00	9.00	0.00	0.53	0.00	1.42	0.28	14.90	22.00	68.08
	2nd	1.44	0.60	5.91	12.00	10.90	0.68	0.53	0.35	1.48	0.23	20.50	34.80	89.41
	3rd	1.44	0.60	5.95	12.00	12.10	0.67	0.49	0.32	1.07	0.20	17.80	25.60	78.24
May	1st	1.44	0.60	5.26	12.00	11.10	0.55	0.47	0.23	0.84	0.19	16.10	23.40	72.12
	2nd	1.44	0.60	5.64	12.00	9.80	0.81	0.15	0.00	0.53	0.28	17.50	25.70	74.45
	3rd	1.44	0.60	5.86	12.00	9.90	0.64	0.15	0.50	0.33	0.31	17.30	25.30	74.33
June	1st	1.44	0.60	5.35	12.00	9.70	1.01	0.15	0.44	0.15	0.31	17.40	26.10	74.65
	2nd	1.44	0.60	5.36	12.00	10.70	1.10	0.15	0.57	0.22	0.32	17.30	26.20	75.97
	3rd	1.44	0.60	5.37	12.00	10.10	0.95	0.15	0.44	0.08	0.28	17.30	26.20	74.90
July	1st	1.44	0.60	5.12	12.00	10.70	1.30	0.15	0.40	0.08	0.30	17.40	25.10	75.57
	2nd	1.44	0.60	4.59	12.00	9.60	1.00	0.15	0.29	0.14	0.36	17.30	25.90	73.36
	3rd	1.44	0.60	4.23	10.63	9.90	1.84	0.15	0.27	0.15	0.34	17.30	25.90	72.76
August	1st	1.44	0.60	4.09	9.50	10.10	0.79	0.15	0.19	0.16	0.33	17.00	26.00	70.35
	2nd	1.44	0.60	3.91	9.50	9.20	1.33	0.15	0.13	0.17	0.32	13.90	20.70	61.35
	3rd	1.44	0.60	3.80	9.50	8.20	0.75	0.15	0.18	0.17	0.33	17.00	26.00	68.11
September	1st	1.44	0.60	3.80	9.50	8.10	1.37	0.15	0.18	0.39	0.32	15.60	23.70	65.15
	2nd	1.44	0.60	3.81	9.50	7.60	0.05	0.15	0.20	0.18	0.30	13.40	20.90	58.13
	3rd	1.44	0.60	3.81	9.50	8.20	0.46	0.15	0.22	0.22	0.22	12.00	20.00	56.82
October	1st	1.44	0.60	3.85	9.50	8.10	0.52	0.15	0.12	0.21	0.16	12.10	19.80	56.54
	2nd	1.44	0.60	4.01	9.50	7.50	0.22	0.15	0.22	0.23	0.07	12.80	18.80	55.54
	3rd	1.44	0.60	4.18	9.50	8.30	0.68	0.15	0.17	0.26	0.04	12.40	12.20	49.91
November	1st	1.44	0.60	4.09	8.87	8.20	0.72	0.15	0.38	0.27	0.24	13.50	19.20	57.66
	2nd	1.44	0.60	5.74	8.67	8.30	1.19	0.15	0.41	0.10	0.24	15.00	22.40	64.24
	3rd	1.44	0.60	6.08	9.50	8.80	1.86	0.15	0.38	0.09	0.24	15.00	22.40	66.75
December	1st	1.44	0.60	4.04	9.50	10.30	1.64	0.27	0.36	0.40	0.28	19.00	23.50	71.33
	2nd	1.44	0.60	4.66	9.50	10.90	1.75	0.66	0.42	0.37	0.25	15.90	24.70	71.14
	3rd	1.44	0.60	6.14	9.50	12.00	1.85	0.73	0.46	0.74	0.40	16.00	22.20	72.06
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	163.06	354.21	321.82	35.04	10.81	16.71	20.63	8.32	541.86	808.67	2,345.43

Source : PJT, DPU Pengairan. *Italic* is estimated by the Study Team



# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1987

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng -Kertosono-	Turi- Tunggoro-	Brantas Kiri Kediri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	5.72	9.50	12.70	1.93	0.86	1.01	0.91	0.26	19.10	29.00	83.02
	2nd	1.44	0.60	5.84	8.63	12.40	1.90	0.95	0.75	1.21	0.26	19.00	29.00	81.97
	3rd	1.44	0.60	6.43	9.50	11.60	1.79	0.56	0.84	1.39	0.36	15.90	47.00	97.41
February	1st	1.44	0.60	5.86	10.17	12.50	2.16	0.56	0.84	1.64	0.35	19.70	29.50	85.31
	2nd	1.44	0.60	6.18	8.21	10.20	1.77	0.54	0.99	1.78	0.13	19.50	29.20	80.53
	3rd	1.44	0.60	6.49	12.11	4.20	1.70	0.54	1.18	1.66	0.25	19.30	32.20	81.66
March	1st	1.44	0.60	6.24	12.11	10.90	1.65	0.58	0.78	1.67	0.36	18.60	27.40	82.32
	2nd	1.44	0.60	6.06	12.20	11.10	1.62	0.58	0.70	1.58	0.37	37.30	17.40	90.94
	3rd	1.44	0.60	6.51	12.15	11.60	1.41	0.58	0.05	1.48	0.39	26.70	27.60	90.52
April	1st	1.44	0.60	6.49	9.75	11.40	1.08	0.53	0.15	1.42	0.26	19.90	24.70	77.71
	2nd	1.44	0.60	6.45	12.25	11.00	0.60	0.53	0.00	1.48	0.26	23.70	32.80	91.11
	3rd	1.44	0.60	5.64	8.45	9.90	0.34	0.49	0.00	1.07	0.26	18.90	42.70	89.79
May	1st	1.44	0.60	6.43	12.04	11.20	0.85	0.41	0.00	0.84	0.38	17.30	26.40	77.88
	2nd	1.44	0.60	6.18	12.20	10.50	0.87	0.15	0.46	0.53	0.41	16.90	25.70	75.94
	3rd	1.44	0.60	4.45	12.20	8.90	1.01	0.15	0.27	0.33	0.40	17.00	26.00	72.75
June	1st	1.44	0.60	2.43	12.17	9.90	1.63	0.15	0.59	0.15	0.45	17.20	28.90	75.61
	2nd	1.44	0.60	2.76	12.31	10.00	1.14	0.15	0.40	0.22	0.75	17.00	29.00	75.76
	3rd	1.44	0.60	2.49	12.45	9.10	1.09	0.15	0.29	0.08	0.29	16.90	28.20	73.08
July	1st	1.44	0.60	3.53	12.47	9.10	1.20	0.15	0.25	0.08	0.25	16.30	25.10	70.47
	2nd	1.44	0.60	2.17	13.72	9.20	1.29	0.15	0.74	0.14	0.32	15.20	23.70	68.68
	3rd	1.44	0.60	2.51	8.00	9.20	1.06	0.15	0.66	0.15	0.28	12.60	19.90	56.55
August	1st	1.44	0.60	0.00	7.98	7.90	0.95	0.15	0.25	0.16	0.26	9.60	13.40	42.69
	2nd	1.44	0.60	2.20	8.77	7.90	0.84	0.15	0.74	0.17	0.27	5.90	8.90	37.87
	3rd	1.44	0.60	2.19	7.98	7.10	0.71	0.15	0.64	0.17	0.31	5.30	8.10	34.68
September	1st	1.44	0.60	1.43	7.98	7.00	0.60	0.15	0.11	0.39	0.23	4.50	6.90	31.33
	2nd	1.44	0.60	2.12	7.95	6.30	0.47	0.15	0.03	0.18	0.22	4.40	6.90	30.76
	3rd	1.44	0.60	0.00	9.96	6.20	0.39	0.15	0.02	0.22	0.19	5.00	6.40	30.56
October	1st	1.44	0.60	2.31	9.98	6.10	0.06	0.15	0.00	0.21	0.09	4.00	6.70	31.63
	2nd	1.44	0.60	0.72	9.97	6.10	0.06	0.15	0.02	0.23	0.02	3.90	6.80	30.01
	3rd	1.44	0.60	0.88	9.99	6.10	0.00	0.15	0.02	0.26	0.02	4.30	7.20	30.96
November	1st	1.44	0.60	2.08	7.76	6.30	0.03	0.15	0.00	0.27	0.02	4.00	6.20	28.85
	2nd	1.44	0.60	0.00	4.43	6.80	0.00	0.15	0.02	0.10	0.08	5.50	8.40	27.52
	3rd	1.44	0.60	2.75	10.70	6.40	0.10	0.15	0.08	0.09	0.20	8.50	12.90	43.90
December	1st	1.44	0.60	0.00	10.70	12.00	1.21	0.27	0.56	0.40	0.25	10.20	18.00	55.63
	2nd	1.44	0.60	0.00	6.77	11.70	1.14	0.66	0.35	0.37	0.40	14.20	21.60	59.23
	3rd	1.44	0.60	0.00	9.78	13.10	2.49	0.73	0.47	0.74	0.47	11.70	17.80	59.32
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	107.58	317.81	293.35	32.53	10.81	12.33	20.63	8.85	441.06	662.27	1,971.53

Source : PIT, DPU Pengukuran, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1988

Unit: m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warjajeng -Kertosono	Turi-Tunggono	Brantas Kiri Kediri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	2.86	10.05	10.24	1.87	0.86	1.01	0.91	0.35	18.20	27.40	75.77
	2nd	1.44	0.60	4.90	13.31	9.96	2.09	0.95	0.86	1.21	0.49	21.60	30.30	87.69
	3rd	1.44	0.60	5.92	12.27	9.96	1.82	0.56	1.26	1.39	0.45	27.50	41.50	104.66
February	1st	1.44	0.60	8.54	12.23	12.50	0.95	0.56	1.08	1.64	0.43	21.00	32.00	92.97
	2nd	1.44	0.60	6.08	12.04	11.70	1.06	0.54	0.92	1.78	0.32	30.40	46.20	113.08
	3rd	1.44	0.60	6.84	11.18	12.30	1.55	0.54	0.75	1.66	0.31	41.00	48.60	126.77
March	1st	1.44	0.60	6.79	12.40	12.50	1.27	0.58	0.74	1.67	0.36	22.10	31.80	92.24
	2nd	1.44	0.60	7.07	11.76	10.00	1.30	0.58	0.78	1.58	0.34	23.50	35.50	94.45
	3rd	1.44	0.60	7.57	10.90	9.90	1.38	0.58	0.65	1.48	0.27	19.50	33.90	88.17
April	1st	1.44	0.60	6.67	10.28	8.40	0.75	0.53	0.31	1.42	0.19	23.00	33.00	86.59
	2nd	1.44	0.60	6.57	12.50	9.30	0.85	0.53	0.21	1.48	0.22	28.30	23.10	85.10
	3rd	1.44	0.60	7.15	12.42	9.35	0.75	0.49	0.26	1.07	0.18	12.40	40.80	86.91
May	1st	1.44	0.60	6.51	12.37	9.54	0.88	0.41	0.16	0.84	0.17	22.00	30.10	85.03
	2nd	1.44	0.60	6.78	10.02	8.80	1.11	0.75	0.15	0.53	0.36	18.00	27.00	74.95
	3rd	1.44	0.60	6.22	11.85	9.03	1.19	0.75	0.20	0.35	0.45	16.30	24.50	72.25
June	1st	1.44	0.60	6.43	11.16	9.16	1.05	0.75	0.15	0.15	0.43	18.40	27.30	76.42
	2nd	1.44	0.60	6.15	11.91	8.88	1.09	0.75	0.17	0.22	0.49	21.00	31.80	83.89
	3rd	1.44	0.60	5.87	12.10	8.34	0.80	0.75	0.15	0.08	0.42	13.90	20.40	64.24
July	1st	1.44	0.60	5.18	10.42	7.43	1.23	0.75	0.18	0.08	0.41	13.70	20.90	61.71
	2nd	1.44	0.60	5.77	9.50	7.08	0.74	0.75	0.25	0.14	0.41	13.20	19.80	59.08
	3rd	1.44	0.60	5.67	9.50	4.40	1.27	0.75	0.39	0.15	0.39	12.60	18.60	55.16
August	1st	1.44	0.60	5.33	9.50	4.41	0.81	0.75	0.20	0.16	0.42	12.60	41.50	77.12
	2nd	1.44	0.60	5.63	9.50	5.11	1.55	0.75	0.27	0.17	0.40	12.50	17.70	55.01
	3rd	1.44	0.60	6.08	9.50	4.05	0.85	0.75	0.15	0.17	0.31	10.70	16.00	50.00
September	1st	1.44	0.60	5.33	8.83	4.40	0.67	0.75	0.08	0.39	0.41	10.20	15.20	47.71
	2nd	1.44	0.60	5.23	8.00	4.67	0.48	0.75	0.12	0.78	0.41	9.60	14.50	45.37
	3rd	1.44	0.60	5.52	5.10	5.64	0.40	0.75	0.12	0.22	0.39	8.10	12.30	39.97
October	1st	1.44	0.60	4.59	4.99	3.11	0.43	0.75	0.00	0.21	0.08	9.50	15.50	40.59
	2nd	1.44	0.60	4.66	4.98	3.36	0.23	0.75	0.10	0.23	0.18	11.90	18.80	46.64
	3rd	1.44	0.60	3.28	3.24	2.83	0.29	0.75	0.14	0.26	0.30	15.60	23.50	51.61
November	1st	1.44	0.60	3.73	3.05	4.81	0.28	0.75	0.14	0.27	0.26	13.70	20.30	48.72
	2nd	1.44	0.60	3.67	4.48	4.98	0.51	0.75	0.29	0.10	0.27	18.60	27.90	63.00
	3rd	1.44	0.60	4.16	7.63	8.27	0.92	0.75	0.75	0.09	0.39	20.00	31.20	75.60
December	1st	1.44	0.60	4.19	8.20	10.04	1.05	0.27	0.69	0.40	0.48	23.30	35.30	85.95
	2nd	1.44	0.60	4.91	9.11	11.01	0.97	0.66	0.30	0.37	0.49	20.10	30.40	80.35
	3rd	1.44	0.60	1.66	9.11	24.37	0.82	0.73	0.78	0.74	0.43	23.80	31.50	95.99
Total Discharge (Million m <sup>3</sup> )		45.60	18.88	174.92	303.18	263.53	30.95	10.85	12.98	20.78	11.14	575.68	872.80	2,341.31

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team

YEAR : 1989

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

Unit: m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung Warujayeng -Kertosono	Turi- Tunggoro	Brantas Jatimlerek Kiri Kediri	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	3.32	9.05	10.61	1.16	0.86	1.08	0.91	10.90	95.02
	2nd	1.44	0.60	3.33	14.21	9.92	2.20	0.95	0.99	1.21	17.00	103.47
	3rd	1.44	0.60	3.36	13.23	9.32	2.27	0.56	0.92	1.39	22.20	112.40
February	1st	1.44	0.60	4.47	13.19	9.25	2.07	0.56	1.29	1.64	28.40	101.72
	2nd	1.44	0.60	5.05	13.22	9.33	1.88	0.54	1.12	1.78	29.80	110.29
	3rd	1.44	0.60	5.82	13.19	9.32	2.11	0.54	0.97	1.66	29.80	110.82
March	1st	1.44	0.60	5.68	12.86	8.61	1.84	0.58	0.91	1.67	28.80	104.14
	2nd	1.44	0.60	5.45	12.75	7.79	1.55	0.58	0.76	1.58	30.60	117.28
	3rd	1.44	0.60	6.49	12.78	8.20	1.38	0.58	0.62	1.48	30.60	104.21
April	1st	1.44	0.60	6.15	12.45	9.06	0.84	0.53	0.14	1.42	44.00	112.20
	2nd	1.44	0.60	5.99	11.85	8.39	0.44	0.53	0.17	1.48	33.70	102.56
	3rd	1.44	0.60	7.44	11.93	9.44	0.38	0.49	0.18	1.07	19.70	82.13
May	1st	1.44	0.60	6.83	11.83	7.12	0.80	0.41	0.21	0.84	22.80	91.45
	2nd	1.44	0.60	6.45	11.83	8.00	0.98	0.15	0.18	0.53	19.40	78.56
	3rd	1.44	0.60	7.22	11.74	9.53	1.21	0.15	0.29	0.33	17.20	75.75
June	1st	1.44	0.60	6.68	11.75	8.02	0.83	0.15	0.31	0.15	17.50	72.28
	2nd	1.44	0.60	6.44	11.63	8.94	1.22	0.15	0.27	0.22	16.50	72.77
	3rd	1.44	0.60	6.72	11.78	8.55	0.79	0.15	0.26	0.08	17.80	100.15
July	1st	1.44	0.60	6.43	11.83	6.87	0.81	0.15	0.26	0.08	20.20	79.16
	2nd	1.44	0.60	5.88	11.75	5.48	0.92	0.15	0.28	0.14	21.00	79.97
	3rd	1.44	0.60	5.63	11.75	5.20	0.94	0.15	0.14	0.15	19.10	74.57
August	1st	1.44	0.60	5.22	9.31	5.74	0.67	0.15	0.11	0.16	17.00	66.58
	2nd	1.44	0.60	5.27	9.87	1.89	0.33	0.15	0.09	0.17	22.80	60.80
	3rd	1.44	0.60	4.08	10.88	4.17	0.31	0.15	0.11	0.17	11.30	56.93
September	1st	1.44	0.60	4.44	6.55	5.80	0.16	0.15	0.02	0.39	14.00	55.67
	2nd	1.44	0.60	4.02	9.42	4.43	0.17	0.15	0.02	0.18	11.90	50.02
	3rd	1.44	0.60	3.54	9.44	4.09	0.13	0.15	0.11	0.22	9.10	43.51
October	1st	1.44	0.60	4.87	8.89	3.75	0.20	0.15	0.11	0.21	6.80	38.96
	2nd	1.44	0.60	5.04	0.00	4.21	0.28	0.15	0.12	0.23	8.20	31.91
	3rd	1.44	0.60	3.83	7.56	3.97	0.29	0.15	0.08	0.26	9.60	41.11
November	1st	1.44	0.60	2.88	0.99	3.61	0.70	0.15	0.08	0.27	11.40	39.41
	2nd	1.44	0.60	3.14	12.25	4.41	1.18	0.15	0.08	0.10	14.00	59.19
	3rd	1.44	0.60	3.03	12.35	5.77	1.02	0.15	0.07	0.09	17.50	63.01
December	1st	1.44	0.60	3.39	14.58	7.31	1.05	0.27	0.07	0.40	17.70	72.50
	2nd	1.44	0.60	3.33	14.69	8.44	0.98	0.66	0.05	0.37	13.90	66.01
	3rd	1.44	0.60	3.42	12.07	8.52	0.89	0.73	0.10	0.74	18.70	75.31
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	157.74	346.28	221.24	30.47	10.81	10.89	20.63	611.55	2,448.30

Source: PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1990

Unit: m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng - Kertosono	Turi-Tunggoro	Brantas Kiri Kediri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	5.75	14.65	9.84	2.11	0.86	1.62	0.91	0.46	20.30	30.50	89.03
	2nd	1.44	0.60	6.42	14.43	12.20	1.88	0.95	1.24	1.21	0.40	19.50	29.30	89.58
	3rd	1.44	0.60	7.28	12.39	12.12	1.85	0.56	1.27	1.39	0.39	19.00	28.00	86.29
February	1st	1.44	0.60	6.38	13.09	13.06	1.90	0.56	1.71	1.64	0.41	18.20	26.90	85.88
	2nd	1.44	0.60	6.44	13.60	12.60	2.01	0.54	1.36	1.78	0.41	12.00	61.10	113.87
	3rd	1.44	0.60	7.44	13.94	11.39	2.11	0.54	1.32	1.66	0.41	13.00	50.00	103.85
March	1st	1.44	0.60	6.61	11.57	10.34	1.03	0.58	1.30	1.67	0.43	27.10	25.00	87.68
	2nd	1.44	0.60	6.42	11.81	9.10	1.32	0.58	1.39	1.58	0.35	11.10	64.60	110.30
	3rd	1.44	0.60	6.98	11.94	9.05	1.35	0.58	1.02	1.48	0.34	19.00	17.00	70.77
April	1st	1.44	0.60	6.12	5.90	9.53	1.29	0.53	0.87	1.42	0.31	10.90	62.00	100.91
	2nd	1.44	0.60	5.99	10.41	9.48	1.15	0.53	0.46	1.48	0.18	13.00	69.40	114.11
	3rd	1.44	0.60	6.75	14.59	9.98	1.43	0.49	0.09	1.07	0.10	20.30	29.00	85.84
May	1st	1.44	0.60	5.75	14.77	8.72	0.73	0.41	0.01	0.84	0.06	23.00	34.40	90.73
	2nd	1.44	0.60	5.90	14.78	9.21	0.75	0.15	0.27	0.53	0.14	22.60	34.00	90.36
	3rd	1.44	0.60	6.87	14.57	8.71	0.95	0.15	0.10	0.33	0.23	20.00	30.00	83.94
June	1st	1.44	0.60	5.64	14.75	9.28	1.27	0.15	0.13	0.15	0.38	36.50	21.00	91.28
	2nd	1.44	0.60	5.98	11.68	7.61	1.20	0.15	0.17	0.22	0.46	17.10	25.90	72.53
	3rd	1.44	0.60	6.05	11.94	9.80	1.15	0.15	0.18	0.08	0.25	20.10	30.20	81.94
July	1st	1.44	0.60	4.58	9.97	8.57	1.13	0.15	0.20	0.08	0.33	19.10	28.40	74.56
	2nd	1.44	0.60	4.62	9.89	8.03	0.78	0.15	0.20	0.14	0.35	17.30	26.10	69.60
	3rd	1.44	0.60	4.19	9.92	5.88	0.82	0.15	0.21	0.15	0.34	15.00	20.00	58.68
August	1st	1.44	0.60	5.05	8.04	6.84	0.56	0.15	0.22	0.16	0.34	13.60	20.40	57.38
	2nd	1.44	0.60	5.56	7.82	5.72	0.45	0.15	0.22	0.17	0.35	11.10	17.20	50.78
	3rd	1.44	0.60	5.69	7.74	6.39	0.33	0.15	0.21	0.17	0.34	12.00	17.00	52.04
September	1st	1.44	0.60	4.81	6.01	5.58	0.27	0.15	0.19	0.39	0.32	12.70	19.40	51.86
	2nd	1.44	0.60	4.67	7.56	7.77	0.33	0.15	0.14	0.18	0.26	13.80	20.20	57.11
	3rd	1.44	0.60	4.74	2.47	6.72	0.36	0.15	0.12	0.22	0.18	13.40	18.60	48.99
October	1st	1.44	0.60	4.08	6.11	5.58	0.38	0.15	0.12	0.21	0.14	9.50	14.00	42.31
	2nd	1.44	0.60	4.54	0.56	2.23	0.37	0.15	0.08	0.23	0.13	12.00	17.20	39.52
	3rd	1.44	0.60	6.53	5.69	3.66	0.39	0.15	0.07	0.26	0.14	12.00	17.00	47.92
November	1st	1.44	0.60	5.90	9.38	3.33	0.57	0.15	0.08	0.27	0.06	14.40	23.10	59.28
	2nd	1.44	0.60	5.61	9.79	3.37	2.36	0.15	0.09	0.10	0.04	12.20	19.20	54.95
	3rd	1.44	0.60	5.41	9.08	4.64	0.74	0.15	0.09	0.09	0.13	14.60	20.10	57.07
December	1st	1.44	0.60	6.14	9.61	5.46	1.86	0.27	0.11	0.40	0.27	21.10	31.80	79.05
	2nd	1.44	0.60	5.01	12.01	7.92	2.36	0.66	0.18	0.37	0.59	19.80	29.50	80.44
	3rd	1.44	0.60	6.42	13.45	11.63	2.74	0.73	1.86	0.74	0.67	21.00	30.00	91.29
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	182.47	328.90	254.71	36.87	10.81	16.52	20.63	9.36	532.66	918.78	2,376.02

Source : PJT. DPU Pengairan, *italic* is estimated by the Study Team

YEAR : 1991

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng -Kertosono	Tur- Tunggoro	Brantas Kiri Kediri	Jatimrek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	7.23	12.39	12.27	12.35	0.86	1.57	0.91	0.33	16.40	24.50	91.33
	2nd	1.44	0.60	6.49	13.31	11.57	10.41	0.95	1.54	1.21	0.32	12.90	56.70	117.44
	3rd	1.44	0.60	6.33	11.06	10.26	10.65	0.56	1.41	1.39	0.32	9.00	48.00	101.02
February	1st	1.44	0.60	7.43	11.85	8.95	10.64	0.56	1.40	1.64	0.41	10.40	50.20	105.50
	2nd	1.44	0.60	6.62	12.80	10.18	10.79	0.54	1.38	1.78	0.30	41.80	43.90	132.13
	3rd	1.44	0.60	7.51	6.82	11.39	10.94	0.54	1.12	1.66	0.28	28.00	29.00	99.31
March	1st	1.44	0.60	6.63	9.72	11.34	10.60	0.58	1.13	1.67	0.29	13.00	31.80	88.79
	2nd	1.44	0.60	6.55	12.03	10.84	9.46	0.58	1.00	1.58	0.28	12.60	64.80	121.76
	3rd	1.44	0.60	6.53	12.19	10.05	8.17	0.58	0.66	1.48	0.29	20.00	29.00	90.99
April	1st	1.44	0.60	6.03	12.26	10.11	8.08	0.53	0.42	1.42	0.24	15.80	24.00	80.92
	2nd	1.44	0.60	6.12	12.00	10.54	8.01	0.53	0.38	1.48	0.24	14.30	19.80	75.43
	3rd	1.44	0.60	6.85	12.00	10.92	8.32	0.49	0.35	1.07	0.22	13.40	19.00	74.66
May	1st	1.44	0.60	5.93	11.70	10.94	9.12	0.41	0.55	0.84	0.22	15.60	23.20	80.56
	2nd	1.44	0.60	5.75	11.54	10.74	6.88	0.15	0.63	0.53	0.28	18.00	27.00	83.55
	3rd	1.44	0.60	6.14	11.32	10.53	8.24	0.15	0.51	0.33	0.30	16.00	26.00	81.56
June	1st	1.44	0.60	5.54	11.57	9.59	8.36	0.15	0.49	0.15	0.32	13.90	21.20	73.50
	2nd	1.44	0.60	6.11	11.40	8.09	7.35	0.15	0.52	0.22	0.38	14.00	21.20	71.46
	3rd	1.44	0.60	6.00	10.98	6.47	6.75	0.15	0.47	0.08	0.30	13.00	19.90	66.14
July	1st	1.44	0.60	5.26	11.87	6.30	7.24	0.15	0.48	0.08	0.29	11.40	17.40	62.50
	2nd	1.44	0.60	5.88	11.15	6.09	6.80	0.15	0.57	0.14	0.32	11.10	15.20	59.42
	3rd	1.44	0.60	5.79	6.66	6.13	6.62	0.15	0.54	0.15	0.31	11.00	17.40	56.78
August	1st	1.44	0.60	5.67	6.98	7.52	5.42	0.15	0.39	0.16	0.28	10.40	15.60	54.60
	2nd	1.44	0.60	4.52	7.02	7.14	4.84	0.15	0.35	0.17	0.29	9.50	13.90	49.90
	3rd	1.44	0.60	2.57	7.02	7.20	4.97	0.15	0.26	0.17	0.26	9.00	13.00	46.64
September	1st	1.44	0.60	3.00	3.20	7.09	4.93	0.15	0.16	0.39	0.26	9.70	13.30	44.22
	2nd	1.44	0.60	4.74	6.52	7.01	4.94	0.15	0.14	0.18	0.23	11.00	16.70	53.66
	3rd	1.44	0.60	3.12	2.65	7.07	4.92	0.15	0.18	0.22	0.20	10.60	14.70	45.86
October	1st	1.44	0.60	3.42	9.29	7.31	4.80	0.15	0.15	0.21	0.13	10.70	16.40	54.60
	2nd	1.44	0.60	4.46	6.00	7.53	4.61	0.15	0.18	0.23	0.15	8.90	13.60	47.84
	3rd	1.44	0.60	3.21	6.01	7.26	4.69	0.15	0.12	0.26	0.15	7.00	11.00	41.89
November	1st	1.44	0.60	6.17	9.34	5.66	5.97	0.15	0.26	0.27	0.20	7.00	10.90	47.95
	2nd	1.44	0.60	5.56	9.50	5.68	6.20	0.15	0.28	0.10	0.30	22.60	21.00	73.42
	3rd	1.44	0.60	5.85	9.50	5.80	6.37	0.15	2.72	0.09	0.39	20.20	29.90	83.00
December	1st	1.44	0.60	3.65	12.45	8.69	8.66	0.27	0.42	0.40	0.28	23.20	28.20	88.27
	2nd	1.44	0.60	5.21	15.00	10.15	10.13	0.66	0.48	0.37	0.38	19.50	28.70	92.62
	3rd	1.44	0.60	6.23	15.00	10.54	11.20	0.73	1.14	0.74	0.41	21.00	31.00	100.03
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	174.74	318.08	275.48	243.55	10.81	21.27	20.63	8.91	462.76	793.88	2,394.41

Source : PIT, DPU Pengairan, *Italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1992

Unit: m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng -Kertosono	Turi- Tunggoro	Brantas Kiri Kediri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.95	13.55	13.72	13.64	0.86	1.91	3.22	0.33	20.85	31.27	108.32
	2nd	1.44	0.60	6.58	13.50	12.89	6.78	0.95	1.86	3.12	0.32	16.47	24.79	89.30
	3rd	1.44	0.60	6.73	9.25	6.45	8.07	0.56	1.40	3.11	0.32	17.83	27.09	82.86
February	1st	1.44	0.60	7.40	13.29	0.00	8.20	0.56	0.95	1.83	0.41	14.24	21.35	70.28
	2nd	1.44	0.60	6.73	13.50	6.00	8.80	0.54	0.93	2.99	0.30	11.05	41.90	94.78
	3rd	1.44	0.60	5.54	13.50	12.00	9.51	0.54	0.96	2.85	0.28	15.26	37.06	99.55
March	1st	1.44	0.60	6.85	13.50	12.00	8.00	0.58	0.49	2.75	0.29	14.30	48.25	109.04
	2nd	1.44	0.60	6.47	13.50	8.80	3.80	0.58	0.76	2.80	0.28	17.61	26.54	83.18
	3rd	1.44	0.60	6.82	13.50	5.73	0.00	0.58	1.00	2.66	0.29	17.96	27.11	77.69
April	1st	1.44	0.60	6.42	11.36	9.00	0.00	0.53	1.09	2.58	0.24	16.82	25.23	75.31
	2nd	1.44	0.60	6.38	12.00	11.10	0.00	0.53	0.97	2.47	0.24	14.20	21.15	71.07
	3rd	1.44	0.60	5.50	12.00	12.00	1.60	0.49	1.36	2.78	0.22	15.84	23.56	77.38
May	1st	1.44	0.60	5.82	12.00	12.00	5.55	0.41	1.46	2.19	0.22	17.02	25.03	83.74
	2nd	1.44	0.60	5.22	12.00	12.00	3.02	0.15	1.45	2.25	0.28	20.98	31.05	90.43
	3rd	1.44	0.60	6.03	12.00	11.91	2.50	0.15	1.62	2.05	0.30	19.91	29.81	88.32
June	1st	1.44	0.60	6.19	9.50	12.00	8.84	0.15	1.20	1.76	0.32	21.21	31.82	95.03
	2nd	1.44	0.60	5.59	9.50	11.40	8.18	0.15	1.24	1.71	0.38	19.56	29.33	89.08
	3rd	1.44	0.60	6.13	9.50	4.80	8.46	0.15	1.14	1.75	0.30	19.01	28.51	81.79
July	1st	1.44	0.60	6.32	9.58	5.10	7.95	0.15	1.14	1.08	0.29	14.62	21.94	70.21
	2nd	1.44	0.60	5.54	9.50	6.75	6.75	0.15	1.01	1.19	0.32	14.48	19.47	67.20
	3rd	1.44	0.60	6.28	9.50	6.75	6.75	0.15	0.95	0.83	0.31	12.41	18.62	64.58
August	1st	1.44	0.60	6.33	7.90	6.37	5.48	0.15	0.85	0.98	0.28	12.33	18.56	61.28
	2nd	1.44	0.60	5.51	7.50	7.00	5.00	0.15	0.81	1.29	0.29	12.14	18.21	59.94
	3rd	1.44	0.60	6.02	7.50	7.00	5.25	0.15	0.85	1.25	0.26	12.13	18.14	60.59
September	1st	1.44	0.60	5.86	5.10	3.32	5.50	0.15	0.67	0.80	0.26	10.65	15.97	50.31
	2nd	1.44	0.60	4.16	5.00	7.00	5.50	0.15	0.50	1.59	0.23	8.97	13.42	48.56
	3rd	1.44	0.60	5.15	5.00	6.73	5.31	0.15	0.30	1.56	0.20	10.56	16.06	53.06
October	1st	1.44	0.60	5.35	5.00	6.46	5.21	0.15	0.69	1.64	0.13	13.24	17.37	57.28
	2nd	1.44	0.60	4.79	5.00	6.95	5.00	0.15	0.72	1.31	0.15	13.40	20.10	59.61
	3rd	1.44	0.60	5.95	7.50	8.86	5.00	0.15	0.87	1.64	0.15	15.20	22.40	69.76
November	1st	1.44	0.60	6.09	8.92	7.67	9.10	0.15	1.49	1.87	0.20	15.89	23.83	77.24
	2nd	1.44	0.60	6.70	10.00	8.23	10.00	0.15	1.64	1.78	0.30	15.89	23.83	80.55
	3rd	1.44	0.60	6.67	10.16	8.39	9.98	0.15	1.50	1.89	0.39	19.67	29.51	90.34
December	1st	1.44	0.60	6.10	13.00	9.38	10.74	0.27	1.61	1.99	0.28	23.42	29.16	97.98
	2nd	1.44	0.60	6.05	13.00	10.38	11.50	0.66	1.72	2.73	0.38	23.05	34.54	106.04
	3rd	1.44	0.60	6.63	12.38	11.37	12.25	0.73	1.83	2.82	0.41	26.93	41.29	118.68
Total Discharge (Million m <sup>3</sup> )		45.60	18.88	192.43	323.40	269.66	207.57	10.85	36.00	64.16	8.93	514.78	819.06	2,511.34

Source: PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1993

Unit: m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung Warujayeng - Kertosono	Turi-Tunggoro	Brantas Jatimlereki Kiri Kediri	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.02	13.00	12.36	13.01	1.94	3.22	26.32	40.40	119.98
	2nd	1.44	0.60	5.98	13.00	12.32	13.00	2.16	3.12	26.76	40.34	119.99
	3rd	1.44	0.60	6.82	13.00	12.24	12.72	2.05	3.11	26.30	40.11	119.27
February	1st	1.44	0.60	6.16	13.00	12.28	12.98	1.95	1.83	40.93	21.18	113.32
	2nd	1.44	0.60	6.00	13.00	12.26	12.94	0.93	2.99	28.76	41.35	121.10
	3rd	1.44	0.60	6.64	13.00	12.30	12.97	0.08	2.85	21.13	34.79	106.62
March	1st	1.44	0.60	5.95	11.84	12.27	12.94	0.06	2.75	27.18	40.77	116.65
	2nd	1.44	0.60	5.91	10.50	12.55	12.93	0.79	2.80	27.78	41.67	117.82
	3rd	1.44	0.60	5.96	10.50	12.27	13.01	1.22	2.66	15.36	22.86	86.76
April	1st	1.44	0.60	6.05	9.50	12.33	12.91	1.70	2.58	17.77	26.65	92.30
	2nd	1.44	0.60	5.81	9.50	12.31	13.00	1.61	2.47	16.48	24.72	88.70
	3rd	1.44	0.60	6.15	9.50	12.30	12.99	0.49	2.78	18.85	28.28	94.46
May	1st	1.44	0.60	5.46	9.84	12.35	13.00	0.41	2.19	20.28	30.39	98.02
	2nd	1.44	0.60	6.60	10.36	11.34	12.35	0.15	2.25	20.58	33.80	100.80
	3rd	1.44	0.60	5.92	9.50	12.31	11.59	0.15	2.03	20.11	30.11	95.65
June	1st	1.44	0.60	5.91	9.50	8.36	7.83	0.15	1.39	17.71	26.55	81.55
	2nd	1.44	0.60	5.56	9.50	7.87	6.47	0.15	0.94	19.09	28.60	82.19
	3rd	1.44	0.60	5.29	9.50	7.87	4.16	0.15	1.16	19.15	28.90	79.74
July	1st	1.44	0.60	5.81	9.50	6.83	6.60	0.15	0.42	15.68	23.51	72.11
	2nd	1.44	0.60	5.48	9.50	6.68	6.85	0.15	0.98	12.51	18.77	64.48
	3rd	1.44	0.60	5.43	7.78	6.73	6.03	0.15	1.35	15.04	20.91	66.62
August	1st	1.44	0.60	5.45	7.00	5.43	5.00	0.15	0.81	12.26	18.44	57.03
	2nd	1.44	0.60	5.46	7.00	6.19	4.77	0.15	2.15	12.10	18.24	58.49
	3rd	1.44	0.60	5.47	7.00	6.19	5.42	0.04	1.97	12.22	18.40	59.16
September	1st	1.44	0.60	4.50	5.09	6.78	5.08	0.15	0.00	10.00	15.03	49.45
	2nd	1.44	0.60	4.01	5.00	6.82	5.12	0.15	2.80	9.24	13.98	49.91
	3rd	1.44	0.60	4.45	7.05	6.00	5.15	0.15	2.79	9.00	13.50	50.84
October	1st	1.44	0.60	5.44	7.75	6.14	5.17	0.15	0.51	8.89	13.40	52.39
	2nd	1.44	0.60	4.62	7.75	6.87	4.79	0.15	1.16	7.87	11.67	48.48
	3rd	1.44	0.60	4.53	7.13	6.24	5.17	0.15	2.65	6.17	8.79	44.32
November	1st	1.44	0.60	2.44	4.44	5.97	5.02	0.15	1.31	5.08	7.62	36.59
	2nd	1.44	0.60	3.55	4.00	5.57	5.31	0.15	1.42	12.96	19.45	56.70
	3rd	1.44	0.60	4.14	4.32	6.00	6.14	0.15	2.38	17.90	26.86	71.87
December	1st	1.44	0.60	4.59	7.70	8.13	7.70	0.27	2.05	19.40	29.11	82.87
	2nd	1.44	0.60	5.51	8.00	10.71	10.70	0.66	2.30	17.77	26.65	86.33
	3rd	1.44	0.60	5.20	10.38	11.02	10.61	0.73	2.50	18.05	27.07	89.67
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	170.08	283.27	290.68	281.05	10.81	67.54	553.21	797.25	2,563.56

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1994

Unit: m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagang	Warujayeng -Kertosono	Turi-Tunggoro	Brantas Kiri Kediri	Jatimreki	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.56	9.52	11.03	10.61	0.86	1.61	3.03	0.33	18.09	27.13	90.80
	2nd	1.44	0.60	6.06	9.20	9.98	9.68	0.95	1.94	2.49	0.32	16.37	24.27	83.30
	3rd	1.44	0.60	6.93	8.24	9.98	9.98	0.56	0.56	2.42	0.32	17.43	25.97	84.43
February	1st	1.44	0.60	6.27	8.18	9.82	9.70	0.56	0.00	0.00	0.41	14.81	22.50	74.29
	2nd	1.44	0.60	6.23	7.60	9.98	9.68	0.54	0.15	2.66	0.30	18.70	28.04	85.92
	3rd	1.44	0.60	6.94	7.60	9.98	9.68	0.54	0.51	2.14	0.28	24.90	37.35	101.95
March	1st	1.44	0.60	6.48	7.13	9.98	9.68	0.58	0.76	2.19	0.29	28.53	43.29	110.94
	2nd	1.44	0.60	6.95	7.12	10.17	9.81	0.58	0.58	2.35	0.28	27.29	17.94	85.10
	3rd	1.44	0.60	7.01	9.23	9.95	9.82	0.58	0.42	1.63	0.29	12.72	39.91	93.60
April	1st	1.44	0.60	6.20	9.50	10.66	9.31	0.53	0.36	1.71	0.24	11.43	39.29	91.27
	2nd	1.44	0.60	6.95	9.50	11.13	8.84	0.53	0.19	1.96	0.24	21.72	19.43	82.52
	3rd	1.44	0.60	6.28	8.83	12.12	8.88	0.49	2.34	2.25	0.22	14.77	22.15	80.37
May	1st	1.44	0.60	6.91	7.06	12.18	8.92	0.41	1.02	1.37	0.22	17.81	26.77	84.73
	2nd	1.44	0.60	6.81	8.53	12.22	9.92	0.15	1.04	2.20	0.28	18.20	27.36	79.74
	3rd	1.44	0.60	6.60	9.00	10.25	8.96	0.15	1.63	2.15	0.30	19.91	29.86	90.85
June	1st	1.44	0.60	6.21	9.00	9.89	8.94	0.15	1.79	2.16	0.32	19.59	29.38	89.47
	2nd	1.44	0.60	6.78	9.00	6.78	7.22	0.15	1.16	2.20	0.38	17.66	26.48	79.83
	3rd	1.44	0.60	6.63	9.00	6.17	6.47	0.15	1.24	2.20	0.30	15.08	22.61	71.88
July	1st	1.44	0.60	5.53	9.00	6.77	6.77	0.15	1.22	2.04	0.29	9.50	14.17	57.48
	2nd	1.44	0.60	5.54	9.00	5.78	5.94	0.15	1.23	0.86	0.32	9.82	14.66	55.35
	3rd	1.44	0.60	5.45	9.00	6.73	6.45	0.15	1.26	0.79	0.31	10.34	15.52	58.04
August	1st	1.44	0.60	5.37	8.51	6.25	5.62	0.15	0.97	1.18	0.28	9.74	14.53	54.64
	2nd	1.44	0.60	5.73	8.09	6.23	5.57	0.15	0.84	1.09	0.29	8.07	12.09	50.19
	3rd	1.44	0.60	5.05	6.54	6.24	5.59	0.15	0.84	1.08	0.26	7.65	11.36	46.79
September	1st	1.44	0.60	4.85	6.00	5.94	5.04	0.15	0.83	0.38	0.26	8.18	12.24	45.92
	2nd	1.44	0.60	4.35	6.00	5.98	5.02	0.15	0.91	0.66	0.23	8.27	12.38	45.99
	3rd	1.44	0.60	4.46	6.00	5.93	5.08	0.15	0.96	0.97	0.20	7.97	12.34	46.09
October	1st	1.44	0.60	4.51	5.51	5.93	5.06	0.15	0.97	1.36	0.13	7.31	10.97	43.94
	2nd	1.44	0.60	4.03	5.50	5.91	5.12	0.15	0.95	1.26	0.15	7.87	11.80	44.77
	3rd	1.44	0.60	3.28	5.83	5.90	5.09	0.15	0.94	1.20	0.15	5.80	8.71	39.10
November	1st	1.44	0.60	3.82	5.97	5.70	5.56	0.15	0.94	2.21	0.20	4.79	7.21	38.58
	2nd	1.44	0.60	3.09	8.00	5.69	5.57	0.15	1.02	2.24	0.30	5.42	8.00	41.52
	3rd	1.44	0.60	5.75	8.00	5.69	5.58	0.15	1.29	2.26	0.39	6.61	9.92	47.68
December	1st	1.44	0.60	6.41	8.33	6.26	5.98	0.27	1.33	2.07	0.98	14.46	21.70	69.83
	2nd	1.44	0.60	5.83	8.70	6.50	6.55	0.66	1.30	1.89	0.98	19.60	29.40	83.45
	3rd	1.44	0.60	6.62	8.06	9.35	9.19	0.73	1.69	2.18	0.98	11.06	16.58	68.47
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	182.45	250.00	258.24	229.35	10.81	32.33	54.88	10.56	432.82	657.17	2,182.93

Source : PJT, DPU Pengairan, *Italic* is estimated by the Study Team



# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1995

Unit : m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng -Kertosono	Turi-Tunggoro	Brantas Kiri Kediri	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.29	9.00	11.64	11.57	0.86	1.99	2.61	0.98	18.53	27.80	93.32
	2nd	1.44	0.60	6.37	9.17	12.89	12.53	0.95	1.41	2.81	0.79	18.41	27.63	95.00
	3rd	1.44	0.60	7.19	8.23	12.88	12.53	0.56	1.24	2.80	0.70	14.65	22.03	84.84
February	1st	1.44	0.60	6.12	7.64	12.92	12.30	0.56	1.03	1.37	0.36	15.24	22.91	82.49
	2nd	1.44	0.60	6.10	7.80	12.94	12.53	0.54	1.04	2.19	0.42	17.37	26.06	89.03
	3rd	1.44	0.60	6.89	7.21	12.94	12.53	0.54	1.81	2.35	0.42	22.78	34.17	103.69
March	1st	1.44	0.60	6.17	7.10	12.93	12.52	0.58	0.40	1.93	0.26	25.25	37.27	106.45
	2nd	1.44	0.60	6.25	7.80	12.94	10.74	0.58	0.31	1.83	0.26	26.92	40.39	110.06
	3rd	1.44	0.60	6.89	8.10	12.91	8.37	0.58	0.65	1.77	0.26	23.33	34.68	99.57
April	1st	1.44	0.60	6.40	8.99	9.57	8.94	0.53	1.08	1.62	0.27	15.82	23.73	78.99
	2nd	1.44	0.60	6.30	8.61	9.19	8.90	0.53	0.27	1.22	0.30	11.30	16.96	65.61
	3rd	1.44	0.60	6.21	8.60	9.20	8.91	0.49	0.74	1.85	0.36	15.35	23.03	76.77
May	1st	1.44	0.60	5.45	8.01	9.20	8.91	0.41	1.98	1.83	0.40	15.14	18.46	71.83
	2nd	1.44	0.60	6.09	8.50	9.20	8.91	0.15	1.98	1.82	0.40	16.36	21.86	77.30
	3rd	1.44	0.60	6.58	8.50	9.20	8.91	0.15	1.98	1.71	0.40	15.18	23.04	77.70
June	1st	1.44	0.60	6.67	9.95	9.21	8.92	0.15	0.42	1.11	0.52	16.40	24.60	79.78
	2nd	1.44	0.60	6.69	10.00	6.39	6.80	0.15	1.37	1.83	0.38	19.90	29.86	85.40
	3rd	1.44	0.60	6.07	10.00	6.08	6.55	0.15	1.24	1.81	0.30	17.10	25.64	76.97
July	1st	1.44	0.60	6.66	8.91	6.09	6.55	0.15	1.20	0.00	0.29	17.27	25.93	75.09
	2nd	1.44	0.60	6.51	7.92	6.09	6.55	0.15	0.79	1.08	0.32	14.12	21.30	66.87
	3rd	1.44	0.60	6.37	6.05	5.55	6.81	0.15	0.83	0.00	0.31	15.81	23.71	67.62
August	1st	1.44	0.60	5.84	6.00	5.03	5.04	0.15	0.23	0.00	0.28	13.08	19.63	57.32
	2nd	1.44	0.60	5.78	6.00	4.08	4.06	0.15	0.00	0.00	0.29	11.64	17.46	51.50
	3rd	1.44	0.60	5.40	6.00	4.07	4.02	0.15	0.00	0.00	0.26	10.98	16.62	49.54
September	1st	1.44	0.60	5.67	6.00	4.06	4.03	0.15	0.00	1.34	0.26	8.48	12.82	42.85
	2nd	1.44	0.60	5.76	6.00	4.08	4.03	0.15	0.00	1.44	0.23	5.43	8.12	37.27
	3rd	1.44	0.60	6.48	6.00	4.08	4.03	0.15	0.40	0.99	0.20	7.44	7.01	38.82
October	1st	1.44	0.60	5.16	6.00	3.57	3.49	0.15	0.89	0.98	0.13	4.80	7.21	34.43
	2nd	1.44	0.60	5.97	6.00	0.91	3.10	0.15	0.93	1.07	0.15	8.12	12.18	40.61
	3rd	1.44	0.60	5.50	6.00	3.04	3.10	0.15	0.95	1.23	0.15	18.41	3.20	43.76
November	1st	1.44	0.60	6.12	6.00	4.47	5.08	0.15	0.85	1.47	0.20	21.26	0.00	47.63
	2nd	1.44	0.60	6.63	6.00	4.46	5.07	0.15	0.85	1.47	0.30	30.59	0.00	56.56
	3rd	1.44	0.60	6.27	6.00	4.46	5.07	0.15	0.73	1.46	0.39	34.55	0.00	61.12
December	1st	1.44	0.60	6.05	9.51	12.55	12.57	0.27	2.06	1.64	0.98	39.35	0.00	87.02
	2nd	1.44	0.60	5.90	8.62	12.54	10.98	0.66	1.37	3.93	0.98	39.33	0.00	86.35
	3rd	1.44	0.60	6.25	7.72	12.54	12.37	0.73	0.40	3.85	0.98	39.33	0.00	86.21
Total Discharge (Million m <sup>3</sup> )		45.47	18.83	194.49	239.82	256.89	250.91	10.81	29.09	49.32	12.53	582.51	570.92	2,261.59

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team

# 10-DAY DISCHARGES FROM IRRIGATION INTAKES

YEAR : 1996

Unit: m<sup>3</sup>/s

Month	10-day	Brantas Atas	Brantas Bawah	Molek	Lodagung	Warujayeng - Kertosono	Turi-Tunggoro Kiri Kediri	Brantas	Jatimlerek	Menturus	Jatikulon	Voor Canal I	Voor Canal II	Total
January	1st	1.44	0.60	6.25	9.50	12.59	12.91	0.86	2.11	4.01	0.33	42.67	0.00	93.26
	2nd	1.44	0.60	6.19	9.21	9.75	10.06	0.95	1.94	4.05	0.32	43.23	0.00	87.75
	3rd	1.44	0.60	6.95	8.03	9.73	9.98	0.56	1.77	4.12	0.32	39.87	0.00	83.37
February	1st	1.44	0.60	6.54	7.70	9.74	10.00	0.56	0.84	4.12	0.41	43.92	0.00	85.88
	2nd	1.44	0.60	7.07	7.77	9.73	9.99	0.54	1.61	4.11	0.30	44.82	0.00	87.98
	3rd	1.44	0.60	6.33	7.28	9.75	10.01	0.54	1.45	4.07	0.28	49.21	0.00	90.97
March	1st	1.44	0.60	7.01	7.00	9.50	9.85	0.58	0.74	4.12	0.29	48.77	0.00	89.91
	2nd	1.44	0.60	7.15	7.00	9.75	10.00	0.58	1.37	4.21	0.28	34.83	12.68	89.88
	3rd	1.44	0.60	7.14	7.35	9.39	9.65	0.58	1.72	4.58	0.29	17.12	25.68	85.55
April	1st	1.44	0.60	6.15	8.96	8.98	9.24	0.53	1.22	4.41	0.24	16.60	24.90	83.26
	2nd	1.44	0.60	6.43	8.63	8.99	9.29	0.53	1.80	4.22	0.24	13.33	20.03	75.53
	3rd	1.44	0.60	6.78	8.60	8.96	9.24	0.49	1.47	4.24	0.22	13.75	20.62	76.41
May	1st	1.44	0.60	6.05	7.05	8.96	9.23	0.41	0.99	3.37	0.22	18.18	27.27	83.77
	2nd	1.44	0.60	6.50	7.00	8.96	9.22	0.15	1.71	2.74	0.28	14.71	22.05	75.36
	3rd	1.44	0.60	6.56	8.47	8.97	9.23	0.15	1.28	2.30	0.30	14.31	21.40	75.00
June	1st	1.44	0.60	5.78	9.00	8.47	8.25	0.15	1.18	1.99	0.32	13.14	19.70	70.03
	2nd	1.44	0.60	6.23	9.00	8.01	8.10	0.15	0.85	1.88	0.38	13.68	20.57	70.89
	3rd	1.44	0.60	6.21	9.00	7.45	8.13	0.15	0.85	1.85	0.30	10.67	15.95	62.59
July	1st	1.44	0.60	5.56	9.50	6.73	8.32	0.15	0.86	1.85	0.29	12.74	12.27	60.32
	2nd	1.44	0.60	6.30	9.50	5.13	7.89	0.15	0.84	1.83	0.32	14.93	9.85	58.78
	3rd	1.44	0.60	6.14	9.50	4.89	7.04	0.15	0.85	1.16	0.31	15.05	10.55	57.67
August	1st	1.44	0.60	5.67	9.50	4.87	5.94	0.15	0.86	1.94	0.28	14.42	9.61	55.29
	2nd	1.44	0.60	5.43	9.50	4.88	4.79	0.15	0.89	1.94	0.29	23.02	15.34	68.27
	3rd	1.44	0.60	4.87	7.08	4.88	4.59	0.15	0.83	1.96	0.26	17.24	11.49	55.39
September	1st	1.44	0.60	5.63	6.00	4.27	5.02	0.15	0.76	1.48	0.26	15.22	10.14	50.97
	2nd	1.44	0.60	5.57	6.00	4.45	5.05	0.15	0.78	1.48	0.23	12.91	8.60	47.26
	3rd	1.44	0.60	5.37	6.00	4.45	5.05	0.15	0.74	1.48	0.20	12.99	8.66	47.14
October	1st	1.44	0.60	4.86	6.00	4.46	5.06	0.15	0.80	1.48	0.13	16.11	10.74	51.83
	2nd	1.44	0.60	4.05	6.00	4.46	5.06	0.15	0.78	1.50	0.15	16.67	11.28	52.15
	3rd	1.44	0.60	5.27	6.00	4.09	5.07	0.15	0.85	1.48	0.15	20.85	13.97	59.92
November	1st	1.44	0.60	5.98	6.00	4.47	5.08	0.15	0.85	1.47	0.20	25.47	16.98	68.68
	2nd	1.44	0.60	6.53	6.00	4.46	5.07	0.15	0.90	1.47	0.30	26.61	17.72	71.26
	3rd	1.44	0.60	6.40	6.00	4.47	5.08	0.15	0.75	1.46	0.39	27.77	24.08	78.59
December	1st	1.44	0.60	6.36	8.93	7.14	6.32	0.27	0.75	2.22	0.28	22.54	33.81	90.66
	2nd	1.44	0.60	5.93	8.70	10.61	10.91	0.66	0.75	2.78	0.38	13.73	20.65	77.14
	3rd	1.44	0.60	6.67	7.72	8.40	11.56	0.73	1.23	2.75	0.41	18.68	28.01	88.21
Total Discharge (Million m <sup>3</sup> )		45.60	18.88	193.24	246.39	232.29	250.55	10.85	35.14	84.28	8.93	716.40	445.57	2,288.13

Source : PJT, DPU Pengairan, *italic* is estimated by the Study Team