PART III

Water Quality Data in 1999 and 2000

WATER WQUALITY DATA
IN
LUBANA WETLAND COMPLEX

Table of Contents

Note: Sampling points are shown in Figure 4.1.1 in the Supporting Report of the Final Report

Date: ..... 03.10.99.
Sampling point:..... Nr.1 - Zvejsalas pond
Point description:..... Last of the Nagļi pond near Vecmalta river's lockage

Coordinates:..... 676370 - 6288225
Temperature of air: ..... 14.7 ^{0} C
Temperature of water:..... 14.7 ^{0} C

Wind:..... direction SE 144 ^{0}
average rate - 2.8 m/s
maximal rate - 5.9 m/s
Flow:..... not measured
pH:..... 8.61
ORP:..... 415 mV
Dissolved oxygen:..... 13.48 mg/l
Turbidity:..... 41.9 NTUs
Conductivity: ..... 421.5 µS/cm
TDS: ..... 0.2701 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg-ekv/ l	9,1 ± 1,8	04.10.99.
2	Suspends solids	ISO 11923	mg/l	34 ± 7	04.-05.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	29 ± 6	04.10.99.
4	BOD_7	DraftprEN 11899-1:1995	mg/l	6,8 ± 0,5	04.-11.10.99.
5	COD_{Cr}	ISO 6060	mg/l	77 ± 9	05.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,5 ± 0,1	04.10.99.
7	N/NO_2	Ū-6-93	mg/l	< 0,002	04.10.99.
8	N/NO_3	Ū-7-92	mg/l	< 0,11	04.10.99.
9	N_{total}	Ū-75-95	mg/l	1,09 ± 0,03	04.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,01 ± 0,002	04.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,06 ± 0,01	04.10.99.
12	Oil	Ū-100-98	mg/l	0,20 ± 0,02	05.-06.10.99.
13	As	US EPA 7060A	µg/l	<MDL (2)	05.-06.10.1999
14	Cd	ISO 5961:1994	µg/l	<MDL (0.08)	05.-12.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	<MDL (0.8)	05.-19.10.1999
16	Pb	US EPA 7421	µg/l	0.9	05.-11.10.1999
17	Hg	EN 1483	µg/l	0.12	06.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.007 ± 0.002	07.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	06.10.-01.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	03.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	12 18.9-5.1	05.-10.10.1999
21	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$6.8 \bullet 10^3$ $(7.0\text{-}6.6) \bullet 10^3$	05.-10.10.1999
22	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	490 530-450	05.-10.10.1999

Date: ..... 06.10.99.
Sampling point:..... Nr.2 - Orenišu pond
Point description:..... The last of Orienišu pond. Lockage to Rēzekne river

Coordinates:..... 683027 - 6289757
Temperature of air: ..... 11.3^0 C
Temperature of water:..... 12.27^{0}C

Wind:..... direction E 86^0
average rate - 1.8 m/s
maximal rate - 2.8 m/s
Flow:..... not measured
pH:..... 7.61
ORP:..... 330 mV
Dissolved oxygen:..... 8.55 mg/l
Turbidity:..... 93.4 NTUs
Conductivity: ..... 690.5 µS/cm
TDS: ..... 0..4419 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg-ekv/ l	14 ± 3	07.10.99.
2	Suspends solids	ISO 11923	mg/l	50 ± 10	07.-08.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	33 ± 7	07.10.99.
4	BOD_7	Draft pr EN 11899-1:1995	mg/l	13 ± 1	07.-14.10.99.
5	COD_{Cr}	ISO 6060	mg/l	111 ± 11	07.10.99.
6	N/NH_4	Ū-5-93	mg/l	9,0 ± 1,8	07.10.99.
7	N/NO_2	Ū-6-93	mg/l	0,005 ± 0,001	07.10.99.
8	N/NO_3	Ū-7-92	mg/l	< 0,11	07.10.99.
9	N_{total}	Ū-75-95	mg/l	10,95 ± 0,27	07.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,71 ± 0,1	07.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,73 ± 0,1	07.10.99.
12	Oil	Ū-100-98	mg/l	0,05 ± 0,006	07.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	< MDL (0.8)	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	< MDL (0.4)	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.009 ± 0.002	12.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	06.10.1999
21	Thermotolerant coliform mFC/44.5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	10 16-3.7	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$9.05 \cdot 10^4$ $(9.1\text{-}9.0) \cdot 10^4$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	140 160-120	08.-15.10.1999

Date: ..... 07.10.99.
Sampling point:..... Nr.3 - Lubana lake
Point description:..... Rēzekne river-bad

Coordinates:..... 678502 - 6297221
Temperature of air: ..... 11.8 ^{0}C
Temperature of water:..... 12.61 ^{0}C

Wind:..... direction S 170 ^{0}
average rate - 3.5 m/s
maximal rate - 5.5 m/s
Flow:..... not measured
pH:..... 7.99
ORP:..... 484 mV
Dissolved oxygen:..... 8.62 mg/l
Turbidity:..... 42 NTUs
Conductivity: ..... 394.1 µS/cm
TDS: ..... 0.2518 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	7 ± 1	08.10.99.
2	Suspends solids	ISO 11923	mg/l	42 ± 8	08.-11.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	25,5 ± 5,1	08.10.99.
4	BOD_7	DraftprEN 11899-1:1995	mg/l	7,4 ± 0,5	08.-15.10.99.
5	COD_{Cr}	ISO 6060	mg/l	65 ± 8	08.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,25 ± 0,05	08.10.99.
7	N/NO_2	Ū-6-93	mg/l	0,005 ± 0,001	08.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,20 ± 0,04	08.10.99.
9	N_{total}	Ū-75-95	mg/l	1,30 ± 0,05	08.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,007 ± 0,001	08.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,03 ± 0,006	08.10.99.
12	Oil	Ū-100-98	mg/l	0,12 ± 0,01	08.-11.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6-}	LVS EN 1233:1996	µg/l	1.62	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	0.46	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.006 ± 0.002	13.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	07.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	5 9.5-0.5	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$9.48 \cdot 10^3$ $(9.7\text{-}9.3) \cdot 10^3$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$2.69 \cdot 10^3$ $(2.8\text{-}2.6) \cdot 10^3$	08.-15.10.1999

Date: ..... 07.10.99.
Sampling point:..... Nr.4 - Lubana lake
Point description:..... Near Aiviekste river lockage

Coordinates:..... 676998 - 6299599
Temperature of air: ..... 11.8 ^{0} C
Temperature of water:..... 12.22 ^{0} C

Wind:..... direction S 170 ^{0}
average rate - 3.5 m/s
maximal rate - 5.5 m/s
Flow:..... not measured
pH:..... 8.13
ORP:..... 478 mV
Dissolved oxygen:..... 10.89 mg/l
Turbidity:..... 45.3 NTUs
Conductivity: ..... 316.7 µS/cm
TDS: ..... 0.2027 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	6,6 ± 1,3	08.10.99.
2	Suspends solids	ISO 11923	mg/l	28 ± 6	08.-11.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	24 ± 5	08.10.99.
4	BOD_7	Draftpr EN 11899-1:1995	mg/l	6,7 ± 0,5	08.-15.10.99.
5	COD_{Cr}	ISO 6060	mg/l	62 ± 7	08.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,14 ± 0,03	08.10.99.
7	N/NO_2	Ū-6-93	mg/l	0,003 ± 0,001	08.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,12 ± 0,02	08.10.99.
9	N_{total}	Ū-75-95	mg/l	1,38 ± 0,05	08.10.99.
10	P/PO_4	ISO 6878/1	mg/l	< 0,005	08.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,03 ± 0,006	08.10.99.
12	Oil	Ū-100-98	mg/l	0,20 ± 0,03	08.-11.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	1.11	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	0.68	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.009 ± 0.002	13.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	07.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	1 3-1	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$3.11 \bullet 10^3$ $(3.2\text{-}3.0) \bullet 10^3$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	800 860-740	08.-15.10.1999

Date: ..... 07.10.99.
Sampling point:..... Nr.5 - Lubana lake
Point description:..... Near island

Coordinates:..... 675461 - 6296981
Temperature of air: ..... 11.8 ^{0} C
Temperature of water:..... 12.25 ^{0} C

Wind:..... direction S 170 ^{0}
average rate - 3.5 m/s
maximal rate - 5.5 m/s
Flow:..... not measured
pH:..... 8.21
ORP:..... 476 mV
Dissolved oxygen:..... 9.94 mg/l
Turbidity:..... 54.6 NTUs
Conductivity: ..... 333.2 µS/cm
TDS: ..... 0.2132 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	8,6 ± 1,7	08.10.99.
2	Suspends solids	ISO 11923	mg/l	18 ± 4	08.-11.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	16 ± 3	08.10.99.
4	BOD_7	Draftpr EN 11899-1:1995	mg/l	5,3 ± 0,4	08.-15.10.99.
5	COD_{Cr}	DIN 38409 Teil 44 05/92	mg/l	42 ± 8	08.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,5 ± 0,1	08.10.99.
7	N/NO_2	Ū-6-93	mg/l	0,019 ± 0,004	08.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,41 ± 0,08	08.10.99.
9	N_{total}	Ū-75-95	mg/l	1,56 ± 0,06	08.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,02 ± 0,004	08.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,06 ± 0,01	08.10.99.
12	Oil	Ū-100-98	mg/l	0,08 ± 0,01	08.-11.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6-}	LVS EN 1233:1996	µg/l	1.88	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	1.04	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.005 ± 0.001	13.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	07.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	5 9.5-0.5	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$6.12 \cdot 10^3$ $(6.3\text{-}6.0) \cdot 10^3$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$2.42 \cdot 10^3$ $(2.5\text{-}2.3) \cdot 10^3$	08.-15.10.1999

Date: ..... 07.10.99.
Sampling point:..... Nr.6 - Lubana lake
Point description:..... Center of the lake

Coordinates:..... 673859 - 6293208
Temperature of air: ..... 11.8 ^{0} C
Temperature of water:..... 11.21 ^{0} C

Wind:..... direction S 170 ^{0}
average rate - 3.5 m/s
maximal rate - 5.5 m/s
Flow:..... not measured
pH:..... 8.25
ORP:..... 475 mV
Dissolved oxygen:..... 11.05 mg/l
Turbidity:..... 37.5 NTUs
Conductivity: ..... 318.4 µS/cm
TDS: ..... 0.2038 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	6,8 ± 1,4	08.10.99.
2	Suspends solids	ISO 11923	mg/l	55 ± 11	08.-11.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	28 ± 6	08.10.99.
4	BOD_7	Draftpr EN 11899-1:1995	mg/l	8,0 ± 0,6	08.-15.10.99.
5	COD_{Cr}	ISI 6060	mg/l	80 ± 10	08.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,19 ± 0,04	08.10.99.
7	N/NO_2	Ū-6-93	mg/l	< 0,002	08.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,11 ± 0,02	08.10.99.
9	N_{total}	Ū-75-95	mg/l	1,62 ± 0,06	08.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,09 ± 0,02	08.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,10 ± 0,02	08.10.99.
12	Oil	Ū-100-98	mg/l	0,13 ± 0,01	08.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	< MDL (0.8)	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	0.90	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.010 ± 0.002	12.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	07.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	110 130-90	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$9.86 \cdot 10^4$ $(9.9\text{-}9.8) \cdot 10^4$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$7.16 \cdot 10^4$ $(7.2\text{-}7.1) \cdot 10^4$	08.-15.10.1999

Date: ..... 07.10.99.
Sampling point:..... Nr.7 - Lubana lake
Point description:..... Near Kalnagals lockage

Coordinates:..... 670899 - 6290908
Temperature of air: ..... 11.8 ^{0} C
Temperature of water:..... 11.21 ^{0}C

Wind:..... direction S 170 ^{0}
average rate - 3.5 m/s
maximal rate - 5.5 m/s
Flow:..... not measured
pH:..... 8.25
ORP:..... 475 mV
Dissolved oxygen:..... 11.05 mg/l
Turbidity:..... 37.5 NTUs
Conductivity: ..... 318.4 µS/cm
TDS: ..... 0.2038 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg-ekv/ l	7,4 ± 3,7	08.10.99.
2	Suspends solids	ISO 11923	mg/l	37 ± 7	08.-11.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	25,5 ± 5,1	08.10.99.
4	BOD_7	Draft pr EN 11899-1:1995	mg/l	5,7 ± 0,4	08.-15.10.99.
5	COD_{Cr}	ISO 6060	mg/l	59 ± 12	08.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,17 ± 0,03	08.10.99.
7	N/NO_2	Ū-6-93	mg/l	0,002 ± 0,0004	08.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,15 ± 0,03	08.10.99.
9	N_{total}	Ū-75-95	mg/l	1,37 ± 0,05	08.10.99.
10	P/PO_4	ISO 6878/1	mg/l	< 0,005	08.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,02 ± 0,004	08.10.99.
12	Oil	Ū-100-98	mg/l	0,07 ± 0,007	08.-11.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	< MDL (0.8)	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	0.80	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.006 ± 0.002	13.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	07.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	1 3-1	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$1.84 \bullet 10^4$ $(1.9\text{-}1.8) \bullet 10^4$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$6.39 \bullet 10^3$ $(6.5\text{-}6.2) \bullet 10^3$	08.-15.10.1999

Date: ..... 06.10.99.
Sampling point:..... Nr.8 - Teicija river
Point description:..... Bridge. Road to Vecumnieki, 8 km from Varakļāni

Coordinates:..... 665414 - 6284115
Temperature of air: ..... 11.6 ^{0}C
Temperature of water:..... 11.54 ^{0}C

Wind:..... direction E 70 ^{0}
average rate - 2.8 m/s
maximal rate - 3.6 m/s
Flow:..... flow rate < 2 cm/sec
pH:..... 8.01
ORP:..... 428 mV
Dissolved oxygen:..... 7.5 mg/l
Turbidity:..... 32.6 NTUs
Conductivity: ..... 683.7 µS/cm
TDS: ..... 0.4376 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	16 ± 3	07.10.99.
2	Suspends solids	ISO 11923	mg/l	1,4 ± 0,3	07.-08.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	9,2 ± 1,8	07.10.99.
4	BOD_7	LVS EN 11899-2:1998	mg/l	1,6 ± 0,3	07.-14.10.99.
5	COD_{Cr}	DIN 38409 Teil 44 05/92	mg/l	21 ± 4	07.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,15 ± 0,03	07.10.99.
7	N/NO_2	Ū-6-93	mg/l	< 0,002	07.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,16 ± 0,03	07.10.99.
9	N_{total}	Ū-75-95	mg/l	0,30 ± 0,01	07.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,01 ± 0,002	07.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,015 ± 0,003	07.10.99.
12	Oil	Ū-100-98	mg/l	< 0,05	07.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	3	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	= MDL (0.4)	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.005 ± 0.001	12.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	06.10.1999
21	Thermotolerant coliform mFC/44.5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	21 30-12	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$2.26 \cdot 10^4$ $(2.3\text{-}2.2) \cdot 10^4$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$1.68 \cdot 10^3$ $(1.8\text{-}1.6) \cdot 10^3$	08.-15.10.1999

Date: ..... 03.10.99.
Sampling point:..... Nr.9 - Malta river
Point description:..... Malta river's dam Nagļi village

Coordinates:..... 679921 - 6285765
Temperature of air: ..... 14.7 ^{0} C
Temperature of water:..... 13.66 ^{0} C

Wind: ..... direction SE 164 ^{0}
average rate - 2.7 m/s
maximal rate - 5.1 m/s
Flow:..... flow rate < 2 cm/sec
pH:..... 8.29
ORP:..... 428 mV
Dissolved oxygen:..... 10.24 mg/l
Turbidity:..... 29.4 NTUs
Conductivity: ..... 493.4 µS/cm
TDS: ..... 0.3157 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	10,6 ± 2,1	04.10.99.
2	Suspends solids	ISO 11923	mg/l	2,7 ± 0,5	04.-05.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	6,7 ± 1,3	04.10.99.
4	BOD_7	LVS EN 1899-2:1998	mg/l	1,9 ± 0,4	04.-11.10.99.
5	COD_{Cr}	DIN 38409 Teil 44 05/92	mg/l	21 ± 4	05.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,16 ± 0,03	04.10.99.
7	N/NO_2	Ū-6-93	mg/l	< 0,002	04.10.99.
8	N/NO_3	Ū-7-92	mg/l	< 0,11	04.10.99.
9	N_{total}	Ū-75-95	mg/l	0,29 ± 0,01	04.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,016 ± 0,003	04.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,037 ± 0,007	04.10.99.
12	Oil	Ū-100-98	mg/l	0,24 ± 0,03	05.-06.10.99.
13	As	US EPA 7060A	µg/l	<MDL (2)	05.-06.10.1999
14	Cd	ISO 5961:1994	µg/l	<MDL (0.08)	05.-12.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	<MDL (0.8)	05.-19.10.1999
16	Pb	US EPA 7421	µg/l	<MDL (0.4)	05.-11.10.1999
17	Hg	EN 1483	µg/l	0.15	06.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.001	07.10.1999
19	Pesticide (PBC 52)	US EPA 8081:1990	ng/l	35	06.10.-01.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	03.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	2 4.8-0.8	05.-10.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$2.77 \bullet 10^3$ $(2.9\text{-}2.7) \bullet 10^3$	05.-10.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	290 320-260	05.-10.10.1999

Date: ..... 03.10.99.
Sampling point:..... Nr.10 - Rēzekne river
Point description:..... Rezekne river, Ideņu bridge

Coordinates:..... 684168 - 6285177
Temperature of air: ..... 11.3 ^{0} C
Temperature of water:..... 13.42^0 C

Wind:..... direction SE 144 ^{0}
average rate - 4.1 m/s
maximal rate - 6.0 m/s
Flow:..... 2.14 m^3/sec
pH:..... 8.08
ORP:..... 441 mV
Dissolved oxygen:..... 5.59 mg/l
Turbidity:..... 20.6 NTUs
Conductivity: ..... 519.3 µS/cm
TDS: ..... 0.3324 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	10,5 ± 2,1	04.10.99.
2	Suspends solids	ISO 11923	mg/l	2,9 ± 0,6	04.-05.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	6,4 ± 1,3	04.10.99.
4	BOD_7	LVS EN 11899-2:1998	mg/l	1,0 ± 0,2	04.-11.10.99.
5	COD_{Cr}	DIN 38409 Teil 44 05/92	mg/l	13 ± 3	05.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,17 ± 0,03	04.10.99.
7	N/NO_2	Ū-6-93	mg/l	< 0,002	04.10.99.
8	N/NO_3	Ū-7-92	mg/l	1,1 ± 0,2	04.10.99.
9	N_{total}	Ū-75-95	mg/l	2,5 ± 0,1	04.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,20 ± 0,04	04.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,23 ± 0,05	04.10.99.
12	Oil	Ū-100-98	mg/l	0,15 ± 0,02	05.-06.10.99.
13	As	US EPA 7060A	µg/l	<MDL (2)	05.-06.10.1999
14	Cd	ISO 5961:1994	µg/l	<MDL (0.08)	05.-12.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	<MDL (0.8)	05.-19.10.1999
16	Pb	US EPA 7421	µg/l	<MDL (0.4)	05.-11.10.1999
17	Hg	EN 1483	µg/l	<MDL (0.05)	06.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.002	07.10.1999
19	Pesticide (PCB 52)	US EPA 8081:1990	ng/l	33	06.10.-01.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	03.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	71 87.9-54.1	05.-10.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$5.44 \cdot 10^3$ $(5.6\text{-}5.3) \cdot 10^3$	05.-10.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	310 350-280	05.-10.10.1999

Date: ..... 03.10.99.
Sampling point:..... Nr.11 - Iča river
Point description:..... Iča river bridge, 40 km from Rēzekne, region border

Coordinates:..... 688969 - 6300551
Temperature of air: ..... 14.7 ^{0} C
Temperature of water:..... 13.46 ^{0} C

Wind: ..... direction SE 144 ^{0}
average rate - 4.1 m/s
maximal rate - 6.0m/s
Flow:..... 0.32 m^3/sec.
pH:..... 7.91
ORP:..... 445 mV
Dissolved oxygen:..... 8.31 mg/l
Turbidity:..... 28.9 NTUs
Conductivity: ..... 542.8 µS/cm
TDS: ..... 0.3474 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg-ekv/l	11,8 ± 2,4	04.10.99.
2	Suspends solids	ISO 11923	mg/l	3,2 ± 0,6	04.-05.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	13,7 ± 2,7	04.10.99.
4	BOD_7	LVS EN 11899-2:1998	mg/l	2,2 ± 0,4	04.-11.10.99.
5	COD_{Cr}	DIN 38409 Teil 44/05 92	mg/l	29 ± 6	05.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,23 ± 0,05	04.10.99.
7	N/NO_2	Ū-6-93	mg/l	< 0,002	04.10.99.
8	N/NO_3	Ū-7-92	mg/l	< 0,11	04.10.99.
9	N_{total}	Ū-75-95	mg/l	0,71 ± 0,03	04.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,04 ± 0,007	04.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,05 ± 0,01	04.10.99.
12	Oil	Ū-100-98	mg/l	0,21 ± 0,02	05.-06.10.99.
13	As	US EPA 7060A	µg/l	<MDL (2)	05.-06.10.1999
14	Cd	ISO 5961:1994	µg/l	<MDL (0.08)	05.-12.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	<MDL (0.8)	05.-19.10.1999
16	Pb	US EPA 7421	µg/l	<MDL (0.4)	05.-11.10.1999
17	Hg	EN 1483	µg/l	0.06	06.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.0030 ± 0.0008	07.10.1999
19	Pesticide (PCB 52)	US EPA 8081:1990	ng/l	20	06.10.-01.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	03.10.1999
21	Thermotolerant coliform mFC/44.5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	5 9.5-0.5	05.-10.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$5.28 \cdot 10^3$ $(5.4\text{-}5.1) \cdot 10^3$	05.-10.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	140 160-120	05.-10.10.1999

Date: ..... 05.10.99.
Sampling point:..... Nr.12 - Piestiņa river
Point description:..... Landmark - small village Usa, private house "Stērnieki" near destroyed bridge

Coordinates:..... 684198 - 6312050
Temperature of air: ..... 9.6 ^{0} C
Temperature of water:..... 11.26 ^{0} C

Wind speed:..... < 0.3 m/ s
Flow:..... flow rate < 2 cm/sec
pH:..... 7.9
ORP:..... 452 mV
Dissolved oxygen:..... 7.82 mg/l
Turbidity:..... 29.3 NTUs
Conductivity: ..... 621.5 µS/cm
TDS: ..... 0.3978 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg-ekv/ l	12,6 ± 2,5	06.10.99.
2	Suspends solids	ISO 11923	mg/l	7,6 ± 1,5	07.-08.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	19 ± 4	06.10.99.
4	BOD_7	LVS EN 1899-2:1998	mg/l	2,8 ± 0,6	06.-13.10.99.
5	COD_{Cr}	ISO 6060	mg/l	35 ± 7	06.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,25 ± 0,05	06.10.99.
7	N/NO_2	Ū-6-93	mg/l	< 0,002	06.10.99.
8	N/NO_3	Ū-7-92	mg/l	< 0,11	06.10.99.
9	N_{total}	Ū-75-95	mg/l	0,87 ± 0,03	06.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,03 ± 0,006	06.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,05 ± 0,01	06.10.99.
12	Oil	Ū-100-98	mg/l	< 0,05	06.-07.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	< MDL (0.8)	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	0.49	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.007 ± 0.002	12.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	05.10.1999
21	Thermotolerant coliform mFC/44.5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	38 50-26	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$5.79 \cdot 10^3$ $(5.9\text{-}5.6) \cdot 10^3$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$1.96 \cdot 10^3$ $(2.0\text{-}1.9) \cdot 10^3$	08.-15.10.1999

Date: ..... 4.10.99.
Sampling point:..... Nr.13 Bolupe river
Point description:..... 1,5 km NE from Vecpededze

Coordinates:..... 678702 - 6316457
Temperature of air:..... 17.7 ^{0} C
Temperature of water:..... 13.79 ^{0} C

Wind:..... direction SE 186 ^{0}
average rate - 0.6 m/s
maximal rate - 1.7 m/s
Flow:..... 0.136 m^3/sec
pH:..... 7.79
ORP:..... 438 mV
Dissolved oxygen:..... 8.19 mg/l
Turbidity:..... 25.5 NTUs
Conductivity:..... 421.5 µS/cm
TDS:..... 0.27 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg-ekv/l	9,4 ± 1,9	05.10.99.
2	Suspends solids	ISO 11923	mg/l	5,6 ± 1,0	05.-06.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	15 ± 3	05.10.99.
4	BOD_7	LVS EN 11899-2:1998	mg/l	2,2 ± 0,4	05.-12.10.99.
5	COD_{Cr}	DIN 38409 Teil 44/05 92	mg/l	26 ± 5	05.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,21 ± 0,04	05.10.99.
7	N/NO_2	Ū-6-93	mg-ekv/l	0,003 ± 0,001	05.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,15 ± 0,02	05.10.99.
9	N_{total}	Ū-75-95	mg/l	0,50 ± 0,02	05.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,08 ± 0,02	05.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,09 ± 0,02	05.10.99.
12	Oil	Ū-100-98	mg/l	0,12 ± 0,02	05.-07.10.99.
13	As	US EPA 7060A	µg/l	<MDL (2)	05.-06.10.1999
14	Cd	ISO 5961:1994	µg/l	<MDL (0.08)	05.-12.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	<MDL (0.8)	05.-19.10.1999
16	Pb	US EPA 7421	µg/l	<MDL (0.4)	05.-11.10.1999
17	Hg	EN 1483	µg/l	0.36 ± 0.05	06.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.0030 ± 0.0008	07.10.1999
19	Pesticide (PCB 52)	US EPA 8081:1990	ng/l	48	06.10.-01.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	04.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	2 4.8 0.8	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$1.11 \cdot 10^3$ $(1.13\text{-}1.09) \cdot 10^3$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	940 1000-880	08.-15.10.1999

Date: ..... 05.10.99.
Sampling point:..... Nr.14 - Vecpededze river
Point description:..... Old river-bed near small village Mieriņi

Coordinates:..... 676685 - 6318758
Temperature of air: ..... 9.7 ^{0} C
Temperature of water:..... 11.21 ^{0} C

Wind speed: ..... < 0.3 m/s
Flow:..... flow rate < 2 cm/sec
pH:..... 7.49
ORP:..... 325 mV
Dissolved oxygen:..... 4.7 mg/l
Turbidity:..... 30.9 NTUs
Conductivity: ..... 432.3 µS/cm
TDS: ..... 0.2767 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	10,3 ± 2,1	06.10.99.
2	Suspends solids	ISO 11923	mg/l	20 ± 4	07.-08.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	34 ± 7	06.10.99.
4	BOD_7	Draftpr EN 11899-1:1995	mg/l	8,5 ± 1,7	06.-13.10.99.
5	COD_{Cr}	DIN 38409 Teil 44 05/92	mg/l	73 ± 15	06.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,36 ± 0,07	06.10.99.
7	N/NO_2	Ū-6-93	mg/l	< 0,002	06.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,11 ± 0,02	06.10.99.
9	N_{total}	Ū-75-95	mg/l	1,31 ± 0,05	06.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,04 ± 0,008	06.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,10 ± 0,02	06.10.99.
12	Oil	Ū-100-98	mg/l	0,12 ± 0,01	06.-07.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	< MDL (0.8)	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	< MDL (0.4)	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.007 ± 0.002	12.10.1999
19	Pesticide (PCB 52)	US EPA 8081:1990	ng/l	45	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	05.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	1 3-1	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$1.14 \bullet 10^4$ $(1.2\text{-}1.9) \bullet 10^4$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	140 160-120	08.-15.10.1999

Date: ..... 05.10.99.
Sampling point:..... Nr.15 - Aiviekste river
Point description:..... Aiviekste downstream Abaine

Coordinates:..... 673471 - 6313083
Temperature of air: ..... 10 ^{0} C
Temperature of water:..... 13.22 ^{0} C

Wind:..... < 0.3 m/s
Flow:..... 5.48 m^3/sec
pH:..... 8.09
ORP:..... 432 mV
Dissolved oxygen:..... 8.55 mg/l
Turbidity:..... 42.6 NTUs
Conductivity: ..... 342.2 µS/cm
TDS: ..... 0.219 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	7,7 ± 1,5	06.10.99.
2	Suspends solids	ISO 11923	mg/l	13,4 ± 2,7	07.-08.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	19 ± 4	06.10.99.
4	BOD_7	LVS EN 1899-2:1998	mg/l	4,3 ± 0,8	06.-13.10.99.
5	COD_{Cr}	DIN 38409 Teil 44 05/92	mg/l	43 ± 9	06.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,25 ± 0,05	06.10.99.
7	N/NO_2	Ū-6-93	mg/l	0,005 ± 0,001	06.10.99.
8	N/NO_3	Ū-7-92	mg/l	< 0,11	06.10.99.
9	N_{total}	Ū-75-95	mg/l	1,16 ± 0,05	06.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,007 ± 0,001	06.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,03 ± 0,006	06.10.99.
12	Oil	Ū-100-98	mg/l	0,09 ± 0,01	06.-07.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	2.14	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	= MDL (0.4)	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.008 ± 0.002	12.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	05.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	5 9.5-0.5	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$4.17 \cdot 10^3$ $(4.8\text{-}4.0) \cdot 10^3$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$1.01 \cdot 10^3$ $(1.1\text{-}0.95) \cdot 10^3$	08.-15.10.1999

Date: ..... 07.10.99.
Sampling point:..... Nr.16 - Aiviekste river
Point description:..... Road Barkava - Madona. Bridge; small village Upmalas, bus-stop "Švāni"

Coordinates:..... 654797 - 6295505
Temperature of air: ..... 12.3 ^{0} C
Temperature of water:..... 12.89 ^{0} C

Wind:..... direction SE 144 ^{0}
average rate - 2.0 m/s
maximal rate - 3.1 m/s
Flow rate:..... 10.54 m^3/sec
pH:..... 7.98
ORP:..... 485 mV
Dissolved oxygen:..... 7.99 mg/l
Turbidity:..... 57.9 NTUs
Conductivity: ..... 395.2 µS/cm
TDS: ..... 0.2529 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg-ekv/l	9,4 ± 1,9	08.10.99.
2	Suspends solids	ISO 11923	mg/l	8 ± 2	08.-11.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	14,6 ± 2,9	08.10.99.
4	BOD_7	LVS EN 11899-2:1998	mg/l	3,5 ± 0,7	08.-15.10.99.
5	COD_{Cr}	DIN 38409 Teil44/0592	mg/l	38 ± 8	08.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,32 ± 0,06	08.10.99.
7	N/NO_2	Ū-6-93	mg-ekv/l	0,019 ± 0,004	08.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,29 ± 0,06	08.10.99.
9	N_{total}	Ū-75-95	mg/l	1,06 ± 0,04	08.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,02 ± 0,003	08.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,04 ± 0,008	08.10.99.
12	Oil	Ū-100-98	mg/l	0,06 ± 0,007	08.-11.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	0.91	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	0.58	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.006 ± 0.002	13.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	07.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	14 20-7	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$7.68 \cdot 10^3$ $(7.9\text{-}7.5) \cdot 10^3$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	500 550-460	08.-15.10.1999

Date: ..... 06.10.99.
Sampling point:..... Nr.17 - Meirānu channel
Point description:..... Road to Degumnieki. Landmarks - bridge, administrative borders "Ošupes pagasts"

Coordinates:..... 665862 - 6293673
Temperature of air: ..... 11.6 ^{0} C
Temperature of water:..... 13.15 ^{0} C

Wind: ..... direction E 70 ^{0}
average rate - 2.8 m/s
maximal rate - 3.6 m/s
Flow:..... 2.99 m^3/sec
pH:..... 7.68
ORP:..... 464 mV
Dissolved oxygen:..... 4.92 mg/l
Turbidity:..... 34.9 NTUs
Conductivity: ..... 436.5 µS/cm
TDS: ..... 0.2794 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg/l	9,6 ± 1,9	07.10.99.
2	Suspends solids	ISO 11923	mg/l	3,4 ± 0,7	07.-08.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	20 ± 4	07.10.99.
4	BOD_7	LVS EN 11899-2:1998	mg/l	3,5 ± 0,7	07.-14.10.99.
5	COD_{Cr}	DIN 38409 Teil 44 05/92	mg/l	47 ± 9	07.10.99.
6	N/NH_4	Ū-5-93	mg/l	0,40 ± 0,08	07.10.99.
7	N/NO_2	Ū-6-93	mg/l	0,044 ± 0,009	07.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,26 ± 0,05	07.10.99.
9	N_{total}	Ū-75-95	mg/l	1,10 ± 0,04	07.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,04 ± 0,008	07.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,065 ± 0,013	07.10.99.
12	Oil	Ū-100-98	mg/l	0,05 ± 0,006	07.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6-}	LVS EN 1233:1996	µg/l	< MDL (0.8)	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	< MDL (0.4)	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.007 ± 0.002	13.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	06.10.1999
21	Thermotolerant coliform mFC/44.5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	5 9.5-0.5	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$9.42 \cdot 10^3$ $(9.6\text{-}9.2) \cdot 10^3$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$1.18 \cdot 10^3$ $(1.3\text{-}1.1) \cdot 10^3$	08.-15.10.1999

Date: ..... 07.10.99.
Sampling point:..... Nr.18 - Rēzekne river
Point description:..... Road to Rīga. Bridge from river downstream of clearing building.

Coordinates:..... Not measured
Temperature of air: ..... 12.1 ^{0} C
Temperature of water:..... 12.83 ^{0} C

Wind: ..... direction SE 144 ^{0}
average rate - 2.8 m/s
maximal rate - 5.9 m/s
Flow rate:..... 0.9 m^3/sec
pH:..... 7.94
ORP:..... 467 mV
Dissolved oxygen:..... 8.2 mg/l
Turbidity:..... 123.5 NTUs
Conductivity: ..... 437.9 µS/cm
TDS: ..... 0.2803 g/l

№	Parameters	Methods	Measuring units	Results	Date of analysis
1	Hardness	Ū-76-94	mg-ekv/l	8,7 ± 1,7	08.10.99.
2	Suspends solids	ISO 11923	mg/l	2,7 ± 0,5	08.-11.10.99.
3	COD_{Mn}	Ū-3- 92	mg/l	10,5 ± 2,1	08.10.99.
4	BOD_7	LVS EN 11899-2:1998	mg/l	2,4 ± 0,5	08.-15.10.99.
5	COD_{Cr}	DIN 38409 Teil44/0592	mg/l	27 ± 6	08.10.99.
6	N/NH_4	Ū-5-93	mg/l	1,18 ± 0,24	08.10.99.
7	N/NO_2	Ū-6-93	mg-ekv/l	0,14 ± 0,03	08.10.99.
8	N/NO_3	Ū-7-92	mg/l	0,99 ± 0,20	08.10.99.
9	N_{total}	Ū-75-95	mg/l	2,74 ± 0,11	08.10.99.
10	P/PO_4	ISO 6878/1	mg/l	0,47 ± 0,09	08.10.99.
11	P_{total}	ISO 6878/1	mg/l	0,5 ± 0,1	08.10.99.
12	Oil	Ū-100-98	mg/l	0,06 ± 0,007	08.-11.10.99.
13	As	US EPA 7060A	µg/l	< MDL (2)	12.-22.10.1999
14	Cd	ISO 5961:1994	µg/l	< MDL (0.08)	12.-25.10.1999
15	Cr^{6+}	LVS EN 1233:1996	µg/l	< MDL (0.8)	12.10.-01.11.1999
16	Pb	US EPA 7421	µg/l	< MDL (0.4)	12.10.-02.11.1999
17	Hg	EN 1483	µg/l	< MDL (0.05)	12.10.1999
18	Phenol	ISO 6439:1990	mg/l	0.001	13.10.1999
19	Pesticide	US EPA 8081:1990	ng/l	Not detected	11.10.-03.11.1999
20	CN	Ū-22-1994	mg/l	< 0.01	07.10.1999
21	Thermotolerant coliform mFC/44,5 ^{0}C/17h	ISO 9308-1:1990	KVV*/ 100ml	400 440-360	08.-15.10.1999
22	General bacteria number REA/22 ^{0}C/72h	LVS prEN ISO 6222:1997	KVV*/ 1ml	$7.77 \cdot 10^4$ $(7.8\text{-}7.77) \cdot 10^4$	08.-15.10.1999
23	Saprophyte bacteria GPA/22 ^{0}C/5d	Ū-70-94	KVV*/ 1ml	$1.36 \cdot 10^3$ $(1.4\text{-}1.3) \cdot 10^3$	08.-15.10.1999

Water qualities comments

Parameters	Min. Value	Sampling point	Max. Value	Sampling point
Hardness	6.6	Lubana Lake (Aiviekste river lockage)	16	Teicija river
Suspends solids	1.4	Teicija river	55	Centre of Lubana Lake
COD_{Mn}	6.4	Rezekne river Idenu bridge	34	Vecpededze river
BOD_7	1	Rezekne river Idenu bridge	*13* 8.5	*Oreniesu pond** Vecpededze river
COD_{Cr}	13	Rezekne river Idenu bridge	*111* 80	*Oreniesu pond* Centre of Lubana Lake
N/NH_4	0.14	Lubana Lake (Aiviekste river. lockage)	*9* 1.18	*Orenisu pond** Rezekne river NAK
N/NO_2	<0.002		0.14	Rezekne river NAK
N/NO_3	<0.11		1.1	Rezekne river Idenu bridge
N_{total}	0.29	Malta river locage (Nagli)	*10.95* 2.74	*Orenieu pond** Rezekne river NAK
P/PO_4	<0.005		*0.71* 0.47	*Oreniesu pond** Rezekne riv. CB
P_{total}	0.015	Teicija river	*0.73* 0.5	*Oreniesu pond** Rezekne river NAK
Oil	<0.05		0.24	Malta river locage (Nagli)
As	< MDL (2) Not detected			
Cd	< MDL (0.08) Not detected			
Cr^{6+}	< 0.8		3	Teicija river
Pb	< 0.4		1.04	Lubana Lake near island
Hg	< 0.05		0.36	Bolupe river
Phenol	0.001	Malta river.locage (Nagli)	0.01	Centre of Lubana Lake
Pesticide	Not		48	Bolupe river
CN	< 0.01 Not detected			

* Water from Oreniesu pond may be classified as wastewater

Comments of Microbiology

Evaluation of analyses for data of microbiological quality of water During October 5-8, 1999 in Laboratory of Microbiology of LD Latvian Environmental Data Centre 18 surface water quality microbiological analyses were completed and the following results obtained:

1. Temperature tolerant coliforms (TKF) or E.coli (KW/100ml) - group of indicator microorganisms used as criterion of water bacteriological quality in conditions of fecal water contamination;

2.Total number of heterotrophic microorganisms in water (KW/1ml) - characterize composition of microbocoenosis; used as general criterion of water ecosystem biological quality;

3. Saprophytic (heterotrophic) bacteria number in water (KW/1ml) - parameter of contamination level, caused by organic pollutants. The obtained microbiological data was evaluated according to:

EC Directions for quality of bathing water 76/160/EEC and Document of Europe Community Document COM (94) 36; regulations of Latvian Cabinet of Ministers N# 437, 17.11.1998 on permits for water use and "Criteria for quality of bathing water" of National Environmental health Centre of Ministry of Welfare N#300,7, app. 1-2, 01. 09.1998. Evaluation should be considered as orientating as there are no regulations on sanitary microbiological quality for recreational water bodies of general significance and unfortunately there are no regulations for water consumers on sanitary and bacteriological requirements in outflows of sewage treatment facilities. According to obtained data of results the following conclusions were made:

Samples of river water.

1. Sanitary and bacteriological quality of river water is good: according to the criteria of TKF limits it meets the requirements for bathing water (as well as other recreational water) quality;
2. Significant Microbal contamination, organic substances contamination, incl. fecal or sewage contamination was not registered in samples;
3. Overall and saprophytic microorganisms' numbers meet criteria for oligo-beta or beta contamination class (clean or slightly contaminated). Contamination is distributed almost evenly
across rivers, with exception to Teicija River and Meiranu channel, where microbal contamination levels are slightly higher. Number of microorganisms in autumn depends on degree of vegetation coverage and vegetation distribution across the riverbed in summer.
4. Obtained values for biocoenoses meet criteria for clean/slightly contaminated surface water ecosystems, in this case presented by small and medium-size rivers.

Samples of Lake Lubana.

1. Sanitary condition of river water quality is good; it meets TKF limits for bathing water quality (also all other recreational water) criteria (sample Id.N# 1142);
2. Parameters of overall and saprophytic heterotrophic microorganisms' number in the water of lake are comparatively high. It indicates (1) larger number of organic substances and (2) more intense processes of organic substances destruction;
3. Obtained indices of microbial coenosis are typical for ecosystem of increased eutrophication of lake ecosystem in autumn, when vegetation dieback starts.
4. Features of point-source pollution are not presented in all samples originated from lake. In some cases slightly higher levels of microbal contamination are registered (ID Nr.99/1141 and 99/1142), which can mark eutrophication progress or influence of sewage diffusion.

Rezekne NAK.

1. Sanitary and bacteriological quality of sewage is satisfactory. According to previous regulations (up to ~ 1990-ies) desirable amount of TKF would be 4 times lower, number of saprophytic bacteria meets the requirements.
2. According to current regulations of National Environment Health Department on bathing water (obligatory TKF index in bathing water < 250KVV/100ml) we recommend to decrease amount of TKF (400 KVV/100ml) twice. Then it will be possible to evaluate efficiency of sewage treatment facilities as good.
3. Unfortunately there is no information on sample in Rezekne River below NAK. That is why it is not possible to judge about impact of sewage on sanitary quality of the water in river Rezekne. Sample from the river (Id.Nr.99/1124) shows that
although amount of TKF in Rezekne river is higher than it was found in other rivers, it meets the requirements for good quality of bathing water (71 KVV/100ml).

Sampling point: ..... Nr.1 - Zvejsalas pond
Point description:..... Last of the Nagli pond near Vecmalta river's lockage
Coordinates: ..... 676370 – 6288225
Temperature of air:..... 17,11 °C
Wind:..... direction SE 140°
average rate - 2.1 m/s
maximal rate - 3,7 m/s

Temperature of water: ..... 17,04 °C
Flow: ..... not measured
Dissolved oxygen: ..... 8,68 mg/l
Specific conductance:..... 352,1 μ S/cm
TDS: ..... 0,225 g/l
pH:..... 8,97
Turbidity:..... 9,9 NTUs
ORP:..... 398 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,85	07.06.00
Suspended solids	mg/l	2,2	07.06.00
BOD 7	mg/l	3,94	07-14.06.00
COD_{Mn}	mg/l	23,00	07.06.00
COD_{Cr}	mg/l	61,00	07.06.00
N/NH_4	mg/l	0,40	07.06.00
N/NO_2	mg/l	< 0,002	07.06.00
N/NO_3	mg/l	< 0,11	07.06.00
Total nitrogen	mg/l	0,80	07.06.00
P/PO_4	mg/l	<0,005	07.06.00
Total phosphorus	mg/l	0,052	07.06.00
Total coliforms	Kvv/100 ml	5	09.06.00
PCB	mg/l	< 0,0003	12.06.00
Oil	mg/l	0,18±0,02	08-09.06.00
Cr^{+6}	mg/l	< 0,05	08.06.00
Pb	mg/l	< 0,02	08.06.00
Cd	mg/l	< 0,01	08.06.00
As	ng/l	< 2	15.06.00
Hg	ng/l	< 0,05	15.06.00
Phenol	mg/l	< 0,001	08.06.00

Sampling point: ..... Nr.2 Oreniešu pond
Point description:..... Oreniešu pond
Coordinates: ..... 683027 – 6289757
Temperature of air: ..... 19,97 °C
Wind:..... direction S 168°
average rate – 2,5 m/s
maximal rate - 3,8 m/s

Temperature of water: ..... 18.01 °C

Flow: ..... not measured
Dissolved oxygen: ..... 7,85 mg/l
.....
Specific conductance:..... 394 μ S/cm
TDS: ..... 0,252 g/l
pH:..... 7,69
Turbidity:..... 45 NTUs
ORP:..... 474 mV

Parameter	Meassuring units	Results	Date
Total hardness	mg-ekv/l	4,28	10.06.00
Suspended solids	mg/l	29,8	10.06.00
BOD 7	mg/l	3,4	10-17.06.00
COD_{Mn}	mg/l	12,20	10.06.00
COD_{Cr}	mg/l	24,00	10.06.00
N/NH_4	mg/l	0,20	10.06.00
N/NO_2	mg/l	<0,002	10.06.00
N/NO_3	mg/l	< 0,11	10.06.00
Total nitrogen	mg/l	0,40	10.06.00
P/PO_4	mg/l	0,007	10.06.00
Total phosphorus	mg/l	0,01	10.06.00
Total coliforms	kvv/100 ml	7	14.06.00
PCB	mg/l	< 0,0003	14.06.00
Oil	mg/l	0,13±0,01	12-13.06.00
Cr^{+6}	mg/l	< 0,05	12.06.00
Pb	mg/l	< 0,02	12.06.00
Cd	mg/l	< 0,01	12.06.00
As	ng/l	< 2	17.06.00
Hg	ng/l	< 0,05	17.06.00
Phenol	mg/l	< 0,001	11.06.00

Sampling point: ..... Nr. 3 - Lubana lake
Point description:..... Near Rezekne crease
Coordinates: ..... 678502 – 6297221
Temperature of air:..... 19,12 °C
Wind:..... direction S 168°
average rate – 2,5 m/s
maximal rate - 4,3 m/s

Temperature of water: ..... 18,1 °C

Flow: ..... not measured
Dissolved oxygen: ..... 8,11 mg/l
Specific conductance:..... 318 μ S/cm
TDS:..... 0,203 g/l
pH:..... 7,56
Turbidity:..... 43 NTUs
ORP:..... 465 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	3,20	10.06.00
Suspended solids	mg/l	21,0	10.06.00
BOD 7	mg/l	3,41	10-17.06.00
COD_{Mn}	mg/l	18,00	10.06.00
COD_{Cr}	mg/l	51,00	10.06.00
N/NH_4	mg/l	0,20	10.06.00
N/NO_2	mg/l	<0,002	10.06.00
N/NO_3	mg/l	0,18	10.06.00
Total nitrogen	mg/l	0,58	10.06.00
P/PO_4	mg/l	0,01	10.06.00
Total phosphorus	mg/l	0,02	10.06.00
Total coliforms	kvv/100 ml	14	14.06.00
PCB	mg/l	< 0,0003	28.06.00
Oil	mg/l	0,13±0,01	22.06.00
Cr^{+6}	mg/l	< 0,05	12.06.00
Pb	mg/l	< 0,02	12.06.00
Cd	mg/l	< 0,01	12.06.00
As	ng/l	< 2	17.06.00
Hg	ng/l	< 0,05	17.06.00
Phenol	mg/l	0,009	11.06.00

Sampling point: ..... Nr.4 - Lubana lake
Point description:..... Near Aiviekste river lockage
Coordinates: ..... 676998 – 6299599
Temperature of air:..... 18,32 °C
Wind:..... direction S 168°
average rate – 1,8 m/s
maximal rate - 3,1 m/s
Temperature of water: ..... 16,62 °C
Flow: ..... not measured

Dissolved oxygen: ..... 7,25 mg/l
Specific conductance:..... 318 μ S/cm
TDS:..... 0,204 g/l
pH:..... 7,65
Turbidity:..... 46,4 NTUs
ORP:..... 432 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,40	10.06.00
Suspended solids	mg/l	19,7	10.06.00
BOD 7	mg/l	3,52	10-17.06.00
COD_{Mn}	mg/l	19,80	10.06.00
COD_{Cr}	mg/l	54,00	10.06.00
N/NH_4	mg/l	0,20	10.06.00
N/NO_2	mg/l	<0,002	10.06.00
N/NO_3	mg/l	<0,11	10.06.00
Total nitrogen	mg/l	0,60	10.06.00
P/PO_4	mg/l	<0,005	10.06.00
Total phosphorus	mg/l	0,01	10.06.00
Total coliforms	kvv/100 ml	4	14.06.00
PCB	mg/l	< 0,0003	14.06.00
Oil	mg/l	0,15±0,02	12-13.06.00
Cr^{+6}	mg/l	< 0,05	12.06.00
Pb	mg/l	< 0,02	12.06.00
Cd	mg/l	< 0,01	12.06.00
As	ng/l	< 2	17.06.00
Hg	ng/l	< 0,05	17.06.00
Phenol	mg/l	0,01	11.06.00

Sampling point: ..... Nr.6 - Lubana lake
Point description:..... Opposite Malta crease approximately 1,5 km
Coordinates: ..... 673859 – 6293208
Temperature of air: ..... 18,67 °C
Wind:..... direction S 170 °
average rate – 2,1 m/s
maximal rate - 3,4 m/s

Flow: ..... not measured
Dissolved oxygen: ..... 8,27 mg/l
Specific conductance: ..... 334 μ S/cm
TDS: ..... 0,214 g/l
pH:..... 7,56
Turbidity:..... 54 NTUs
ORP:..... 468 mV

Temperature of water: ..... 17,14 °C

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	3,20	10.06.00
Suspended solids	mg/l	25,0	10.06.00
BOD 7	mg/l	3,51	10-17.06.00
COD_{Mn}	mg/l	21,00	10.06.00
COD_{Cr}	mg/l	56,00	10.06.00
N/NH_4	mg/l	0,20	10.06.00
N/NO_2	mg/l	<0,002	10.06.00
N/NO_3	mg/l	0,19	10.06.00
Total nitrogen	mg/l	0,65	10.06.00
P/PO_4	mg/l	0,01	10.06.00
Total phosphorus	mg/l	0,02	10.06.00
Total coliforms	kvv/100 ml	17	14.06.00
PCB	mg/l	< 0,0003	14.06.00
Oil	mg/l	0,1±0,01	12-13.06.00
Cr^{+6}	mg/l	< 0,05	12.06.00
Pb	mg/l	< 0,02	12.06.00
Cd	mg/l	< 0,01	12.06.00
As	ng/l	< 2	17.06.00
Hg	ng/l	< 0,05	17.06.00
Phenol	mg/l	0,01	11.06.00

Sampling point: ..... Nr.7 - Lubana lake
Point description:..... Near Kalnagals lockage
Coordinates: ..... 670899 – 6290908
Temperature of air:..... 18,32 °C
Wind:..... direction S 168 °
average rate – 2 m/s
maximal rate - 3,6 m/s

Flow: ..... not measured
Dissolved oxygen: ..... 8,01 mg/l
.....
Specific conductance:..... 318 μ S/cm
TDS:..... 0,204 g/l
pH:..... 7,56
Turbidity:..... 42 NTUs
ORP:..... 436 mV

Temperature of water: ..... 16,24 °C

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,50	10.06.00
Suspended solids	mg/l	14,3	10.06.00
BOD 7	mg/l	2,67	10-17.06.00
COD_{Mn}	mg/l	22,40	10.06.00
COD_{Cr}	mg/l	51,00	10.06.00
N/NH_4	mg/l	0,20	10.06.00
N/NO_2	mg/l	<0,002	10.06.00
N/NO_3	mg/l	0,12	10.06.00
Total nitrogen	mg/l	0,50	10.06.00
P/PO_4	mg/l	<0,005	10.06.00
Total phosphorus	mg/l	0,01	10.06.00
Total coliforms	kvv/100 ml	2	14.06.00
PCB	mg/l	< 0,0003	14.06.00
Oil	mg/l	0,13±0,01	12-13.06.00
Cr^{+6}	mg/l	< 0,05	12.06.00
Pb	mg/l	< 0,02	12.06.00
Cd	mg/l	< 0,01	12.06.00
As	ng/l	< 2	17.06.00
Hg	ng/l	< 0,05	17.06.00
Phenol	mg/l	0,007	11.06.00

Sampling point: ..... Nr.8 - Teicija river
Point description:..... Road to Vecumnieki. Bridge; 8 km from Varaklani
Coordinates: ..... 665414 – 6284115
Temperature of air:..... 14,21 °C
Wind:..... direction E 86°
average rate – 2,2 m/s
maximal rate - 3,5 m/s

Temperature of water: ..... 9,67 °C
Flow rate:..... 0,07 m^3/sec
Dissolved oxygen: ..... 7,38 mg/l
Specific conductance: ..... 639,4 μ S/cm
TDS: ..... 0,409 g/l
pH:..... 7,99
Turbidity:..... 22,8 NTUs
ORP:..... 357 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	4,60	08.06.00
Suspended solids	mg/l	3,1	08.06.00
BOD 7	mg/l	1,05	08-15.06.00
COD_{Mn}	mg/l	8,60	08.06.00
COD_{Cr}	mg/l	<20	08.06.00
N/NH_4	mg/l	0,20	08.06.00
N/NO_2	mg/l	< 0,002	08.06.00
N/NO_3	mg/l	0,17	08.06.00
Total nitrogen	mg/l	0,20	08.06.00
P/PO_4	mg/l	<0,005	08.06.00
Total phosphorus	mg/l	0,015	08.06.00
Total coliforms	kvv/100 ml	100	10.06.00
PCB	mg/l	< 0,0003	12.06.00
Oil	mg/l	< 0,05	08-09.06.00
Cr^{+6}	mg/l	< 0,05	10.06.00
Pb	mg/l	< 0,02	10.06.00
Cd	mg/l	< 0,01	10.06.00
As	ng/l	< 2	15.06.00
Hg	ng/l	< 0,05	15.06.00
Phenol	mg/l	0,005	10.06.00

Sampling point: ..... Nr.9 - Malta river
Point description:..... Malta river's dam Nagli village
Coordinates: ..... 679921 – 6285765
Temperature of air:..... 16,71 °C
Wind:..... direction SE 144°
average rate - 2,7 m/s
maximal rate - 4,4 m/s

Temperature of water: ..... 18,06 °C
Flow: ..... flow rate < 3 cm/sec
Dissolved oxygen: ..... 9,04 mg/l
Specific conductance: ..... 458,1 μ S/cm
TDS: ..... 0,293 g/l
pH:..... 8,96
Turbidity:..... 8,1 NTUs
ORP:..... 402 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	3,20	07.06.00
Suspended solids	mg/l	1,8	07.06.00
BOD 7	mg/l	1,28	07-14.06.00
COD_{Mn}	mg/l	6,40	07.06.00
COD_{Cr}	mg/l	<20	07.06.00
N/NH_4	mg/l	0,20	07.06.00
N/NO_2	mg/l	< 0,002	07.06.00
N/NO_3	mg/l	< 0,11	07.06.00
Total nitrogen	mg/l	0,25	07.06.00
P/PO_4	mg/l	0,01	07.06.00
Total phosphorus	mg/l	0,04	07.06.00
Total coliforms	kvv/100 ml	39	09.06.00
PCB	mg/l	< 0,0003	12.06.00
Oil	mg/l	0,065±0,007	08-09.06.00
Cr^{+6}	mg/l	< 0,05	08.06.00
Pb	mg/l	< 0,02	08.06.00
Cd	mg/l	< 0,01	08.06.00
As	ng/l	< 2	15.06.00
Hg	ng/l	< 0,05	15.06.00
Phenol	mg/l	< 0,001	08.06.00

Sampling point: ..... Nr.10 - Rezekne river
Point description:..... Rezekne river near Nagli (Žogotu bridge)
Coordinates: ..... 684168 – 6285177
Temperature of air: ..... 16,25 °C
Wind:..... direction SE 144°
average rate - 2,7 m/s
maximal rate - 4,1 m/s

Temperature of water: ..... 15,46 °C
Flow rate:..... 0,17 m^3/sec
Dissolved oxygen: ..... 8,02 mg/l
Specific conductance: ..... 420 μ S/cm
TDS: ..... 0,269 g/l
pH:..... 8,62
Turbidity:..... 18 NTUs
ORP:..... 411 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	3,92	07.06.00
Suspended solids	mg/l	3,9	07.06.00
BOD 7	mg/l	1,12	07-14.06.00
COD_{Mn}	mg/l	5,60	07.06.00
COD_{Cr}	mg/l	<20	07.06.00
N/NH_4	mg/l	0,15	07.06.00
N/NO_2	mg/l	0,06	07.06.00
N/NO_3	mg/l	3,00	07.06.00
Total nitrogen	mg/l	5,50	07.06.00
P/PO_4	mg/l	0,183	07.06.00
Total phosphorus	mg/l	0,191	07.06.00
Total coliforms	kvv/100 ml	430	09.06.00
PCB	mg/l	< 0,0003	12.06.00
Oil	mg/l	0,05±0,005	08-09.06.00
Cr^{+6}	mg/l	< 0,05	08.06.00
Pb	mg/l	< 0,02	08.06.00
Cd	mg/l	< 0,01	08.06.00
As	ng/l	< 2	15.06.00
Hg	ng/l	< 0,05	15.06.00
Phenol	mg/l	0,001	08.06.00

Sampling point: ..... Nr.11 - Ica river
Point description:..... Ica river bridge, 40 km from Rezekne, region border
Coordinates: ..... 688969 – 6300551
Temperature of air: ..... 14,3 °C
Wind:..... direction NE 45°
average rate – 1,6 m/s
maximal rate - 3,2 m/s

Temperature of water: ..... 16,28 °C
Flow rate:..... 0,32 m^3/sec
Dissolved oxygen: ..... 7,49 mg/l
Specific conductance: ..... 539,9 μ S/cm
TDS: ..... 0,345 g/l
pH:..... 8,48
Turbidity:..... 14,2 NTUs
ORP:..... 442 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	3,20	17.06.00
Suspended solids	mg/l	2,9	17.06.00
BOD 7	mg/l	1,08	17-24.06.00
COD_{Mn}	mg/l	12,80	17.06.00
COD_{Cr}	mg/l	25,00	17.06.00
N/NH_4	mg/l	0,21	17.06.00
N/NO_2	mg/l	0,004	17.06.00
N/NO_3	mg/l	< 0,11	17.06.00
Total nitrogen	mg/l	0,50	17.06.00
P/PO_4	mg/l	<0,005	17.06.00
Total phosphorus	mg/l	0,07	17.06.00
Total coliforms	kvv	5	21.06.00
PCB	mg/l	< 0,0003	28.06.00
Oil	mg/l	0,05±0,005	20-21.06.00
Cr^{+6}	mg/l	< 0,05	18.06.00
Pb	mg/l	< 0,02	18.06.00
Cd	mg/l	< 0,01	18.06.00
As	ng/l	< 2	20.06.00
Hg	ng/l	< 0,05	20.06.00
Phenol	mg/l	0,002	18.06.00

Sampling point: ..... Nr.12 - Piestina river
Point description:..... Landmark - small village Usa, private house "Stmieki" near destroyed bridge
Coordinates: ..... 684198 - 6312050
Temperature of air: ..... 14,64 °C
Wind:..... direction NE 45°
average rate – 1,6 m/s
maximal rate - 3,2 m/s

Temperature of water: ..... 16,17 °C
Flow: ..... flow rate < 3 cm/sec
Dissolved oxygen: ..... 8,6 mg/l
Specific conductance:..... 563,2 μ S/cm
TDS:..... 0,360 g/l
pH:..... 8,52
Turbidity:..... 24,2 NTUs
ORP:..... 436 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	3,20	17.06.00
Suspended solids	mg/l	7,1	17.06.00
BOD 7	mg/l	1,27	17-24.06.00
COD_{Mn}	mg/l	12,80	17.06.00
COD_{Cr}	mg/l	29,00	17.06.00
N/NH_4	mg/l	0,20	17.06.00
N/NO_2	mg/l	< 0,002	17.06.00
N/NO_3	mg/l	< 0,11	17.06.00
Total nitrogen	mg/l	0,60	17.06.00
P/PO_4	mg/l	0,008	17.06.00
Total phosphorus	mg/l	0,04	17.06.00
Total coliforms	kvv/100 ml	48	21.06.00
PCB	mg/l	< 0,0003	28.06.00
Oil	mg/l	0,05 ± 0,005	20-21.06.00
Cr^{+6}	mg/l	< 0,05	18.06.00
Pb	mg/l	< 0,02	18.06.00
Cd	mg/l	< 0,01	18.06.00
As	ng/l	< 2	20.06.00
Hg	ng/l	< 0,05	20.06.00
Phenol	mg/l	0,008	18.06.00

Sampling point: ..... Nr.13 Bolupe river
Point description:..... 1,5 km NE from Vecpededze
Coordinates: ..... 678702 - 6316457
Temperature of air: ..... 14,5 °C
Wind:..... direction NE 45°
average rate – 1,8 m/s
maximal rate - 3,1 m/s

Temperature of water: ..... 16,63 °C
Flow rate:..... 0,22 m^3/sec
Dissolved oxygen: ..... 7,13 mg/l
Specific conductance:..... 346,9 μ S/cm
TDS:..... 0,222 g/l
pH:..... 8,29
Turbidity:..... 22,8 NTUs
ORP:..... 430 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,85	17.06.00
Suspended solids	mg/l	6,2	17.06.00
BOD 7	mg/l	1,12	17-24.06.00
COD_{Mn}	mg/l	12,00	17.06.00
COD_{Cr}	mg/l	20,00	17.06.00
N/NH_4	mg/l	0,20	17.06.00
N/NO_2	mg/l	<0,002	17.06.00
N/NO_3	mg/l	0,12	17.06.00
Total nitrogen	mg/l	0,30	17.06.00
P/PO_4	mg/l	0,06	17.06.00
Total phosphorus	mg/l	0,08	17.06.00
Total coliforms	kvv/100 ml	20	21.06.00
PCB	mg/l	< 0,0003	28.06.00
Oil	mg/l	0,07±0,008	20-21.06.00
Cr^{+6}	mg/l	< 0,05	18.06.00
Pb	mg/l	< 0,02	18.06.00
Cd	mg/l	< 0,01	18.06.00
As	ng/l	< 2	20.06.00
Hg	ng/l	< 0,05	20.06.00
Phenol	mg/l	< 0,001	18.06.00

Sampling point: ..... Nr.14 - Vecpededze river
Point description:..... Crease Vecpededze near small village Mierani
Coordinates: ..... 676685 – 6318758
Temperature of air:..... 16,25 °C
Wind:..... direction SE 144°
average rate – 2,8 m/s
maximal rate - 3,4 m/s

Temperature of water: ..... 14,98 °C
Flow: ..... flow rate < 3 cm/sec
Dissolved oxygen: ..... 7,78 mg/l
Specific conductance:..... 493,2 μ s/cm
TDS:..... 0,315 g/l
pH:..... 8,31
Turbidity:..... 50,8 NTUs
ORP:..... 340 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,85	07.06.00
Suspended solids	mg/l	26,8	07.06.00
BOD 7	mg/l	5,8	07-14.06.00
COD_{Mn}	mg/l	25,60	07.06.00
COD_{Cr}	mg/l	68,00	07.06.00
N/NH_4	mg/l	0,40	07.06.00
N/NO_2	mg/l	< 0,002	07.06.00
N/NO_3	mg/l	<0,11	07.06.00
Total nitrogen	mg/l	1,10	07.06.00
P/PO_4	mg/l	0,01	07.06.00
Total phosphorus	mg/l	0,04	07.06.00
Total coliforms	kvv/100 ml	10	21.06.00
PCB	mg/l	< 0,0003	12.06.00
Oil	mg/l	0,09±0,01	08-09.06.00
Cr^{+6}	mg/l	< 0,05	08.06.00
Pb	mg/l	< 0,02	08.06.00
Cd	mg/l	< 0,01	08.06.00
As	ng/l	< 2	15.06.00
Hg	ng/l	< 0,05	15.06.00
Phenol	mg/l	0,009	08.06.00

Sampling point: ..... Nr.15 - Aiviekste river
Point description:..... Aiviekste downstream Abaine
Coordinates: ..... 673471 – 6313083
Temperature of air: ..... 16,47 °C
Wind:..... direction SE 144°
average rate – 2,4 m/s
maximal rate - 4,2 m/s

Flow rate:..... 2,42 m^3/sec
Dissolved oxygen: ..... 7,36 mg/l
Specific conductance:..... 495 μ S/sm
TDS:..... 0,317 g/l
pH:..... 8,67
Turbidity:..... 39 NTUs
ORP:..... 400 mV

Temperature of water: ..... 17,11 °C

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,49	07.06.00
Suspended solids	mg/l	14,4	07.06.00
BOD 7	mg/l	2,75	07-14.06.00
COD_{Mn}	mg/l	16,20	07.06.00
COD_{Cr}	mg/l	40,00	07.06.00
N/NH_4	mg/l	0,20	07.06.00
N/NO_2	mg/l	0,01	07.06.00
N/NO_3	mg/l	< 0,11	07.06.00
Total nitrogen	mg/l	1,30	07.06.00
P/PO_4	mg/l	<0,005	07.06.00
Total phosphorus	mg/l	0,022	07.06.00
Total coliforms	kvv/100 ml	110	09.06.00
PCB	mg/l	< 0,0003	12.06.00
Oil	mg/l	0,11±0,01	08-09.06.00
Cr^{+6}	mg/l	< 0,05	08.06.00
Pb	mg/l	< 0,02	08.06.00
Cd	mg/l	< 0,01	08.06.00
As	ng/l	< 2	15.06.00
Hg	ng/l	< 0,05	15.06.00
Phenol	mg/l	0,01	08.06.00

Sampling point: ..... Nr.16 - Aiviekste river
Point description:..... Road Barkava - Madona. Bridge; small village Upmala
Coordinates: ..... 654797 – 6295505
Temperature of air: ..... 14,21 °C
Wind:..... direction E 86°
average rate – 1,8 m/s
maximal rate - 2,8 m/s

Temperature of water: ..... 15,78 °C
Flow rate:..... 9,07 m^3/sec
Dissolved oxygen: ..... 7,47 mg/l
Specific conductance:..... 428,9 μ S/cm
TDS:..... 0,274 g/l
pH:..... 8,6
Turbidity:..... 37,9 NTUs
ORP:..... 416 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,85	08.06.00
Suspended solids	mg/l	1,7	08.06.00
BOD 7	mg/l	1,41	08-15.06.00
COD_{Mn}	mg/l	10,70	08.06.00
COD_{Cr}	mg/l	29,00	08.06.00
N/NH_4	mg/l	0,30	08.06.00
N/NO_2	mg/l	0,03	08.06.00
N/NO_3	mg/l	0,30	08.06.00
Total nitrogen	mg/l	0,72	08.06.00
P/PO_4	mg/l	0,01	08.06.00
Total phosphorus	mg/l	0,03	08.06.00
Total coliforms	kvv/100 ml	140	10.06.00
PCB	mg/l	< 0,0003	12.06.00
Oil	mg/l	0,05±0,005	08-09.06.00
Cr^{+6}	mg/l	< 0,05	10.06.00
Pb	mg/l	< 0,02	10.06.00
Cd	mg/l	< 0,01	10.06.00
As	ng/l	< 2	15.06.00
Hg	ng/l	< 0,05	15.06.00
Phenol	mg/l	0,01	10.06.00

Sampling point: ..... Nr.17 - Meiranu channel
Point description:..... Road to Degumnieki. Bridge, administrative borders "Ošupes pagasts"
Coordinates: ..... 665862 – 6293673
Temperature of air: ..... 16,3 °C
Wind:..... direction SE 137°
average rate – 1,5 m/s
maximal rate - 3,1 m/s

Temperature of water: ..... 16,69 °C
Flow rate:..... 2,45 m^3/sec
Dissolved oxygen: ..... 6,63 mg/l
Specific conductance:..... 517,6 μ S/cm
TDS:..... 0,331 g/l
pH:..... 8,34
Turbidity:..... 9,2 NTUs
ORP:..... 417 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,85	07.06.00
Suspended solids	mg/l	2.0	07.06.00
BOD 7	mg/l	2,36	07-14.06.00
COD_{Mn}	mg/l	16,00	07.06.00
COD_{Cr}	mg/l	40,00	07.06.00
N/NH_4	mg/l	0,40	07.06.00
N/NO_2	mg/l	0,04	07.06.00
N/NO_3	mg/l	0,20	07.06.00
Total nitrogen	mg/l	0,90	07.06.00
P/PO_4	mg/l	0,01	07.06.00
Total phosphorus	mg/l	0,06	07.06.00
Total coliforms	kvv/100 ml	120	09.06.00
PCB	mg/l	< 0,0003	12.06.00
Oil	mg/l	0,065±0,007	08-09.06.00
Cr^{+6}	mg/l	< 0,05	08.06.00
Pb	mg/l	< 0,02	08.06.00
Cd	mg/l	< 0,01	08.06.00
As	ng/l	< 2	15.06.00
Hg	ng/l	< 0,05	15.06.00
Phenol	mg/l	0,004	08.06.00

Sampling point: ..... Nr.19 - Lubana lake
Point description:..... Lubana lake near R□zekne riverbed
Coordinates: 680000-6296500
Temperature of air: ..... 21,48 °C
Wind:..... direction S 168 °
average rate - 2,7 m/s
maximal rate - 4,2m/s

Temperature of water: ..... 18,4 °C
Flow: ..... not measured
Dissolved oxygen: ..... 8,25 mg/l
Specific conductance: ..... 342 μ S/cm
TDS: ..... 0,219 g/l
pH:..... 7,61
Turbidity:..... 46 NTUs
ORP:..... 460 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	3,20	10.06.00
Suspended solids	mg/l	23,0	10.06.00
BOD 7	mg/l	3,56	10-17.06.00
COD_{Mn}	mg/l	25,00	10.06.00
COD_{Cr}	mg/l	58,00	10.06.00
N/NH_4	mg/l	0,20	10.06.00
N/NO_2	mg/l	<0,002	10.06.00
N/NO_3	mg/l	0,17	10.06.00
Total nitrogen	mg/l	0,51	10.06.00
P/PO_4	mg/l	0,01	10.06.00
Total phosphorus	mg/l	0,02	10.06.00
Total coliforms	kvv/100 ml	1	26.06.00
PCB	mg/l	< 0,0003	28.06.00
Oil	mg/l	0,07±0,008	22.06.00
Cr^{+6}	mg/l	< 0,05	12.06.00
Pb	mg/l	< 0,02	12.06.00
Cd	mg/l	< 0,01	12.06.00
As	ng/l	< 2	17.06.00
Hg	ng/l	< 0,05	17.06.00
Phenol	mg/l	0,01	11.06.00

Sampling point: ..... Nr.20 – Kvananu fishpond
Point description:..... Fishpond
Coordinates: 682400-6295900
Temperature of air: ..... 14,3 °C
Wind:..... direction NE 45 °
average rate – 1,1 m/s
maximal rate - 2,9 m/s

Temperature of water: ..... 18,23 °C
Flow: ..... not measured
Dissolved oxygen: ..... 8,39 mg/l
Specific conductance: ..... 266,5 μ S/cm
TDS: ..... 0,170 g/l
pH:..... 8,73
Turbidity:..... 70,3 NTUs
ORP:..... 426 mV

Parameter	Measuring units	Results	Date
Total hardness	mg-ekv/l	2,49	17.06.00
Suspended solids	mg/l	41	17.06.00
BOD 7	mg/l	1,3	17-24.06.00
COD_{Mn}	mg/l	22	17.06.00
COD_{Cr}	mg/l	60	17.06.00
N/NH_4	mg/l	0,2	17.06.00
N/NO_2	mg/l	<0,002	17.06.00
N/NO_3	mg/l	0,16	17.06.00
Total nitrogen	mg/l	0,48	17.06.00
P/PO_4	mg/l	0,01	17.06.00
Total phosphorus	mg/l	0,05	17.06.00
Total coliforms	kvv	150	06.06.00
PCB	mg/l	< 0,0003	28.06.00
Oil	mg/l	0,2±0,02	20-21.06.00
Cr^{+6}	mg/l	< 0,05	18.06.00
Pb	mg/l	< 0,02	18.06.00
Cd	mg/l	< 0,01	18.06.00
As	ng/l	< 2	20.06.00
Hg	ng/l	< 0,05	20.06.00
Phenol	mg/l	< 0,001	18.06.00

PART IV

Water Level Simulation Data

WATER LEVEL SIMULATION DATA
IN
LUBANA WETLAND COMPLEX

Table of Contents

IV-1 Meteorogical and Hydrological Analysis

1) Maximum Rainfall and Annual Total Rainfall Records (1/2)

(unit: mm)

	Rezekne Station					Dagda Station					Zilani Station				
	Maximum Rainfall				Annual Total	Maximum Rainfall				Annual Total	Maximum Rainfall				Annual Total
	1-day	2-day	3-day	5-day		1-day	2-day	3-day	5-day		1-day	2-day	3-day	5-day	
1998	43.8	65.7	68.1	74.6	773.4	-	-	-	-	-	-	-	-	-	-
1997	55.7	62.4	64.0	72.6	661.7	26.4	41.3	49.6	60.7	776.8	34.6	52.6	55.8	81.9	770.3
1996	16.5	24.1	33.4	38.0	472.3	25.8	39.8	59.1	59.8	645.3	23.8	27.3	29.2	38.8	580.8
1995	21.5	34.4	35.1	49.2	555.7	19.2	29.6	32.2	43.3	606.0	55.1	55.1	69.4	82.0	821.3
1994	33.1	33.1	33.2	41.6	602.7	26.4	34.7	35.3	35.9	685.3	21.5	24.8	26.1	35.0	704.6
1993	41.3	57.4	58.2	63.0	660.7	28.5	39.7	48.1	52.4	578.0	53.8	66.9	67.0	69.1	764.9
1992	16.8	30.7	36.8	39.8	561.6	18.8	32.6	36.9	44.7	620.2	16.8	25.3	34.2	46.0	583.9
1991	55.6	59.5	66.1	70.0	668.1	23.4	28.9	36.7	43.1	603.1	18.7	34.8	34.8	35.3	641.1
1990	27.8	39.6	44.5	50.1	684.6	26.6	33.3	41.4	49.6	858.0	27.3	32.4	47.5	55.5	759.8
1989	29.2	43.6	54.5	68.0	683.5	29.6	50.9	60.2	63.6	699.2	33.5	37.5	43.5	46.7	667.4
1988	42.2	44.3	44.7	55.8	634.7	22.8	26.5	40.6	43.2	715.8	34.5	66.2	84.3	85.8	728.6
1987	15.4	23.9	28.4	50.5	588.3	15.9	25.7	29.5	33.3	628.9	29.2	38.7	43.9	57.4	688.6
1986	35.5	47.7	58.7	74.5	660.4	25.2	35.3	42.3	63.2	729.5	32.1	45.9	65.0	68.8	735.0
1985	32.7	40.3	40.7	52.0	678.8	29.2	41.8	48.5	64.1	733.0	23.7	35.4	35.4	36.6	627.5
1984	15.7	24.5	25.7	31.3	520.8	21.2	21.2	23.4	39.1	568.2	17.7	28.0	34.0	45.8	604.0
1983	21.7	41.8	46.8	46.8	671.6	31.5	43.3	44.0	44.5	607.4	24.3	28.0	28.0	30.1	620.3
1982	50.5	53.0	53.4	56.1	596.5	33.2	48.4	53.8	54.5	576.1	27.0	34.6	40.6	59.2	539.5
1981	18.4	35.3	35.3	48.9	685.4	29.7	38.3	57.1	71.0	726.0	22.3	25.3	28.4	37.5	752.7
1980	30.9	43.0	43.8	56.5	613.5	77.6	94.2	121.5	121.9	788.7	29.8	33.3	34.8	46.6	729.5
1979	36.5	51.3	53.6	54.2	605.4	32.1	48.8	55.2	57.2	589.1	21.0	26.3	28.9	33.4	623.1
1978	58.7	61.0	61.0	68.9	772.2	41.8	54.2	65.8	66.9	824.4	33.1	36.8	43.6	56.4	755.2
1977	20.9	26.4	34.3	50.5	567.7	38.1	49.7	62.8	67.3	647.9	31.4	43.0	45.6	62.9	658.2
1976	22.6	32.7	46.0	54.2	526.6	30.6	31.5	37.9	44.4	541.2	22.0	26.3	29.9	32.8	557.1
1975	22.4	43.2	47.9	69.8	479.4	30.7	35.9	41.1	44.0	562.4	25.1	29.4	32.1	34.9	422.4
1974	24.4	32.9	42.4	52.0	573.5	30.4	30.4	31.5	42.1	643.6	51.3	66.8	67.2	69.3	701.5
1973	23.9	27.1	50.0	54.2	580.7	31.8	37.7	40.0	47.2	543.0	27.5	34.1	47.1	51.5	626.2
1972	33.3	41.7	61.8	68.4	521.7	38.8	42.6	44.7	51.9	544.6	38.8	43.7	54.2	58.5	637.8
1971	34.6	35.0	38.6	38.6	506.5	33.0	43.8	45.0	51.5	535.8	25.5	28.9	42.2	47.7	573.0
1970	15.1	23.3	33.4	48.4	575.6	25.8	51.4	59.7	66.2	614.6	35.8	39.6	42.5	57.8	679.8
1969	30.2	30.9	32.8	39.2	553.7	56.4	59.8	68.9	72.3	580.1	21.0	29.5	38.2	53.8	648.5
1968	23.6	32.3	38.1	44.1	549.6	30.2	32.6	44.2	47.3	629.3	42.7	55.4	80.8	87.8	679.7

1) Maximum Rainfall and Annual Total Rainfall Records (2/2)

(unit: mm)

	Rezekne Station					Dagda Station									
	Maximum Rainfall				Annual	Maximum Rainfall				Annual	Maximum Rainfall				Annual
	1-day	2-day	3-day	5-day	Total	1-day	2-day	3-day	5-day	Total	1-day	2-day	3-day	5-day	Total
1998	31.9	56.3	58.6	78.5	821.6	-	-	-	-	-					
1997	61.7	84.4	84.4	84.4	952.6	51.9	83.8	83.8	83.8	758.1					
1996	19.2	31.5	41.4	48.3	606.9	26.2	32.3	39.6	51.3	600.9					
1995	23.6	35.7	41.6	47.7	709.1	28.4	34.3	46.7	48.4	647.1					
1994	28.1	40.0	51.1	57.7	753.9	19.7	24.7	26.4	39.7	625.4					
1993	37.0	55.4	59.4	61.0	732.1	34.1	68.1	68.4	76.4	694.3					
1992	19.5	31.7	35.2	43.4	682.3	25.5	35.7	42.6	53.2	558.7					
1991	29.2	29.7	36.7	38.9	703.4	23.0	36.7	39.7	45.8	625.5					
1990	26.5	32.2	38.6	48.5	914.0	24.2	31.4	36.6	47.8	794.9					
1989	26.4	38.9	56.5	61.7	765.9	23.8	40.0	56.0	60.3	733.9					
1988	56.9	65.8	73.1	82.7	815.8	32.2	36.7	37.9	53.4	664.0					
1987	56.3	102.2	104.3	117.3	766.0	26.5	45.7	48.4	60.1	650.3					
1986	47.2	59.6	69.1	83.5	816.0	36.6	50.0	59.8	69.2	725.5					
1985	32.3	34.5	35.3	42.2	713.7	23.9	33.5	33.5	39.8	607.0					
1984	22.0	23.7	29.2	43.2	625.8	22.1	31.6	37.7	48.0	625.6					
1983	23.6	32.4	34.2	34.2	667.7	18.4	25.5	25.5	30.2	554.9					
1982	88.4	94.8	96.8	102.7	738.2	23.2	39.5	40.8	44.9	514.5					
1981	25.8	29.4	38.6	43.8	810.2	25.5	29.8	34.8	38.0	669.4					
1980	41.1	48.8	52.4	62.7	713.7	41.4	45.2	45.3	52.2	657.4					
1979	49.9	63.3	63.3	82.7	599.0	21.3	31.3	37.6	39.9	564.1					
1978	60.0	76.5	92.9	109.3	922.3	54.8	85.6	89.8	115.1	814.4					
1977	28.8	38.1	45.1	61.1	637.7	53.4	41.1	41.8	49.1	592.8					
1976	30.9	53.4	65.9	70.6	605.2	22.0	28.7	40.6	46.6	500.9					
1975	27.1	28.2	41.3	48.3	554.2	21.2	23.2	33.8	40.7	490.1					
1974	77.6	108.7	112.1	113.3	725.3	44.2	86.9	93.7	98.8	680.3					
1973	22.9	27.1	38.2	47.0	703.5	18.6	23.1	30.4	40.9	539.1					
1972	57.9	57.9	71.3	74.4	687.9	41.4	43.5	52.7	53.3	565.4					
1971	19.6	25.9	26.9	37.8	521.9	20.0	24.2	29.3	40.1	505.7					
1970	14.3	21.6	25.2	37.2	593.5	20.3	36.9	46.9	53.4	585.4					
1969	26.9	31.9	31.9	47.1	625.7	21.4	25.6	26.9	43.7	525.9					
1968	24.1	40.9	42.1	61.0	583.8	28.2	42.3	44.2	70.9	830.6					

2) Frequency Analysis of 5-day Rain (1/4)

Station: Gulbene Duration : 31 years from 1968 to 1998

Final Result by Gumbel Method

Probability	1/a	Xo	y	Storm Rain
1/50	16.6456	46.3339	3.9019	111.3
1/20			2.9702	95.8
1/10			2.2504	83.8
1/7			1.8698	77.5
1/5			1.4999	71.3
1/2			0.3665	52.4

Calculation :

Observed year	Peak Discharge (x)	Average x	(x-average x)^2	Sx	Average y	Sy
1978	115.1	55.27	3579.1	18.5748	0.5371	1.1159
1974	98.8		1894.5			
1997	83.8		813.7			
1998	78.5		539.4			
1993	76.4		446.3			
1968	70.9		244.2			
1986	69.2		193.9			
1989	60.3		25.3			
1987	60.1		23.3			
1988	53.4		3.5			
1970	53.4		3.5			
1972	53.3		3.9			
1992	53.2		4.3			
1980	52.2		9.5			
1996	51.3		15.8			
1977	49.1		38.1			
1995	48.4		47.3			
1984	48.0		52.9			
1990	47.8		55.9			
1976	46.6		75.2			
1991	45.8		89.8			
1982	44.9		107.6			
1969	43.7		134.0			
1973	40.9		206.6			
1975	40.7		212.4			
1971	40.1		230.3			
1979	39.9		236.4			
1985	39.8		239.5			
1994	39.7		242.6			
1981	38.0		298.4			
1983	30.2		628.7			
Total	1713.5		10695.7			

2) Frequency Analysis of 5-day Rain (2/4)

Station: Gulbene **Duration : 31 years from 1968 to 1998**

Final Result by Log Pearson Type III

Probability	Average y	Root V	K	y	Storm Rain
1/50	1.7221	0.1226	2.6607	2.0483	111.8
1/25			2.1052	1.9802	95.5
1/20			1.9228	1.9578	90.7
1/10			1.3391	1.8863	77.0
1/5			0.7207	1.8105	64.6
1/2			-0.2080	1.6966	49.7

Calculation :

Observed year	Peak Discharge (x)	y = logx	Average y	$(y\text{-average } y)^2$	Variance of y (V)	$(y\text{-average } y)^3$	Cs
1978	115.1	2.0611	1.7221	0.1149	0.0150	0.038951	1.2867
1974	98.8	1.9948	1.7221	0.0743		0.020271	
1997	83.8	1.9232	1.7221	0.0405		0.008139	
1998	78.5	1.8949	1.7221	0.0299		0.005157	
1993	76.4	1.8831	1.7221	0.0259		0.004173	
1968	70.9	1.8506	1.7221	0.0165		0.002124	
1986	69.2	1.8401	1.7221	0.0139		0.001643	
1989	60.3	1.7803	1.7221	0.0034		0.000197	
1987	60.1	1.7789	1.7221	0.0032		0.000183	
1988	53.4	1.7275	1.7221	0.0000		0.000000	
1970	53.4	1.7275	1.7221	0.0000		0.000000	
1972	53.3	1.7267	1.7221	0.0000		0.000000	
1992	53.2	1.7259	1.7221	0.0000		0.000000	
1980	52.2	1.7177	1.7221	0.0000		0.000000	
1996	51.3	1.7101	1.7221	0.0001		-0.000002	
1977	49.1	1.6911	1.7221	0.0010		-0.000030	
1995	48.4	1.6848	1.7221	0.0014		-0.000052	
1984	48.0	1.6812	1.7221	0.0017		-0.000068	
1990	47.8	1.6794	1.7221	0.0018		-0.000078	
1976	46.6	1.6684	1.7221	0.0029		-0.000155	
1991	45.8	1.6609	1.7221	0.0037		-0.000230	
1982	44.9	1.6522	1.7221	0.0049		-0.000341	
1969	43.7	1.6405	1.7221	0.0067		-0.000544	
1973	40.9	1.6117	1.7221	0.0122		-0.001345	
1975	40.7	1.6096	1.7221	0.0127		-0.001424	
1971	40.1	1.6031	1.7221	0.0141		-0.001683	
1979	39.9	1.6010	1.7221	0.0147		-0.001777	
1985	39.8	1.5999	1.7221	0.0149		-0.001825	
1994	39.7	1.5988	1.7221	0.0152		-0.001875	
1981	38.0	1.5798	1.7221	0.0203		-0.002882	
1983	30.2	1.4800	1.7221	0.0586		-0.014188	
Total		53.3850		0.4509		0.066531	

2) Frequency Analysis of 5-day Rain (3/4)

Station: Rezekne Duration : 31 years from 1968 to 1998

Final Result by Gumbel Method

Probability	1/a	Xo	y	Storm Rain
1/50	10.5242	48.5991	3.9019	89.7
1/20			2.9702	79.9
1/15			2.6738	76.7
1/10			2.2504	72.3
1/5			1.4999	64.4
1/2			0.3665	52.5

Calculation :

Observed year	Peak Discharge (x)	Average x	(x-average x)^2	Sx	Average y	Sy
1998	74.6	54.25	414.1	11.7439	0.5371	1.1159
1986	74.5		410.0			
1997	72.6		336.7			
1991	70.0		248.0			
1975	69.8		241.8			
1978	68.9		214.6			
1972	68.4		200.2			
1989	68.0		189.0			
1993	63.0		76.5			
1980	56.5		5.1			
1982	56.1		3.4			
1988	55.8		2.4			
1979	54.2		0.0			
1976	54.2		0.0			
1973	54.2		0.0			
1985	52.0		5.1			
1974	52.0		5.1			
1987	50.5		14.1			
1977	50.5		14.1			
1990	50.1		17.2			
1995	49.2		25.5			
1981	48.9		28.6			
1970	48.4		34.2			
1983	46.8		55.5			
1968	44.1		103.1			
1994	41.6		160.1			
1992	39.8		208.8			
1969	39.2		226.6			
1971	38.6		245.0			
1996	38.0		264.1			
1984	31.3		526.8			
Total	1681.8		4275.5			

2) Frequency Analysis of 5-day Rain (4/4)

Station: Rezekne **Duration : 31 years from 1968 to 1998**

Final Result by Log Pearson Type III

Probability	Average y	Root V	K	y	Storm Rain
1/50	1.7240	0.0884	2.2018	1.9187	82.9
1/25			1.8435	1.8870	77.1
1/20			1.7211	1.8762	75.2
1/10			1.3079	1.8396	69.1
1/5			-4.1140	1.3601	22.9
1/2			-0.0470	1.7198	52.5

Calculation :

Observed year	Peak Discharge (x)	y = logx	Average y	(y-average y)^2	Variance of y (V)	(y-average y)^3	Cs
1998	74.6	1.8727	1.7240	0.0221	0.0078	0.003293	0.2848
1986	74.5	1.8722	1.7240	0.0220		0.003254	
1997	72.6	1.8609	1.7240	0.0188		0.002570	
1991	70.0	1.8451	1.7240	0.0147		0.001777	
1975	69.8	1.8439	1.7240	0.0144		0.001723	
1978	68.9	1.8382	1.7240	0.0131		0.001491	
1972	68.4	1.8351	1.7240	0.0123		0.001371	
1989	68.0	1.8325	1.7240	0.0118		0.001279	
1993	63.0	1.7993	1.7240	0.0057		0.000428	
1980	56.5	1.7520	1.7240	0.0008		0.000022	
1982	56.1	1.7490	1.7240	0.0006		0.000016	
1988	55.8	1.7466	1.7240	0.0005		0.000012	
1979	54.2	1.7340	1.7240	0.0001		0.000001	
1976	54.2	1.7340	1.7240	0.0001		0.000001	
1973	54.2	1.7340	1.7240	0.0001		0.000001	
1985	52.0	1.7160	1.7240	0.0001		-0.000001	
1974	52.0	1.7160	1.7240	0.0001		-0.000001	
1987	50.5	1.7033	1.7240	0.0004		-0.000009	
1977	50.5	1.7033	1.7240	0.0004		-0.000009	
1990	50.1	1.6998	1.7240	0.0006		-0.000014	
1995	49.2	1.6920	1.7240	0.0010		-0.000033	
1981	48.9	1.6893	1.7240	0.0012		-0.000042	
1970	48.4	1.6848	1.7240	0.0015		-0.000060	
1983	46.8	1.6702	1.7240	0.0029		-0.000155	
1968	44.1	1.6444	1.7240	0.0063		-0.000503	
1994	41.6	1.6191	1.7240	0.0110		-0.001153	
1992	39.8	1.5999	1.7240	0.0154		-0.001910	
1969	39.2	1.5933	1.7240	0.0171		-0.002232	
1971	38.6	1.5866	1.7240	0.0189		-0.002593	
1996	38.0	1.5798	1.7240	0.0208		-0.002997	
1984	31.3	1.4955	1.7240	0.0522		-0.011918	
Total		53.4430		0.2347		0.005528	

3) Peak Flood Discharge Data

Peak Flood Discharege

	Aiviekste - Lubana		Rezekne - Griškani		Pededze-Litene	
	Peak flood discharge (m^3/sec)	Month	Peak flood discharge (m^3/sec)	Month	Peak flood discharge (m^3/sec)	Month
1968	156.0	Apr	50.7	Mar	93.6	Mar
1969	124.0	Apr	7.9	Apr	80.6	Apr
1970	166.0	Apr	25.8	Apr	76.6	Apr
1971	163.0	Apr	29.2	Apr	69.5	Apr
1972	80.6	Apr	10.0	Apr	54.1	Apr
1973	98.0	Mar	17.8	Mar	31.2	Apr
1974	71.4	Mar	6.8	Mar	34.2	Mar
1975	112.0	Apr	13.0	Apr	35.0	Apr
1976	106.0	Apr	17.6	Apr	30.8	Apr
1977	114.0	Apr	8.5	Mar	54.4	Apr
1978	154.0	Apr	22.9	Apr	89.5	Apr
1979	159.0	Apr	29.8	Apr	61.4	Apr
1980	114.0	Apr	17.7	Apr	47.4	Apr
1981	146.0	Apr	26.9	Mar	52.6	Apr
1982	166.0	Apr	21.1	Mar	80.1	Apr
1983	163.0	Apr	17.5	Mar	88.3	Apr
1984	139.0	Apr	19.5	Apr	83.9	Apr
1985	151.0	Apr	24.3	Apr	45.6	Apr
1986	153.0	Apr	26.7	Mar	80.4	Apr
1987	130.0	Apr	16.7	Apr	51.0	Apr
1988	129.0	Apr	15.8	Apr	102.0	Apr
1989	137.0	Feb	13.0	Mar	56.3	Mar
1990	137.0	Feb	14.4	Jan	82.7	Feb
1991	117.0	Jan	21.5	Jan	48.0	Mar
1992	97.9	Jan	10.0	May	45.0	Jan
1993	100.0	Mar	14.4	Jan	42.2	Mar
1994	160.0	Apr	24.4	Apr	143.0	Apr
1995	156.0	Mar	18.1	Feb	74.7	Mar
1996	112.0	Apr	16.1	Apr	54.3	Apr
1997	113.0	Mar	18.6	Feb	26.1	Mar

4) Frequency Analysis of Spring Flood (1/6)

Station: **Pededze - Litene** **Duration :** **30 years from 1968 to 1997**

Final Result by Gumbel Distiribution (unit : m^3/s)

Probability	1/a	Xo	y	Peak Discharge
1/100	22.8324	51.5739	4.6001	156.6
1/50			3.9019	140.7
1/10			2.2504	103.0
1/7			1.8698	94.3
1/5			1.4999	85.8
1/2			0.3665	59.9

Calculation :

Observed year	Peak Discharge (x)	Average x	$(x\text{-average } x)^2$	Sx	Average y	Sy
1994	143.0	63.82	6270.0	25.3988	0.5362	1.1124
1988	102.0		1458.0			
1968	93.6		887.0			
1978	89.5		659.6			
1983	88.3		599.4			
1984	83.9		403.3			
1990	82.7		356.6			
1969	80.6		281.7			
1986	80.4		275.0			
1982	80.1		265.1			
1970	76.6		163.4			
1995	74.7		118.4			
1971	69.5		32.3			
1979	61.4		5.8			
1989	56.3		56.5			
1977	54.4		88.7			
1996	54.3		90.6			
1972	54.1		94.4			
1981	52.6		125.8			
1987	51.0		164.3			
1991	48.0		250.2			
1980	47.4		269.5			
1985	45.6		331.8			
1992	45.0		354.1			
1993	42.2		467.3			
1975	35.0		830.4			
1974	34.2		877.1			
1973	31.2		1063.8			
1976	30.8		1090.1			
1997	26.1		1422.5			
Total	1914.5		19353.0			

4) Frequency Analysis of Spring Flood (2/6)

Station: Pededze - Litene **Duration : 30 years from 1968 to 1997**

Final Result by Log Pearson III (unit : m^3/s)

Probability	Average y	Root V	K	y	Peak Flood
1/100	1.7711	0.1762	2.3260	2.1809	151.7
1/50			2.0540	2.1330	135.8
1/25			1.7510	2.0796	120.1
1/10			1.2820	1.9969	99.3
1/5			0.8420	1.9194	83.1
1/2			0.0000	1.7711	59.0

Calculation :

Observed year	Peak Discharge (x)	y = logx	Average y	$(y\text{-average } y)^2$	Variance of y (V)	$(y\text{-average } y)^3$	Cs
1994	143.0	2.1553	1.7711	0.1477	0.0310	0.0567	-0.1036
1988	102.0	2.0086	1.7711	0.0564		0.0134	
1968	93.6	1.9713	1.7711	0.0401		0.0080	
1978	89.5	1.9518	1.7711	0.0327		0.0059	
1983	88.3	1.9460	1.7711	0.0306		0.0054	
1984	83.9	1.9238	1.7711	0.0233		0.0036	
1990	82.7	1.9175	1.7711	0.0214		0.0031	
1969	80.6	1.9063	1.7711	0.0183		0.0025	
1986	80.4	1.9053	1.7711	0.0180		0.0024	
1982	80.1	1.9036	1.7711	0.0176		0.0023	
1970	76.6	1.8842	1.7711	0.0128		0.0014	
1995	74.7	1.8733	1.7711	0.0105		0.0011	
1971	69.5	1.8420	1.7711	0.0050		0.0004	
1979	61.4	1.7882	1.7711	0.0003		0.0000	
1989	56.3	1.7505	1.7711	0.0004		0.0000	
1977	54.4	1.7356	1.7711	0.0013		0.0000	
1996	54.3	1.7348	1.7711	0.0013		0.0000	
1972	54.1	1.7332	1.7711	0.0014		-0.0001	
1981	52.6	1.7210	1.7711	0.0025		-0.0001	
1987	51.0	1.7076	1.7711	0.0040		-0.0003	
1991	48.0	1.6812	1.7711	0.0081		-0.0007	
1980	47.4	1.6758	1.7711	0.0091		-0.0009	
1985	45.6	1.6590	1.7711	0.0126		-0.0014	
1992	45.0	1.6532	1.7711	0.0139		-0.0016	
1993	42.2	1.6253	1.7711	0.0212		-0.0031	
1975	35.0	1.5441	1.7711	0.0515		-0.0117	
1974	34.2	1.5340	1.7711	0.0562		-0.0133	
1973	31.2	1.4942	1.7711	0.0767		-0.0212	
1976	30.8	1.4886	1.7711	0.0798		-0.0225	
1997	26.1	1.4166	1.7711	0.1256		-0.0445	
Total		53.1318		0.9003		-0.0153	

4) Frequency Analysis of Spring Flood (3/6)

Station: **Aiviekste - Lubna** **Duration :** **30 years from 1968 to 1998**

Final Result by Gumbel Distiribution (unit : m3/s)

Probability	1/a	Xo	y	Peak Flood
1/100	28.0945	112.5290	4.6001	241.8
1/50			3.9019	222.2
1/10			2.2504	175.8
1/7			1.8698	165.1
1/5			1.4999	154.7
1/2			0.3665	122.8

Calculation :

Observed year	Peak Discharge (x)	Average x	(x-average x)2	Sx	Average y	Sy
1970	166.0	127.62	1,473.1	31.3511	#REF!	#REF!
1982	166.0		1,473.1			
1971	163.0		1,251.8			
1983	163.0		1,251.8			
1994	160.0		1,048.5			
1979	159.0		984.7			
1968	156.0		805.5			
1995	156.0		805.5			
1978	154.0		695.9			
1986	153.0		644.2			
1985	151.0		546.7			
1981	146.0		337.8			
1984	139.0		129.5			
1989	137.0		88.0			
1990	137.0		88.0			
1987	130.0		5.7			
1988	129.0		1.9			
1969	124.0		13.1			
1991	117.0		112.8			
1977	114.0		185.5			
1980	114.0		185.5			
1997	113.0		213.7			
1975	112.0		244.0			
1996	112.0		244.0			
1976	106.0		467.4			
1993	100.0		762.8			
1973	98.0		877.3			
1992	97.9		883.2			
1972	80.6		2,210.8			
1974	71.4		3,160.6			
1984	31.3		9,277.4			
Total	3,956.2		30,469.7			

4) Frequency Analysis of Spring Flood (4/6)

Station: Aiviekste - Lubna **Duration : 30 years from 1968 to 1997**

Final Result by Log Pearson III (unit : m^3/s)

Probability	Average y	Root V	K	y	Peak Flood
1/100	2.1069	0.0966	2.3260	2.3317	214.6
1/50			2.0540	2.3054	202.0
1/25			1.7510	2.2761	188.8
1/10			1.2820	2.2308	170.1
1/5			0.8420	2.1883	154.3
1/2			0.0000	2.1069	127.9

Calculation :

Observed year	Peak Discharge (x)	y = logx	Average y	(y-average y)^2	Variance of y (V)	(y-average y)^3	Cs
1970	166.0	2.2201	2.1069	0.0128	0.0093	0.0015	-0.8229
1982	166.0	2.2201	2.1069	0.0128		0.0015	
1971	163.0	2.2122	2.1069	0.0111		0.0012	
1983	163.0	2.2122	2.1069	0.0111		0.0012	
1994	160.0	2.2041	2.1069	0.0095		0.0009	
1979	159.0	2.2014	2.1069	0.0089		0.0008	
1968	156.0	2.1931	2.1069	0.0074		0.0006	
1995	156.0	2.1931	2.1069	0.0074		0.0006	
1978	154.0	2.1875	2.1069	0.0065		0.0005	
1986	153.0	2.1847	2.1069	0.0061		0.0005	
1985	151.0	2.1790	2.1069	0.0052		0.0004	
1981	146.0	2.1644	2.1069	0.0033		0.0002	
1984	139.0	2.1430	2.1069	0.0013		0.0000	
1989	137.0	2.1367	2.1069	0.0009		0.0000	
1990	137.0	2.1367	2.1069	0.0009		0.0000	
1987	130.0	2.1139	2.1069	0.0000		0.0000	
1988	129.0	2.1106	2.1069	0.0000		0.0000	
1969	124.0	2.0934	2.1069	0.0002		0.0000	
1991	117.0	2.0682	2.1069	0.0015		-0.0001	
1977	114.0	2.0569	2.1069	0.0025		-0.0001	
1980	114.0	2.0569	2.1069	0.0025		-0.0001	
1997	113.0	2.0531	2.1069	0.0029		-0.0002	
1975	112.0	2.0492	2.1069	0.0033		-0.0002	
1996	112.0	2.0492	2.1069	0.0033		-0.0002	
1976	106.0	2.0253	2.1069	0.0067		-0.0005	
1993	100.0	2.0000	2.1069	0.0114		-0.0012	
1973	98.0	1.9912	2.1069	0.0134		-0.0015	
1992	97.9	1.9908	2.1069	0.0135		-0.0016	
1972	80.6	1.9063	2.1069	0.0402		-0.0081	
1974	71.4	1.8537	2.1069	0.0641		-0.0162	
Total		63.2072		0.2708		-0.0201	

4) Frequency Analysis of Spring Flood (5/6)

Station: **Rezekne - Griskani** **Duration :** **30 years from 1968 to 1997**

Final Result by Gumbel Distiribution (unit : m^3/s)

Probability	1/a	Xo	y	Peak Flood
1/100	7.6397	15.1259	4.6001	50.3
1/50			3.9019	44.9
1/10			2.2504	32.3
1/7			1.8698	29.4
1/5			1.4999	26.6
1/2			0.3665	17.9

Calculation :

Observed year	Peak Discharge (x)	Average x	$(x\text{-average } x)^2$	Sx	Average y	Sy
1968	50.7	19.22	990.8	8.4984	0.5362	1.1124
1979	29.8		111.9			
1971	29.2		99.6			
1981	26.9		58.9			
1986	26.7		55.9			
1970	25.8		43.3			
1994	24.4		26.8			
1985	24.3		25.8			
1978	22.9		13.5			
1991	21.5		5.2			
1982	21.1		3.5			
1984	19.5		0.1			
1997	18.6		0.4			
1995	18.1		1.3			
1973	17.8		2.0			
1980	17.7		2.3			
1976	17.6		2.6			
1983	17.5		3.0			
1987	16.7		6.4			
1996	16.1		9.7			
1988	15.8		11.7			
1990	14.4		23.3			
1993	14.4		23.3			
1975	13.0		38.7			
1989	13.0		38.7			
1972	10.0		85.1			
1992	10.0		85.8			
1977	8.5		114.8			
1969	7.9		129.1			
1974	6.8		153.3			
Total	576.7		2166.7			

4) Frequency Analysis of Spring Flood (6/6)

Station: Rezekne - Griskani **Duration : 30 years from 1968 to 1997**

Final Result by Log Pearson III (unit : m^3/s)

Probability	Average y	Root V	K	y	Peak Flood
1/100	1.2446	0.1895	2.3260	1.6854	48.5
1/50			2.0540	1.6338	43.0
1/25			1.7510	1.5764	37.7
1/10			1.2820	1.4875	30.7
1/5			0.8420	1.4042	25.4
1/2			0.0000	1.2446	17.6

Calculation :

Observed year	Peak Discharge (x)	y = logx	Average y	(y-average y)^2	Variance of y (V)	(y-average y)^3	Cs
1968	50.7	1.7050	1.2446	0.2120	0.0359	0.0976	-0.1729
1979	29.8	1.4742	1.2446	0.0527		0.0121	
1971	29.2	1.4654	1.2446	0.0487		0.0108	
1981	26.9	1.4298	1.2446	0.0343		0.0063	
1986	26.7	1.4265	1.2446	0.0331		0.0060	
1970	25.8	1.4116	1.2446	0.0279		0.0047	
1994	24.4	1.3874	1.2446	0.0204		0.0029	
1985	24.3	1.3856	1.2446	0.0199		0.0028	
1978	22.9	1.3598	1.2446	0.0133		0.0015	
1991	21.5	1.3324	1.2446	0.0077		0.0007	
1982	21.1	1.3243	1.2446	0.0064		0.0005	
1984	19.5	1.2900	1.2446	0.0021		0.0001	
1997	18.6	1.2695	1.2446	0.0006		0.0000	
1995	18.1	1.2577	1.2446	0.0002		0.0000	
1973	17.8	1.2504	1.2446	0.0000		0.0000	
1980	17.7	1.2480	1.2446	0.0000		0.0000	
1976	17.6	1.2455	1.2446	0.0000		0.0000	
1983	17.5	1.2430	1.2446	0.0000		0.0000	
1987	16.7	1.2227	1.2446	0.0005		0.0000	
1996	16.1	1.2068	1.2446	0.0014		-0.0001	
1988	15.8	1.1987	1.2446	0.0021		-0.0001	
1990	14.4	1.1584	1.2446	0.0074		-0.0006	
1993	14.4	1.1584	1.2446	0.0074		-0.0006	
1975	13.0	1.1139	1.2446	0.0171		-0.0022	
1989	13.0	1.1139	1.2446	0.0171		-0.0022	
1972	10.0	1.0000	1.2446	0.0598		-0.0146	
1992	10.0	0.9983	1.2446	0.0607		-0.0149	
1977	8.5	0.9299	1.2446	0.0990		-0.0312	
1969	7.9	0.8954	1.2446	0.1219		-0.0426	
1974	6.8	0.8351	1.2446	0.1677		-0.0687	
Total		37.3377		1.0414		-0.0318	

5) Snow Melt

Constant "m" is decided on a trial basis to match the data of actual snow disappearance to the data of disappearance in the calculation as shown in next pages.
Calculated constant "m" in each year is summarized in following table.

Summary Table of Constant "m"

	Aluksne	Gulbene	Rezekne	Dagada	Zilani
1968	5.5	3.4	4.0	3.5	4.5
1969	7.5	7.5	3.0	3.5	17.0
1970	4.5	4.5	5.5	3.5	6.0
1971	3.5	3.5	3.5	4.5	4.5
1972	3.5	3.5	5.0	4.5	6.0
1973	4.5	4.5	6.5	4.5	6.0
1974	3.0	2.5	4.0	4.5	2.5
1975	4.0	4.5	4.0	6.0	6.0
1976	4.0	3.5	4.5	6.0	6.0
1977	4.0	3.5	4.5	6.0	3.5
1978	4.5	4.0	5.5	6.0	3.0
1979	4.5	3.0	3.5	5.5	3.5
1980	3.0	3.5	4.8	5.5	4.5
1981	5.0	3.5	4.5	4.5	4.5
1982	4.5	4.5	4.2	5.5	5.0
1983	3.0	3.0	4.5	5.5	3.0
1984	4.5	3.5	4.5	5.5	5.0
1985	5.5	6.0	4.5	10.0	6.5
1986	3.5	3.5	3.5	5.0	4.0
1987	6.0	4.0	4.5	6.0	3.5
1988	3.5	3.5	4.0	5.5	6.5
1989	3.0	3.0	3.5	5.0	2.5
1990	4.0	4.5	4.5	6.0	5.0
1991	4.5	4.5	6.0	4.0	6.0
1992	3.0	5.5	6.0	4.0	4.5
1993	3.5	3.5	4.5	4.5	6.5
1994	3.0	3.0	4.5	2.5	6.0
1995	3.0	3.0	4.5	4.5	4.5
1996	2.5	2.5	3.0	3.0	4.5
1997	3.0	4.0	4.5	4.0	4.5
Average	4.0	3.9	4.5	5.0	5.2
Constant to be applied	4.0	4.0	4.5	5.0	5.0

5) Snowmelt : Sample Calculation of Snowmelt Constant , Rezekne and Dagda Stations

Dec.1967 - Apr. 1968

Rezekne			Conatant "m " = 4							Dagda		Conatant "m " = 3.5						
	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalent to snow depth	Amount of snow melting	Total precipitation	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalent to snow depth	Amount of snow melting	Total precipitation
1-Dec							0.00									0.00		
2-Dec			4.4		0.0	0.0	0.00	0.00	0.00			5.0		0.0	0.0	0.00	0.00	0.00
3-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
4-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
5-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
6-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
7-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
8-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
9-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
10-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
11-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
12-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
13-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
14-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
15-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
16-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
17-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
18-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
19-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
20-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
21-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
22-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
23-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
24-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
25-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
26-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
27-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
28-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
29-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
30-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
31-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
1-Jan	2.3	-4.1	4.0		0.0	0.0	2.30	0.00	0.00	2.3	-4.8	7.0		0.0	0.0	2.30	0.00	0.00
2-Jan	0.2	-6.3	6.0		0.0	0.0	2.50	0.00	0.00	0.6	-6.2	9.0		0.0	0.0	2.90	0.00	0.00
3-Jan	2.1	-5.3	7.0		0.0	0.0	4.60	0.00	0.00	1.2	-5.1	9.0		0.0	0.0	4.10	0.00	0.00
4-Jan	0.5	-7.7	8.0		0.0	0.0	5.10	0.00	0.00	0.3	-7.7	9.0		0.0	0.0	4.40	0.00	0.00
5-Jan	0.3	-13.4	9.0		0.0	0.0	5.40	0.00	0.00	0.4	-11.1	9.0		0.0	0.0	4.80	0.00	0.00
6-Jan	0.2	-16.2	9.0		0.0	0.0	5.60	0.00	0.00	0.4	-15.0	9.0		0.0	0.0	5.20	0.00	0.00
7-Jan	0.0	-20.9	9.0		0.0	0.0	5.60	0.00	0.00		-20.1	9.0		0.0	0.0	5.20	0.00	0.00
8-Jan		-25.9	9.0		0.0	0.0	5.60	0.00	0.00		-24.2	9.0		0.0	0.0	5.20	0.00	0.00
9-Jan	1.0	-19.9	9.0		0.0	0.0	6.60	0.00	0.00		-21.0	9.0		0.0	0.0	5.20	0.00	0.00
10-Jan	0.3	-19.3	10.0		0.0	0.0	6.90	0.00	0.00	0.3	-19.3	9.0		0.0	0.0	5.50	0.00	0.00
11-Jan	0.9	-11.8	11.0		0.0	0.0	7.80	0.00	0.00	0.6	-13.7	10.0		0.0	0.0	6.10	0.00	0.00
12-Jan		-18.7	11.0		0.0	0.0	7.80	0.00	0.00		-19.5	10.0		0.0	0.0	6.10	0.00	0.00
13-Jan	0.2	-23.5	12.0		0.0	0.0	8.00	0.00	0.00		-23.0	10.0		0.0	0.0	6.10	0.00	0.00
14-Jan	0.3	-20.4	12.0		0.0	0.0	8.30	0.00	0.00		-20.4	10.0		0.0	0.0	6.10	0.00	0.00
15-Jan		-22.8	12.0		0.0	0.0	8.30	0.00	0.00		-24.2	10.0		0.0	0.0	6.10	0.00	0.00
16-Jan		-18.8	12.0		0.0	0.0	8.30	0.00	0.00		-16.7	10.0		0.0	0.0	6.10	0.00	0.00
17-Jan		-25.8	12.0		0.0	0.0	8.30	0.00	0.00		-25.4	9.0		0.0	0.0	6.10	0.00	0.00
18-Jan		-23.4	12.0		0.0	0.0	8.30	0.00	0.00		-22.7	10.0		0.0	0.0	6.10	0.00	0.00
19-Jan		-23.7	12.0		0.0	0.0	8.30	0.00	0.00		-23.9	10.0		0.0	0.0	6.10	0.00	0.00
20-Jan		-16.0	12.0		0.0	0.0	8.30	0.00	0.00	0.5	-18.4	10.0		0.0	0.0	6.60	0.00	0.00
21-Jan	0.3	-2.1	12.0		0.0	0.0	8.60	0.00	0.00	1.9	-2.2	10.0		0.0	0.0	8.50	0.00	0.00
22-Jan	1.0	-0.6	12.0		0.0	0.0	9.60	0.00	0.00	7.2	-0.5	16.0		0.0	0.0	15.70	0.00	0.00
23-Jan	4.9	-6.7	16.0		0.0	0.0	14.50	0.00	0.00	2.5	-6.8	17.0		0.0	0.0	18.20	0.00	0.00
24-Jan	2.3	-12.1	16.0		0.0	0.0	16.80	0.00	0.00		-15.0	17.0		0.0	0.0	18.20	0.00	0.00
25-Jan		-10.1	16.0		0.0	0.0	16.80	0.00	0.00	1.1	-11.4	17.0		0.0	0.0	19.30	0.00	0.00
26-Jan	0.5	-3.7	16.0		0.0	0.0	17.30	0.00	0.00	0.2	-4.3	17.0		0.0	0.0	19.50	0.00	0.00
27-Jan	0.4	-8.2	14.0		0.0	0.0	17.70	0.00	0.00	0.5	-8.1	17.0		0.0	0.0	20.00	0.00	0.00
28-Jan	0.0	-10.5	15.0		0.0	0.0	17.70	0.00	0.00		-9.9	18.0		0.0	0.0	20.00	0.00	0.00
29-Jan	0.5	-4.4	16.0		0.0	0.0	18.20	0.00	0.00	1.4	-4.1	18.0		0.0	0.0	21.40	0.00	0.00
30-Jan	1.6	-2.0	17.0		0.0	0.0	19.80	0.00	0.00	3.5	-2.0	19.0		0.0	0.0	24.90	0.00	0.00
31-Jan	4.0	1.1	13.0		0.0	4.0	19.80	4.46	8.46	2.1	1.6	14.0		0.0	2.1	24.90	5.64	7.74
1-Feb	2.1	0.7	11.0		0.0	2.1	15.34	2.82	4.92	3.3	0.8	11.0		0.0	3.3	19.26	2.83	6.13
2-Feb	1.2	1.3	8.0		0.0	1.2	12.52	5.22	6.42	2.7	1.3	9.0		0.0	2.7	16.43	4.59	7.29
3-Feb		0.2	7.0		0.0	0.0	7.30	0.80	0.80	0.0	0.0	8.0		0.0	0.0	11.84	0.00	0.00
4-Feb	0.5	-0.5	5.0		0.0	0.0	7.00	0.00	0.00	0.8	-0.3	9.0		0.0	0.0	12.64	0.00	0.00
5-Feb	0.1	-1.7	5.0		0.0	0.0	7.10	0.00	0.00		-2.7	9.0		0.0	0.0	12.64	0.00	0.00
6-Feb		-5.8	5.0		0.0	0.0	7.10	0.00	0.00		-6.0	9.0		0.0	0.0	12.64	0.00	0.00
7-Feb		-5.1	5.0		0.0	0.0	7.10	0.00	0.00	0.2	-5.6	9.0		0.0	0.0	12.84	0.00	0.00
8-Feb	0.0	-6.7	5.0		0.0	0.0	7.10	0.00	0.00	0.2	-7.4	9.0		0.0	0.0	13.04	0.00	0.00
9-Feb	0.0	-8.4	5.0		0.0	0.0	7.10	0.00	0.00	0.3	-9.2	9.0		0.0	0.0	13.34	0.00	0.00
10-Feb		-9.9	5.0		0.0	0.0	7.10	0.00	0.00		-11.8	9.0		0.0	0.0	13.34	0.00	0.00
11-Feb		-13.0	5.0		0.0	0.0	7.10	0.00	0.00		-13.5	9.0		0.0	0.0	13.34	0.00	0.00
12-Feb	0.2	-7.1	5.0		0.0	0.0	7.30	0.00	0.00		-8.2	9.0		0.0	0.0	13.34	0.00	0.00
13-Feb	0.2	-7.6	5.0		0.0	0.0	7.50	0.00	0.00		-9.5	9.0		0.0	0.0	13.34	0.00	0.00
14-Feb	0.9	-7.5	5.0		0.0	0.0	8.40	0.00	0.00	1.6	-9.5	9.0		0.0	0.0	14.94	0.00	0.00
15-Feb		-8.6	6.0		0.0	0.0	8.40	0.00	0.00		-10.0	13.0		0.0	0.0	14.94	0.00	0.00
16-Feb	3.6	-4.4	6.0		0.0	0.0	12.00	0.00	0.00	3.4	-4.5	13.0		0.0	0.0	18.34	0.00	0.00
17-Feb	1.4	-10.7	9.0		0.0	0.0	13.40	0.00	0.00	0.8	-10.8	13.0		0.0	0.0	19.14	0.00	0.00
18-Feb		-11.3	9.0		0.0	0.0	13.40	0.00	0.00		-14.8	13.0		0.0	0.0	19.14	0.00	0.00
19-Feb	0.7	-9.0	10.0		0.0	0.0	14.10	0.00	0.00		-8.7	13.0		0.0	0.0	19.14	0.00	0.00
20-Feb		-7.1	10.0		0.0	0.0	14.10	0.00	0.00		-7.8	13.0		0.0	0.0	19.14	0.00	0.00
21-Feb	2.5	-7.3	11.0		0.0	0.0	16.60	0.00	0.00	3.9	-7.0	15.0		0.0	0.0	23.04	0.00	0.00
22-Feb	0.0	-7.2	11.0		0.0	0.0	16.60	0.00	0.00	0.5	-6.8	17.0		0.0	0.0	23.54	0.00	0.00
23-Feb	2.6	-9.0	12.0		0.0	0.0	19.20	0.00	0.00	3.1	-7.6	21.0		0.0	0.0	26.64	0.00	0.00
24-Feb		-13.9	12.0		0.0	0.0	19.20	0.00	0.00		-14.1	22.0		0.0	0.0	26.64	0.00	0.00
25-Feb		-14.4	12.0		0.0	0.0	19.20	0.00	0.00		-12.9	22.0		0.0	0.0	26.64	0.00	0.00
26-Feb	0.8	-12.4	12.0		0.0	0.0	20.00	0.00	0.00	1.4	-12.7	22.0		0.0	0.0	28.04	0.00	0.00
27-Feb	0.7	-2.0	11.0		0.0	0.0	20.70	0.00	0.00	1.0	-1.8	20.0		0.0	0.0	29.04	0.00	0.00
28-Feb		-0.3	10.0		0.0	0.0	20.70	0.00	0.00		0.2	20.0		0.0	0.0	29.04	0.70	0.70
29-Feb		-2.6	9.0		0.0	0.0	20.70	0.00	0.00		-1.9	19.0		0.0	0.0	28.34	0.00	0.00
1-Mar		-6.1	8.0		0.0	0.0	20.70	0.00	0.00		-7.2	19.0		0.0	0.0	28.34	0.00	0.00
2-Mar		-7.4	8.0		0.0	0.0	20.70	0.00	0.00		-10.8	19.0		0.0	0.0	28.34	0.00	0.00
3-Mar		-8.1	8.0		0.0	0.0	20.70	0.00	0.00		-10.0	19.0		0.0	0.0	28.34	0.00	0.00
4-Mar		-5.6	8.0		0.0	0.0	20.70	0.00	0.00		-6.5	19.0		0.0	0.0	28.34	0.00	0.00
5-Mar		-6.1	8.0		0.0	0.0	20.70	0.00	0.00		-7.4	19.0		0.0	0.0	28.34	0.00	0.00
6-Mar		-6.5	8.0		0.0	0.0	20.70	0.00	0.00		-8.0	19.0		0.0	0.0	28.34	0.00	0.00
7-Mar	0.2	-3.2	8.0		0.0	0.0	20.90	0.00	0.00	1.3	-3.2	20.0		0.0	0.0	29.64	0.00	0.00
8-Mar	2.1	-2.7	8.0		0.0	0.0	23.00	0.00	0.00	2.3	-3.2	20.0		0.0	0.0	31.94	0.00	0.00

5) Snowmelt : Sample Calculation of Snowmelt Constant , Rezekne and Dagda Stations

Dec.1967 - Apr. 1968

Rezekne			**Conatant "m " =**	**4**						**Dagda**		**Conatant "m " =**	**3.5**					
	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalent to snow depth	Amount of snow melting	Total precipitation	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalent to snow depth	Amount of snow melting	Total precipitation
9-Mar	4.2	-1.7	10.0		0.0	0.0	27.20	0.00	0.00	4.0	-2.6	23.0		0.0	0.0	35.94	0.00	0.00
10-Mar	2.1	-5.2	11.0		0.0	0.0	29.30	0.00	0.00	1.6	-5.0	26.0		0.0	0.0	37.54	0.00	0.00
11-Mar		-9.8	12.0		0.0	0.0	29.30	0.00	0.00		-8.8	26.0		0.0	0.0	37.54	0.00	0.00
12-Mar	1.3	-8.1	12.0		0.0	0.0	30.60	0.00	0.00	0.8	-9.7	26.0		0.0	0.0	38.34	0.00	0.00
13-Mar	0.7	-7.4	13.0		0.0	0.0	31.30	0.00	0.00	0.6	-6.5	26.0		0.0	0.0	38.94	0.00	0.00
14-Mar	1.3	0.9	12.0		0.0	1.3	31.30	3.61	4.91	2.0	1.0	24.0		0.0	2.0	38.94	3.53	5.53
15-Mar	1.6	-8.2	10.0		0.0	0.0	29.29	0.00	0.00	0.9	-7.8	22.0		0.0	0.0	36.31	0.00	0.00
16-Mar	7.3	-7.3	10.0		0.0	0.0	36.59	0.00	0.00	7.7	-7.2	23.0		0.0	0.0	44.01	0.00	0.00
17-Mar	1.1	-8.0	17.0		0.0	0.0	37.69	0.00	0.00	0.9	-7.8	32.0		0.0	0.0	44.91	0.00	0.00
18-Mar	1.1	0.7	17.0		0.0	1.1	37.69	2.81	3.91	1.7	0.9	35.0		0.0	1.7	44.91	3.17	4.87
19-Mar	0.8	0.3	14.0		0.0	0.8	34.88	1.20	2.00	2.8	0.3	30.0		0.0	2.8	41.74	1.06	3.86
20-Mar	2.6	-3.2	13.0		0.0	0.0	36.28	0.00	0.00	1.9	-2.7	27.0		0.0	0.0	42.58	0.00	0.00
21-Mar		3.2	12.0		0.0	0.0	36.28	12.80	12.80		3.4	24.0		0.0	0.0	42.58	11.90	11.90
22-Mar	0.3	2.3	9.0		0.0	0.3	23.48	9.21	9.51	0.9	1.5	19.0		0.0	0.9	30.68	5.27	6.17
23-Mar	0.6	1.4	4.0		0.0	0.6	14.27	5.61	6.21	22.1	1.4	18.0		0.0	22.1	25.41	5.29	27.39
24-Mar	0.8	2.0	3.0		0.0	0.8	8.66	8.02	8.82		1.6	19.0		0.0	0.0	20.12	5.60	5.60
25-Mar	0.9	4.9	1.0		0.0	0.9	0.64	0.64	1.54	0.3	4.3	15.0		0.0	0.3	14.52	14.52	14.82
26-Mar		6.4			0.0	0.0	0.00	0.00	0.00		5.4	7.0		0.0	0.0	0.00	0.00	0.00
27-Mar		3.5			0.0	0.0	0.00	0.00	0.00	0.7	3.4			0.0	0.7	0.00	0.00	0.70
28-Mar	1.7	5.5			0.0	1.7	0.00	0.00	1.70	0.7	5.2			0.0	0.7	0.00	0.00	0.70
29-Mar	1.4	5.2			0.0	1.4	0.00	0.00	1.40		4.8			0.0	0.0	0.00	0.00	0.00
30-Mar		7.7			0.0	0.0	0.00	0.00	0.00	0.3	7.1			0.0	0.3	0.00	0.00	0.30
31-Mar		9.1			0.0	0.0	0.00	0.00	0.00		9.1			0.0	0.0	0.00	0.00	0.00
1-Apr	6.1	1.7			0.0	6.1	0.00	0.00	6.10	6.7	2.1			0.0	6.7	0.00	0.00	6.70
2-Apr	1.5	1.2			0.0	1.5	0.00	0.00	1.50	0.6	1.1			0.0	0.6	0.00	0.00	0.60
3-Apr	0.4	6.5			0.0	0.4	0.00	0.00	0.40	0.1	5.7			0.0	0.1	0.00	0.00	0.10
4-Apr	4.6	3.4			0.0	4.6	0.00	0.00	4.60	2.9	3.6			0.0	2.9	0.00	0.00	2.90
5-Apr	0.3	4.1			0.0	0.3	0.00	0.00	0.30	2.3	3.9			0.0	2.3	0.00	0.00	2.30
6-Apr	15.8	3.8			0.0	15.8	0.00	0.00	15.80	9.8	4.5			0.0	9.8	0.00	0.00	9.80
7-Apr		3.1			0.0	0.0	0.00	0.00	0.00		3.1			0.0	0.0	0.00	0.00	0.00
8-Apr		2.1			0.0	0.0	0.00	0.00	0.00		2.3			0.0	0.0	0.00	0.00	0.00
9-Apr		0.0			0.0	0.0	0.00	0.00	0.00		0.2			0.0	0.0	0.00	0.00	0.00
10-Apr	0.6	0.9			0.0	0.6	0.00	0.00	0.60	0.3	0.9			0.0	0.3	0.00	0.00	0.30
11-Apr	8.4	0.2	4.0		0.0	8.4	0.00	0.00	8.40	2.5	0.6	2.0		0.0	2.5	0.00	0.00	2.50
12-Apr	0.9	1.1	1.0		0.0	0.9	0.00	0.00	0.90	2.0	1.1	1.0		0.0	2.0	0.00	0.00	2.00
13-Apr	2.0	1.0	0.0		0.0	2.0	0.00	0.00	2.00	2.8	0.9			0.0	2.8	0.00	0.00	2.80
14-Apr	0.7	2.4			0.0	0.7	0.00	0.00	0.70	0.9	1.9			0.0	0.9	0.00	0.00	0.90
15-Apr		4.5			0.0	0.0	0.00	0.00	0.00		4.6			0.0	0.0	0.00	0.00	0.00
16-Apr		5.6			0.0	0.0	0.00	0.00	0.00		5.8			0.0	0.0	0.00	0.00	0.00
17-Apr		3.8			0.0	0.0	0.00	0.00	0.00		4.9			0.0	0.0	0.00	0.00	0.00
18-Apr		5.4			0.0	0.0	0.00	0.00	0.00		5.8			0.0	0.0	0.00	0.00	0.00
19-Apr		9.0			0.0	0.0	0.00	0.00	0.00		9.4			0.0	0.0	0.00	0.00	0.00
20-Apr		8.8			0.0	0.0	0.00	0.00	0.00		9.4			0.0	0.0	0.00	0.00	0.00
21-Apr		11.7			0.0	0.0	0.00	0.00	0.00		12.0			0.0	0.0	0.00	0.00	0.00
22-Apr	4.7	11.2			0.0	4.7	0.00	0.00	4.70	4.6	11.6			0.0	4.6	0.00	0.00	4.60
23-Apr		10.7			0.0	0.0	0.00	0.00	0.00		10.7			0.0	0.0	0.00	0.00	0.00
24-Apr		12.6			0.0	0.0	0.00	0.00	0.00	0.8	12.5			0.0	0.8	0.00	0.00	0.80
25-Apr	0.8	8.6			0.0	0.8	0.00	0.00	0.80		9.2			0.0	0.0	0.00	0.00	0.00
26-Apr		8.3			0.0	0.0	0.00	0.00	0.00		8.6			0.0	0.0	0.00	0.00	0.00
27-Apr		11.6			0.0	0.0	0.00	0.00	0.00		12.6			0.0	0.0	0.00	0.00	0.00
28-Apr		7.8			0.0	0.0	0.00	0.00	0.00		8.5			0.0	0.0	0.00	0.00	0.00
29-Apr		8.0			0.0	0.0	0.00	0.00	0.00		8.4			0.0	0.0	0.00	0.00	0.00
30-Apr		9.2			0.0	0.0	0.00	0.00	0.00		8.9			0.0	0.0	0.00	0.00	0.00

5) Snowmelt : Sample Calculation of Snow Melt Constant , Aluksne and Gulbene Stations

Dec.1967 - Apr. 1968

Aluksne					**Conatant "m " = 5.5**					**Gulbene**				**Conatant "m " = 3.4**				
	Rain of previous day	Mean tempe-rature	Measured snow depth	Evapotrans piration	Converted Evapotrans piration	Converted rain depth	Equivalent to snow depth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempe-rature	Measured snow depth	Evapotrans piration	Converted Evapotrans piration	Converted rain depth	Equivalent to snow depth	Amount of snow melting	Total precipita-tion
1-Dec							0.00									0.00		
2-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
3-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
4-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
5-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
6-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
7-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
8-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
9-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
10-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
11-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
12-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
13-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
14-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
15-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
16-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
17-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
18-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
19-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
20-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
21-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
22-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
23-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
24-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
25-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
26-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
27-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
28-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
29-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
30-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
31-Dec					0.0	0.0	0.00	0.00	0.00					0.0	0.0	0.00	0.00	0.00
1-Jan	2.2	-4.5	12.0		0.0	0.0	2.20	0.00	0.00	1.5	-3.8	3.0		0.0	0.0	1.50	0.00	0.00
2-Jan		-7.3	15.0		0.0	0.0	2.20	0.00	0.00	1.0	-7.1	3.0		0.0	0.0	2.50	0.00	0.00
3-Jan	2.7	-6.2	17.0		0.0	0.0	4.90	0.00	0.00	4.5	-5.4	5.0		0.0	0.0	7.00	0.00	0.00
4-Jan	1.2	-8.1	18.0		0.0	0.0	6.10	0.00	0.00	0.9	-7.8	9.0		0.0	0.0	7.90	0.00	0.00
5-Jan		-13.9	18.0		0.0	0.0	6.10	0.00	0.00	0.5	-13.0	10.0		0.0	0.0	8.40	0.00	0.00
6-Jan	0.3	-18.8	18.0		0.0	0.0	6.40	0.00	0.00	0.2	-17.8	10.0		0.0	0.0	8.60	0.00	0.00
7-Jan		-22.4	18.0		0.0	0.0	6.40	0.00	0.00		-22.4	10.0		0.0	0.0	8.60	0.00	0.00
8-Jan		-26.8	18.0		0.0	0.0	6.40	0.00	0.00		-24.8	10.0		0.0	0.0	8.60	0.00	0.00
9-Jan	1.8	-18.2	18.0		0.0	0.0	8.20	0.00	0.00	1.4	-18.8	10.0		0.0	0.0	10.00	0.00	0.00
10-Jan	2.7	-19.7	19.0		0.0	0.0	10.90	0.00	0.00	0.0	-18.8	10.0		0.0	0.0	10.00	0.00	0.00
11-Jan	4.7	-12.0	23.0		0.0	0.0	15.60	0.00	0.00	2.5	-11.3	11.0		0.0	0.0	12.50	0.00	0.00
12-Jan		-18.7	23.0		0.0	0.0	15.60	0.00	0.00		-19.0	12.0		0.0	0.0	12.50	0.00	0.00
13-Jan		-26.4	23.0		0.0	0.0	15.60	0.00	0.00	0.2	-25.3	12.0		0.0	0.0	12.70	0.00	0.00
14-Jan		-20.0	23.0		0.0	0.0	15.60	0.00	0.00	0.4	-18.0	11.0		0.0	0.0	13.10	0.00	0.00
15-Jan		-23.2	23.0		0.0	0.0	15.60	0.00	0.00		-23.2	11.0		0.0	0.0	13.10	0.00	0.00
16-Jan		-22.8	23.0		0.0	0.0	15.60	0.00	0.00		-20.7	10.0		0.0	0.0	13.10	0.00	0.00
17-Jan		-26.5	23.0		0.0	0.0	15.60	0.00	0.00		-26.5	10.0		0.0	0.0	13.10	0.00	0.00
18-Jan		-26.2	23.0		0.0	0.0	15.60	0.00	0.00		-25.4	10.0		0.0	0.0	13.10	0.00	0.00
19-Jan		-23.9	23.0		0.0	0.0	15.60	0.00	0.00		-25.0	10.0		0.0	0.0	13.10	0.00	0.00
20-Jan	0.1	-15.6	23.0		0.0	0.0	15.70	0.00	0.00	0.3	-16.3	10.0		0.0	0.0	13.40	0.00	0.00
21-Jan	0.3	-2.6	23.0		0.0	0.0	16.00	0.00	0.00	1.7	-2.4	10.0		0.0	0.0	15.10	0.00	0.00
22-Jan	11.1	-1.1	23.0		0.0	0.0	27.10	0.00	0.00	3.2	-0.4	11.0		0.0	0.0	18.30	0.00	0.00
23-Jan	2.0	-5.6	26.0		0.0	0.0	29.10	0.00	0.00	1.4	-4.6	15.0		0.0	0.0	19.70	0.00	0.00
24-Jan		-11.5	26.0		0.0	0.0	29.10	0.00	0.00		-10.6	15.0		0.0	0.0	19.70	0.00	0.00
25-Jan	1.2	-10.5	26.0		0.0	0.0	30.30	0.00	0.00	1.0	-9.4	14.0		0.0	0.0	20.70	0.00	0.00
26-Jan	0.3	-4.4	27.0		0.0	0.0	30.60	0.00	0.00	0.2	-3.5	14.0		0.0	0.0	20.90	0.00	0.00
27-Jan		-8.8	27.0		0.0	0.0	30.60	0.00	0.00		-8.0	14.0		0.0	0.0	20.90	0.00	0.00
28-Jan		-11.7	27.0		0.0	0.0	30.60	0.00	0.00		-11.2	14.0		0.0	0.0	20.90	0.00	0.00
29-Jan	2.2	-5.0	28.0		0.0	0.0	32.80	0.00	0.00	1.6	-4.2	14.0		0.0	0.0	22.50	0.00	0.00
30-Jan	4.6	-2.5	30.0		0.0	0.0	37.40	0.00	0.00	2.9	-2.0	17.0		0.0	0.0	25.40	0.00	0.00
31-Jan	3.9	0.6	31.0		0.0	3.9	37.40	3.33	7.23	1.9	1.3	12.0		0.0	1.9	25.40	4.45	6.35
1-Feb	3.5	0.2	23.0		0.0	3.5	34.07	1.11	4.61	2.6	0.6	10.0		0.0	2.6	20.95	2.06	4.66
2-Feb	0.9	1.4	20.0		0.0	0.9	32.96	7.72	8.62	0.3	1.7	6.0		0.0	0.3	18.89	5.79	6.09
3-Feb	0.2	-0.1	20.0		0.0	0.0	25.44	0.00	0.00	0.5	0.3	6.0		0.0	0.5	13.10	1.02	1.52
4-Feb	0.2	-0.8	19.0		0.0	0.0	25.64	0.00	0.00	0.8	-0.6	6.0		0.0	0.0	12.88	0.00	0.00
5-Feb		-1.1	20.0		0.0	0.0	25.64	0.00	0.00	0.0	-0.7	5.0		0.0	0.0	12.88	0.00	0.00
6-Feb		-5.6	20.0		0.0	0.0	25.64	0.00	0.00		-4.9	5.0		0.0	0.0	12.88	0.00	0.00
7-Feb		-6.5	20.0		0.0	0.0	25.64	0.00	0.00		-5.4	5.0		0.0	0.0	12.88	0.00	0.00
8-Feb	0.5	-7.3	20.0		0.0	0.0	26.14	0.00	0.00	0.2	-6.4	5.0		0.0	0.0	13.08	0.00	0.00
9-Feb	0.7	-8.7	20.0		0.0	0.0	26.84	0.00	0.00	0.3	-7.8	5.0		0.0	0.0	13.38	0.00	0.00
10-Feb		-8.4	20.0		0.0	0.0	26.84	0.00	0.00		-7.9	6.0		0.0	0.0	13.38	0.00	0.00
11-Feb		-12.2	20.0		0.0	0.0	26.84	0.00	0.00	0.0	-13.9	6.0		0.0	0.0	13.38	0.00	0.00
12-Feb	0.2	-8.6	20.0		0.0	0.0	27.04	0.00	0.00	0.0	-8.5	6.0		0.0	0.0	13.38	0.00	0.00
13-Feb	0.3	-6.5	20.0		0.0	0.0	27.34	0.00	0.00	0.0	-5.7	6.0		0.0	0.0	13.38	0.00	0.00
14-Feb	1.4	-6.4	20.0		0.0	0.0	28.74	0.00	0.00	1.2	-5.7	6.0		0.0	0.0	14.58	0.00	0.00
15-Feb		-8.2	23.0		0.0	0.0	28.74	0.00	0.00		-7.7	8.0		0.0	0.0	14.58	0.00	0.00
16-Feb	6.2	-6.2	24.0		0.0	0.0	34.94	0.00	0.00	5.7	-5.7	10.0		0.0	0.0	20.28	0.00	0.00
17-Feb	2.0	-10.6	25.0		0.0	0.0	36.94	0.00	0.00	0.9	-10.3	14.0		0.0	0.0	21.18	0.00	0.00
18-Feb		-10.3	27.0		0.0	0.0	36.94	0.00	0.00		-10.3	14.0		0.0	0.0	21.18	0.00	0.00
19-Feb	1.1	-8.4	28.0		0.0	0.0	38.04	0.00	0.00	0.0	-8.4	14.0		0.0	0.0	21.18	0.00	0.00
20-Feb		-7.9	29.0		0.0	0.0	38.04	0.00	0.00		-7.5	13.0		0.0	0.0	21.18	0.00	0.00
21-Feb	1.0	-9.0	29.0		0.0	0.0	39.04	0.00	0.00	1.4	-8.2	13.0		0.0	0.0	22.58	0.00	0.00
22-Feb		-8.2	29.0		0.0	0.0	39.04	0.00	0.00	0.0	-7.6	13.0		0.0	0.0	22.58	0.00	0.00
23-Feb	0.3	-9.4	29.0		0.0	0.0	39.34	0.00	0.00	0.7	-8.6	13.0		0.0	0.0	23.28	0.00	0.00
24-Feb	0.3	-12.0	29.0		0.0	0.0	39.64	0.00	0.00	0.0	-11.9	14.0		0.0	0.0	23.28	0.00	0.00
25-Feb		-14.0	29.0		0.0	0.0	39.64	0.00	0.00		-15.0	14.0		0.0	0.0	23.28	0.00	0.00
26-Feb	5.8	-9.7	29.0		0.0	0.0	45.44	0.00	0.00	1.1	-9.9	14.0		0.0	0.0	24.38	0.00	0.00
27-Feb	0.7	-1.5	32.0		0.0	0.0	46.14	0.00	0.00	0.4	-0.5	15.0		0.0	0.0	24.78	0.00	0.00
28-Feb		-1.7	32.0		0.0	0.0	46.14	0.00	0.00		-0.9	14.0		0.0	0.0	24.78	0.00	0.00
29-Feb		-2.0	32.0		0.0	0.0	46.14	0.00	0.00		-1.2	14.0		0.0	0.0	24.78	0.00	0.00
1-Mar		-4.0	31.0		0.0	0.0	46.14	0.00	0.00		-4.4	13.0		0.0	0.0	24.78	0.00	0.00
2-Mar		-5.3	31.0		0.0	0.0	46.14	0.00	0.00		-6.2	13.0		0.0	0.0	24.78	0.00	0.00
3-Mar		-5.9	31.0		0.0	0.0	46.14	0.00	0.00		-7.7	13.0		0.0	0.0	24.78	0.00	0.00
4-Mar		-5.3	30.0		0.0	0.0	46.14	0.00	0.00		-5.7	13.0		0.0	0.0	24.78	0.00	0.00
5-Mar		-5.7	30.0		0.0	0.0	46.14	0.00	0.00		-6.0	13.0		0.0	0.0	24.78	0.00	0.00
6-Mar		-5.6	30.0		0.0	0.0	46.14	0.00	0.00		-6.0	13.0		0.0	0.0	24.78	0.00	0.00
7-Mar		-3.7	30.0		0.0	0.0	46.14	0.00	0.00		-3.3	13.0		0.0	0.0	24.78	0.00	0.00

5) Snowmelt : Sample Calculation of Snow Melt Constant , Aluksne and Gulbene Stations

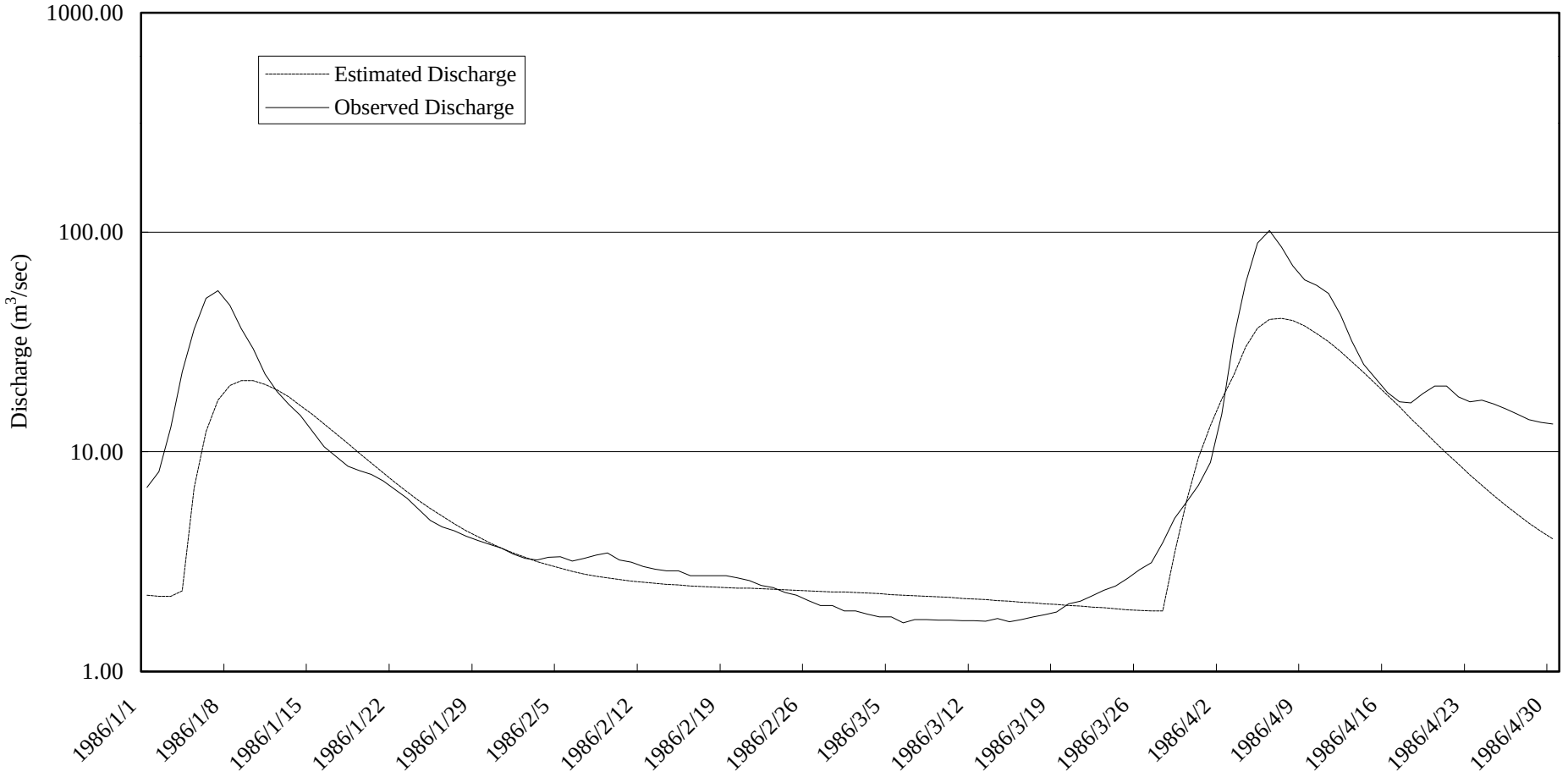
Dec.1967 - Apr. 1968

Aluksne					**Conatant "m " = 5.5**					**Gulbene**				**Conatant "m " = 3.4**				
	Rain of previous day	Mean tempe-rature	Measured snow depth	Evapotrans piration	Converted Evapotrans piration	Converted rain depth	Equivalent to snow depth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempe-rature	Measured snow depth	Evapotrans piration	Converted Evapotrans piration	Converted rain depth	Equivalent to snow depth	Amount of snow melting	Total precipita-tion
8-Mar	2.8	-3.0	30.0		0.0	0.0	48.94	0.00	0.00	1.0	-2.2	13.0		0.0	0.0	25.78	0.00	0.00
9-Mar	2.5	-2.2	33.0		0.0	0.0	51.44	0.00	0.00	4.2	-1.4	18.0		0.0	0.0	29.98	0.00	0.00
10-Mar	3.3	-6.0	33.0		0.0	0.0	54.74	0.00	0.00	3.4	-5.2	19.0		0.0	0.0	33.38	0.00	0.00
11-Mar	0.4	-8.2	30.0		0.0	0.0	55.14	0.00	0.00	0.3	-8.2	14.0		0.0	0.0	33.68	0.00	0.00
12-Mar	1.6	-8.0	30.0		0.0	0.0	56.74	0.00	0.00	0.9	-7.2	16.0		0.0	0.0	34.58	0.00	0.00
13-Mar		-6.7	30.0		0.0	0.0	56.74	0.00	0.00	0.1	-7.0	16.0		0.0	0.0	34.68	0.00	0.00
14-Mar	3.1	0.7	28.0		0.0	3.1	56.74	3.88	6.98	0.8	1.4	13.0		0.0	0.8	34.68	4.77	5.57
15-Mar	1.1	-9.1	28.0		0.0	0.0	53.96	0.00	0.00	0.5	-8.2	10.0		0.0	0.0	30.41	0.00	0.00
16-Mar	1.3	-7.2	26.0		0.0	0.0	55.26	0.00	0.00	3.0	-7.4	10.0		0.0	0.0	33.41	0.00	0.00
17-Mar	2.0	-7.2	26.0		0.0	0.0	57.26	0.00	0.00	2.3	-7.6	12.0		0.0	0.0	35.71	0.00	0.00
18-Mar	1.7	0.4	27.0		0.0	1.7	57.26	2.21	3.91	2.7	0.7	18.0		0.0	2.7	35.71	2.40	5.10
19-Mar	2.3	0.0	28.0		0.0	0.0	57.35	0.00	0.00	1.7	0.3	15.0		0.0	1.7	33.31	1.03	2.73
20-Mar	1.2	-3.0	28.0		0.0	0.0	58.55	0.00	0.00	2.1	-3.0	13.0		0.0	0.0	34.38	0.00	0.00
21-Mar		3.4	27.0		0.0	0.0	58.55	18.70	18.70	0.1	3.4	13.0		0.0	0.1	34.38	11.56	11.66
22-Mar	0.4	2.1	21.0		0.0	0.4	39.85	11.56	11.96		1.9	9.0		0.0	0.0	22.82	6.46	6.46
23-Mar	0.3	1.5	18.0		0.0	0.3	28.29	8.26	8.56	0.4	1.7	4.0		0.0	0.4	16.36	5.79	6.19
24-Mar	1.2	1.8	15.0		0.0	1.2	20.03	9.93	11.13	0.6	2.1	2.0		0.0	0.6	10.57	7.16	7.76
25-Mar		5.0	11.0		0.0	0.0	10.10	10.10	10.10		5.1	1.0		0.0	0.0	3.41	3.41	3.41
26-Mar		6.1	6.0		0.0	0.0	0.00	0.00	0.00		6.4	0.0		0.0	0.0	0.00	0.00	0.00
27-Mar	2.0	3.0			0.0	2.0	0.00	0.00	2.00	0.9	3.3			0.0	0.9	0.00	0.00	0.90
28-Mar	1.4	4.8			0.0	1.4	0.00	0.00	1.40	0.8	5.4			0.0	0.8	0.00	0.00	0.80
29-Mar		5.6			0.0	0.0	0.00	0.00	0.00		6.1			0.0	0.0	0.00	0.00	0.00
30-Mar		8.2			0.0	0.0	0.00	0.00	0.00		7.9			0.0	0.0	0.00	0.00	0.00
31-Mar		4.9			0.0	0.0	0.00	0.00	0.00		6.1			0.0	0.0	0.00	0.00	0.00
1-Apr	5.7	0.4	4.0		0.0	5.7	0.00	0.00	5.70	4.4	1.2			0.0	4.4	0.00	0.00	4.40
2-Apr	1.4	0.7	2.0		0.0	1.4	0.00	0.00	1.40	0.9	0.8			0.0	0.9	0.00	0.00	0.90
3-Apr	0.1	5.8			0.0	0.1	0.00	0.00	0.10		6.3			0.0	0.0	0.00	0.00	0.00
4-Apr	4.8	3.2			0.0	4.8	0.00	0.00	4.80	3.5	3.4			0.0	3.5	0.00	0.00	3.50
5-Apr		4.0			0.0	0.0	0.00	0.00	0.00	0.2	4.4			0.0	0.2	0.00	0.00	0.20
6-Apr	8.5	1.6			0.0	8.5	0.00	0.00	8.50	11.4	2.2			0.0	11.4	0.00	0.00	11.40
7-Apr	0.2	2.0			0.0	0.2	0.00	0.00	0.20		2.7			0.0	0.0	0.00	0.00	0.00
8-Apr	0.2	1.4			0.0	0.2	0.00	0.00	0.20		1.8			0.0	0.0	0.00	0.00	0.00
9-Apr		0.2			0.0	0.0	0.00	0.00	0.00		0.8			0.0	0.0	0.00	0.00	0.00
10-Apr		0.9			0.0	0.0	0.00	0.00	0.00		1.5			0.0	0.0	0.00	0.00	0.00
11-Apr	4.5	0.0			0.0	0.0	4.50	0.00	0.00	5.4	0.2	2.0		0.0	5.4	0.00	0.00	5.40
12-Apr	2.1	0.5	1.0		0.0	2.1	4.50	2.76	4.86	0.5	1.0	1.0		0.0	0.5	0.00	0.00	0.50
13-Apr	0.6	0.6			0.0	0.6	1.74	1.74	2.34	0.3	1.1			0.0	0.3	0.00	0.00	0.30
14-Apr	0.2	2.3			0.0	0.2	0.00	0.00	0.20	0.9	2.6			0.0	0.9	0.00	0.00	0.90
15-Apr		3.7			0.0	0.0	0.00	0.00	0.00		4.3			0.0	0.0	0.00	0.00	0.00
16-Apr		5.1			0.0	0.0	0.00	0.00	0.00		5.7			0.0	0.0	0.00	0.00	0.00
17-Apr		3.4			0.0	0.0	0.00	0.00	0.00		4.0			0.0	0.0	0.00	0.00	0.00
18-Apr		5.0			0.0	0.0	0.00	0.00	0.00		5.0			0.0	0.0	0.00	0.00	0.00
19-Apr		8.0			0.0	0.0	0.00	0.00	0.00		8.8			0.0	0.0	0.00	0.00	0.00
20-Apr		7.8			0.0	0.0	0.00	0.00	0.00		8.6			0.0	0.0	0.00	0.00	0.00
21-Apr		11.0			0.0	0.0	0.00	0.00	0.00		11.1			0.0	0.0	0.00	0.00	0.00
22-Apr		10.2			0.0	0.0	0.00	0.00	0.00	1.1	11.1			0.0	1.1	0.00	0.00	1.10
23-Apr		8.9			0.0	0.0	0.00	0.00	0.00		10.0			0.0	0.0	0.00	0.00	0.00
24-Apr		10.7			0.0	0.0	0.00	0.00	0.00	0.1	12.0			0.0	0.1	0.00	0.00	0.10
25-Apr		7.9			0.0	0.0	0.00	0.00	0.00	0.3	8.3			0.0	0.3	0.00	0.00	0.30
26-Apr		9.0			0.0	0.0	0.00	0.00	0.00		9.2			0.0	0.0	0.00	0.00	0.00
27-Apr		10.4			0.0	0.0	0.00	0.00	0.00		11.1			0.0	0.0	0.00	0.00	0.00
28-Apr		6.2			0.0	0.0	0.00	0.00	0.00		6.8			0.0	0.0	0.00	0.00	0.00
29-Apr		7.7			0.0	0.0	0.00	0.00	0.00		7.7			0.0	0.0	0.00	0.00	0.00
30-Apr		9.8			0.0	0.0	0.00	0.00	0.00		9.6			0.0	0.0	0.00	0.00	0.00

IV-2 Series Tank Model

1) Series Tank Model Calculation : Pededze 1988

	Estimated	Actual	Ratio	Varification	
Discharge (mm)	101.29	161.67	63%	Correlation Coefficient=	90.5%
Precipitation(mm)	181.2			R =	0.2686
Runoff Ratio	56%	89%		R^2 =	3.0861



2) Series Tank Model Calculation Sheet : Pededze 1988

Tank Model Coefficient				1st Tank										2 nd Tank									Total	Channel Storage 1							Channel Storage 2									
	Height of Orifice							30	0	0		0						0	0		65						0	0		0				0	0		0			
	Coefficient of Orifice							0.65	0.001	0		0.032						0	0.005		0.01						0	0.26						0	0.15					
	Rain	Evapotranspira-tion	Converted Evapotran-spiration	Storage of previous day	Rain of previous day	Evapotran-spiration	Total stoage	Discharge: upper orifice	Discharge: middle orifice	Discharge : lower orifice	Sub-total	Infiltra-tion	Balance of Storage	Storage of previous day	Inflow	Evapotran-spiration	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra-tion	Balance of Storage	Total specific discharege	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Dischareg e	Measured River Discharge
1-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	65.000	0.000	0.20	64.800	0.000	0.324	0.324	0.648	63.828	0.324	0.000	0.324	0.324	0.000	0.084	0.084	0.240	0.000	0.084	0.084	0.000	0.013	0.013	0.072	0.013	0.130	23.90
2-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	63.828	0.000	0.20	63.628	0.000	0.318	0.318	0.636	62.674	0.318	0.240	0.318	0.558	0.000	0.145	0.145	0.413	0.072	0.145	0.217	0.000	0.032	0.032	0.184	0.032	0.333	21.20
3-Dec	0.4	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	62.674	0.000	0.20	62.474	0.000	0.312	0.312	0.625	61.536	0.312	0.413	0.312	0.725	0.000	0.189	0.189	0.537	0.184	0.189	0.373	0.000	0.056	0.056	0.317	0.056	0.574	18.80
4-Dec	0	0.2	0.2	0.000	0.400	0.0	0.400	0.000	0.000	0.000	0.000	0.013	0.387	61.536	0.013	0.00	61.549	0.000	0.308	0.308	0.615	60.626	0.308	0.537	0.308	0.845	0.000	0.220	0.220	0.625	0.317	0.220	0.536	0.000	0.080	0.080	0.456	0.080	0.826	16.70
5-Dec	0.3	0.2	0.2	0.387	0.000	0.2	0.187	0.000	0.000	0.000	0.000	0.006	0.181	60.626	0.006	0.00	60.632	0.000	0.303	0.303	0.606	59.723	0.303	0.625	0.303	0.929	0.000	0.241	0.241	0.687	0.456	0.241	0.697	0.000	0.105	0.105	0.593	0.105	1.073	14.00
6-Dec	0	0.2	0.2	0.181	0.300	0.2	0.281	0.000	0.000	0.000	0.000	0.009	0.271	59.723	0.009	0.00	59.732	0.000	0.299	0.299	0.597	58.836	0.299	0.687	0.299	0.986	0.000	0.256	0.256	0.730	0.593	0.256	0.849	0.000	0.127	0.127	0.722	0.127	1.307	12.10
7-Dec	0	0.2	0.2	0.271	0.000	0.2	0.071	0.000	0.000	0.000	0.000	0.002	0.069	58.836	0.002	0.00	58.838	0.000	0.294	0.294	0.588	57.955	0.294	0.730	0.294	1.024	0.000	0.266	0.266	0.758	0.722	0.266	0.988	0.000	0.148	0.148	0.840	0.148	1.521	11.00
8-Dec	0	0.2	0.2	0.069	0.000	0.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.955	0.000	0.13	57.824	0.000	0.289	0.289	0.578	56.957	0.289	0.758	0.289	1.047	0.000	0.272	0.272	0.775	0.840	0.272	1.112	0.000	0.167	0.167	0.945	0.167	1.712	10.60
9-Dec	0	0.2	0.2	0.000	0.000	0.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	56.957	0.000	0.20	56.757	0.000	0.284	0.284	0.568	55.906	0.284	0.775	0.284	1.058	0.000	0.275	0.275	0.783	0.945	0.275	1.220	0.000	0.183	0.183	1.037	0.183	1.878	11.00
10-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	55.906	0.000	0.20	55.706	0.000	0.279	0.279	0.557	54.870	0.279	0.783	0.279	1.062	0.000	0.276	0.276	0.786	1.037	0.276	1.313	0.000	0.197	0.197	1.116	0.197	2.022	11.50
11-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	54.870	0.000	0.20	54.670	0.000	0.273	0.273	0.547	53.850	0.273	0.786	0.273	1.059	0.000	0.275	0.275	0.784	1.116	0.275	1.392	0.000	0.209	0.209	1.183	0.209	2.142	12.70
12-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	53.850	0.000	0.20	53.650	0.000	0.268	0.268	0.536	52.845	0.268	0.784	0.268	1.052	0.000	0.274	0.274	0.778	1.183	0.274	1.456	0.000	0.218	0.218	1.238	0.218	2.242	13.40
13-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.845	0.000	0.20	52.645	0.000	0.263	0.263	0.526	51.856	0.263	0.778	0.263	1.042	0.000	0.271	0.271	0.771	1.238	0.271	1.509	0.000	0.226	0.226	1.283	0.226	2.322	13.20
14-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	51.856	0.000	0.20	51.656	0.000	0.258	0.258	0.517	50.881	0.258	0.771	0.258	1.029	0.000	0.268	0.268	0.762	1.283	0.268	1.550	0.000	0.233	0.233	1.318	0.233	2.386	13.20
15-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	50.881	0.000	0.20	50.681	0.000	0.253	0.253	0.507	49.920	0.253	0.762	0.253	1.015	0.000	0.264	0.264	0.751	1.318	0.264	1.581	0.000	0.237	0.237	1.344	0.237	2.434	12.00
16-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.920	0.000	0.20	49.720	0.000	0.249	0.249	0.497	48.975	0.249	0.751	0.249	1.000	0.000	0.260	0.260	0.740	1.344	0.260	1.604	0.000	0.241	0.241	1.364	0.241	2.469	10.30
17-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	48.975	0.000	0.20	48.775	0.000	0.244	0.244	0.488	48.043	0.244	0.740	0.244	0.984	0.000	0.256	0.256	0.728	1.364	0.256	1.619	0.000	0.243	0.243	1.376	0.243	2.492	11.10
18-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	48.043	0.000	0.20	47.843	0.000	0.239	0.239	0.478	47.125	0.239	0.728	0.239	0.967	0.000	0.251	0.251	0.716	1.376	0.251	1.628	0.000	0.244	0.244	1.384	0.244	2.506	10.80
19-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	47.125	0.000	0.20	46.925	0.000	0.235	0.235	0.469	46.222	0.235	0.716	0.235	0.950	0.000	0.247	0.247	0.703	1.384	0.247	1.631	0.000	0.245	0.245	1.386	0.245	2.510	10.10
20-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	46.222	0.000	0.20	46.022	0.000	0.230	0.230	0.460	45.331	0.230	0.703	0.230	0.933	0.000	0.243	0.243	0.691	1.386	0.243	1.629	0.000	0.244	0.244	1.384	0.244	2.507	9.12
21-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	45.331	0.000	0.20	45.131	0.000	0.226	0.226	0.451	44.454	0.226	0.691	0.226	0.916	0.000	0.238	0.238	0.678	1.384	0.238	1.623	0.000	0.243	0.243	1.379	0.243	2.498	8.37
22-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	44.454	0.000	0.20	44.254	0.000	0.221	0.221	0.443	43.590	0.221	0.678	0.221	0.899	0.000	0.234	0.234	0.666	1.379	0.234	1.613	0.000	0.242	0.242	1.371	0.242	2.483	7.55
23-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	43.590	0.000	0.20	43.390	0.000	0.217	0.217	0.434	42.740	0.217	0.666	0.217	0.882	0.000	0.229	0.229	0.653	1.371	0.229	1.601	0.000	0.240	0.240	1.361	0.240	2.464	6.85
24-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	42.740	0.000	0.20	42.540	0.000	0.213	0.213	0.425	41.901	0.213	0.653	0.213	0.866	0.000	0.225	0.225	0.641	1.361	0.225	1.586	0.000	0.238	0.238	1.348	0.238	2.441	6.34
25-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	41.901	0.000	0.20	41.701	0.000	0.209	0.209	0.417	41.076	0.209	0.641	0.209	0.849	0.000	0.221	0.221	0.628	1.348	0.221	1.569	0.000	0.235	0.235	1.333	0.235	2.414	6.07
26-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	41.076	0.000	0.20	40.876	0.000	0.204	0.204	0.409	40.263	0.204	0.628	0.204	0.833	0.000	0.217	0.217	0.616	1.333	0.217	1.550	0.000	0.232	0.232	1.317	0.232	2.385	5.85
27-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	40.263	0.000	0.20	40.063	0.000	0.200	0.200	0.401	39.462	0.200	0.616	0.200	0.817	0.000	0.212	0.212	0.604	1.317	0.212	1.530	0.000	0.229	0.229	1.300	0.229	2.354	5.99
28-Dec	5	0.2	0.1	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	39.462	0.000	0.10	39.362	0.000	0.197	0.197	0.394	38.771	0.197	0.604	0.197	0.801	0.000	0.208	0.208	0.593	1.300	0.208	1.508	0.000	0.226	0.226	1.282	0.226	2.322	6.26
29-Dec	0	0.2	0.2	0.000	5.000	0.0	5.000	0.000	0.005	0.000	0.005	0.160	4.835	38.771	0.160	0.00	38.931	0.000	0.195	0.195	0.389	38.347	0.200	0.593	0.200	0.792	0.000	0.206	0.206	0.586	1.282	0.206	1.488	0.000	0.223	0.223	1.265	0.223	2.291	6.54
30-Dec	0	0.2	0.2	4.835	0.000	0.2	4.635	0.000	0.005	0.000	0.005	0.148	4.482	38.347	0.148	0.00	38.496	0.000	0.192	0.192	0.385	37.918	0.197	0.586	0.197	0.784	0.000	0.204	0.204	0.580	1.265	0.204	1.469	0.000	0.220	0.220	1.248	0.220	2.261	7.08
31-Dec	18.1	0.2	0.1	4.482	0.000	0.2	4.282	0.000	0.004	0.000	0.004	0.137	4.141	37.918	0.137	0.00	38.055	0.000	0.190	0.190	0.381	37.485	0.195	0.580	0.195	0.774	0.000	0.201	0.201	0.573	1.248	0.201	1.450	0.000	0.217	0.217	1.232	0.217	2.231	7.49
1-Jan	0		0.0	4.141	18.100	0.1	22.141	0.000	0.022	0.000	0.022	0.709	21.410	37.485	0.709	0.00	38.193	0.000	0.191	0.191	0.382	37.620	0.213	0.573	0.213	0.786	0.000	0.204	0.204	0.582	1.232	0.204	1.437	0.000	0.215	0.215	1.221	0.215	2.211	6.87
2-Jan	0		0.0	21.410	0.000	0.0	21.410	0.000	0.021	0.000	0.021	0.685	20.704	37.620	0.685	0.00	38.305	0.000	0.192	0.192	0.383	37.731	0.213	0.582	0.213	0.795	0.000	0.207	0.207	0.588	1.221	0.207	1.428	0.000	0.214	0.214	1.214	0.214	2.198	8.09
3-Jan	10.5		0.0	20.704	0.000	0.0	20.704	0.000	0.021	0.000	0.021	0.663	20.020	37.731	0.663	0.00	38.393	0.000	0.192	0.192	0.384	37.817	0.213	0.588	0.213	0.801	0.000	0.208	0.208	0.593	1.214	0.208	1.422	0.000	0.213	0.213	1.209	0.213	2.188	12.90
4-Jan	17.8		0.0	20.020	10.500	0.0	30.520	0.338	0.031	0.000	0.369	0.977	29.175	37.817	0.977	0.00	38.794	0.000	0.194	0.194	0.388	38.212	0.563	0.593	0.563	1.155	0.000	0.300	0.300	0.855	1.209	0.300	1.509	0.000	0.226	0.226	1.283	0.226	2.323	23.10
5-Jan	6.6		0.0	29.175	17.800	0.0	46.975	11.034	0.047	0.000	#####	1.503	34.391	38.212	1.503	0.00	39.715	0.000	0.199	0.199	0.397	39.120	11.279	0.855	11.279	12.134	0.000	3.155	3.155	8.979	1.283	3.155	4.437	0.000	0.666	0.666	3.772	0.666	6.830	36.10
6-Jan	4.1		0.0	34.391	6.600	0.0	40.991	7.144	0.041	0.000	7.185	1.312	32.494	39.120	1.312	0.00	40.431	0.000	0.202	0.202	0.404	39.825	7.387	8.979	7.387	16.367	0.000	4.255	4.255	12.111	3.772	4.255	8.027	0.000	1.204	1.204	6.823	1.204	12.356	50.10
7-Jan	0.3		0.0	32.494	4.100	0.0	36.594	4.286	0.037	0.000	4.323	1.171	31.100	39.825	1.171	0.00	40.996	0.000	0.205	0.205	0.410	40.381	4.528	12.111	4.528	16.639	0.000	4.326	4.326	12.313	6.823	4.326	11.149	0.000	1.672	1.672	9.477	1.672	17.161	54.10
8-Jan	0.2		0.0	31.100	0.300	0.0	31.400	0.910	0.031	0.000	0.942	1.005	29.454	40.381	1.005	0.00	41.386	0.000	0.207	0.207	0.414	40.765	1.149	12.313	1.149	13.461	0.000	3.500	3.500	9.961	9.477	3.500	12.977	0.000	1.947	1.947	11.030	1.947	19.974	46.50
9-Jan	0		0.0	29.454	0.200	0.0	29.654	0.000	0.030	0.000	0.030	0.949	28.675	40.765	0.949	0.00	41.714	0.000	0.209	0.209	0.417	41.088	0.238	9.961	0.238	10.200	0.000	2.652	2.652	7.548	11.030	2.652	13.682	0.000	2.052	2.052	11.630	2.052	21.060	36.30
10-Jan	0		0.0	28.675	0.000	0.0	28.675	0.000	0.029	0.000	0.029	0.918	27.729	41.088	0.918	0.00	42.006	0.000	0.210	0.210	0.420	41.376	0.239	7.548	0.239	7.786	0.000	2.024	2.024	5.762	11.630	2.024	13.654	0.000	2.048	2.048	11.606	2.048	21.017	29.40
11-Jan	0		0.0	27.729	0.000	0.0	27.729	0.000	0.028	0.000	0.028	0.887	26.814	41.376	0.887	0.00	42.263	0.000	0.211	0.211	0.423	41.629	0.239	5.762	0.239	6.001	0.000	1.560	1.560	4.441	11.606	1.560	13.166	0.000	1.975	1.975	11.192	1.975	20.266	22.60
12-Jan	0		0.0	26.814	0.000	0.0	26.814	0.000	0.027	0.000	0.027	0.858	25.929	41.629	0.858	0.00	42.487	0.000	0.212	0.212	0.425	41.850	0.239	4.441	0.239	4.680	0.000	1.217	1.217	3.463	11.192	1.217	12.408	0.000	1.861	1.861	10.547	1.861	19.099	18.80
13-Jan	0		0.0	25.929	0.000	0.0	25.929	0.000	0.026	0.000	0.026	0.830	25.073	41.850	0.830	0.00	42.679	0.000	0.213	0.213	0.427	42.039	0.239	3.463	0.239	3.703	0.000	0.963	0.963	2.740	10.547	0.963	11.510	0.000	1.726	1.726	9.783	1.726	17.716	16.40
14-Jan	3.1		0.0	25.073	0.000	0.0	25.073	0.000	0.025	0.000	0.025	0.802	24.246	42.039	0.802	0.00	42.842	0.000	0.214	0.214	0.428	42.199	0.239	2.740	0.239	2.979	0.000	0.775	0.775	2.205	9.783	0.775	10.558	0.000	1.584	1.584	8.974	1.584	16.251	14.60
15-Jan	0		0.0	24.246	3.100	0.0	27.346	0.000	0.027	0.000	0.027	0.875	26.444	42.199	0.875	0.00	43.074	0.000	0.215	0.215	0.431	42.428	0.243	2.205	0.243	2.447	0.000	0.636	0.636	1.811	8.974	0.636	9.610	0.000	1.442	1.442	8.169	1.442	14.793	12.40
16-Jan	0		0.0	26.444	0.000	0.0	26.444	0.000	0.026	0.000	0.026	0.846	25.571	42.428	0.846	0.00	43.274	0.000	0.216	0.216	0.433	42.625	0.243	1.811	0.243	2.054	0.000	0.534	0.534	1.520	8.169	0.534	8.703	0.000	1.305	1.305	7.397	1.305	13.396	10.50
17-Jan	0		0.0	25.571	0.000	0.0	25.571	0.000	0.026	0.000	0.026	0.818	24.727	42.625	0.818	0.00	43.443	0.000	0.217	0.217	0.434	42.792	0.243	1.520	0.243	1.763	0.000	0.458	0.458	1.304	7.397	0.458	7.856	0.000	1.178	1.178	6.677	1.178	12.092	9.49
18-Jan	0		0.0	24.727	0.000	0.0	24.727	0.000	0.025	0.000	0.025	0.791	23.911	42.792	0.791	0.00	43.583	0.000	0.218	0.218	0.436	42.929	0.243	1.304	0.243	1.547	0.000	0.402	0.402	1.145	6.677	0.402	7.080	0.000	1.062	1.062	6.018	1.062	10.897	8.59
19-Jan	0		0.0	23.911	0.000	0.0	23.911	0.000	0.024	0.000	0.024	0.765	23.122	42.929	0.765	0.00	43.694	0.000	0.218	0.218	0.437	43.039	0.242	1.145	0.242	1.387	0.000	0.361	0.361	1.026	6.018	0.361	6.378	0.000	0.957	0.957	5.422	0.957	9.818	8.19
20-Jan	0		0.0	23.122	0.000	0.0	23.122	0.000	0.023	0.000	0.023	0.740	22.359	43.039	0.740	0.00	43.779	0.000	0.219	0.219	0.438	43.122	0.242	1.026	0.242	1.269	0.000	0.330	0.330	0.939	5.422	0.330	5.751	0.000	0.863	0.863	4.889	0.863	8.853	7.87
21-Jan	0		0.0	22.359	0.000	0.0	22.359	0.000	0.022	0.000	0.022	0.715	21.621	43.122	0.715	0.00	43.838	0.000	0.219	0.219	0.438	43.180	0.242	0.939	0.242	1.180	0.000	0.307	0.307	0.873	4.889	0.307	5.196	0.000	0.779	0.779	4.416	0.779	7.997	7.34
22-Jan	0		0.0	21.621	0.000	0.0	21.621	0.000	0.022	0.000	0.022	0.692	20.908	43.180	0.692	0.00	43.872	0.000	0.219	0.219	0.439	43.214	0.241	0.873	0.241	1.114	0.000	0.290	0.290	0.825	4.416	0.290	4.706	0.000	0.706	0.706	4.000	0.706	7.244	6.70
23-Jan	0		0.0	20.908	0.000	0.0	20.908	0.000	0.021	0.000	0.021	0.669	20.218	43.214	0.669	0.00	43.883	0.000	0.219	0.219	0.439	43.225	0.240	0.825	0.240	1.065	0.000	0.277	0.277	0.788	4.000	0.277	4.277	0.000	0.642	0.642	3.635	0.642	6.583	6.15
24-Jan	0		0.0	20.218	0.000	0.0	20.218	0.000	0.020	0.000	0.020	0.647	19.551	43.225	0.647	0.00	43.872	0.000	0.219	0.219	0.439	43.214	0.240	0.788	0.240	1.028	0.000	0.267	0.267	0.760	3.635	0.267	3.903	0.000	0.585	0.585	3.317	0.585	6.007	5.47
25-Jan	0		0.0	19.551	0.000	0.0	19.551	0.000	0.020	0.000	0.020	0.626	18.905	43.214	0.626	0.00	43.839	0.000	0.219	0.219	0.438	43.182	0.239	0.760	0.239	0.999	0.000	0.260	0.260	0.739	3.317	0.260	3.577	0.000	0.537	0.537	3.040	0.537	5.506	4.85
26-Jan	0		0.0	18.905	0.000	0.0	18.905	0.000	0.019	0.000	0.019	0.605	18.282	43.182	0.605	0.00	43.787	0.000	0.219	0.219	0.438	43.130	0.238	0.739	0.238	0.977	0.000	0.254	0.254	0.723	3.040	0.254	3.295	0.000	0.494	0.494	2.800	0.494	5.071	4.55
27-Jan	0		0.0	18.282	0.000	0.0	18.282	0.000	0.018	0.000	0.018	0.585	17.678	43.130	0.585	0.00	43.715	0.000	0.219	0.219	0.437	43.059	0.237	0.723	0.237	0.960	0.000	0.250	0.250	0.710	2.800	0.250	3.050	0.000	0.457	0.457	2.592	0.457	4.695	4.37
28-Jan	0		0.0	17.678	0.000	0.0	17.678	0.000	0.018	0.000	0.018	0.566	17.095	43.059	0.566	0.00	43.625	0.000	0.218	0.218	0.436	42.970	0.236	0.710	0.236	0.946	0.000	0.246	0.246	0.700	2.592	0.246	2.838	0.000	0.426	0.426	2.413	0.426	4.369	4.12
29-Jan	0		0.0	17.095	0.000	0.0	17.095	0.000	0.017	0.000	0.017	0.547	16.531	42.970	0.547	0.00	43.517	0.000	0.218	0.218	0.435	42.865	0.235	0.700	0.235	0.935	0.000	0.243	0.243	0.692	2.413	0.243	2.656	0.000	0.398	0.398	2.257	0.398	4.088	3.94
30-Jan	0		0.0	16.531	0.000	0.0	16.531	0.000	0.017	0.000	0.017	0.529	15.985	42.865	0.529	0.00	43.394	0.000	0.217	0.217	0.434	42.743	0.233	0.692	0.233	0.925	0.000	0.241	0.241	0.685	2.257	0.241	2.498	0.000	0.375	0.375	2.123	0.375	3.845	3.78
31-Jan	0		0.0	15.985	0.000	0.0	15.985	0.000	0.016	0.000	0.016	0.512	15.458	42.743	0.512	0.00	43.254	0.000	0.216	0.216	0.433	42.605	0.232	0.685	0.232	0.917	0.000	0.238	0.238	0.679	2.123	0.238	2.362	0.000	0.354	0.354	2.007	0.354	3.635	3.63
1-Feb	0		0.0	15.458	0.000	0.0	15.458	0.000	0.015	0.000	0.015	0.495	14.948	42.605	0.495	0.00	43.100	0.000	0.216	0.216	0.431	42.454	0.231	0.679	0.231	0.910	0.000	0.236	0.236	0.673	2.007	0.236	2.244	0.000	0.337	0.337	1.907	0.337	3.454	3.41
2-Feb	0		0.0	14.948	0.000	0.0	14.948	0.000	0.015	0.000	0.015	0.478	14.454	42.454	0.478	0.00	42.932	0.000	0.215	0.215	0.429	42.288	0.230	0.673	0.230	0.903	0.000	0.235	0.235	0.668	1.907	0.235	2.142	0.000	0.321	0.321	1.821	0.321	3.297	3.26
3-Feb	0		0.0	14.454	0.000	0.0	14.454	0.000	0.014	0.000	0.014	0.463	13.977	42.288	0.463	0.00	42.750	0.000	0.214	0.214	0.428	42.109	0.228	0.668	0.228	0.896	0.000	0.233	0.233	0.663	1.821	0.233	2.054	0.000	0.308	0.308	1.746	0.308	3.161	3.20
4-Feb	0		0.0	13.977	0.000	0.0	13.977	0.000	0.014	0.000	0.014	0.447	13.516	42.109	0.447	0.00	42.557	0.000	0.213	0.213	0.426	41.918	0.227	0.663	0.227	0.890	0.000	0.231	0.231	0.659	1.746	0.231	1.977	0.000	0.297	0.297	1.680	0.297	3.043	3.30
5-Feb	0		0.0	13.516	0.000	0.0	13.516	0.000	0.014	0.000	0.014	0.433	13.070	41.918	0.433	0.00	42.351	0.000	0.212	0.212	0.424	41.715	0.225	0.659	0.225	0.884	0.000	0.230	0.230	0.654	1.680	0.230	1.910	0.000	0.287	0.287	1.624	0.287	2.940	3.32
6-Feb	5.3		0.0	13.070	0.000	0.0	13.070	0.000	0.013	0.000	0.013	0.418	12.639	41.715	0.418	0.00	42.134	0.000	0.211	0.211	0.421	41.502	0.224	0.654	0.224	0.878	0.000	0.228	0.228	0.650	1.624	0.228	1.852	0.000	0.278	0.278	1.574	0.278	2.851	3.18
7-Feb	0.3		0.0	12.639	5.300	0.0	17.939	0.000	0.018	0.000	0.018	0.574	17.347	41.502	0.574	0.00	42.076	0.000	0.210	0.210	0.421	41.445	0.228	0.650	0.228	0.878	0.000	0.228	0.228	0.650	1.574	0.228	1.802	0.000	0.270	0.270	1.532	0.270	2.774	3.26
8-Feb	2.7		0.0	17.347	0.300	0.0	17.647	0.000	0.018	0.000	0.018	0.565	17.064	41.445	0.565	0.00	42.009	0.000	0.210	0.210	0.420	41.379	0.228	0.650	0.228	0.877	0.000	0.228	0.228	0.649	1.532	0.228	1.760	0.000	0.264	0.264	1.496	0.264	2.709	3.37
9-Feb	0		0.0	17.064	2.700	0.0	19.764	0.000	0.020	0.000	0.020	0.632	19.112	41.379	0.632	0.00	42.012	0.000	0.210	0.210	0.420	41.381	0.230	0.649	0.230	0.879	0.000	0.229	0.229	0.650	1.496	0.229	1.725	0.000	0.259	0.259	1.466	0.259	2.655	3.45
10-Feb	0.1		0.0	19.112	0.000	0.0	19.112	0.000	0.019	0.000	0.019	0.612	18.481	41.381	0.612	0.00	41.993	0.000	0.210	0.210	0.420	41.363	0.229	0.650	0.229	0.880	0.000	0.229	0.229	0.651	1.466	0.229	1.695	0.000	0.254	0.254	1.440	0.254	2.608	3.21
11-Feb	2		0.0	18.481	0.100	0.0	18.581	0.000	0.019	0.000	0.019	0.595	17.968	41.363	0.595	0.00	41.958	0.000	0.210	0.210	0.420	41.328	0.228	0.651	0.228	0.879	0.000	0.229	0.229	0.651	1.440	0.229	1.669	0.000	0.250	0.250	1.419	0.250	2.569	3.14

2) Series Tank Model Calculation Sheet : Pededze 1988

Tank Model Coefficient				1st Tank										2 nd Tank									Total	Channel Storage 1							Channel Storage 2									
	Height of Orifice							30	0	0		0						0	0		65						0	0		0				0	0		0			
	Coefficient of Orifice							0.65	0.001	0		0.032						0	0.005		0.01						0	0.26						0	0.15					
	Rain	Evapotranspiration	Converted Evapotranspiration	Storage of previous day	Rain of previous day	Evapotranspiration	Total stoage	Discharge: upper orifice	Discharge: middle orifice	Discharge : lower orifice	Sub-total	Infiltration	Balance of Storage	Storage of previous day	Inflow	Evapotranspiration	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltration	Balance of Storage	Total specific discharege	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Dischareg e	Measured River Discharge
12-Feb	0		0.0	17.968	2.000	0.0	19.968	0.000	0.020	0.000	0.020	0.639	19.309	41.328	0.639	0.00	41.967	0.000	0.210	0.210	0.420	41.338	0.230	0.651	0.230	0.880	0.000	0.229	0.229	0.652	1.419	0.229	1.648	0.000	0.247	0.247	1.400	0.247	2.536	2.99
13-Feb	1.2		0.0	19.309	0.000	0.0	19.309	0.000	0.019	0.000	0.019	0.618	18.672	41.338	0.618	0.00	41.956	0.000	0.210	0.210	0.420	41.326	0.229	0.652	0.229	0.881	0.000	0.229	0.229	0.652	1.400	0.229	1.629	0.000	0.244	0.244	1.385	0.244	2.508	2.92
14-Feb	0		0.0	18.672	1.200	0.0	19.872	0.000	0.020	0.000	0.020	0.636	19.216	41.326	0.636	0.00	41.962	0.000	0.210	0.210	0.420	41.333	0.230	0.652	0.230	0.881	0.000	0.229	0.229	0.652	1.385	0.229	1.614	0.000	0.242	0.242	1.372	0.242	2.485	2.86
15-Feb	0		0.0	19.216	0.000	0.0	19.216	0.000	0.019	0.000	0.019	0.615	18.582	41.333	0.615	0.00	41.948	0.000	0.210	0.210	0.419	41.319	0.229	0.652	0.229	0.881	0.000	0.229	0.229	0.652	1.372	0.229	1.601	0.000	0.240	0.240	1.361	0.240	2.465	2.86
16-Feb	0		0.0	18.582	0.000	0.0	18.582	0.000	0.019	0.000	0.019	0.595	17.969	41.319	0.595	0.00	41.913	0.000	0.210	0.210	0.419	41.284	0.228	0.652	0.228	0.880	0.000	0.229	0.229	0.651	1.361	0.229	1.590	0.000	0.238	0.238	1.351	0.238	2.447	2.72
17-Feb	0		0.0	17.969	0.000	0.0	17.969	0.000	0.018	0.000	0.018	0.575	17.376	41.284	0.575	0.00	41.859	0.000	0.209	0.209	0.419	41.232	0.227	0.651	0.227	0.879	0.000	0.228	0.228	0.650	1.351	0.228	1.580	0.000	0.237	0.237	1.343	0.237	2.432	2.72
18-Feb	0		0.0	17.376	0.000	0.0	17.376	0.000	0.017	0.000	0.017	0.556	16.803	41.232	0.556	0.00	41.788	0.000	0.209	0.209	0.418	41.161	0.226	0.650	0.226	0.876	0.000	0.228	0.228	0.649	1.343	0.228	1.571	0.000	0.236	0.236	1.335	0.236	2.418	2.72
19-Feb	0		0.0	16.803	0.000	0.0	16.803	0.000	0.017	0.000	0.017	0.538	16.248	41.161	0.538	0.00	41.699	0.000	0.208	0.208	0.417	41.073	0.225	0.649	0.225	0.874	0.000	0.227	0.227	0.647	1.335	0.227	1.562	0.000	0.234	0.234	1.328	0.234	2.405	2.72
20-Feb	0		0.0	16.248	0.000	0.0	16.248	0.000	0.016	0.000	0.016	0.520	15.712	41.073	0.520	0.00	41.593	0.000	0.208	0.208	0.416	40.969	0.224	0.647	0.224	0.871	0.000	0.226	0.226	0.644	1.328	0.226	1.554	0.000	0.233	0.233	1.321	0.233	2.393	2.66
21-Feb	0		0.0	15.712	0.000	0.0	15.712	0.000	0.016	0.000	0.016	0.503	15.193	40.969	0.503	0.00	41.472	0.000	0.207	0.207	0.415	40.850	0.223	0.644	0.223	0.868	0.000	0.226	0.226	0.642	1.321	0.226	1.547	0.000	0.232	0.232	1.315	0.232	2.381	2.59
22-Feb	0		0.0	15.193	0.000	0.0	15.193	0.000	0.015	0.000	0.015	0.486	14.692	40.850	0.486	0.00	41.336	0.000	0.207	0.207	0.413	40.716	0.222	0.642	0.222	0.864	0.000	0.225	0.225	0.639	1.315	0.225	1.539	0.000	0.231	0.231	1.308	0.231	2.369	2.46
23-Feb	0		0.0	14.692	0.000	0.0	14.692	0.000	0.015	0.000	0.015	0.470	14.207	40.716	0.470	0.00	41.186	0.000	0.206	0.206	0.412	40.568	0.221	0.639	0.221	0.860	0.000	0.224	0.224	0.636	1.308	0.224	1.532	0.000	0.230	0.230	1.302	0.230	2.358	2.40
24-Feb	0		0.0	14.207	0.000	0.0	14.207	0.000	0.014	0.000	0.014	0.455	13.738	40.568	0.455	0.00	41.023	0.000	0.205	0.205	0.410	40.408	0.219	0.636	0.219	0.856	0.000	0.222	0.222	0.633	1.302	0.222	1.525	0.000	0.229	0.229	1.296	0.229	2.347	2.28
25-Feb	0		0.0	13.738	0.000	0.0	13.738	0.000	0.014	0.000	0.014	0.440	13.285	40.408	0.440	0.00	40.847	0.000	0.204	0.204	0.408	40.234	0.218	0.633	0.218	0.851	0.000	0.221	0.221	0.630	1.296	0.221	1.517	0.000	0.228	0.228	1.290	0.228	2.335	2.22
26-Feb	0		0.0	13.285	0.000	0.0	13.285	0.000	0.013	0.000	0.013	0.425	12.847	40.234	0.425	0.00	40.660	0.000	0.203	0.203	0.407	40.050	0.217	0.630	0.217	0.846	0.000	0.220	0.220	0.626	1.290	0.220	1.510	0.000	0.226	0.226	1.283	0.226	2.324	2.10
27-Feb	0		0.0	12.847	0.000	0.0	12.847	0.000	0.013	0.000	0.013	0.411	12.423	40.050	0.411	0.00	40.461	0.000	0.202	0.202	0.405	39.854	0.215	0.626	0.215	0.842	0.000	0.219	0.219	0.623	1.283	0.219	1.502	0.000	0.225	0.225	1.277	0.225	2.312	1.99
28-Feb	0		0.0	12.423	0.000	0.0	12.423	0.000	0.012	0.000	0.012	0.398	12.013	39.854	0.398	0.00	40.251	0.000	0.201	0.201	0.403	39.648	0.214	0.623	0.214	0.836	0.000	0.217	0.217	0.619	1.277	0.217	1.494	0.000	0.224	0.224	1.270	0.224	2.300	1.99
29-Feb	0		0.0	12.013	0.000	0.0	12.013	0.000	0.012	0.000	0.012	0.384	11.616	39.648	0.384	0.00	40.032	0.000	0.200	0.200	0.400	39.432	0.212	0.619	0.212	0.831	0.000	0.216	0.216	0.615	1.270	0.216	1.486	0.000	0.223	0.223	1.263	0.223	2.288	1.88
1-Mar	0		0.0	11.616	0.000	0.0	11.616	0.000	0.012	0.000	0.012	0.372	11.233	39.432	0.372	0.00	39.803	0.000	0.199	0.199	0.398	39.206	0.211	0.615	0.211	0.826	0.000	0.215	0.215	0.611	1.263	0.215	1.478	0.000	0.222	0.222	1.256	0.222	2.275	1.88
2-Mar	0		0.0	11.233	0.000	0.0	11.233	0.000	0.011	0.000	0.011	0.359	10.862	39.206	0.359	0.00	39.566	0.000	0.198	0.198	0.396	38.972	0.209	0.611	0.209	0.820	0.000	0.213	0.213	0.607	1.256	0.213	1.469	0.000	0.220	0.220	1.249	0.220	2.262	1.82
3-Mar	0		0.0	10.862	0.000	0.0	10.862	0.000	0.011	0.000	0.011	0.348	10.504	38.972	0.348	0.00	39.320	0.000	0.197	0.197	0.393	38.730	0.207	0.607	0.207	0.814	0.000	0.212	0.212	0.603	1.249	0.212	1.461	0.000	0.219	0.219	1.242	0.219	2.248	1.77
4-Mar	0		0.0	10.504	0.000	0.0	10.504	0.000	0.011	0.000	0.011	0.336	10.157	38.730	0.336	0.00	39.066	0.000	0.195	0.195	0.391	38.480	0.206	0.603	0.206	0.808	0.000	0.210	0.210	0.598	1.242	0.210	1.452	0.000	0.218	0.218	1.234	0.218	2.235	1.77
5-Mar	0		0.0	10.157	0.000	0.0	10.157	0.000	0.010	0.000	0.010	0.325	9.822	38.480	0.325	0.00	38.805	0.000	0.194	0.194	0.388	38.223	0.204	0.598	0.204	0.802	0.000	0.209	0.209	0.594	1.234	0.209	1.443	0.000	0.216	0.216	1.226	0.216	2.221	1.66
6-Mar	0		0.0	9.822	0.000	0.0	9.822	0.000	0.010	0.000	0.010	0.314	9.498	38.223	0.314	0.00	38.537	0.000	0.193	0.193	0.385	37.959	0.203	0.594	0.203	0.796	0.000	0.207	0.207	0.589	1.226	0.207	1.433	0.000	0.215	0.215	1.218	0.215	2.206	1.72
7-Mar	0		0.0	9.498	0.000	0.0	9.498	0.000	0.009	0.000	0.009	0.304	9.184	37.959	0.304	0.00	38.263	0.000	0.191	0.191	0.383	37.689	0.201	0.589	0.201	0.790	0.000	0.205	0.205	0.585	1.218	0.205	1.424	0.000	0.214	0.214	1.210	0.214	2.191	1.72
8-Mar	0		0.0	9.184	0.000	0.0	9.184	0.000	0.009	0.000	0.009	0.294	8.881	37.689	0.294	0.00	37.983	0.000	0.190	0.190	0.380	37.413	0.199	0.585	0.199	0.784	0.000	0.204	0.204	0.580	1.210	0.204	1.414	0.000	0.212	0.212	1.202	0.212	2.176	1.71
9-Mar	0		0.0	8.881	0.000	0.0	8.881	0.000	0.009	0.000	0.009	0.284	8.588	37.413	0.284	0.00	37.698	0.000	0.188	0.188	0.377	37.132	0.197	0.580	0.197	0.777	0.000	0.202	0.202	0.575	1.202	0.202	1.404	0.000	0.211	0.211	1.193	0.211	2.161	1.71
10-Mar	0		0.0	8.588	0.000	0.0	8.588	0.000	0.009	0.000	0.009	0.275	8.305	37.132	0.275	0.00	37.407	0.000	0.187	0.187	0.374	36.846	0.196	0.575	0.196	0.771	0.000	0.200	0.200	0.570	1.193	0.200	1.394	0.000	0.209	0.209	1.185	0.209	2.145	1.70
11-Mar	0		0.0	8.305	0.000	0.0	8.305	0.000	0.008	0.000	0.008	0.266	8.031	36.846	0.266	0.00	37.112	0.000	0.186	0.186	0.371	36.555	0.194	0.570	0.194	0.764	0.000	0.199	0.199	0.566	1.185	0.199	1.383	0.000	0.208	0.208	1.176	0.208	2.129	1.70
12-Mar	0		0.0	8.031	0.000	0.0	8.031	0.000	0.008	0.000	0.008	0.257	7.766	36.555	0.257	0.00	36.812	0.000	0.184	0.184	0.368	36.260	0.192	0.566	0.192	0.758	0.000	0.197	0.197	0.561	1.176	0.197	1.373	0.000	0.206	0.206	1.167	0.206	2.113	1.69
13-Mar	0		0.0	7.766	0.000	0.0	7.766	0.000	0.008	0.000	0.008	0.249	7.510	36.260	0.249	0.00	36.508	0.000	0.183	0.183	0.365	35.961	0.190	0.561	0.190	0.751	0.000	0.195	0.195	0.556	1.167	0.195	1.362	0.000	0.204	0.204	1.158	0.204	2.097	1.74
14-Mar	0		0.0	7.510	0.000	0.0	7.510	0.000	0.008	0.000	0.008	0.240	7.262	35.961	0.240	0.00	36.201	0.000	0.181	0.181	0.362	35.658	0.189	0.556	0.189	0.744	0.000	0.194	0.194	0.551	1.158	0.194	1.351	0.000	0.203	0.203	1.149	0.203	2.080	1.68
15-Mar	0		0.0	7.262	0.000	0.0	7.262	0.000	0.007	0.000	0.007	0.232	7.022	35.658	0.232	0.00	35.890	0.000	0.179	0.179	0.359	35.352	0.187	0.551	0.187	0.737	0.000	0.192	0.192	0.546	1.149	0.192	1.340	0.000	0.201	0.201	1.139	0.201	2.063	1.72
16-Mar	0		0.0	7.022	0.000	0.0	7.022	0.000	0.007	0.000	0.007	0.225	6.790	35.352	0.225	0.00	35.577	0.000	0.178	0.178	0.356	35.043	0.185	0.546	0.185	0.731	0.000	0.190	0.190	0.541	1.139	0.190	1.329	0.000	0.199	0.199	1.130	0.199	2.046	1.77
17-Mar	0		0.0	6.790	0.000	0.0	6.790	0.000	0.007	0.000	0.007	0.217	6.566	35.043	0.217	0.00	35.260	0.000	0.176	0.176	0.353	34.731	0.183	0.541	0.183	0.724	0.000	0.188	0.188	0.536	1.130	0.188	1.318	0.000	0.198	0.198	1.120	0.198	2.029	1.81
18-Mar	0		0.0	6.566	0.000	0.0	6.566	0.000	0.007	0.000	0.007	0.210	6.350	34.731	0.210	0.00	34.942	0.000	0.175	0.175	0.349	34.417	0.181	0.536	0.181	0.717	0.000	0.186	0.186	0.530	1.120	0.186	1.307	0.000	0.196	0.196	1.111	0.196	2.011	1.86
19-Mar	0		0.0	6.350	0.000	0.0	6.350	0.000	0.006	0.000	0.006	0.203	6.140	34.417	0.203	0.00	34.621	0.000	0.173	0.173	0.346	34.101	0.179	0.530	0.179	0.710	0.000	0.185	0.185	0.525	1.111	0.185	1.295	0.000	0.194	0.194	1.101	0.194	1.994	2.02
20-Mar	0		0.0	6.140	0.000	0.0	6.140	0.000	0.006	0.000	0.006	0.196	5.937	34.101	0.196	0.00	34.298	0.000	0.171	0.171	0.343	33.783	0.178	0.525	0.178	0.703	0.000	0.183	0.183	0.520	1.101	0.183	1.284	0.000	0.193	0.193	1.091	0.193	1.976	2.08
21-Mar	0		0.0	5.937	0.000	0.0	5.937	0.000	0.006	0.000	0.006	0.190	5.741	33.783	0.190	0.00	33.973	0.000	0.170	0.170	0.340	33.464	0.176	0.520	0.176	0.696	0.000	0.181	0.181	0.515	1.091	0.181	1.272	0.000	0.191	0.191	1.081	0.191	1.958	2.20
22-Mar	0		0.0	5.741	0.000	0.0	5.741	0.000	0.006	0.000	0.006	0.184	5.552	33.464	0.184	0.00	33.647	0.000	0.168	0.168	0.336	33.143	0.174	0.515	0.174	0.689	0.000	0.179	0.179	0.510	1.081	0.179	1.261	0.000	0.189	0.189	1.071	0.189	1.940	2.33
23-Mar	0		0.0	5.552	0.000	0.0	5.552	0.000	0.006	0.000	0.006	0.178	5.369	33.143	0.178	0.00	33.320	0.000	0.167	0.167	0.333	32.821	0.172	0.510	0.172	0.682	0.000	0.177	0.177	0.505	1.071	0.177	1.249	0.000	0.187	0.187	1.061	0.187	1.922	2.44
24-Mar	5.4		0.0	5.369	0.000	0.0	5.369	0.000	0.005	0.000	0.005	0.172	5.192	32.821	0.172	0.00	32.992	0.000	0.165	0.165	0.330	32.498	0.170	0.505	0.170	0.675	0.000	0.176	0.176	0.500	1.061	0.176	1.237	0.000	0.186	0.186	1.051	0.186	1.904	2.64
25-Mar	9.7		0.0	5.192	5.400	0.0	10.592	0.000	0.011	0.000	0.011	0.339	10.242	32.498	0.339	0.00	32.836	0.000	0.164	0.164	0.328	32.344	0.175	0.500	0.175	0.674	0.000	0.175	0.175	0.499	1.051	0.175	1.227	0.000	0.184	0.184	1.043	0.184	1.888	2.90
26-Mar	7.3		0.0	10.242	9.700	0.0	19.942	0.000	0.020	0.000	0.020	0.638	19.284	32.344	0.638	0.00	32.982	0.000	0.165	0.165	0.330	32.487	0.185	0.499	0.185	0.684	0.000	0.178	0.178	0.506	1.043	0.178	1.221	0.000	0.183	0.183	1.037	0.183	1.879	3.11
27-Mar	10.3		0.0	19.284	7.300	0.0	26.584	0.000	0.027	0.000	0.027	0.851	25.707	32.487	0.851	0.00	33.338	0.000	0.167	0.167	0.333	32.838	0.193	0.506	0.193	0.699	0.000	0.182	0.182	0.517	1.037	0.182	1.219	0.000	0.183	0.183	1.036	0.183	1.877	3.85
28-Mar	5.2		0.0	25.707	10.300	0.0	36.007	3.904	0.036	0.000	3.940	1.152	30.914	32.838	1.152	0.00	33.990	0.000	0.170	0.170	0.340	33.480	4.110	0.517	4.110	4.628	0.000	1.203	1.203	3.425	1.036	1.203	2.240	0.000	0.336	0.336	1.904	0.336	3.447	4.96
29-Mar	6.6		0.0	30.914	5.200	0.0	36.114	3.974	0.036	0.000	4.010	1.156	30.948	33.480	1.156	0.00	34.636	0.000	0.173	0.173	0.346	34.116	4.183	3.425	4.183	7.608	0.000	1.978	1.978	5.630	1.904	1.978	3.882	0.000	0.582	0.582	3.300	0.582	5.975	5.89
30-Mar	6		0.0	30.948	6.600	0.0	37.548	4.906	0.038	0.000	4.944	1.202	31.403	34.116	1.202	0.00	35.318	0.000	0.177	0.177	0.353	34.788	5.120	5.630	5.120	10.750	0.000	2.795	2.795	7.955	3.300	2.795	6.095	0.000	0.914	0.914	5.180	0.914	9.381	7.04
31-Mar	7.8	1.5	0.8	31.403	6.000	0.0	37.403	4.812	0.037	0.000	4.849	1.197	31.357	34.788	1.197	0.00	35.985	0.000	0.180	0.180	0.360	35.445	5.029	7.955	5.029	12.984	0.000	3.376	3.376	9.608	5.180	3.376	8.556	0.000	1.283	1.283	7.273	1.283	13.170	8.93
1-Apr	10.4	1.5	0.8	31.357	7.800	0.8	38.407	5.464	0.038	0.000	5.503	1.229	31.675	35.445	1.229	0.00	36.674	0.000	0.183	0.183	0.367	36.124	5.686	9.608	5.686	15.295	0.000	3.977	3.977	11.318	7.273	3.977	11.250	0.000	1.687	1.687	9.562	1.687	17.316	14.80
2-Apr	18.3	1.5	0.8	31.675	10.400	0.8	41.325	7.361	0.041	0.000	7.403	1.322	32.600	36.124	1.322	0.00	37.447	0.000	0.187	0.187	0.374	36.885	7.590	11.318	7.590	18.908	0.000	4.916	4.916	13.992	9.562	4.916	14.478	0.000	2.172	2.172	12.306	2.172	22.285	32.80
3-Apr	7.1	1.5	0.8	32.600	18.300	0.8	50.150	13.097	0.050	0.000	#####	1.605	35.398	36.885	1.605	0.00	38.490	0.000	0.192	0.192	0.385	37.912	13.340	13.992	13.340	27.332	0.000	7.106	7.106	20.226	12.306	7.106	19.413	0.000	2.912	2.912	16.501	2.912	29.881	58.50
4-Apr	0.3	1.5	1.5	35.398	7.100	0.8	41.748	7.636	0.042	0.000	7.678	1.336	32.734	37.912	1.336	0.00	39.248	0.000	0.196	0.196	0.392	38.660	7.874	20.226	7.874	28.099	0.000	7.306	7.306	20.794	16.501	7.306	23.807	0.000	3.571	3.571	20.236	3.571	36.644	89.30
5-Apr	0.3	1.5	1.5	32.734	0.300	1.5	31.534	0.997	0.032	0.000	1.029	1.009	29.496	38.660	1.009	0.00	39.669	0.000	0.198	0.198	0.397	39.074	1.227	20.794	1.227	22.021	0.000	5.725	5.725	16.295	20.236	5.725	25.961	0.000	3.894	3.894	22.067	3.894	39.960	102.00
6-Apr	0.1	1.5	1.5	29.496	0.300	1.5	28.296	0.000	0.028	0.000	0.028	0.905	27.362	39.074	0.905	0.00	39.979	0.000	0.200	0.200	0.400	39.379	0.228	16.295	0.228	16.523	0.000	4.296	4.296	12.227	22.067	4.296	26.363	0.000	3.954	3.954	22.408	3.954	40.579	85.90
7-Apr	0	1.5	1.5	27.362	0.100	1.5	25.962	0.000	0.026	0.000	0.026	0.831	25.106	39.379	0.831	0.00	40.210	0.000	0.201	0.201	0.402	39.607	0.227	12.227	0.227	12.454	0.000	3.238	3.238	9.216	22.408	3.238	25.647	0.000	3.847	3.847	21.800	3.847	39.476	70.40
8-Apr	0	1.5	1.5	25.106	0.000	1.5	23.606	0.000	0.024	0.000	0.024	0.755	22.827	39.607	0.755	0.00	40.362	0.000	0.202	0.202	0.404	39.757	0.225	9.216	0.225	9.442	0.000	2.455	2.455	6.987	21.800	2.455	24.254	0.000	3.638	3.638	20.616	3.638	37.333	60.50
9-Apr	0	1.5	1.5	22.827	0.000	1.5	21.327	0.000	0.021	0.000	0.021	0.682	20.623	39.757	0.682	0.00	40.439	0.000	0.202	0.202	0.404	39.833	0.224	6.987	0.224	7.210	0.000	1.875	1.875	5.336	20.616	1.875	22.491	0.000	3.374	3.374	19.117	3.374	34.619	57.30
10-Apr	0	1.5	1.5	20.623	0.000	1.5	19.123	0.000	0.019	0.000	0.019	0.612	18.492	39.833	0.612	0.00	40.445	0.000	0.202	0.202	0.404	39.838	0.221	5.336	0.221	5.557	0.000	1.445	1.445	4.112	19.117	1.445	20.562	0.000	3.084	3.084	17.478	3.084	31.650	52.60
11-Apr	0	1.5	1.5	18.492	0.000	1.5	16.992	0.000	0.017	0.000	0.017	0.544	16.431	39.838	0.544	0.00	40.382	0.000	0.202	0.202	0.404	39.776	0.219	4.112	0.219	4.331	0.000	1.126	1.126	3.205	17.478	1.126	18.604	0.000	2.791	2.791	15.813	2.791	28.636	42.20
12-Apr	0	1.5	1.5	16.431	0.000	1.5	14.931	0.000	0.015	0.000	0.015	0.478	14.438	39.776	0.478	0.00	40.254	0.000	0.201	0.201	0.403	39.650	0.216	3.205	0.216	3.421	0.000	0.890	0.890	2.532	15.813	0.890	16.703	0.000	2.505	2.505	14.197	2.505	25.710	31.90
13-Apr	0	1.5	1.5	14.438	0.000	1.5	12.938	0.000	0.013	0.000	0.013	0.414	12.511	39.650	0.414	0.00	40.064	0.000	0.200	0.200	0.401	39.463	0.213	2.532	0.213	2.745	0.000	0.714	0.714	2.031	14.197	0.714	14.911	0.000	2.237	2.237	12.674	2.237	22.952	25.00
14-Apr	0	1.5	1.5	12.511	0.000	1.5	11.011	0.000	0.011	0.000	0.011	0.352	10.648	39.463	0.352	0.00	39.816	0.000	0.199	0.199	0.398	39.218	0.210	2.031	0.210	2.241	0.000	0.583	0.583	1.659	12.674	0.583	13.257	0.000	1.989	1.989	11.269	1.989	20.406	21.60
15-Apr	0	1.5	1.5	10.648	0.000	1.5	9.148	0.000	0.009	0.000	0.009	0.293	8.846	39.218	0.293	0.00	39.511	0.000	0.198	0.198	0.395	38.918	0.207	1.659	0.207	1.865	0.000	0.485	0.485	1.380	11.269	0.485	11.754	0.000	1.763	1.763	9.991	1.763	18.092	18.60
16-Apr	1.1	1.5	0.8	8.846	0.000	1.5	7.346	0.000	0.007	0.000	0.007	0.235	7.104	38.918	0.235	0.00	39.153	0.000	0.196	0.196	0.392	38.566	0.203	1.380	0.203	1.583	0.000	0.412	0.412	1.172	9.991	0.412	10.402	0.000	1.560	1.560	8.842	1.560	16.011	16.90
17-Apr	15	1.5	0.8	7.104	1.100	0.8	7.454	0.000	0.007	0.000	0.007	0.239	7.208	38.566	0.239	0.00	38.805	0.000	0.194	0.194	0.388	38.223	0.201	1.172	0.201	1.373	0.000	0.357	0.357	1.016	8.842	0.357	9.199	0.000	1.380	1.380	7.819	1.380	14.159	16.70
18-Apr	0	1.5	1.5	7.208	15.000	0.8	21.458	0.000	0.021	0.000	0.021	0.687	20.750	38.223	0.687	0.00	38.909	0.000	0.195	0.195	0.389	38.326	0.216	1.016	0.216	1.232	0.000	0.320	0.320	0.912	7.819	0.320	8.139	0.000	1.221	1.221	6.919	1.221	12.529	18.40
19-Apr	0.5	1.5	1.5	20.750	0.000	1.5	19.250	0.000	0.019	0.000	0.019	0.616	18.614	38.326	0.616	0.00	38.942	0.000	0.195	0.195	0.389	38.358	0.214	0.912	0.214	1.126	0.000	0.293	0.293	0.833	6.919	0.293	7.211	0.000	1.082	1.082	6.130	1.082	11.100	19.90
20-Apr	0.3	1.5	1.5	18.614	0.500	1.5	17.614	0.000	0.018	0.000	0.018	0.564	17.033	38.358	0.564	0.00	38.921	0.000	0.195	0.195	0.389	38.337	0.212	0.833	0.212	1.045	0.000	0.272	0.272	0.774	6.130	0.272	6.401	0.000	0.960	0.960	5.441	0.960	9.853	19.90
21-Apr	0	1.5	1.5	17.033	0.300	1.5	15.833	0.000	0.016	0.000	0.016	0.507	15.311	38.337	0.507	0.00	38.844	0.000	0.194	0.194	0.388	38.261	0.210	0.774	0.210	0.984	0.000	0.256	0.256	0.728	5.441	0.256	5.697	0.000	0.855	0.855	4.842	0.855	8.769	17.80
22-Apr	0	1.5	1.5	15.311	0.000	1.5	13.811	0.000	0.014	0.000	0.014	0.442	13.355	38.261	0.442	0.00	38.703	0.000	0.194	0.194	0.387	38.123	0.207	0.728	0.207	0.935	0.000	0.243	0.243	0.692	4.842	0.243	5.085	0.000	0.763	0.763	4.323	0.763	7.828	16.90
23-Apr	1.1	1.5	0.8	13.355	0.000	1.5	11.855	0.000	0.012	0.000	0.012	0.379	11.464	38.123	0.379	0.00	38.502	0.000	0.193	0.193	0.385	37.925	0.204	0.692	0.204	0.896	0.000	0.233	0.233	0.663	4.323	0.233	4.556	0.000	0.683	0.683	3.872	0.683	7.012	17.20
24-Apr	3.7	1.5	0.8	11.464	1.100	0.8	11.814	0.000	0.012	0.000	0.012	0.378	11.424	37.925	0.378	0.00	38.303	0.000	0.192	0.192	0.383	37.728	0.203	0.663	0.203	0.867	0.000	0.225	0.225	0.641	3.872	0.225	4.098	0.000	0.615	0.615	3.483	0.615	6.307	16.50

2) Series Tank Model Calculation Sheet : Pededze 1988

Tank Model Coefficient				1st Tank										2 nd Tank										Total	Channel Storage 1							Channel Storage 2									
Height of Orifice								30	0	0		0						0	0		65								0	0		0					0	0		0			
Coefficient of Orifice								0.65	0.001	0		0.032						0	0.005		0.01								0	0.26							0	0.15					
	Rain	Evapotr anspira - tion	Converted Evapotran- spiration	Storage of previous day	Rain of previous day	Evapotran -spiration	Total stoage	Discharge: upper orifice	Discharge: middle orifice	Discharge : lower orifice	Sub- total	Infiltra- tion	Balance of Storage	Storage of previous day	Inflow	Evapotran- spiration	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra- tion	Balance of Storage	Total specific dischareg e	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Dischareg e	Measured River Discharge
25-Apr	0	1.5	1.5	11.424	3.700	0.8	14.374	0.000	0.014	0.000	0.014	0.460	13.900	37.728	0.460	0.00	38.188	0.000	0.191	0.191	0.382	37.615	0.205	0.641	0.205	0.847	0.000	0.220	0.220	0.627	3.483	0.220	3.703	0.000	0.555	0.555	3.148	0.555	5.700	15.70
26-Apr	0	1.5	1.5	13.900	0.000	1.5	12.400	0.000	0.012	0.000	0.012	0.397	11.990	37.615	0.397	0.00	38.012	0.000	0.190	0.190	0.380	37.442	0.202	0.627	0.202	0.829	0.000	0.216	0.216	0.613	3.148	0.216	3.363	0.000	0.504	0.504	2.859	0.504	5.177	14.80
27-Apr	0	1.5	1.5	11.990	0.000	1.5	10.490	0.000	0.010	0.000	0.010	0.336	10.144	37.442	0.336	0.00	37.778	0.000	0.189	0.189	0.378	37.211	0.199	0.613	0.199	0.813	0.000	0.211	0.211	0.601	2.859	0.211	3.070	0.000	0.461	0.461	2.610	0.461	4.726	14.00
28-Apr	0	1.5	1.5	10.144	0.000	1.5	8.644	0.000	0.009	0.000	0.009	0.277	8.359	37.211	0.277	0.00	37.487	0.000	0.187	0.187	0.375	36.925	0.196	0.601	0.196	0.798	0.000	0.207	0.207	0.590	2.610	0.207	2.817	0.000	0.423	0.423	2.394	0.423	4.336	13.60
29-Apr	5.9	1.5	0.8	8.359	0.000	1.5	6.859	0.000	0.007	0.000	0.007	0.219	6.633	36.925	0.219	0.00	37.145	0.000	0.186	0.186	0.371	36.587	0.193	0.590	0.193	0.783	0.000	0.204	0.204	0.579	2.394	0.204	2.598	0.000	0.390	0.390	2.208	0.390	3.999	13.40
30-Apr	4.6	51.2	44.25	6.633	5.900	0.8	11.783	0.000	0.012	0.000	0.012	0.377	11.394	36.587	0.377	31.72	5.247	0.000	0.026	0.026	0.052	5.168	0.038	0.579	0.038	0.617	0.000	0.160	0.160	0.457	2.208	0.160	2.369	0.000	0.355	0.355	2.013	0.355	3.646	13.10

3) Estimated Precipitaion : Pededze Model 1988

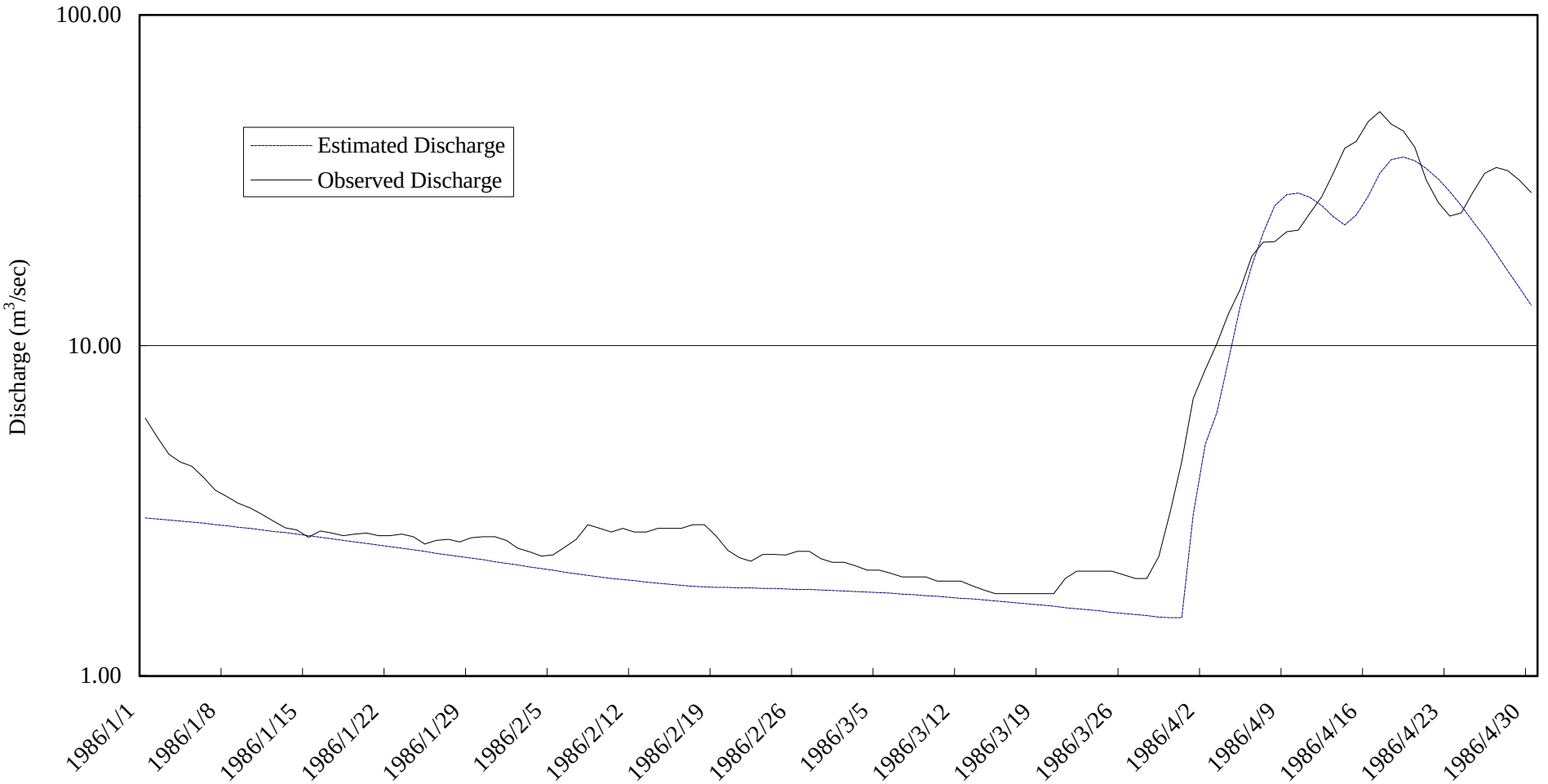
	Aluksne= 858.4 km^2					m = 4				Gulbene= 28.2 km^2					m = 4				Total
	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day
1-Dec				0.2	0.2	0.0	0.00						0.2			0.00			0.0
2-Dec	0	1.3		0.2	0.2	0.0	0.00	0.00	0.00		1.5		0.2	0.2	0.0	0.00	0.00	0.00	0.0
3-Dec	0.4	0.5		0.2	0.2	0.4	0.00	0.00	0.40		0.9		0.2	0.2	0.0	0.00	0.00	0.00	0.4
4-Dec	0.3	-1.5		0.2	0.2	0.0	0.30	0.00	0.00	0.6	-0.5		0.2	0.1	0.0	0.00	0.00	0.00	0.0
5-Dec	0.0	1.6		0.2	0.2	0.0	0.30	0.30	0.30		1.9		0.2	0.2	0.0	0.60	0.60	0.60	0.3
6-Dec		0.0		0.2	0.2	0.0	0.00	0.00	0.00	0.3	-0.1		0.2	0.2	0.0	0.00	0.00	0.00	0.0
7-Dec	0.3	-1.7		0.2	0.1	0.0	0.30	0.00	0.00	0.0	-1.8		0.2	0.2	0.0	0.30	0.00	0.00	0.0
8-Dec	2.4	-3.7		0.2	0.1	0.0	2.70	0.00	0.00	9.7	-3.8		0.2	0.1	0.0	0.30	0.00	0.00	0.0
9-Dec	1.2	-9.3	3.0	0.2	0.1	0.0	3.90	0.00	0.00	4.7	-8.4	10.0	0.2	0.1	0.0	10.00	0.00	0.00	0.0
10-Dec	2.9	-8.4	5.0	0.2	0.1	0.0	6.80	0.00	0.00	2.7	-7.4	10.0	0.2	0.1	0.0	14.70	0.00	0.00	0.0
11-Dec	3.1	-6.9	7.0	0.2	0.1	0.0	9.90	0.00	0.00	1.4	-7.2	11.0	0.2	0.1	0.0	17.40	0.00	0.00	0.0
12-Dec	2.2	-4.8	8.0	0.2	0.1	0.0	12.10	0.00	0.00	6.4	-4.2	18.0	0.2	0.1	0.0	18.80	0.00	0.00	0.0
13-Dec	1.1	-9.1	9.0	0.2	0.1	0.0	13.20	0.00	0.00	0.6	-8.1	20.0	0.2	0.1	0.0	25.20	0.00	0.00	0.0
14-Dec	2.5	-6.0	11.0	0.2	0.1	0.0	15.70	0.00	0.00	2.5	-4.8	20.0	0.2	0.1	0.0	25.80	0.00	0.00	0.0
15-Dec	0.6	-0.3	10.0	0.2	0.2	0.0	16.30	0.00	0.00	0.6	0.2	14.0	0.2	0.1	0.6	28.30	0.80	1.40	0.0
16-Dec		-13.1	8.0	0.2	0.1	0.0	16.30	0.00	0.00	0.0	-12.6	10.0	0.2	0.2	0.0	27.50	0.00	0.00	0.0
17-Dec	2.7	-4.6	8.0	0.2	0.2	0.0	19.00	0.00	0.00	5.3	-3.9	14.0	0.2	0.1	0.0	27.50	0.00	0.00	0.0
18-Dec	0.2	-6.9	8.0	0.2	0.2	0.0	19.20	0.00	0.00	0.2	-6.8	14.0	0.2	0.2	0.0	32.80	0.00	0.00	0.0
19-Dec		-8.9	9.0	0.2	0.1	0.0	19.20	0.00	0.00	0.0	-8.9	14.0	0.2	0.2	0.0	33.00	0.00	0.00	0.0
20-Dec	7.0	-2.8	9.0	0.2	0.2	0.0	26.20	0.00	0.00	1.8	-2.3	12.0	0.2	0.1	0.0	33.00	0.00	0.00	0.0
21-Dec		-4.7	9.0	0.2	0.1	0.0	26.20	0.00	0.00		-4.1	13.0	0.2	0.2	0.0	34.80	0.00	0.00	0.0
22-Dec	1.6	-2.5	10.0	0.2	0.1	0.0	27.80	0.00	0.00	0.3	-1.3	13.0	0.2	0.2	0.0	34.80	0.00	0.00	0.0
23-Dec	0.9	-11.1	10.0	0.2	0.2	0.0	28.70	0.00	0.00	0.0	-10.3	13.0	0.2	0.2	0.0	35.10	0.00	0.00	0.0
24-Dec		-16.5	10.0	0.2	0.2	0.0	28.70	0.00	0.00	0.3	-18.2	15.0	0.2	0.2	0.0	35.10	0.00	0.00	0.0
25-Dec	0.0	-10.6	10.0	0.2	0.2	0.0	28.70	0.00	0.00		-12.4	15.0	0.2	0.2	0.0	35.40	0.00	0.00	0.0
26-Dec		-2.2	10.0	0.2	0.2	0.0	28.70	0.00	0.00	0.4	-2.2	15.0	0.2	0.2	0.0	35.40	0.00	0.00	0.0
27-Dec		-1.4	10.0	0.2	0.1	0.0	28.70	0.00	0.00		-1.6	15.0	0.2	0.2	0.0	35.80	0.00	0.00	0.0
28-Dec	1.1	1.1	9.0	0.2	0.1	1.1	28.70	4.42	5.52	2.0	0.9	12.0	0.2	0.1	2.0	35.80	3.62	5.62	5.5
29-Dec	3.2	-1.5	8.0	0.2	0.1	0.0	27.48	0.00	0.00	1.7	-0.8	10.0	0.2	0.1	0.0	32.18	0.00	0.00	0.0
30-Dec	0.8	-4.5	9.0	0.2	0.1	0.0	28.28	0.00	0.00	0.5	-5.0	10.0	0.2	0.2	0.0	33.88	0.00	0.00	0.0
31-Dec	12.0	1.7	8.0	0.2	0.1	12.0	28.28	7.06	19.06	6.3	2.1	9.0	0.2	0.1	6.3	34.38	8.57	14.87	18.9
1-Jan	0.8	-7.5	8.0		0.0	0.0	22.02	0.00	0.00	0.8	-6.5	6.0		0.0	0.0	25.81	0.00	0.00	0.0
2-Jan	0.4	-9.6	9.0		0.0	0.0	22.42	0.00	0.00	0.2	-9.1	6.0		0.0	0.0	26.61	0.00	0.00	0.0
3-Jan	6.9	1.0	6.0		0.0	6.9	22.42	4.09	10.99	3.9	1.7	6.0		0.0	3.9	26.81	6.88	10.78	11.0
4-Jan	2.3	4.4	2.0		0.0	2.3	18.33	17.73	20.03	1.2	4.9	2.0		0.0	1.2	19.93	19.67	20.87	20.1
5-Jan	1.9	3.7			0.0	1.9	0.60	0.60	2.50	0.3	4.2			0.0	0.3	0.26	0.26	0.56	2.4
6-Jan	4.1	2.3			0.0	4.1	0.00	0.00	4.10	3.8	2.6			0.0	3.8	0.00	0.00	3.80	4.1
7-Jan	0.3	0.8			0.0	0.3	0.00	0.00	0.30	1.2	1.2			0.0	1.2	0.00	0.00	1.20	0.3
8-Jan	7.1	0.0	1.0		0.0	0.0	7.10	0.00	0.00	7.1	0.7	1.0		0.0	7.1	0.00	0.00	7.10	0.2
9-Jan	2.8	-1.9	8.0		0.0	0.0	9.90	0.00	0.00	0.7	0.6	1.0		0.0	0.7	0.00	0.00	0.70	0.0
10-Jan	0.2	-0.8	8.0		0.0	0.0	10.10	0.00	0.00	3.7	-0.3	2.0		0.0	0.0	0.00	0.00	0.00	0.0
11-Jan		-1.2	8.0		0.0	0.0	10.10	0.00	0.00		-0.6	2.0		0.0	0.0	3.70	0.00	0.00	0.0
12-Jan		-1.3	8.0		0.0	0.0	10.10	0.00	0.00		-0.5	2.0		0.0	0.0	3.70	0.00	0.00	0.0
13-Jan	1.3	-0.5	8.0		0.0	0.0	11.40	0.00	0.00	0.5	-0.2	2.0		0.0	0.0	3.70	0.00	0.00	0.0
14-Jan	0.3	0.8	8.0		0.0	0.3	11.40	3.20	3.50		1.2	2.0		0.0	0.0	4.20	4.20	4.20	3.5
15-Jan		-1.3	8.0		0.0	0.0	8.20	0.00	0.00		-1.1	1.0		0.0	0.0	0.00	0.00	0.00	0.0
16-Jan		-3.7	8.0		0.0	0.0	8.20	0.00	0.00		-3.0	1.0		0.0	0.0	0.00	0.00	0.00	0.0
17-Jan	0.0	-1.4	8.0		0.0	0.0	8.20	0.00	0.00		-2.9	1.0		0.0	0.0	0.00	0.00	0.00	0.0
18-Jan		-1.7	8.0		0.0	0.0	8.20	0.00	0.00	0.0	-1.7	1.0		0.0	0.0	0.00	0.00	0.00	0.0
19-Jan	0.2	-2.7	8.0		0.0	0.0	8.40	0.00	0.00	0.0	-2.1	1.0		0.0	0.0	0.00	0.00	0.00	0.0
20-Jan		-5.4	8.0		0.0	0.0	8.40	0.00	0.00		-5.2	1.0		0.0	0.0	0.00	0.00	0.00	0.0
21-Jan	1.5	-4.6	9.0		0.0	0.0	9.90	0.00	0.00	1.2	-4.1	2.0		0.0	0.0	0.00	0.00	0.00	0.0
22-Jan		-5.7	9.0		0.0	0.0	9.90	0.00	0.00		-4.7	2.0		0.0	0.0	1.20	0.00	0.00	0.0
23-Jan		-6.9	9.0		0.0	0.0	9.90	0.00	0.00		-6.2	2.0		0.0	0.0	1.20	0.00	0.00	0.0
24-Jan		-5.5	8.0		0.0	0.0	9.90	0.00	0.00		-4.9	2.0		0.0	0.0	1.20	0.00	0.00	0.0
25-Jan		-10.0	8.0		0.0	0.0	9.90	0.00	0.00		-9.3	2.0		0.0	0.0	1.20	0.00	0.00	0.0
26-Jan		-12.4	8.0		0.0	0.0	9.90	0.00	0.00		-11.5	2.0		0.0	0.0	1.20	0.00	0.00	0.0
27-Jan		-13.1	8.0		0.0	0.0	9.90	0.00	0.00		-12.2	2.0		0.0	0.0	1.20	0.00	0.00	0.0
28-Jan		-15.3	8.0		0.0	0.0	9.90	0.00	0.00		-14.2	2.0		0.0	0.0	1.20	0.00	0.00	0.0
29-Jan		-14.7	8.0		0.0	0.0	9.90	0.00	0.00		-13.3	2.0		0.0	0.0	1.20	0.00	0.00	0.0
30-Jan		-14.5	8.0		0.0	0.0	9.90	0.00	0.00		-13.5	2.0		0.0	0.0	1.20	0.00	0.00	0.0
31-Jan		-13.8	8.0		0.0	0.0	9.90	0.00	0.00		-11.6	2.0		0.0	0.0	1.20	0.00	0.00	0.0
1-Feb		-10.8	8.0		0.0	0.0	9.90	0.00	0.00		-10.3	2.0		0.0	0.0	1.20	0.00	0.00	0.0
2-Feb		-9.6	8.0		0.0	0.0	9.90	0.00	0.00		-9.2	2.0		0.0	0.0	1.20	0.00	0.00	0.0
3-Feb	0.8	-6.0	8.0		0.0	0.0	10.70	0.00	0.00	0.0	-5.6	2.0		0.0	0.0	1.20	0.00	0.00	0.0
4-Feb	1.2	-4.9	9.0		0.0	0.0	11.90	0.00	0.00	0.6	-4.3	2.0		0.0	0.0	1.20	0.00	0.00	0.0
5-Feb	1.2	-1.1	7.0		0.0	0.0	13.10	0.00	0.00	0.2	-0.3	3.0		0.0	0.0	1.80	0.00	0.00	0.0
6-Feb	0.8	1.3	8.0		0.0	0.8	13.10	5.21	6.01		1.5	1.0		0.0	0.0	2.00	2.00	2.00	5.9
7-Feb		0.1	7.0		0.0	0.0	7.89	0.40	0.40		0.1	1.0		0.0	0.0	0.00	0.00	0.00	0.4
8-Feb	0.3	0.7	5.0		0.0	0.3	7.49	2.80	3.10	1.2	1.0	1.0		0.0	1.2	0.00	0.00	1.20	3.0
9-Feb		-0.7	3.0		0.0	0.0	4.69	0.00	0.00		-0.6	1.0		0.0	0.0	0.00	0.00	0.00	0.0
10-Feb	4.3	-0.2	6.0		0.0	0.0	8.99	0.00	0.00	4.4	0.2	6.0		0.0	4.4	0.00	0.00	4.40	0.1
11-Feb	1.0	0.3	7.0		0.0	1.0	8.99	1.20	2.20	1.0	0.3	4.0		0.0	1.0	0.00	0.00	1.00	2.2
12-Feb	0.6	0.0	7.0		0.0	0.0	8.39	0.00	0.00	0.1	0.2	4.0		0.0	0.1	0.00	0.00	0.10	0.0
13-Feb	0.9	0.1	7.0		0.0	0.9	8.39	0.40	1.30	1.2	0.2	4.0		0.0	1.2	0.00	0.00	1.20	1.3
14-Feb		-0.3	9.0		0.0	0.0	7.99	0.00	0.00	0.0	-0.2	5.0		0.0	0.0	0.00	0.00	0.00	0.0
15-Feb	5.1	-0.5	16.0		0.0	0.0	13.09	0.00	0.00	2.7	-0.2	8.0		0.0	0.0	0.00	0.00	0.00	0.0
16-Feb	0.3	-0.8	14.0		0.0	0.0	13.39	0.00	0.00	0.0	-0.6	6.0		0.0	0.0	2.70	0.00	0.00	0.0
17-Feb		-0.1	12.0		0.0	0.0	13.39	0.00	0.00		-0.1	7.0		0.0	0.0	2.70	0.00	0.00	0.0
18-Feb		-3.4	11.0		0.0	0.0	13.39	0.00	0.00		-3.1	7.0		0.0	0.0	2.70	0.00	0.00	0.0
19-Feb	4.3	-6.3	13.0		0.0	0.0	17.69	0.00	0.00	1.2	-5.7	10.0		0.0	0.0	2.70	0.00	0.00	0.0
20-Feb	0.7	-10.2	13.0		0.0	0.0	18.39	0.00	0.00	0.0	-9.3	11.0		0.0	0.0	3.90	0.00	0.00	0.0
21-Feb	0.0	-14.1	14.0		0.0	0.0	18.39	0.00	0.00	0.0	-13.4	11.0		0.0	0.0	3.90	0.00	0.00	0.0
22-Feb	0.6	-12.5	14.0		0.0	0.0	18.99	0.00	0.00	0.4	-13.2	11.0		0.0	0.0	3.90	0.00	0.00	0.0
23-Feb	1.5	-8.1	15.0		0.0	0.0	20.49	0.00	0.00	0.4	-7.8	12.0		0.0	0.0	4.30	0.00	0.00	0.0
24-Feb	0.2	-9.4	15.0		0.0	0.0	20.69	0.00	0.00	0.0	-8.3	12.0		0.0	0.0	4.70	0.00	0.00	0.0
25-Feb		-6.0	15.0		0.0	0.0	20.69	0.00	0.00	0.0	-5.5	12.0		0.0	0.0	4.70	0.00	0.00	0.0
26-Feb		-9.7	15.0		0.0	0.0	20.69	0.00	0.00		-8.7	12.0		0.0	0.0	4.70	0.00	0.00	0.0
27-Feb		-11.3	15.0		0.0	0.0	20.69	0.00	0.00		-10.5	12.0		0.0	0.0	4.70	0.00	0.00	0.0
28-Feb		-6.2	15.0		0.0	0.0	20.69	0.00	0.00		-5.2	12.0		0.0	0.0	4.70	0.00	0.00	0.0
29-Feb		-6.3	15.0		0.0	0.0	20.69	0.00	0.00		-6.4	12.0		0.0	0.0	4.70	0.00	0.00	0.0
1-Mar	1.6	-8.3	15.0		0.0	0.0	22.29	0.00	0.00	1.1	-8.1	12.0		0.0	0.0	4.70	0.00	0.00	0.0
2-Mar	2.9	-4.5	17.0		0.0	0.0	25.19	0.00	0.00	2.6	-4.1	14.0		0.0	0.0	5.80	0.00	0.00	0.0
3-Mar		-3.2	17.0		0.0	0.0	25.19	0.00	0.00		-3.5	14.0		0.0	0.0	8.40	0.00	0.00	0.0

3) Estimated Precipitaion : Pededze Model 1988

	Aluksne= 858.4 km^2 m = 4									Gulbene= 28.2 km^2 m = 4									Total
	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day
4-Mar		-4.9	17.0		0.0	0.0	25.19	0.00	0.00	0.0	-5.0	14.0		0.0	0.0	8.40	0.00	0.00	0.0
5-Mar	0.3	-3.0	17.0		0.0	0.0	25.49	0.00	0.00	0.2	-2.9	14.0		0.0	0.0	8.40	0.00	0.00	0.0
6-Mar		-2.1	18.0		0.0	0.0	25.49	0.00	0.00	0.0	-2.4	13.0		0.0	0.0	8.60	0.00	0.00	0.0
7-Mar	1.9	-1.5	17.0		0.0	0.0	27.39	0.00	0.00	3.0	-1.6	12.0		0.0	0.0	8.60	0.00	0.00	0.0
8-Mar	6.3	-1.6	19.0		0.0	0.0	33.69	0.00	0.00	5.1	-1.6	17.0		0.0	0.0	11.60	0.00	0.00	0.0
9-Mar	0.0	-3.1	20.0		0.0	0.0	33.69	0.00	0.00		-4.6	17.0		0.0	0.0	16.70	0.00	0.00	0.0
10-Mar	1.1	-5.3	20.0		0.0	0.0	34.79	0.00	0.00	0.2	-4.1	16.0		0.0	0.0	16.70	0.00	0.00	0.0
11-Mar	1.1	-3.4	21.0		0.0	0.0	35.89	0.00	0.00	0.8	-4.0	18.0		0.0	0.0	16.90	0.00	0.00	0.0
12-Mar	6.0	-3.7	23.0		0.0	0.0	41.89	0.00	0.00	3.2	-3.3	19.0		0.0	0.0	17.70	0.00	0.00	0.0
13-Mar	1.1	-3.1	23.0		0.0	0.0	42.99	0.00	0.00	0.7	-2.7	20.0		0.0	0.0	20.90	0.00	0.00	0.0
14-Mar	7.9	-2.7	27.0		0.0	0.0	50.89	0.00	0.00	3.5	-2.0	24.0		0.0	0.0	21.60	0.00	0.00	0.0
15-Mar	4.7	-3.7	32.0		0.0	0.0	55.59	0.00	0.00	3.5	-3.8	32.0		0.0	0.0	25.10	0.00	0.00	0.0
16-Mar	2.8	-4.2	30.0		0.0	0.0	58.39	0.00	0.00	0.5	-3.8	32.0		0.0	0.0	28.60	0.00	0.00	0.0
17-Mar	2.0	-4.6	30.0		0.0	0.0	60.39	0.00	0.00	2.4	-5.2	30.0		0.0	0.0	29.10	0.00	0.00	0.0
18-Mar	1.1	-2.2	29.0		0.0	0.0	61.49	0.00	0.00	0.6	-0.9	26.0		0.0	0.0	31.50	0.00	0.00	0.0
19-Mar	4.7	-2.7	27.0		0.0	0.0	66.19	0.00	0.00	5.6	-1.7	24.0		0.0	0.0	32.10	0.00	0.00	0.0
20-Mar	0.5	-3.0	31.0		0.0	0.0	66.69	0.00	0.00	0.5	-3.1	29.0		0.0	0.0	37.70	0.00	0.00	0.0
21-Mar		-3.9	31.0		0.0	0.0	66.69	0.00	0.00		-4.2	28.0		0.0	0.0	38.20	0.00	0.00	0.0
22-Mar	0.7	-0.5	29.0		0.0	0.0	67.39	0.00	0.00	1.3	-0.4	26.0		0.0	0.0	38.20	0.00	0.00	0.0
23-Mar	0.8	-0.6	29.0		0.0	0.0	68.19	0.00	0.00	1.8	-0.6	26.0		0.0	0.0	39.50	0.00	0.00	0.0
24-Mar	5.2	0.1	28.0		0.0	5.2	68.19	0.41	5.61	5.8	0.0	25.0		0.0	0.0	41.30	0.00	0.00	5.4
25-Mar	7.5	0.6	34.0		0.0	7.5	67.78	2.46	9.96	7.1	0.7	33.0		0.0	7.1	47.10	2.86	9.96	10.0
26-Mar	4.1	0.9	29.0		0.0	4.1	65.32	3.65	7.75	4.8	1.0	30.0		0.0	4.8	44.24	4.06	8.86	7.8
27-Mar	3.2	2.0	29.0		0.0	3.2	61.67	8.08	11.28	1.6	2.2	23.0		0.0	1.6	40.18	8.84	10.44	11.3
28-Mar	1.3	1.1	20.0		0.0	1.3	53.59	4.42	5.72	0.3	1.4	16.0		0.0	0.3	31.34	5.61	5.91	5.7
29-Mar	3.8	0.8	23.0		0.0	3.8	49.17	3.24	7.04	3.0	1.0	16.0		0.0	3.0	25.73	4.04	7.04	7.0
30-Mar		1.7	21.0		0.0	0.0	45.93	6.80	6.80		2.1	13.0		0.0	0.0	21.69	8.40	8.40	6.9
31-Mar		2.2	16.0	1.5	1.5	0.0	39.13	8.80	8.80		2.9	9.0	1.5	1.5	0.0	13.29	11.60	11.60	8.9
1-Apr		3.0	13.0	1.5	1.5	0.0	30.33	12.00	12.00		3.1	6.0	1.5	1.5	0.0	1.69	1.69	1.69	11.7
2-Apr		5.4	7.0	1.5	1.5	0.0	18.33	18.33	18.33		5.1	3.0	1.5	1.5	0.0	0.00	0.00	0.00	17.7
3-Apr		6.2	4.0	1.5	1.5	0.0	0.00	0.00	0.00	0.8	6.2		1.5	0.8	0.8	0.00	0.00	0.80	0.0
4-Apr	0.3	5.5		1.5	1.5	0.3	0.00	0.00	0.30	1.0	5.7		1.5	0.8	1.0	0.00	0.00	1.00	0.3
5-Apr	0.3	5.3		1.5	1.5	0.3	0.00	0.00	0.30	0.6	5.0		1.5	0.8	0.6	0.00	0.00	0.60	0.3
6-Apr		4.5		1.5	1.5	0.0	0.00	0.00	0.00	2.2	3.9		1.5	0.8	2.2	0.00	0.00	2.20	0.1
7-Apr		3.5		1.5	1.5	0.0	0.00	0.00	0.00		4.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
8-Apr		5.2		1.5	1.5	0.0	0.00	0.00	0.00		5.3		1.5	1.5	0.0	0.00	0.00	0.00	0.0
9-Apr		8.9		1.5	1.5	0.0	0.00	0.00	0.00		8.7		1.5	1.5	0.0	0.00	0.00	0.00	0.0
10-Apr	0.0	3.2		1.5	0.8	0.0	0.00	0.00	0.00	0.1	3.9		1.5	1.5	0.1	0.00	0.00	0.10	0.0
11-Apr	2.9	-1.5	4.0	1.5	0.8	0.0	2.90	0.00	0.00	1.2	-0.8	1.0	1.5	0.8	0.0	0.00	0.00	0.00	0.0
12-Apr	9.3	-0.7	9.0	1.5	0.8	0.0	12.20	0.00	0.00	4.0	0.0	2.0	1.5	0.8	0.0	1.20	0.00	0.00	0.0
13-Apr	4.3	-0.9	8.0	1.5	1.5	0.0	16.50	0.00	0.00	0.7	0.1	2.0	1.5	0.8	0.7	5.20	0.40	1.10	0.0
14-Apr		-0.7	8.0	1.5	1.5	0.0	16.50	0.00	0.00		-0.4		1.5	1.5	0.0	4.80	0.00	0.00	0.0
15-Apr		0.0	4.0	1.5	1.5	0.0	16.50	0.00	0.00		0.1		1.5	1.5	0.0	4.80	0.40	0.40	0.0
16-Apr		0.3		1.5	1.5	0.0	16.50	1.20	1.20		1.0		1.5	1.5	0.0	4.40	4.00	4.00	1.3
17-Apr		6.8		1.5	1.5	0.0	15.30	15.30	15.30		6.5		1.5	1.5	0.0	0.40	0.40	0.40	14.8
18-Apr		8.7		1.5	1.5	0.0	0.00	0.00	0.00		7.9		1.5	1.5	0.0	0.00	0.00	0.00	0.0
19-Apr	0.5	10.4		1.5	1.5	0.5	0.00	0.00	0.50	0.0	9.8		1.5	1.5	0.0	0.00	0.00	0.00	0.5
20-Apr	0.3	4.1		1.5	1.5	0.3	0.00	0.00	0.30	0.0	4.9		1.5	1.5	0.0	0.00	0.00	0.00	0.3
21-Apr		8.0		1.5	1.5	0.0	0.00	0.00	0.00		8.7		1.5	1.5	0.0	0.00	0.00	0.00	0.0
22-Apr		10.7		1.5	0.8	0.0	0.00	0.00	0.00		10.6		1.5	1.5	0.0	0.00	0.00	0.00	0.0
23-Apr	1.0	2.0		1.5	0.8	1.0	0.00	0.00	1.00	3.2	2.9		1.5	0.8	3.2	0.00	0.00	3.20	1.1
24-Apr	3.7	0.1		1.5	0.8	3.7	0.00	0.00	3.70	4.7	1.3		1.5	0.8	4.7	0.00	0.00	4.70	3.7
25-Apr	5.5	-1.5	2.0	1.5	0.8	0.0	5.50	0.00	0.00	4.1	-1.5	3.0	1.5	0.8	0.0	0.00	0.00	0.00	0.0
26-Apr	2.1	-3.0	6.0	1.5	0.8	0.0	7.60	0.00	0.00	0.7	-2.4	3.0	1.5	0.8	0.0	4.10	0.00	0.00	0.0
27-Apr	3.1	-2.7	7.0	1.5	1.5	0.0	10.70	0.00	0.00	0.7	-2.0	0.0	1.5	0.8	0.0	4.80	0.00	0.00	0.0
28-Apr		-0.8	3.0	1.5	1.5	0.0	10.70	0.00	0.00		-0.4		1.5	1.5	0.0	5.50	0.00	0.00	0.0
29-Apr		1.7		1.5	1.5	0.0	10.70	6.80	6.80		2.2		1.5	1.5	0.0	5.50	5.50	5.50	6.8
30-Apr		5.6		1.5	1.5	0.0	3.90	3.90	3.90		6.4		1.5	1.5	0.0	0.00	0.00	0.00	3.8

4) Series Tank Model Calculation : Pededze 1987

	Estimated	Actual	Ratio	Varification	
Discharge (mm)	85.4	106.1	80%	Correlation Coefficient=	93.7%
Precipitation(mm)	153.9		-	R =	0.207
Runoff Ratio	55%	69%	-	R^2 =	0.836



5) Series Tank Model Calculation Sheet : Pededze 1987

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
Height of Orifice								30	0	0		0			0	0		65						0	0		0				0	0		0			
Coefficient of Orifice								0.65	0.001	0		0.032			0	0.005		0.01						0	0.26						0	0.15					
	Rain	Evapotranspiration	Converted Evapotranspiration	Storage of previous day	Rain of previous day	Evapotranspiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltration	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltration	Balance of Storage	Total specific dischareg	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Total	Estimated River Discharge	Measured River Discharge
1-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	64.800	0.000	0.324	0.324	0.648	63.828	0.324	0.000	0.324	0.324	0.000	0.084	0.084	0.240	0.000	0.084	0.084	0.000	0.013	0.013	0.072	0.013	0.13	11.20
2-Dec	1.2	0.2	0.1	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	63.728	0.000	0.319	0.319	0.637	62.772	0.319	0.240	0.319	0.558	0.000	0.145	0.145	0.413	0.072	0.145	0.217	0.000	0.033	0.033	0.184	0.033	0.33	10.80
3-Dec	3.2	0.2	0.1	0.000	1.200	0.0	1.200	0.000	0.001	0.000	0.001	0.038	1.160	62.810	0.000	0.314	0.314	0.628	61.868	0.315	0.413	0.315	0.728	0.000	0.189	0.189	0.539	0.184	0.189	0.374	0.000	0.056	0.056	0.318	0.056	0.58	11.20
4-Dec	0	0.2	0.2	1.160	3.200	0.1	4.260	0.000	0.004	0.000	0.004	0.136	4.120	62.005	0.000	0.310	0.310	0.620	61.075	0.314	0.539	0.314	0.853	0.000	0.222	0.222	0.631	0.318	0.222	0.539	0.000	0.081	0.081	0.459	0.081	0.83	15.00
5-Dec	12.1	0.2	0.1	4.120	0.000	0.2	3.920	0.000	0.004	0.000	0.004	0.125	3.790	61.200	0.000	0.306	0.306	0.612	60.282	0.310	0.631	0.310	0.941	0.000	0.245	0.245	0.697	0.459	0.245	0.703	0.000	0.105	0.105	0.598	0.105	1.08	22.40
6-Dec	4.7	0.2	0.1	3.790	12.100	0.1	15.790	0.000	0.016	0.000	0.016	0.505	15.269	60.787	0.000	0.304	0.304	0.608	59.876	0.320	0.697	0.320	1.016	0.000	0.264	0.264	0.752	0.598	0.264	0.862	0.000	0.129	0.129	0.733	0.129	1.33	28.50
7-Dec	8.1	0.2	0.1	15.269	4.700	0.1	19.869	0.000	0.020	0.000	0.020	0.636	19.214	60.511	0.000	0.303	0.303	0.605	59.604	0.322	0.752	0.322	1.075	0.000	0.279	0.279	0.795	0.733	0.279	1.012	0.000	0.152	0.152	0.860	0.152	1.56	32.10
8-Dec	0	0.2	0.2	19.214	8.100	0.1	27.214	0.000	0.027	0.000	0.027	0.871	26.316	60.474	0.000	0.302	0.302	0.605	59.567	0.330	0.795	0.330	1.125	0.000	0.292	0.292	0.832	0.860	0.292	1.153	0.000	0.173	0.173	0.980	0.173	1.77	31.10
9-Dec	0	0.2	0.2	26.316	0.000	0.2	26.116	0.000	0.026	0.000	0.026	0.836	25.254	60.403	0.000	0.302	0.302	0.604	59.497	0.328	0.832	0.328	1.160	0.000	0.302	0.302	0.859	0.980	0.302	1.282	0.000	0.192	0.192	1.089	0.192	1.97	31.90
10-Dec	0	0.2	0.2	25.254	0.000	0.2	25.054	0.000	0.025	0.000	0.025	0.802	24.227	60.299	0.000	0.301	0.301	0.603	59.394	0.327	0.859	0.327	1.185	0.000	0.308	0.308	0.877	1.089	0.308	1.397	0.000	0.210	0.210	1.188	0.210	2.15	27.90
11-Dec	0	0.2	0.2	24.227	0.000	0.2	24.027	0.000	0.024	0.000	0.024	0.769	23.234	60.163	0.000	0.301	0.301	0.602	59.261	0.325	0.877	0.325	1.202	0.000	0.313	0.313	0.889	1.188	0.313	1.500	0.000	0.225	0.225	1.275	0.225	2.31	20.50
12-Dec	1.3	0.2	0.1	23.234	0.000	0.2	23.034	0.000	0.023	0.000	0.023	0.737	22.274	59.998	0.000	0.300	0.300	0.600	59.098	0.323	0.889	0.323	1.212	0.000	0.315	0.315	0.897	1.275	0.315	1.591	0.000	0.239	0.239	1.352	0.239	2.45	14.20
13-Dec	0	0.2	0.2	22.274	1.300	0.1	23.474	0.000	0.023	0.000	0.023	0.751	22.699	59.849	0.000	0.299	0.299	0.598	58.951	0.323	0.897	0.323	1.220	0.000	0.317	0.317	0.903	1.352	0.317	1.669	0.000	0.250	0.250	1.419	0.250	2.57	10.70
14-Dec	0	0.2	0.2	22.699	0.000	0.2	22.499	0.000	0.022	0.000	0.022	0.720	21.757	59.671	0.000	0.298	0.298	0.597	58.776	0.321	0.903	0.321	1.224	0.000	0.318	0.318	0.905	1.419	0.318	1.737	0.000	0.261	0.261	1.476	0.261	2.67	9.39
15-Dec	0	0.2	0.2	21.757	0.000	0.2	21.557	0.000	0.022	0.000	0.022	0.690	20.846	59.466	0.000	0.297	0.297	0.595	58.574	0.319	0.905	0.319	1.224	0.000	0.318	0.318	0.906	1.476	0.318	1.795	0.000	0.269	0.269	1.526	0.269	2.76	9.29
16-Dec	0	0.2	0.2	20.846	0.000	0.2	20.646	0.000	0.021	0.000	0.021	0.661	19.964	59.235	0.000	0.296	0.296	0.592	58.346	0.317	0.906	0.317	1.223	0.000	0.318	0.318	0.905	1.526	0.318	1.843	0.000	0.277	0.277	1.567	0.277	2.84	10.20
17-Dec	0	0.2	0.2	19.964	0.000	0.2	19.764	0.000	0.020	0.000	0.020	0.632	19.112	58.979	0.000	0.295	0.295	0.590	58.094	0.315	0.905	0.315	1.220	0.000	0.317	0.317	0.902	1.567	0.317	1.884	0.000	0.283	0.283	1.601	0.283	2.90	11.80
18-Dec	0	0.2	0.2	19.112	0.000	0.2	18.912	0.000	0.019	0.000	0.019	0.605	18.288	58.699	0.000	0.293	0.293	0.587	57.819	0.312	0.902	0.312	1.215	0.000	0.316	0.316	0.899	1.601	0.316	1.917	0.000	0.288	0.288	1.630	0.288	2.95	13.40
19-Dec	0	0.2	0.2	18.288	0.000	0.2	18.088	0.000	0.018	0.000	0.018	0.579	17.491	58.397	0.000	0.292	0.292	0.584	57.521	0.310	0.899	0.310	1.209	0.000	0.314	0.314	0.895	1.630	0.314	1.944	0.000	0.292	0.292	1.652	0.292	2.99	14.50
20-Dec	0	0.2	0.2	17.491	0.000	0.2	17.291	0.000	0.017	0.000	0.017	0.553	16.720	58.075	0.000	0.290	0.290	0.581	57.204	0.308	0.895	0.308	1.202	0.000	0.313	0.313	0.890	1.652	0.313	1.965	0.000	0.295	0.295	1.670	0.295	3.02	15.70
21-Dec	0	0.2	0.2	16.720	0.000	0.2	16.520	0.000	0.017	0.000	0.017	0.529	15.975	57.732	0.000	0.289	0.289	0.577	56.866	0.305	0.890	0.305	1.195	0.000	0.311	0.311	0.884	1.670	0.311	1.981	0.000	0.297	0.297	1.684	0.297	3.05	15.80
22-Dec	0	0.2	0.2	15.975	0.000	0.2	15.775	0.000	0.016	0.000	0.016	0.505	15.255	57.371	0.000	0.287	0.287	0.574	56.511	0.303	0.884	0.303	1.187	0.000	0.309	0.309	0.878	1.684	0.309	1.992	0.000	0.299	0.299	1.694	0.299	3.07	15.30
23-Dec	0	0.2	0.2	15.255	0.000	0.2	15.055	0.000	0.015	0.000	0.015	0.482	14.558	56.992	0.000	0.285	0.285	0.570	56.137	0.300	0.878	0.300	1.178	0.000	0.306	0.306	0.872	1.694	0.306	2.000	0.000	0.300	0.300	1.700	0.300	3.08	13.80
24-Dec	0	0.2	0.2	14.558	0.000	0.2	14.358	0.000	0.014	0.000	0.014	0.459	13.884	56.597	0.000	0.283	0.283	0.566	55.748	0.297	0.872	0.297	1.169	0.000	0.304	0.304	0.865	1.700	0.304	2.004	0.000	0.301	0.301	1.703	0.301	3.08	13.20
25-Dec	0	0.2	0.2	13.884	0.000	0.2	13.684	0.000	0.014	0.000	0.014	0.438	13.232	56.186	0.000	0.281	0.281	0.562	55.343	0.295	0.865	0.295	1.160	0.000	0.302	0.302	0.858	1.703	0.302	2.005	0.000	0.301	0.301	1.704	0.301	3.09	12.20
26-Dec	0	0.2	0.2	13.232	0.000	0.2	13.032	0.000	0.013	0.000	0.013	0.417	12.602	55.760	0.000	0.279	0.279	0.558	54.924	0.292	0.858	0.292	1.150	0.000	0.299	0.299	0.851	1.704	0.299	2.003	0.000	0.300	0.300	1.703	0.300	3.08	11.40
27-Dec	0	0.2	0.2	12.602	0.000	0.2	12.402	0.000	0.012	0.000	0.012	0.397	11.993	55.321	0.000	0.277	0.277	0.553	54.491	0.289	0.851	0.289	1.140	0.000	0.296	0.296	0.844	1.703	0.296	1.999	0.000	0.300	0.300	1.699	0.300	3.08	10.60
28-Dec	0	0.2	0.2	11.993	0.000	0.2	11.793	0.000	0.012	0.000	0.012	0.377	11.404	54.868	0.000	0.274	0.274	0.549	54.045	0.286	0.844	0.286	1.130	0.000	0.294	0.294	0.836	1.699	0.294	1.993	0.000	0.299	0.299	1.694	0.299	3.07	9.46
29-Dec	0	0.2	0.2	11.404	0.000	0.2	11.204	0.000	0.011	0.000	0.011	0.359	10.834	54.404	0.000	0.272	0.272	0.544	53.588	0.283	0.836	0.283	1.119	0.000	0.291	0.291	0.828	1.694	0.291	1.985	0.000	0.298	0.298	1.687	0.298	3.06	8.23
30-Dec	0	0.2	0.2	10.834	0.000	0.2	10.634	0.000	0.011	0.000	0.011	0.340	10.283	53.928	0.000	0.270	0.270	0.539	53.119	0.280	0.828	0.280	1.109	0.000	0.288	0.288	0.820	1.687	0.288	1.976	0.000	0.296	0.296	1.679	0.296	3.04	7.53
31-Dec	0	0.2	0.2	10.283	0.000	0.2	10.083	0.000	0.010	0.000	0.010	0.323	9.751	53.442	0.000	0.267	0.267	0.534	52.640	0.277	0.820	0.277	1.098	0.000	0.285	0.285	0.812	1.679	0.285	1.965	0.000	0.295	0.295	1.670	0.295	3.02	6.84
1-Jan	0		0.0	9.751	0.000	0.2	9.551	0.000	0.010	0.000	0.010	0.306	9.235	52.946	0.000	0.265	0.265	0.529	52.151	0.274	0.812	0.274	1.087	0.000	0.282	0.282	0.804	1.670	0.282	1.952	0.000	0.293	0.293	1.660	0.293	3.01	6.02
2-Jan	0		0.0	9.235	0.000	0.0	9.235	0.000	0.009	0.000	0.009	0.296	8.931	52.447	0.000	0.262	0.262	0.524	51.660	0.271	0.804	0.271	1.075	0.000	0.280	0.280	0.796	1.660	0.280	1.939	0.000	0.291	0.291	1.648	0.291	2.98	5.30
3-Jan	0		0.0	8.931	0.000	0.0	8.931	0.000	0.009	0.000	0.009	0.286	8.636	51.946	0.000	0.260	0.260	0.519	51.167	0.269	0.796	0.269	1.065	0.000	0.277	0.277	0.788	1.648	0.277	1.925	0.000	0.289	0.289	1.636	0.289	2.96	4.68
4-Jan	0		0.0	8.636	0.000	0.0	8.636	0.000	0.009	0.000	0.009	0.276	8.351	51.443	0.000	0.257	0.257	0.514	50.672	0.266	0.788	0.266	1.054	0.000	0.274	0.274	0.780	1.636	0.274	1.910	0.000	0.287	0.287	1.624	0.287	2.94	4.44
5-Jan	0		0.0	8.351	0.000	0.0	8.351	0.000	0.008	0.000	0.008	0.267	8.075	50.939	0.000	0.255	0.255	0.509	50.175	0.263	0.780	0.263	1.043	0.000	0.271	0.271	0.772	1.624	0.271	1.895	0.000	0.284	0.284	1.611	0.284	2.92	4.31
6-Jan	0		0.0	8.075	0.000	0.0	8.075	0.000	0.008	0.000	0.008	0.258	7.809	50.433	0.000	0.252	0.252	0.504	49.677	0.260	0.772	0.260	1.032	0.000	0.268	0.268	0.764	1.611	0.268	1.879	0.000	0.282	0.282	1.597	0.282	2.89	3.97
7-Jan	0		0.0	7.809	0.000	0.0	7.809	0.000	0.008	0.000	0.008	0.250	7.551	49.926	0.000	0.250	0.250	0.499	49.178	0.257	0.764	0.257	1.021	0.000	0.265	0.265	0.756	1.597	0.265	1.863	0.000	0.279	0.279	1.583	0.279	2.87	3.64
8-Jan	0		0.0	7.551	0.000	0.0	7.551	0.000	0.008	0.000	0.008	0.242	7.302	49.419	0.000	0.247	0.247	0.494	48.678	0.255	0.756	0.255	1.010	0.000	0.263	0.263	0.748	1.583	0.263	1.846	0.000	0.277	0.277	1.569	0.277	2.84	3.48
9-Jan	0		0.0	7.302	0.000	0.0	7.302	0.000	0.007	0.000	0.007	0.234	7.061	48.912	0.000	0.245	0.245	0.489	48.178	0.252	0.748	0.252	0.999	0.000	0.260	0.260	0.740	1.569	0.260	1.829	0.000	0.274	0.274	1.554	0.274	2.81	3.33
10-Jan	0		0.0	7.061	0.000	0.0	7.061	0.000	0.007	0.000	0.007	0.226	6.828	48.404	0.000	0.242	0.242	0.484	47.678	0.249	0.740	0.249	0.989	0.000	0.257	0.257	0.732	1.554	0.257	1.811	0.000	0.272	0.272	1.540	0.272	2.79	3.22
11-Jan	0		0.0	6.828	0.000	0.0	6.828	0.000	0.007	0.000	0.007	0.218	6.603	47.896	0.000	0.239	0.239	0.479	47.178	0.246	0.732	0.246	0.978	0.000	0.254	0.254	0.724	1.540	0.254	1.794	0.000	0.269	0.269	1.525	0.269	2.76	3.08
12-Jan	0		0.0	6.603	0.000	0.0	6.603	0.000	0.007	0.000	0.007	0.211	6.385	47.389	0.000	0.237	0.237	0.474	46.678	0.244	0.724	0.244	0.967	0.000	0.251	0.251	0.716	1.525	0.251	1.776	0.000	0.266	0.266	1.510	0.266	2.73	2.94
13-Jan	0		0.0	6.385	0.000	0.0	6.385	0.000	0.006	0.000	0.006	0.204	6.174	46.883	0.000	0.234	0.234	0.469	46.179	0.241	0.716	0.241	0.957	0.000	0.249	0.249	0.708	1.510	0.249	1.759	0.000	0.264	0.264	1.495	0.264	2.71	2.80
14-Jan	0		0.0	6.174	0.000	0.0	6.174	0.000	0.006	0.000	0.006	0.198	5.970	46.377	0.000	0.232	0.232	0.464	45.681	0.238	0.708	0.238	0.946	0.000	0.246	0.246	0.700	1.495	0.246	1.741	0.000	0.261	0.261	1.480	0.261	2.68	2.76
15-Jan	0		0.0	5.970	0.000	0.0	5.970	0.000	0.006	0.000	0.006	0.191	5.773	45.872	0.000	0.229	0.229	0.459	45.184	0.235	0.700	0.235	0.935	0.000	0.243	0.243	0.692	1.480	0.243	1.723	0.000	0.258	0.258	1.464	0.258	2.65	2.62
16-Jan	0		0.0	5.773	0.000	0.0	5.773	0.000	0.006	0.000	0.006	0.185	5.583	45.369	0.000	0.227	0.227	0.454	44.688	0.233	0.692	0.233	0.925	0.000	0.240	0.240	0.684	1.464	0.240	1.705	0.000	0.256	0.256	1.449	0.256	2.62	2.74
17-Jan	0		0.0	5.583	0.000	0.0	5.583	0.000	0.006	0.000	0.006	0.179	5.399	44.867	0.000	0.224	0.224	0.449	44.194	0.230	0.684	0.230	0.914	0.000	0.238	0.238	0.677	1.449	0.238	1.687	0.000	0.253	0.253	1.434	0.253	2.60	2.70
18-Jan	0		0.0	5.399	0.000	0.0	5.399	0.000	0.005	0.000	0.005	0.173	5.220	44.367	0.000	0.222	0.222	0.444	43.701	0.227	0.677	0.227	0.904	0.000	0.235	0.235	0.669	1.434	0.235	1.669	0.000	0.250	0.250	1.418	0.250	2.57	2.65
19-Jan	0		0.0	5.220	0.000	0.0	5.220	0.000	0.005	0.000	0.005	0.167	5.048	43.868	0.000	0.219	0.219	0.439	43.210	0.225	0.669	0.225	0.893	0.000	0.232	0.232	0.661	1.418	0.232	1.651	0.000	0.248	0.248	1.403	0.248	2.54	2.68
20-Jan	0		0.0	5.048	0.000	0.0	5.048	0.000	0.005	0.000	0.005	0.162	4.882	43.372	0.000	0.217	0.217	0.434	42.721	0.222	0.661	0.222	0.883	0.000	0.230	0.230	0.653	1.403	0.230	1.633	0.000	0.245	0.245	1.388	0.245	2.51	2.70
21-Jan	0		0.0	4.882	0.000	0.0	4.882	0.000	0.005	0.000	0.005	0.156	4.720	42.878	0.000	0.214	0.214	0.429	42.234	0.219	0.653	0.219	0.873	0.000	0.227	0.227	0.646	1.388	0.227	1.615	0.000	0.242	0.242	1.372	0.242	2.49	2.65
22-Jan	0		0.0	4.720	0.000	0.0	4.720	0.000	0.005	0.000	0.005	0.151	4.565	42.385	0.000	0.212	0.212	0.424	41.750	0.217	0.646	0.217	0.862	0.000	0.224	0.224	0.638	1.372	0.224	1.597	0.000	0.240	0.240	1.357	0.240	2.46	2.65
23-Jan	0		0.0	4.565	0.000	0.0	4.565	0.000	0.005	0.000	0.005	0.146	4.414	41.896	0.000	0.209	0.209	0.419	41.267	0.214	0.638	0.214	0.852	0.000	0.222	0.222	0.631	1.357	0.222	1.579	0.000	0.237	0.237	1.342	0.237	2.43	2.68
24-Jan	0		0.0	4.414	0.000	0.0	4.414	0.000	0.004	0.000	0.004	0.141	4.268	41.409	0.000	0.207	0.207	0.414	40.787	0.211	0.631	0.211	0.842	0.000	0.219	0.219	0.623	1.342	0.219	1.561	0.000	0.234	0.234	1.327	0.234	2.40	2.63
25-Jan	0		0.0	4.268	0.000	0.0	4.268	0.000	0.004	0.000	0.004	0.137	4.128	40.924	0.000	0.205	0.205	0.409	40.310	0.209	0.623	0.209	0.832	0.000	0.216	0.216	0.616	1.327	0.216	1.543	0.000	0.231	0.231	1.312	0.231	2.38	2.50
26-Jan	0		0.0	4.128	0.000	0.0	4.128	0.000	0.004	0.000	0.004	0.132	3.991	40.442	0.000	0.202	0.202	0.404	39.836	0.206	0.616	0.206	0.822	0.000	0.214	0.214	0.608	1.312	0.214	1.525	0.000	0.229	0.229	1.297	0.229	2.35	2.57
27-Jan	0		0.0	3.991	0.000	0.0	3.991	0.000	0.004	0.000	0.004	0.128	3.860	39.963	0.000	0.200	0.200	0.400	39.364	0.204	0.608	0.204	0.812	0.000	0.211	0.211	0.601	1.297	0.211	1.508	0.000	0.226	0.226	1.282	0.226	2.32	2.59
28-Jan	0		0.0	3.860	0.000	0.0	3.860	0.000	0.004	0.000	0.004	0.124	3.732	39.487	0.000	0.197	0.197	0.395	38.895	0.201	0.601	0.201	0.802	0.000	0.209	0.209	0.594	1.282	0.209	1.490	0.000	0.224	0.224	1.267	0.224	2.29	2.54
29-Jan	0		0.0	3.732	0.000	0.0	3.732	0.000	0.004	0.000	0.004	0.119	3.609	39.014	0.000	0.195	0.195	0.390	38.429	0.199	0.594	0.199	0.792	0.000	0.206	0.206	0.586	1.267	0.206	1.473	0.000	0.221	0.221	1.252	0.221	2.27	2.61
30-Jan	0		0.0	3.609	0.000	0.0	3.609	0.000	0.004	0.000	0.004	0.115	3.490	38.545	0.000	0.193	0.193	0.385	37.967	0.196	0.586	0.196	0.783	0.000	0.204	0.204	0.579	1.252	0.204	1.455	0.000	0.218	0.218	1.237	0.218	2.24	2.63
31-Jan	0		0.0	3.490	0.000	0.0	3.490	0.000	0.003	0.000	0.003	0.112	3.375	38.078	0.000	0.190	0.190	0.381	37.507	0.194	0.579	0.194	0.773	0.000	0.201	0.201	0.572	1.237	0.201	1.438	0.000	0.216	0.216	1.222	0.216	2.21	2.63
1-Feb	0		0.0	3.375	0.000	0.0	3.375	0.000	0.003	0.000	0.003	0.108	3.263	37.615	0.000	0.188	0.188	0.376	37.051	0.191	0.572	0.191	0.764	0.000	0.199	0.199	0.565	1.222	0.199	1.421	0.000	0.213	0.213	1.208	0.213	2.19	2.57
2-Feb	0		0.0	3.263	0.000	0.0	3.263	0.000	0.003	0.000	0.003	0.104	3.156	37.155	0.000	0.186	0.186	0.372	36.598	0.189	0.565	0.189	0.754	0.000	0.196	0.196	0.558	1.208	0.196	1.404	0.000	0.211	0.211	1.193	0.211	2.16	2.43
3-Feb	0		0.0	3.156	0.000	0.0	3.156	0.000	0.003	0.000	0.003	0.101	3.052	36.699	0.000	0.183	0.183	0.367	36.148	0.187	0.558	0.187	0.745	0.000	0.194	0.194	0.551	1.193	0.194	1.387	0.000	0.208	0.208	1.179	0.208	2.13	2.37
4-Feb	0		0.0	3.052	0.000	0.0	3.052	0.000	0.003	0.000	0.003	0.098	2.951	36.246	0.000	0.181	0.181	0.362	35.702	0.184	0.551	0.184	0.735	0.000	0.191	0.191	0.544	1.179	0.191	1.370	0.000	0.205	0.205	1.164	0.205	2.11	2.30
5-Feb	0		0.0	2.951	0.000	0.0	2.951	0.000	0.003	0.000	0.003	0.094	2.854	35.797	0.000	0.179	0.179	0.358	35.260	0.182	0.544	0.182	0.726	0.000	0.189	0.189	0.537	1.164	0.189	1.353	0.000	0.203	0.203	1.150	0.203	2.08	2.32
6-Feb	0		0.0	2.854	0.000	0.0	2.854	0.000	0.003	0.000	0.003	0.091	2.759	35.351	0.000	0.177	0.177	0.354	34.821	0.180	0.537	0.180	0.717	0.000	0.186	0.186	0.531	1.150	0.186	1.337	0.000	0.201	0.201	1.136	0.201	2.06	2.45
7-Feb	6.3		0.0	2.759	0.000	0.0	2.759	0.000	0.003	0.000	0.003	0.088	2.668	34.909	0.000	0.175	0.175	0.349	34.386	0.177	0.531	0.177	0.708	0.000	0.184	0.184	0.524	1.136	0.184	1.320	0.000	0.198	0.198	1.122	0.198	2.03	2.59
8-Feb	0		0.0	2.668	6.300	0.0	8.968	0.000	0.009	0.000	0.009	0.287	8.672	34.673	0.000	0.173	0.173	0.347	34.153	0.182	0.524	0.182	0.706	0.000	0.184	0.184	0.523	1.122	0.184	1.306	0.000	0.196	0.196	1.110	0.196	2.01	2.86
9-Feb	0		0.0	8.672	0.000	0.0	8.672	0.000	0.009	0.000	0.009	0.278	8.386	34.430	0.000	0.172	0.172	0.344	33.914	0.181	0.523	0.181	0.703	0.000	0.183	0.183	0.520	1.110	0.183	1.293	0.000	0.194	0.194	1.099	0.194	1.99	2.79
10-Feb	0		0.0	8.386	0.000	0.0	8.386	0.000	0.008	0.000	0.008	0.268	8.109	34.182	0.000	0.171	0.171	0.342	33.669	0.179	0.520	0.179	0.700	0.000	0.182	0.182	0.518	1.099	0.182	1.281	0.000	0.192	0.192	1.089	0.192	1.97	2.72
11-Feb	0		0.0	8.109	0.000	0.0	8.109	0.000	0.008	0.000	0.008	0.260	7.842	33.929	0.000	0.170	0.170	0.339	33.420	0.178	0.518	0.178	0.696	0.000	0.181	0.181	0.515	1.089	0.181	1.270	0.000	0.190	0.190	1.079	0.190	1.95	2.79
12-Feb	0		0.0	7.842	0.000	0.0	7.842	0.000	0.008	0.000	0.008	0.251	7.583	33.671	0.000	0.168	0.168	0.337	33.166	0.176	0.515	0.176	0.691	0.000	0.180	0.180	0.511	1.079	0.180	1.259	0.000	0.189	0.189	1.070	0.189	1.94	2.72
13-Feb	0		0.0	7.583	0.000	0.0	7.583	0.000	0.008	0.000	0.008	0.243	7.333	33.408	0.000	0.167	0.167	0.334	32.907	0.175	0.511	0.175	0.686	0.000	0.178	0.178	0.508	1.070	0.178	1.248	0.000	0.187	0.187	1.061	0.187	1.92	2.72
14-Feb	0		0.0	7.333	0.000	0.0	7.333	0.000	0.007	0.000	0.007	0.235	7.091	33.142	0.000	0.166	0.166	0.331	32.645	0.173	0.508	0.173	0.681	0.000	0.177	0.177	0.504	1.061	0.177	1.238	0.000	0.186	0.186	1.052	0.186	1.91	2.79
15-Feb	2		0.0	7.091	0.000	0.0	7.091	0.000	0.007	0.000	0.007	0.227	6.857	32.872	0.000	0.164	0.164	0.329	32.379	0.171	0.504	0.171	0.675	0.000	0.176	0.176	0.500	1.052	0.176	1.228	0.000	0.184	0.184	1.044	0.184	1.89	2.79

5) Series Tank Model Calculation Sheet : Pededze 1987

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
	Height of Orifice							30	0	0		0			0	0		65						0	0		0				0	0		0			
	Coefficient of Orifice							0.65	0.001	0		0.032			0	0.005		0.01						0	0.26						0	0.15					
	Rain	Evapotranspiration	Converted Evapotran-spiration	Storage of previous day	Rain of previous day	Evapotran-spiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltra-tion	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra-tion	Balance of Storage	Total specific dischareg	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Discharege	Measured River Discharge
16-Feb	7.3		0.0	6.857	2.000	0.0	8.857	0.000	0.009	0.000	0.009	0.283	8.565	32.662	0.000	0.163	0.163	0.327	32.172	0.172	0.500	0.172	0.672	0.000	0.175	0.175	0.497	1.044	0.175	1.218	0.000	0.183	0.183	1.036	0.183	1.88	2.79
17-Feb	0.7		0.0	8.565	7.300	0.0	15.865	0.000	0.016	0.000	0.016	0.508	15.341	32.680	0.000	0.163	0.163	0.327	32.189	0.179	0.497	0.179	0.676	0.000	0.176	0.176	0.501	1.036	0.176	1.211	0.000	0.182	0.182	1.030	0.182	1.86	2.86
18-Feb	0		0.0	15.341	0.700	0.0	16.041	0.000	0.016	0.000	0.016	0.513	15.512	32.703	0.000	0.164	0.164	0.327	32.212	0.180	0.501	0.180	0.680	0.000	0.177	0.177	0.503	1.030	0.177	1.207	0.000	0.181	0.181	1.026	0.181	1.86	2.86
19-Feb	0		0.0	15.512	0.000	0.0	15.512	0.000	0.016	0.000	0.016	0.496	15.000	32.709	0.000	0.164	0.164	0.327	32.218	0.179	0.503	0.179	0.682	0.000	0.177	0.177	0.505	1.026	0.177	1.203	0.000	0.180	0.180	1.022	0.180	1.85	2.65
20-Feb	0		0.0	15.000	0.000	0.0	15.000	0.000	0.015	0.000	0.015	0.480	14.505	32.698	0.000	0.163	0.163	0.327	32.208	0.178	0.505	0.178	0.683	0.000	0.178	0.178	0.506	1.022	0.178	1.200	0.000	0.180	0.180	1.020	0.180	1.85	2.40
21-Feb	0		0.0	14.505	0.000	0.0	14.505	0.000	0.015	0.000	0.015	0.464	14.026	32.672	0.000	0.163	0.163	0.327	32.182	0.178	0.506	0.178	0.684	0.000	0.178	0.178	0.506	1.020	0.178	1.198	0.000	0.180	0.180	1.018	0.180	1.84	2.28
22-Feb	0		0.0	14.026	0.000	0.0	14.026	0.000	0.014	0.000	0.014	0.449	13.563	32.630	0.000	0.163	0.163	0.326	32.141	0.177	0.506	0.177	0.683	0.000	0.178	0.178	0.505	1.018	0.178	1.196	0.000	0.179	0.179	1.016	0.179	1.84	2.22
23-Feb	0		0.0	13.563	0.000	0.0	13.563	0.000	0.014	0.000	0.014	0.434	13.116	32.575	0.000	0.163	0.163	0.326	32.086	0.176	0.505	0.176	0.682	0.000	0.177	0.177	0.505	1.016	0.177	1.194	0.000	0.179	0.179	1.015	0.179	1.84	2.33
24-Feb	0		0.0	13.116	0.000	0.0	13.116	0.000	0.013	0.000	0.013	0.420	12.683	32.506	0.000	0.163	0.163	0.325	32.018	0.176	0.505	0.176	0.680	0.000	0.177	0.177	0.503	1.015	0.177	1.192	0.000	0.179	0.179	1.013	0.179	1.83	2.33
25-Feb	0		0.0	12.683	0.000	0.0	12.683	0.000	0.013	0.000	0.013	0.406	12.264	32.424	0.000	0.162	0.162	0.324	31.938	0.175	0.503	0.175	0.678	0.000	0.176	0.176	0.502	1.013	0.176	1.189	0.000	0.178	0.178	1.011	0.178	1.83	2.32
26-Feb	0		0.0	12.264	0.000	0.0	12.264	0.000	0.012	0.000	0.012	0.392	11.860	32.330	0.000	0.162	0.162	0.323	31.845	0.174	0.502	0.174	0.676	0.000	0.176	0.176	0.500	1.011	0.176	1.186	0.000	0.178	0.178	1.008	0.178	1.83	2.38
27-Feb	0		0.0	11.860	0.000	0.0	11.860	0.000	0.012	0.000	0.012	0.380	11.468	32.225	0.000	0.161	0.161	0.322	31.742	0.173	0.500	0.173	0.673	0.000	0.175	0.175	0.498	1.008	0.175	1.183	0.000	0.178	0.178	1.006	0.178	1.82	2.38
28-Feb	0		0.0	11.468	0.000	0.0	11.468	0.000	0.011	0.000	0.011	0.367	11.090	32.109	0.000	0.161	0.161	0.321	31.627	0.172	0.498	0.172	0.670	0.000	0.174	0.174	0.496	1.006	0.174	1.180	0.000	0.177	0.177	1.003	0.177	1.82	2.26
1-Mar	0		0.0	11.090	0.000	0.0	11.090	0.000	0.011	0.000	0.011	0.355	10.724	31.982	0.000	0.160	0.160	0.320	31.502	0.171	0.496	0.171	0.667	0.000	0.173	0.173	0.493	1.003	0.173	1.177	0.000	0.176	0.176	1.000	0.176	1.81	2.20
2-Mar	0		0.0	10.724	0.000	0.0	10.724	0.000	0.011	0.000	0.011	0.343	10.370	31.845	0.000	0.159	0.159	0.318	31.368	0.170	0.493	0.170	0.663	0.000	0.172	0.172	0.491	1.000	0.172	1.173	0.000	0.176	0.176	0.997	0.176	1.80	2.20
3-Mar	0		0.0	10.370	0.000	0.0	10.370	0.000	0.010	0.000	0.010	0.332	10.028	31.699	0.000	0.158	0.158	0.317	31.224	0.169	0.491	0.169	0.660	0.000	0.172	0.172	0.488	0.997	0.172	1.168	0.000	0.175	0.175	0.993	0.175	1.80	2.15
4-Mar	0		0.0	10.028	0.000	0.0	10.028	0.000	0.010	0.000	0.010	0.321	9.697	31.545	0.000	0.158	0.158	0.315	31.072	0.168	0.488	0.168	0.656	0.000	0.171	0.171	0.485	0.993	0.171	1.164	0.000	0.175	0.175	0.989	0.175	1.79	2.09
5-Mar	0		0.0	9.697	0.000	0.0	9.697	0.000	0.010	0.000	0.010	0.310	9.377	31.382	0.000	0.157	0.157	0.314	30.911	0.167	0.485	0.167	0.652	0.000	0.170	0.170	0.483	0.989	0.170	1.159	0.000	0.174	0.174	0.985	0.174	1.78	2.09
6-Mar	0		0.0	9.377	0.000	0.0	9.377	0.000	0.009	0.000	0.009	0.300	9.067	31.211	0.000	0.156	0.156	0.312	30.743	0.165	0.483	0.165	0.648	0.000	0.168	0.168	0.479	0.985	0.168	1.153	0.000	0.173	0.173	0.980	0.173	1.78	2.04
7-Mar	0		0.0	9.067	0.000	0.0	9.067	0.000	0.009	0.000	0.009	0.290	8.768	31.033	0.000	0.155	0.155	0.310	30.568	0.164	0.479	0.164	0.644	0.000	0.167	0.167	0.476	0.980	0.167	1.148	0.000	0.172	0.172	0.975	0.172	1.77	1.99
8-Mar	0		0.0	8.768	0.000	0.0	8.768	0.000	0.009	0.000	0.009	0.281	8.479	30.848	0.000	0.154	0.154	0.308	30.386	0.163	0.476	0.163	0.639	0.000	0.166	0.166	0.473	0.975	0.166	1.142	0.000	0.171	0.171	0.970	0.171	1.76	1.99
9-Mar	0		0.0	8.479	0.000	0.0	8.479	0.000	0.008	0.000	0.008	0.271	8.199	30.657	0.000	0.153	0.153	0.307	30.197	0.162	0.473	0.162	0.635	0.000	0.165	0.165	0.470	0.970	0.165	1.136	0.000	0.170	0.170	0.965	0.170	1.75	1.99
10-Mar	0		0.0	8.199	0.000	0.0	8.199	0.000	0.008	0.000	0.008	0.262	7.928	30.459	0.000	0.152	0.152	0.305	30.003	0.160	0.470	0.160	0.630	0.000	0.164	0.164	0.466	0.965	0.164	1.129	0.000	0.169	0.169	0.960	0.169	1.74	1.93
11-Mar	0		0.0	7.928	0.000	0.0	7.928	0.000	0.008	0.000	0.008	0.254	7.667	30.256	0.000	0.151	0.151	0.303	29.802	0.159	0.466	0.159	0.626	0.000	0.163	0.163	0.463	0.960	0.163	1.122	0.000	0.168	0.168	0.954	0.168	1.73	1.93
12-Mar	0		0.0	7.667	0.000	0.0	7.667	0.000	0.008	0.000	0.008	0.245	7.414	30.048	0.000	0.150	0.150	0.300	29.597	0.158	0.463	0.158	0.621	0.000	0.161	0.161	0.459	0.954	0.161	1.115	0.000	0.167	0.167	0.948	0.167	1.72	1.93
13-Mar	0		0.0	7.414	0.000	0.0	7.414	0.000	0.007	0.000	0.007	0.237	7.169	29.834	0.000	0.149	0.149	0.298	29.387	0.157	0.459	0.157	0.616	0.000	0.160	0.160	0.456	0.948	0.160	1.108	0.000	0.166	0.166	0.942	0.166	1.71	1.87
14-Mar	0		0.0	7.169	0.000	0.0	7.169	0.000	0.007	0.000	0.007	0.229	6.933	29.616	0.000	0.148	0.148	0.296	29.172	0.155	0.456	0.155	0.611	0.000	0.159	0.159	0.452	0.942	0.159	1.101	0.000	0.165	0.165	0.936	0.165	1.69	1.82
15-Mar	0		0.0	6.933	0.000	0.0	6.933	0.000	0.007	0.000	0.007	0.222	6.704	29.394	0.000	0.147	0.147	0.294	28.953	0.154	0.452	0.154	0.606	0.000	0.158	0.158	0.449	0.936	0.158	1.093	0.000	0.164	0.164	0.929	0.164	1.68	1.77
16-Mar	0		0.0	6.704	0.000	0.0	6.704	0.000	0.007	0.000	0.007	0.215	6.483	29.167	0.000	0.146	0.146	0.292	28.730	0.153	0.449	0.153	0.601	0.000	0.156	0.156	0.445	0.929	0.156	1.086	0.000	0.163	0.163	0.923	0.163	1.67	1.77
17-Mar	0		0.0	6.483	0.000	0.0	6.483	0.000	0.006	0.000	0.006	0.207	6.269	28.937	0.000	0.145	0.145	0.289	28.503	0.151	0.445	0.151	0.596	0.000	0.155	0.155	0.441	0.923	0.155	1.078	0.000	0.162	0.162	0.916	0.162	1.66	1.77
18-Mar	0		0.0	6.269	0.000	0.0	6.269	0.000	0.006	0.000	0.006	0.201	6.062	28.704	0.000	0.144	0.144	0.287	28.273	0.150	0.441	0.150	0.591	0.000	0.154	0.154	0.437	0.916	0.154	1.070	0.000	0.160	0.160	0.909	0.160	1.65	1.77
19-Mar	0		0.0	6.062	0.000	0.0	6.062	0.000	0.006	0.000	0.006	0.194	5.862	28.467	0.000	0.142	0.142	0.285	28.040	0.148	0.437	0.148	0.586	0.000	0.152	0.152	0.433	0.909	0.152	1.062	0.000	0.159	0.159	0.902	0.159	1.63	1.77
20-Mar	0		0.0	5.862	0.000	0.0	5.862	0.000	0.006	0.000	0.006	0.188	5.668	28.228	0.000	0.141	0.141	0.282	27.804	0.147	0.433	0.147	0.580	0.000	0.151	0.151	0.429	0.902	0.151	1.053	0.000	0.158	0.158	0.895	0.158	1.62	1.77
21-Mar	0		0.0	5.668	0.000	0.0	5.668	0.000	0.006	0.000	0.006	0.181	5.481	27.986	0.000	0.140	0.140	0.280	27.566	0.146	0.429	0.146	0.575	0.000	0.150	0.150	0.426	0.895	0.150	1.045	0.000	0.157	0.157	0.888	0.157	1.61	1.97
22-Mar	0		0.0	5.481	0.000	0.0	5.481	0.000	0.005	0.000	0.005	0.175	5.300	27.741	0.000	0.139	0.139	0.277	27.325	0.144	0.426	0.144	0.570	0.000	0.148	0.148	0.422	0.888	0.148	1.036	0.000	0.155	0.155	0.881	0.155	1.59	2.07
23-Mar	0		0.0	5.300	0.000	0.0	5.300	0.000	0.005	0.000	0.005	0.170	5.125	27.495	0.000	0.137	0.137	0.275	27.082	0.143	0.422	0.143	0.564	0.000	0.147	0.147	0.418	0.881	0.147	1.027	0.000	0.154	0.154	0.873	0.154	1.58	2.07
24-Mar	0		0.0	5.125	0.000	0.0	5.125	0.000	0.005	0.000	0.005	0.164	4.956	27.247	0.000	0.136	0.136	0.272	26.838	0.141	0.418	0.141	0.559	0.000	0.145	0.145	0.414	0.873	0.145	1.019	0.000	0.153	0.153	0.866	0.153	1.57	2.07
25-Mar	2.1		0.0	4.956	0.000	0.0	4.956	0.000	0.005	0.000	0.005	0.159	4.793	26.996	0.000	0.135	0.135	0.270	26.591	0.140	0.414	0.140	0.554	0.000	0.144	0.144	0.410	0.866	0.144	1.010	0.000	0.151	0.151	0.858	0.151	1.55	2.07
26-Mar	0		0.0	4.793	2.100	0.0	6.893	0.000	0.007	0.000	0.007	0.221	6.665	26.812	0.000	0.134	0.134	0.268	26.410	0.141	0.410	0.141	0.551	0.000	0.143	0.143	0.407	0.858	0.143	1.001	0.000	0.150	0.150	0.851	0.150	1.54	2.02
27-Mar	0		0.0	6.665	0.000	0.0	6.665	0.000	0.007	0.000	0.007	0.213	6.445	26.623	0.000	0.133	0.133	0.266	26.224	0.140	0.407	0.140	0.547	0.000	0.142	0.142	0.405	0.851	0.142	0.994	0.000	0.149	0.149	0.845	0.149	1.53	1.97
28-Mar	0		0.0	6.445	0.000	0.0	6.445	0.000	0.006	0.000	0.006	0.206	6.233	26.430	0.000	0.132	0.132	0.264	26.034	0.139	0.405	0.139	0.544	0.000	0.141	0.141	0.402	0.845	0.141	0.986	0.000	0.148	0.148	0.838	0.148	1.52	1.97
29-Mar	9.2		0.0	6.233	0.000	0.0	6.233	0.000	0.006	0.000	0.006	0.199	6.027	26.233	0.000	0.131	0.131	0.262	25.840	0.137	0.402	0.137	0.540	0.000	0.140	0.140	0.399	0.838	0.140	0.978	0.000	0.147	0.147	0.832	0.147	1.51	2.29
30-Mar	12.1		0.0	6.027	9.200	0.0	15.227	0.000	0.015	0.000	0.015	0.487	14.724	26.327	0.000	0.132	0.132	0.263	25.932	0.147	0.399	0.147	0.546	0.000	0.142	0.142	0.404	0.832	0.142	0.974	0.000	0.146	0.146	0.828	0.146	1.50	3.14
31-Mar	10.1		0.0	14.724	12.100	0.0	26.824	0.000	0.027	0.000	0.027	0.858	25.939	26.790	0.000	0.134	0.134	0.268	26.388	0.161	0.404	0.161	0.565	0.000	0.147	0.147	0.418	0.828	0.147	0.974	0.000	0.146	0.146	0.828	0.146	1.50	4.45
1-Apr	3.6	1.5	0.8	25.939	10.100	0.0	36.039	3.926	0.036	0.000	3.962	1.153	30.924	27.542	0.000	0.138	0.138	0.275	27.129	4.099	0.418	4.099	4.517	0.000	1.175	1.175	3.343	0.828	1.175	2.003	0.000	0.300	0.300	1.702	0.300	3.08	6.90
2-Apr	1.1	1.5	0.8	30.924	3.600	0.8	33.774	2.453	0.034	0.000	2.487	1.081	30.206	28.209	0.000	0.141	0.141	0.282	27.786	2.628	3.343	2.628	5.971	0.000	1.552	1.552	4.419	1.702	1.552	3.255	0.000	0.488	0.488	2.767	0.488	5.01	8.43
3-Apr	9.7	1.5	0.8	30.206	1.100	0.8	30.556	0.362	0.031	0.000	0.392	0.978	29.186	28.764	0.000	0.144	0.144	0.288	28.333	0.536	4.419	0.536	4.955	0.000	1.288	1.288	3.666	2.767	1.288	4.055	0.000	0.608	0.608	3.447	0.608	6.24	10.10
4-Apr	9.7	1.5	0.8	29.186	9.700	0.8	38.136	5.289	0.038	0.000	5.327	1.220	31.589	29.553	0.000	0.148	0.148	0.296	29.110	5.475	3.666	5.475	9.141	0.000	2.377	2.377	6.764	3.447	2.377	5.823	0.000	0.873	0.873	4.950	0.873	8.96	12.40
5-Apr	6.3	1.5	0.8	31.589	9.700	0.8	40.539	6.851	0.041	0.000	6.891	1.297	32.351	30.407	0.000	0.152	0.152	0.304	29.951	7.043	6.764	7.043	13.807	0.000	3.590	3.590	10.218	4.950	3.590	8.540	0.000	1.281	1.281	7.259	1.281	13.14	14.80
6-Apr	8.7	1.5	0.8	32.351	6.300	0.8	37.901	5.136	0.038	0.000	5.174	1.213	31.515	31.164	0.000	0.156	0.156	0.312	30.696	5.329	10.218	5.329	15.547	0.000	4.042	4.042	11.505	7.259	4.042	11.301	0.000	1.695	1.695	9.606	1.695	17.39	18.60
7-Apr	8.4	1.5	0.8	31.515	8.700	0.8	39.465	6.152	0.039	0.000	6.191	1.263	32.010	31.959	0.000	0.160	0.160	0.320	31.480	6.351	11.505	6.351	17.856	0.000	4.643	4.643	13.213	9.606	4.643	14.248	0.000	2.137	2.137	12.111	2.137	21.93	20.50
8-Apr	0.1	1.5	1.5	32.010	8.400	0.8	39.660	6.279	0.040	0.000	6.319	1.269	32.072	32.749	0.000	0.164	0.164	0.327	32.258	6.483	13.213	6.483	19.696	0.000	5.121	5.121	14.575	12.111	5.121	17.232	0.000	2.585	2.585	14.647	2.585	26.52	20.60
9-Apr	0.1	1.5	1.5	32.072	0.100	1.5	30.672	0.437	0.031	0.000	0.468	0.982	29.223	33.239	0.000	0.166	0.166	0.332	32.740	0.634	14.575	0.634	15.209	0.000	3.954	3.954	11.255	14.647	3.954	18.602	0.000	2.790	2.790	15.811	2.790	28.63	22.10
10-Apr	0	1.5	1.5	29.223	0.100	1.5	27.823	0.000	0.028	0.000	0.028	0.890	26.905	33.631	0.000	0.168	0.168	0.336	33.126	0.196	11.255	0.196	11.451	0.000	2.977	2.977	8.473	15.811	2.977	18.788	0.000	2.818	2.818	15.970	2.818	28.92	22.30
11-Apr	0	1.5	1.5	26.905	0.000	1.5	25.405	0.000	0.025	0.000	0.025	0.813	24.567	33.939	0.000	0.170	0.170	0.339	33.430	0.195	8.473	0.195	8.669	0.000	2.254	2.254	6.415	15.970	2.254	18.224	0.000	2.734	2.734	15.490	2.734	28.05	25.10
12-Apr	2.9	1.5	0.8	24.567	0.000	1.5	23.067	0.000	0.023	0.000	0.023	0.738	22.305	34.168	0.000	0.171	0.171	0.342	33.656	0.194	6.415	0.194	6.609	0.000	1.718	1.718	4.890	15.490	1.718	17.209	0.000	2.581	2.581	14.627	2.581	26.49	28.20
13-Apr	9.8	1.5	0.8	22.305	2.900	0.8	24.455	0.000	0.024	0.000	0.024	0.783	23.648	34.438	0.000	0.172	0.172	0.344	33.922	0.197	4.890	0.197	5.087	0.000	1.323	1.323	3.764	14.627	1.323	15.950	0.000	2.392	2.392	13.557	2.392	24.55	33.20
14-Apr	13.6	1.5	0.8	23.648	9.800	0.8	32.698	1.754	0.033	0.000	1.787	1.046	29.865	34.968	0.000	0.175	0.175	0.350	34.444	1.961	3.764	1.961	5.726	0.000	1.489	1.489	4.237	13.557	1.489	15.046	0.000	2.257	2.257	12.789	2.257	23.16	39.50
15-Apr	10.5	1.5	0.8	29.865	13.600	0.8	42.715	8.265	0.043	0.000	8.308	1.367	33.041	35.811	0.000	0.179	0.179	0.358	35.273	8.487	4.237	8.487	12.724	0.000	3.308	3.308	9.416	12.789	3.308	16.097	0.000	2.415	2.415	13.683	2.415	24.78	41.50
16-Apr	12.2	1.5	0.8	33.041	10.500	0.8	42.791	8.314	0.043	0.000	8.357	1.369	33.065	36.643	0.000	0.183	0.183	0.366	36.093	8.540	9.416	8.540	17.956	0.000	4.668	4.668	13.287	13.683	4.668	18.351	0.000	2.753	2.753	15.599	2.753	28.25	47.50
17-Apr	2.3	1.5	0.8	33.065	12.200	0.8	44.515	9.435	0.045	0.000	9.479	1.424	33.611	37.518	0.000	0.188	0.188	0.375	36.955	9.667	13.287	9.667	22.954	0.000	5.968	5.968	16.986	15.599	5.968	21.567	0.000	3.235	3.235	18.332	3.235	33.20	51.00
18-Apr	0.4	1.5	1.5	33.611	2.300	0.8	35.161	3.355	0.035	0.000	3.390	1.125	30.646	38.080	0.000	0.190	0.190	0.381	37.509	3.580	16.986	3.580	20.566	0.000	5.347	5.347	15.219	18.332	5.347	23.679	0.000	3.552	3.552	20.127	3.552	36.45	46.80
19-Apr	0	1.5	1.5	30.646	0.400	1.5	29.546	0.000	0.030	0.000	0.030	0.945	28.571	38.454	0.000	0.192	0.192	0.385	37.877	0.222	15.219	0.222	15.441	0.000	4.015	4.015	11.426	20.127	4.015	24.142	0.000	3.621	3.621	20.520	3.621	37.16	44.50
20-Apr	0	1.5	1.5	28.571	0.000	1.5	27.071	0.000	0.027	0.000	0.027	0.866	26.178	38.744	0.000	0.194	0.194	0.387	38.162	0.221	11.426	0.221	11.647	0.000	3.028	3.028	8.619	20.520	3.028	23.549	0.000	3.532	3.532	20.016	3.532	36.25	39.80
21-Apr	0	1.5	1.5	26.178	0.000	1.5	24.678	0.000	0.025	0.000	0.025	0.790	23.863	38.952	0.000	0.195	0.195	0.390	38.368	0.219	8.619	0.219	8.838	0.000	2.298	2.298	6.540	20.016	2.298	22.314	0.000	3.347	3.347	18.967	3.347	34.35	31.70
22-Apr	0	1.5	1.5	23.863	0.000	1.5	22.363	0.000	0.022	0.000	0.022	0.716	21.625	39.084	0.000	0.195	0.195	0.391	38.497	0.218	6.540	0.218	6.758	0.000	1.757	1.757	5.001	18.967	1.757	20.724	0.000	3.109	3.109	17.616	3.109	31.90	27.10
23-Apr	0	1.5	1.5	21.625	0.000	1.5	20.125	0.000	0.020	0.000	0.020	0.644	19.461	39.141	0.000	0.196	0.196	0.391	38.554	0.216	5.001	0.216	5.217	0.000	1.356	1.356	3.860	17.616	1.356	18.972	0.000	2.846	2.846	16.126	2.846	29.20	24.60
24-Apr	2.1	1.5	0.8	19.461	0.000	1.5	17.961	0.000	0.018	0.000	0.018	0.575	17.369	39.129	0.000	0.196	0.196	0.391	38.542	0.214	3.860	0.214	4.074	0.000	1.059	1.059	3.015	16.126	1.059	17.185	0.000	2.578	2.578	14.608	2.578	26.45	25.20
25-Apr	0	1.5	1.5	17.369	2.100	0.8	18.719	0.000	0.019	0.000	0.019	0.599	18.101	39.141	0.000	0.196	0.196	0.391	38.554	0.214	3.015	0.214	3.229	0.000	0.840	0.840	2.390	14.608	0.840	15.447	0.000	2.317	2.317	13.130	2.317	23.78	29.00
26-Apr	2.6	1.5	0.8	18.101	0.000	1.5	16.601	0.000	0.017	0.000	0.017	0.531	16.053	39.085	0.000	0.195	0.195	0.391	38.499	0.212	2.390	0.212	2.602	0.000	0.676	0.676	1.925	13.130	0.676	13.807	0.000	2.071	2.071	11.736	2.071	21.25	33.20
27-Apr	0	1.5	1.5	16.053	2.600	0.8	17.903	0.000	0.018	0.000	0.018	0.573	17.312	39.072	0.000	0.195	0.195	0.391	38.486	0.213	1.925	0.213	2.138	0.000	0.556	0.556	1.582	11.736	0.556	12.292	0.000	1.844	1.844	10.448	1.844	18.92	34.60
28-Apr	0	1.5	1.5	17.312	0.000	1.5	15.812	0.000	0.016	0.000	0.016	0.506	15.290	38.992	0.000	0.195	0.195	0.390	38.407	0.211	1.582	0.211	1.793	0.000	0.466	0.466	1.327	10.448	0.466	10.914	0.000	1.637	1.637	9.277	1.637	16.80	33.80
29-Apr	0	1.5	1.5	15.290	0.000	1.5	13.790	0.000	0.014	0.000	0.014	0.441	13.335	38.848	0.000	0.194	0.194	0.388	38.265	0.208	1.327	0.208	1.535	0.000	0.399	0.399	1.136	9.277	0.399	9.676	0.000	1.451	1.451	8.225	1.451	14.89	31.50
30-Apr	0	1.5	1.5	13.335	0.000	1.5	11.835	0.000	0.012	0.000	0.012	0.379	11.445	38.644	0.000	0.193	0.193	0.386	38.064	0.205	1.136	0.205	1.341	0.000	0.349	0.349	0.992	8.225	0.349	8.573	0.000	1.286	1.286	7.287	1.286	13.20	29.00

6) Estimated Precipitaion : Pededze Model 1987

	A= 858.4 km^2					m = 4				A= 28.2 km^2					m = 4				Total
	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day
1-Dec				0.2	0.1	1.2	0.00						0.2			0.00			0.0
2-Dec	1.2	5.1		0.2	0.1	1.2	0.00	0.00	1.20	0.3	5.5		0.2	0.2	0.3	0.00	0.00	0.30	1.2
3-Dec	3.2	2.1		0.2	0.1	3.2	0.00	0.00	3.20	3.8	2.0		0.2	0.1	3.8	0.00	0.00	3.80	3.2
4-Dec	4.1	-1.2		0.2	0.1	0.0	4.10	0.00	0.00	3.6	-0.9		0.2	0.1	0.0	0.00	0.00	0.00	0.0
5-Dec	8.2	6.7		0.2	0.1	8.2	4.10	4.10	12.30	3.8	7.6		0.2	0.1	3.8	3.60	3.60	7.40	12.1
6-Dec	4.7	1.7		0.2	0.1	4.7	0.00	0.00	4.70	5.9	2.8		0.2	0.1	5.9	0.00	0.00	5.90	4.7
7-Dec	8.1	2.7	2.0	0.2	0.2	8.1	0.00	0.00	8.10	8.6	4.0		0.2	0.1	8.6	0.00	0.00	8.60	8.1
8-Dec	0.5	-3.5		0.2	0.2	0.0	0.50	0.00	0.00	0.3	-2.6		0.2	0.2	0.0	0.00	0.00	0.00	0.0
9-Dec		-7.0		0.2	0.2	0.0	0.50	0.00	0.00		-7.0		0.2	0.2	0.0	0.30	0.00	0.00	0.0
10-Dec		-5.1		0.2	0.2	0.0	0.50	0.00	0.00		-5.0		0.2	0.2	0.0	0.30	0.00	0.00	0.0
11-Dec		-3.2		0.2	0.1	0.0	0.50	0.00	0.00		-3.2		0.2	0.2	0.0	0.30	0.00	0.00	0.0
12-Dec	0.8	2.6		0.2	0.2	0.8	0.50	0.50	1.30	0.0	2.6		0.2	0.2	0.0	0.30	0.30	0.30	1.3
13-Dec		-0.8		0.2	0.2	0.0	0.00	0.00	0.00	0.0	-0.7		0.2	0.2	0.0	0.00	0.00	0.00	0.0
14-Dec		-2.5		0.2	0.1	0.0	0.00	0.00	0.00	0.2	-2.2		0.2	0.2	0.0	0.00	0.00	0.00	0.0
15-Dec	2.5	-2.8	1.0	0.2	0.2	0.0	2.50	0.00	0.00	1.9	-2.3	0.0	0.2	0.1	0.0	0.20	0.00	0.00	0.0
16-Dec		-15.4	2.0	0.2	0.1	0.0	2.50	0.00	0.00	0.3	-14.0	2.0	0.2	0.2	0.0	2.10	0.00	0.00	0.0
17-Dec	0.7	-17.2	2.0	0.2	0.1	0.0	3.20	0.00	0.00	0.6	-15.7	2.0	0.2	0.1	0.0	2.40	0.00	0.00	0.0
18-Dec	2.6	-9.4	5.0	0.2	0.1	0.0	5.80	0.00	0.00	2.6	-8.3	4.0	0.2	0.1	0.0	3.00	0.00	0.00	0.0
19-Dec	1.7	-7.9	8.0	0.2	0.1	0.0	7.50	0.00	0.00	0.9	-7.3	6.0	0.2	0.1	0.0	5.60	0.00	0.00	0.0
20-Dec	1.1	-10.1	9.0	0.2	0.1	0.0	8.60	0.00	0.00	0.7	-8.8	6.0	0.2	0.1	0.0	6.50	0.00	0.00	0.0
21-Dec	5.0	-8.4	10.0	0.2	0.1	0.0	13.60	0.00	0.00	5.6	-6.8	8.0	0.2	0.1	0.0	7.20	0.00	0.00	0.0
22-Dec	7.9	-6.3	10.0	0.2	0.1	0.0	21.50	0.00	0.00	6.7	-5.7	9.0	0.2	0.1	0.0	12.80	0.00	0.00	0.0
23-Dec	6.3	-4.9	17.0	0.2	0.2	0.0	27.80	0.00	0.00	5.0	-6.6	19.0	0.2	0.1	0.0	19.50	0.00	0.00	0.0
24-Dec	0.4	-8.0	19.0	0.2	0.2	0.0	28.20	0.00	0.00	1.3	-7.8	19.0	0.2	0.1	0.0	24.50	0.00	0.00	0.0
25-Dec		-11.3	19.0	0.2	0.1	0.0	28.20	0.00	0.00	0.6	-11.3	19.0	0.2	0.1	0.0	25.80	0.00	0.00	0.0
26-Dec	2.0	-11.7	20.0	0.2	0.2	0.0	30.20	0.00	0.00	1.6	-10.9	20.0	0.2	0.1	0.0	26.40	0.00	0.00	0.0
27-Dec	0.5	-17.6	22.0	0.2	0.2	0.0	30.70	0.00	0.00	0.5	-14.1	21.0	0.2	0.2	0.0	28.00	0.00	0.00	0.0
28-Dec		-18.7	22.0	0.2	0.1	0.0	30.70	0.00	0.00	0.8	-17.7	21.0	0.2	0.1	0.0	28.50	0.00	0.00	0.0
29-Dec	2.2	-14.9	23.0	0.2	0.1	0.0	32.90	0.00	0.00	3.2	-14.3	21.0	0.2	0.1	0.0	29.30	0.00	0.00	0.0
30-Dec	1.4	-10.8	23.0	0.2	0.1	0.0	34.30	0.00	0.00	4.8	-10.1	21.0	0.2	0.1	0.0	32.50	0.00	0.00	0.0
31-Dec	1.3	-9.4	17.0	0.2	0.2	0.0	35.60	0.00	0.00	1.8	-8.5	21.0	0.2	0.1	0.0	37.30	0.00	0.00	0.0
1-Jan	0.4	-16.1	18.0		0.0	0.0	36.00	0.00	0.00	0.3	-15.5	21.0		0.0	0.0	39.10	0.00	0.00	0.0
2-Jan	0.4	-16.8	18.0		0.0	0.0	36.40	0.00	0.00	0.0	-17.9	21.0		0.0	0.0	39.40	0.00	0.00	0.0
3-Jan	2.0	-13.4	20.0		0.0	0.0	38.40	0.00	0.00	0.8	-13.4	21.0		0.0	0.0	39.40	0.00	0.00	0.0
4-Jan	1.2	-18.4	21.0		0.0	0.0	39.60	0.00	0.00	1.3	-17.8	21.0		0.0	0.0	40.20	0.00	0.00	0.0
5-Jan		-24.3	22.0		0.0	0.0	39.60	0.00	0.00		-23.4	22.0		0.0	0.0	41.50	0.00	0.00	0.0
6-Jan		-28.1	22.0		0.0	0.0	39.60	0.00	0.00		-29.3	22.0		0.0	0.0	41.50	0.00	0.00	0.0
7-Jan		-28.2	22.0		0.0	0.0	39.60	0.00	0.00		-28.1	22.0		0.0	0.0	41.50	0.00	0.00	0.0
8-Jan		-27.3	22.0		0.0	0.0	39.60	0.00	0.00		-28.2	22.0		0.0	0.0	41.50	0.00	0.00	0.0
9-Jan	0.5	-24.6	22.0		0.0	0.0	40.10	0.00	0.00	0.2	-24.6	22.0		0.0	0.0	41.50	0.00	0.00	0.0
10-Jan	0.8	-28.7	22.0		0.0	0.0	40.90	0.00	0.00	1.2	-27.5	22.0		0.0	0.0	41.70	0.00	0.00	0.0
11-Jan	0.7	-32.3	22.0		0.0	0.0	41.60	0.00	0.00	0.6	-30.9	22.0		0.0	0.0	42.90	0.00	0.00	0.0
12-Jan	0.2	-32.1	22.0		0.0	0.0	41.80	0.00	0.00		-31.9	22.0		0.0	0.0	43.50	0.00	0.00	0.0
13-Jan	0.3	-27.8	22.0		0.0	0.0	42.10	0.00	0.00		-26.8	22.0		0.0	0.0	43.50	0.00	0.00	0.0
14-Jan	0.7	-20.8	22.0		0.0	0.0	42.80	0.00	0.00	0.0	-19.7	22.0		0.0	0.0	43.50	0.00	0.00	0.0
15-Jan	0.3	-14.5	21.0		0.0	0.0	43.10	0.00	0.00	0.3	-13.7	22.0		0.0	0.0	43.50	0.00	0.00	0.0
16-Jan	0.2	-15.3	21.0		0.0	0.0	43.30	0.00	0.00	0.5	-16.9	23.0		0.0	0.0	43.80	0.00	0.00	0.0
17-Jan		-13.0	23.0		0.0	0.0	43.30	0.00	0.00	0.6	-14.5	23.0		0.0	0.0	44.30	0.00	0.00	0.0
18-Jan		-8.5	23.0		0.0	0.0	43.30	0.00	0.00	0.2	-8.2	23.0		0.0	0.0	44.90	0.00	0.00	0.0
19-Jan		-5.6	23.0		0.0	0.0	43.30	0.00	0.00	0.2	-5.3	23.0		0.0	0.0	45.10	0.00	0.00	0.0
20-Jan		-5.5	20.0		0.0	0.0	43.30	0.00	0.00		-5.8	23.0		0.0	0.0	45.30	0.00	0.00	0.0
21-Jan		-7.8	20.0		0.0	0.0	43.30	0.00	0.00		-7.8	23.0		0.0	0.0	45.30	0.00	0.00	0.0
22-Jan	2.3	-11.6	22.0		0.0	0.0	45.60	0.00	0.00	1.0	-12.3	23.0		0.0	0.0	45.30	0.00	0.00	0.0
23-Jan		-4.1	22.0		0.0	0.0	45.60	0.00	0.00		-3.2	24.0		0.0	0.0	46.30	0.00	0.00	0.0
24-Jan	0.4	-8.1	23.0		0.0	0.0	46.00	0.00	0.00	0.5	-6.9	24.0		0.0	0.0	46.30	0.00	0.00	0.0
25-Jan		-12.5	23.0		0.0	0.0	46.00	0.00	0.00		-11.9	24.0		0.0	0.0	46.80	0.00	0.00	0.0
26-Jan	12.5	-5.5	30.0		0.0	0.0	58.50	0.00	0.00	2.6	-4.5	26.0		0.0	0.0	46.80	0.00	0.00	0.0
27-Jan	6.3	-11.0	40.0		0.0	0.0	64.80	0.00	0.00	1.6	-10.0	29.0		0.0	0.0	49.40	0.00	0.00	0.0
28-Jan	0.2	-17.9	37.0		0.0	0.0	65.00	0.00	0.00	0.2	-17.1	29.0		0.0	0.0	51.00	0.00	0.00	0.0
29-Jan	1.6	-18.7	41.0		0.0	0.0	66.60	0.00	0.00	3.3	-17.7	29.0		0.0	0.0	51.20	0.00	0.00	0.0
30-Jan		-25.3	40.0		0.0	0.0	66.60	0.00	0.00		-25.2	29.0		0.0	0.0	54.50	0.00	0.00	0.0
31-Jan	1.3	-20.6	40.0		0.0	0.0	67.90	0.00	0.00	1.5	-20.6	29.0		0.0	0.0	54.50	0.00	0.00	0.0
1-Feb	6.3	-4.4	41.0		0.0	0.0	74.20	0.00	0.00	1.6	-3.5	30.0		0.0	0.0	56.00	0.00	0.00	0.0
2-Feb	0.6	-3.4	39.0		0.0	0.0	74.80	0.00	0.00	0.4	-2.9	30.0		0.0	0.0	57.60	0.00	0.00	0.0
3-Feb	1.4	-4.8	39.0		0.0	0.0	76.20	0.00	0.00	0.0	-4.0	31.0		0.0	0.0	58.00	0.00	0.00	0.0
4-Feb	0.0	-3.0	40.0		0.0	0.0	76.20	0.00	0.00		-3.1	31.0		0.0	0.0	58.00	0.00	0.00	0.0
5-Feb		-6.7	40.0		0.0	0.0	76.20	0.00	0.00		-6.9	31.0		0.0	0.0	58.00	0.00	0.00	0.0
6-Feb	0.6	-1.3	40.0		0.0	0.0	76.80	0.00	0.00	0.2	-0.8	31.0		0.0	0.0	58.00	0.00	0.00	0.0
7-Feb	2.5	1.1	39.0		0.0	2.5	76.80	4.43	6.93	0.4	1.4	29.0		0.0	0.4	58.20	5.61	6.01	6.9
8-Feb	5.8	-1.2	35.0		0.0	0.0	78.17	0.00	0.00	4.4	-0.8	24.0		0.0	0.0	52.59	0.00	0.00	0.0
9-Feb	2.3	-6.2	35.0		0.0	0.0	80.47	0.00	0.00	1.0	-5.5	24.0		0.0	0.0	56.99	0.00	0.00	0.0
10-Feb	1.8	-13.2	34.0		0.0	0.0	82.27	0.00	0.00	0.8	-12.3	26.0		0.0	0.0	57.99	0.00	0.00	0.0
11-Feb		-10.7	36.0		0.0	0.0	82.27	0.00	0.00	0.7	-10.7	26.0		0.0	0.0	58.79	0.00	0.00	0.0
12-Feb	1.3	-10.6	36.0		0.0	0.0	83.57	0.00	0.00	0.9	-10.6	26.0		0.0	0.0	59.49	0.00	0.00	0.0
13-Feb		-6.2	37.0		0.0	0.0	83.57	0.00	0.00	0.0	-5.2	27.0		0.0	0.0	60.39	0.00	0.00	0.0
14-Feb	1.0	-1.7	37.0		0.0	0.0	84.57	0.00	0.00	0.6	-0.9	27.0		0.0	0.0	60.39	0.00	0.00	0.0
15-Feb	1.2	0.2	35.0		0.0	1.2	84.57	0.80	2.00	2.5	0.6	24.0		0.0	2.5	60.99	2.42	4.92	2.1
16-Feb	6.9	0.1	37.0		0.0	6.9	83.77	0.41	7.31	8.7	0.2	26.0		0.0	8.7	58.57	0.82	9.52	7.4
17-Feb		0.2	40.0		0.0	0.0	83.36	0.80	0.80	0.9	0.2	25.0		0.0	0.9	57.75	0.80	1.70	0.8
18-Feb	7.1	-2.5	42.0		0.0	0.0	89.66	0.00	0.00	5.1	-2.0	26.0		0.0	0.0	56.95	0.00	0.00	0.0
19-Feb	1.1	-0.7	43.0		0.0	0.0	90.76	0.00	0.00	1.4	-0.2	27.0		0.0	0.0	62.05	0.00	0.00	0.0
20-Feb	1.8	-1.7	43.0		0.0	0.0	92.56	0.00	0.00	0.0	-1.1	27.0		0.0	0.0	63.45	0.00	0.00	0.0
21-Feb		-6.5	43.0		0.0	0.0	92.56	0.00	0.00		-5.7	27.0		0.0	0.0	63.45	0.00	0.00	0.0
22-Feb		-5.2	43.0		0.0	0.0	92.56	0.00	0.00		-5.8	27.0		0.0	0.0	63.45	0.00	0.00	0.0
23-Feb	0.3	-5.4	43.0		0.0	0.0	92.86	0.00	0.00	0.2	-5.0	27.0		0.0	0.0	63.45	0.00	0.00	0.0
24-Feb	0.3	-10.3	43.0		0.0	0.0	93.16	0.00	0.00	0.6	-9.7	29.0		0.0	0.0	63.65	0.00	0.00	0.0
25-Feb	0.3	-11.9	42.0		0.0	0.0	93.46	0.00	0.00	0.4	-11.3	30.0		0.0	0.0	64.25	0.00	0.00	0.0
26-Feb	4.9	-10.4	43.0		0.0	0.0	98.36	0.00	0.00	1.2	-9.9	31.0		0.0	0.0	64.65	0.00	0.00	0.0
27-Feb		-14.5	44.0		0.0	0.0	98.36	0.00	0.00	0.0	-13.9	31.0		0.0	0.0	65.85	0.00	0.00	0.0
28-Feb	5.4	-7.4	45.0		0.0	0.0	103.76	0.00	0.00	1.5	-7.3	33.0		0.0	0.0	65.85	0.00	0.00	0.0
1-Mar	0.5	-10.6	50.0		0.0	0.0	104.26	0.00	0.00	1.7	-9.6	35.0		0.0	0.0	67.35	0.00	0.00	0.0
2-Mar		-19.4	50.0		0.0	0.0	104.26	0.00	0.00	0.0	-18.1	35.0		0.0	0.0	69.05	0.00	0.00	0.0
3-Mar	0.2	-21.4	50.0		0.0	0.0	104.46	0.00	0.00	0.6	-19.9	35.0		0.0	0.0	69.05	0.00	0.00	0.0

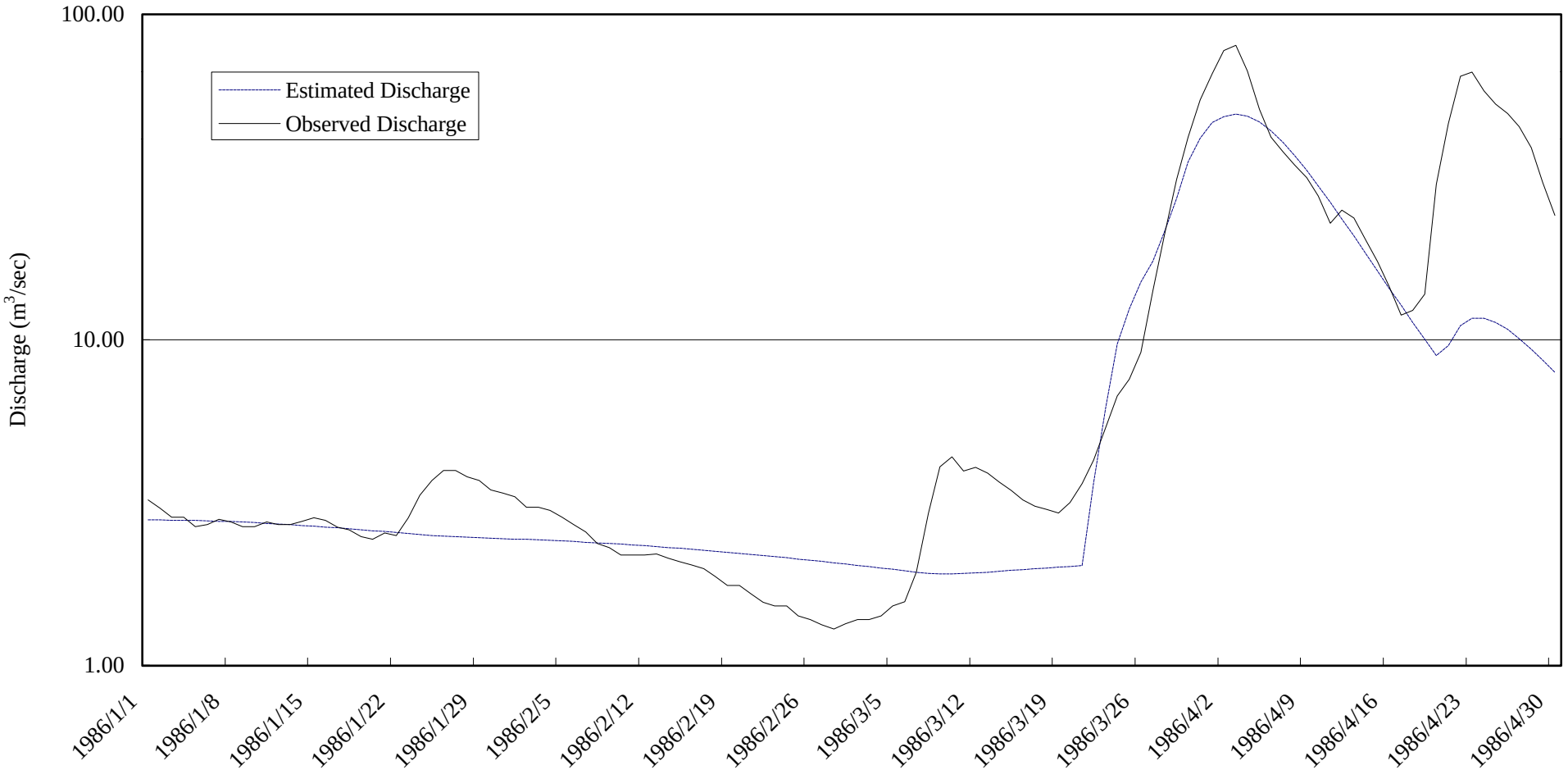
6) Estimated Precipitaion : Pededze Model 1987

	A= 858.4 km^2					m = 4				A= 28.2 km^2					m = 4			Total
	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day
4-Mar	1.3	-19.8	50.0		0.0	0.0	105.76	0.00	0.00	0.9	-19.7	35.0		0.0	0.0	69.65	0.00	0.00	0.0
5-Mar	1.9	-16.7	49.0		0.0	0.0	107.66	0.00	0.00	1.1	-15.7	35.0		0.0	0.0	70.55	0.00	0.00	0.0
6-Mar	1.0	-16.2	53.0		0.0	0.0	108.66	0.00	0.00	0.0	-15.0	37.0		0.0	0.0	71.65	0.00	0.00	0.0
7-Mar	0.2	-16.5	53.0		0.0	0.0	108.86	0.00	0.00	0.5	-15.5	37.0		0.0	0.0	71.65	0.00	0.00	0.0
8-Mar	0.6	-8.0	54.0		0.0	0.0	109.46	0.00	0.00	1.0	-7.2	38.0		0.0	0.0	72.15	0.00	0.00	0.0
9-Mar		-5.8	51.0		0.0	0.0	109.46	0.00	0.00		-5.6	38.0		0.0	0.0	73.15	0.00	0.00	0.0
10-Mar		-5.3	51.0		0.0	0.0	109.46	0.00	0.00		-4.5	38.0		0.0	0.0	73.15	0.00	0.00	0.0
11-Mar		-6.5	47.0		0.0	0.0	109.46	0.00	0.00		-5.7	38.0		0.0	0.0	73.15	0.00	0.00	0.0
12-Mar		-7.2	47.0		0.0	0.0	109.46	0.00	0.00		-7.1	35.0		0.0	0.0	73.15	0.00	0.00	0.0
13-Mar		-7.4	47.0		0.0	0.0	109.46	0.00	0.00		-7.2	34.0		0.0	0.0	73.15	0.00	0.00	0.0
14-Mar		-6.3	47.0		0.0	0.0	109.46	0.00	0.00		-6.8	33.0		0.0	0.0	73.15	0.00	0.00	0.0
15-Mar		-5.6	47.0		0.0	0.0	109.46	0.00	0.00		-6.7	31.0		0.0	0.0	73.15	0.00	0.00	0.0
16-Mar		-7.1	47.0		0.0	0.0	109.46	0.00	0.00		-7.3	31.0		0.0	0.0	73.15	0.00	0.00	0.0
17-Mar		-6.3	47.0		0.0	0.0	109.46	0.00	0.00		-5.8	31.0		0.0	0.0	73.15	0.00	0.00	0.0
18-Mar		-5.3	47.0		0.0	0.0	109.46	0.00	0.00		-5.4	31.0		0.0	0.0	73.15	0.00	0.00	0.0
19-Mar		-5.0	47.0		0.0	0.0	109.46	0.00	0.00		-5.5	30.0		0.0	0.0	73.15	0.00	0.00	0.0
20-Mar		-4.9	46.0		0.0	0.0	109.46	0.00	0.00	0.5	-4.8	30.0		0.0	0.0	73.15	0.00	0.00	0.0
21-Mar	0.9	-1.7	48.0		0.0	0.0	110.36	0.00	0.00	1.1	-1.2	32.0		0.0	0.0	73.65	0.00	0.00	0.0
22-Mar	9.8	-2.4	48.0		0.0	0.0	120.16	0.00	0.00	10.0	-1.4	33.0		0.0	0.0	74.75	0.00	0.00	0.0
23-Mar	1.3	-1.2	54.0		0.0	0.0	121.46	0.00	0.00	0.3	-0.5	36.0		0.0	0.0	84.75	0.00	0.00	0.0
24-Mar		-2.5	55.0		0.0	0.0	121.46	0.00	0.00	0.0	-2.0	36.0		0.0	0.0	85.05	0.00	0.00	0.0
25-Mar		0.6	53.0		0.0	0.0	121.46	2.40	2.40		0.5	36.0		0.0	0.0	85.05	2.00	2.00	2.4
26-Mar		-1.9	50.0		0.0	0.0	119.06	0.00	0.00		-2.4	35.0		0.0	0.0	83.05	0.00	0.00	0.0
27-Mar		-3.8	47.0		0.0	0.0	119.06	0.00	0.00		-2.8	35.0		0.0	0.0	83.05	0.00	0.00	0.0
28-Mar	0.4	-1.1	47.0		0.0	0.0	119.46	0.00	0.00	3.0	-0.2	37.0		0.0	0.0	83.05	0.00	0.00	0.0
29-Mar	2.5	1.9	47.0		0.0	2.5	119.46	7.66	10.16	2.4	1.9	35.0		0.0	2.4	86.05	7.66	10.06	10.2
30-Mar	2.5	2.7	35.0		0.0	2.5	111.80	10.88	13.38	5.3	2.7	32.0		0.0	5.3	78.39	10.98	16.28	13.5
31-Mar		2.9	29.0		0.0	0.0	100.92	11.60	11.60		2.8	22.0		0.0	0.0	67.41	11.20	11.20	11.6
1-Apr		1.0	26.0	1.5	1.5	0.0	89.32	4.00	4.00		1.7	21.0	1.5	1.5	0.0	56.21	6.80	6.80	4.1
2-Apr		0.3	25.0	1.5	1.5	0.0	85.32	1.20	1.20		0.3	20.0	1.5	1.5	0.0	49.41	1.20	1.20	1.2
3-Apr		2.8	22.0	1.5	1.5	0.0	84.12	11.20	11.20		2.3	16.0	1.5	1.5	0.0	48.21	9.20	9.20	11.1
4-Apr		2.8	21.0	1.5	1.5	0.0	72.92	11.20	11.20		2.2	16.0	1.5	1.5	0.0	39.01	8.80	8.80	11.1
5-Apr		1.8	20.0	1.5	1.5	0.0	61.72	7.20	7.20		2.1	14.0	1.5	1.5	0.0	30.21	8.40	8.40	7.2
6-Apr		2.5	11.0	1.5	0.8	0.0	54.52	10.00	10.00		2.0	8.0	1.5	1.5	0.0	21.81	8.00	8.00	9.9
7-Apr	3.0	1.5	8.0	1.5	0.8	3.0	44.52	6.06	9.06	5.2	1.4	9.0	1.5	0.8	5.2	13.81	5.69	10.89	9.1
8-Apr	1.7	-0.1	4.0	1.5	1.5	0.0	40.16	0.00	0.00	0.8	0.6	6.0	1.5	0.8	0.8	8.12	2.41	3.21	0.1
9-Apr		-0.3	5.0	1.5	1.5	0.0	40.16	0.00	0.00		0.6	4.0	1.5	1.5	0.0	5.71	2.40	2.40	0.1
10-Apr		-1.9	4.0	1.5	1.5	0.0	40.16	0.00	0.00		-0.7	3.0	1.5	1.5	0.0	3.31	0.00	0.00	0.0
11-Apr		-2.0	3.0	1.5	1.5	0.0	40.16	0.00	0.00		-1.2	3.0	1.5	1.5	0.0	3.31	0.00	0.00	0.0
12-Apr		0.8		1.5	1.5	0.0	40.16	3.20	3.20		1.6	2.0	1.5	1.5	0.0	3.31	3.31	3.31	3.2
13-Apr		2.8		1.5	1.5	0.0	36.96	11.20	11.20		3.0		1.5	1.5	0.0	0.00	0.00	0.00	10.8
14-Apr		4.0		1.5	1.5	0.0	25.76	16.00	16.00		4.2		1.5	1.5	0.0	0.00	0.00	0.00	15.5
15-Apr		3.1		1.5	1.5	0.0	9.76	9.76	9.76		3.5		1.5	1.5	0.0	0.00	0.00	0.00	9.4
16-Apr		3.6		1.5	0.8	0.0	0.00	0.00	0.00		3.9		1.5	1.5	0.0	0.00	0.00	0.00	0.0
17-Apr	1.1	3.2		1.5	1.5	1.1	0.00	0.00	1.10	0.2	3.7		1.5	1.5	0.2	0.00	0.00	0.20	1.1
18-Apr	0.4	3.0		1.5	0.8	0.4	0.00	0.00	0.40	0.4	3.7		1.5	1.5	0.4	0.00	0.00	0.40	0.4
19-Apr	1.8	-0.2	1.0	1.5	1.5	0.0	1.80	0.00	0.00	0.9	0.2	0.0	1.5	0.8	0.9	0.00	0.00	0.90	0.0
20-Apr	0.0	-0.7		1.5	1.5	0.0	1.80	0.00	0.00	0.0	0.1		1.5	1.5	0.0	0.00	0.00	0.00	0.0
21-Apr		-0.7		1.5	1.5	0.0	1.80	0.00	0.00		0.3		1.5	1.5	0.0	0.00	0.00	0.00	0.0
22-Apr		-1.1		1.5	1.5	0.0	1.80	0.00	0.00		0.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
23-Apr		-0.4		1.5	1.5	0.0	1.80	0.00	0.00		0.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
24-Apr	0.4	1.4		1.5	1.5	0.4	1.80	1.80	2.20		2.5		1.5	1.5	0.0	0.00	0.00	0.00	2.1
25-Apr		4.8		1.5	0.8	0.0	0.00	0.00	0.00	1.3	5.9		1.5	0.8	1.3	0.00	0.00	1.30	0.0
26-Apr	2.7	3.3		1.5	1.5	2.7	0.00	0.00	2.70	1.1	3.3		1.5	0.8	1.1	0.00	0.00	1.10	2.6
27-Apr		1.6		1.5	1.5	0.0	0.00	0.00	0.00	0.2	1.6		1.5	1.5	0.2	0.00	0.00	0.20	0.0
28-Apr		4.6		1.5	1.5	0.0	0.00	0.00	0.00		5.0		1.5	1.5	0.0	0.00	0.00	0.00	0.0
29-Apr		3.6		1.5	1.5	0.0	0.00	0.00	0.00		4.9		1.5	1.5	0.0	0.00	0.00	0.00	0.0
30-Apr		10.7		1.5	1.5	0.0	0.00	0.00	0.00		11.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0

7) Series Tank Model Calculation : Pededze 1986

	Estimated	Actual	Ratio
Discharge (mm)	103.89	154.98	67%
Precipitation(mm)	182.7		
Runoff Ratio	57%	85%	

Varification	
Correlation coefficient=	81.0%
R =	0.2678
R^2 =	3.1586



8) Series Tank Model Calculation Sheet : Pededze 1986

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
	Height of Orifice							30	0	0		0			0	0		65						0	0		0				0	0		0			
	Coefficient of Orifice							0.65	0.001	0		0.032			0	0.005		0.01						0	0.26						0	0.15					
	Rain	Evapotranspira-tion	Converted Evapotran-spiration	Storage of previous day	Rain of previous day	Evapotran-spiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltra-tion	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra-tion	Balance of Storage	Total specific dischareg	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Discharege	Measured River Discharge
1-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	64.800	0.000	0.324	0.324	0.648	63.828	0.324	0.000	0.324	0.324	0.000	0.084	0.084	0.240	0.000	0.084	0.084	0.000	0.013	0.013	0.072	0.013	0.13	4.18
2-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	63.628	0.000	0.318	0.318	0.636	62.674	0.318	0.240	0.318	0.558	0.000	0.145	0.145	0.413	0.072	0.145	0.217	0.000	0.032	0.032	0.184	0.032	0.33	4.04
3-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	62.474	0.000	0.312	0.312	0.625	61.536	0.312	0.413	0.312	0.725	0.000	0.189	0.189	0.537	0.184	0.189	0.373	0.000	0.056	0.056	0.317	0.056	0.57	4.00
4-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	61.336	0.000	0.307	0.307	0.613	60.416	0.307	0.537	0.307	0.843	0.000	0.219	0.219	0.624	0.317	0.219	0.536	0.000	0.080	0.080	0.456	0.080	0.83	5.17
5-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	60.216	0.000	0.301	0.301	0.602	59.313	0.301	0.624	0.301	0.925	0.000	0.241	0.241	0.685	0.456	0.241	0.696	0.000	0.104	0.104	0.592	0.104	1.07	6.30
6-Dec	14.8	0.2	0.1	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	59.213	0.000	0.296	0.296	0.592	58.325	0.296	0.685	0.296	0.981	0.000	0.255	0.255	0.726	0.592	0.255	0.847	0.000	0.127	0.127	0.720	0.127	1.30	7.35
7-Dec	0	0.2	0.2	0.000	14.800	0.0	14.800	0.000	0.015	0.000	0.015	0.474	14.312	58.799	0.000	0.294	0.294	0.588	57.917	0.309	0.726	0.309	1.034	0.000	0.269	0.269	0.766	0.720	0.269	0.989	0.000	0.148	0.148	0.840	0.148	1.52	9.01
8-Dec	0	0.2	0.2	14.312	0.000	0.2	14.112	0.000	0.014	0.000	0.014	0.452	13.646	58.368	0.000	0.292	0.292	0.584	57.493	0.306	0.766	0.306	1.071	0.000	0.279	0.279	0.793	0.840	0.279	1.119	0.000	0.168	0.168	0.951	0.168	1.72	8.74
9-Dec	0	0.2	0.2	13.646	0.000	0.2	13.446	0.000	0.013	0.000	0.013	0.430	13.002	57.923	0.000	0.290	0.290	0.579	57.054	0.303	0.793	0.303	1.096	0.000	0.285	0.285	0.811	0.951	0.285	1.236	0.000	0.185	0.185	1.051	0.185	1.90	8.06
10-Dec	0	0.2	0.2	13.002	0.000	0.2	12.802	0.000	0.013	0.000	0.013	0.410	12.380	57.464	0.000	0.287	0.287	0.575	56.602	0.300	0.811	0.300	1.111	0.000	0.289	0.289	0.822	1.051	0.289	1.340	0.000	0.201	0.201	1.139	0.201	2.06	7.20
11-Dec	0	0.2	0.2	12.380	0.000	0.2	12.180	0.000	0.012	0.000	0.012	0.390	11.778	56.992	0.000	0.285	0.285	0.570	56.137	0.297	0.822	0.297	1.119	0.000	0.291	0.291	0.828	1.139	0.291	1.430	0.000	0.214	0.214	1.215	0.214	2.20	6.49
12-Dec	0	0.2	0.2	11.778	0.000	0.2	11.578	0.000	0.012	0.000	0.012	0.370	11.196	56.507	0.000	0.283	0.283	0.565	55.660	0.294	0.828	0.294	1.122	0.000	0.292	0.292	0.831	1.215	0.292	1.507	0.000	0.226	0.226	1.281	0.226	2.32	5.98
13-Dec	0	0.2	0.2	11.196	0.000	0.2	10.996	0.000	0.011	0.000	0.011	0.352	10.633	56.011	0.000	0.280	0.280	0.560	55.171	0.291	0.831	0.291	1.122	0.000	0.292	0.292	0.830	1.281	0.292	1.573	0.000	0.236	0.236	1.337	0.236	2.42	5.39
14-Dec	0	0.2	0.2	10.633	0.000	0.2	10.433	0.000	0.010	0.000	0.010	0.334	10.089	55.505	0.000	0.278	0.278	0.555	54.673	0.288	0.830	0.288	1.118	0.000	0.291	0.291	0.827	1.337	0.291	1.627	0.000	0.244	0.244	1.383	0.244	2.50	4.89
15-Dec	0.1	0.2	0.2	10.089	0.000	0.2	9.889	0.000	0.010	0.000	0.010	0.316	9.562	54.989	0.000	0.275	0.275	0.550	54.164	0.285	0.827	0.285	1.112	0.000	0.289	0.289	0.823	1.383	0.289	1.672	0.000	0.251	0.251	1.422	0.251	2.57	4.31
16-Dec	0	0.2	0.2	9.562	0.100	0.2	9.462	0.000	0.009	0.000	0.009	0.303	9.150	54.467	0.000	0.272	0.272	0.545	53.650	0.282	0.823	0.282	1.105	0.000	0.287	0.287	0.818	1.422	0.287	1.709	0.000	0.256	0.256	1.453	0.256	2.63	3.75
17-Dec	0	0.2	0.2	9.150	0.000	0.2	8.950	0.000	0.009	0.000	0.009	0.286	8.655	53.936	0.000	0.270	0.270	0.539	53.127	0.279	0.818	0.279	1.096	0.000	0.285	0.285	0.811	1.453	0.285	1.738	0.000	0.261	0.261	1.477	0.261	2.67	3.38
18-Dec	0	0.2	0.2	8.655	0.000	0.2	8.455	0.000	0.008	0.000	0.008	0.271	8.176	53.398	0.000	0.267	0.267	0.534	52.597	0.275	0.811	0.275	1.087	0.000	0.283	0.283	0.804	1.477	0.283	1.759	0.000	0.264	0.264	1.495	0.264	2.71	3.38
19-Dec	0	0.2	0.2	8.176	0.000	0.2	7.976	0.000	0.008	0.000	0.008	0.255	7.712	52.852	0.000	0.264	0.264	0.529	52.059	0.272	0.804	0.272	1.076	0.000	0.280	0.280	0.796	1.495	0.280	1.775	0.000	0.266	0.266	1.509	0.266	2.73	3.33
20-Dec	0	0.2	0.2	7.712	0.000	0.2	7.512	0.000	0.008	0.000	0.008	0.240	7.265	52.300	0.000	0.261	0.261	0.523	51.515	0.269	0.796	0.269	1.065	0.000	0.277	0.277	0.788	1.509	0.277	1.786	0.000	0.268	0.268	1.518	0.268	2.75	3.33
21-Dec	0	0.2	0.2	7.265	0.000	0.2	7.065	0.000	0.007	0.000	0.007	0.226	6.831	51.741	0.000	0.259	0.259	0.517	50.965	0.266	0.788	0.266	1.054	0.000	0.274	0.274	0.780	1.518	0.274	1.792	0.000	0.269	0.269	1.523	0.269	2.76	3.43
22-Dec	0	0.2	0.2	6.831	0.000	0.2	6.631	0.000	0.007	0.000	0.007	0.212	6.413	51.177	0.000	0.256	0.256	0.512	50.410	0.263	0.780	0.263	1.043	0.000	0.271	0.271	0.772	1.523	0.271	1.795	0.000	0.269	0.269	1.525	0.269	2.76	3.48
23-Dec	11.5	0.2	0.1	6.413	0.000	0.2	6.213	0.000	0.006	0.000	0.006	0.199	6.008	50.608	0.000	0.253	0.253	0.506	49.849	0.259	0.772	0.259	1.031	0.000	0.268	0.268	0.763	1.525	0.268	1.793	0.000	0.269	0.269	1.524	0.269	2.76	4.68
24-Dec	6.3	0.2	0.1	6.008	11.500	0.1	17.408	0.000	0.017	0.000	0.017	0.557	16.833	50.406	0.000	0.252	0.252	0.504	49.650	0.269	0.763	0.269	1.032	0.000	0.268	0.268	0.764	1.524	0.268	1.793	0.000	0.269	0.269	1.524	0.269	2.76	6.39
25-Dec	3.6	0.2	0.1	16.833	6.300	0.1	23.033	0.000	0.023	0.000	0.023	0.737	22.273	50.387	0.000	0.252	0.252	0.504	49.632	0.275	0.764	0.275	1.039	0.000	0.270	0.270	0.769	1.524	0.270	1.794	0.000	0.269	0.269	1.525	0.269	2.76	6.86
26-Dec	0	0.2	0.2	22.273	3.600	0.1	25.773	0.000	0.026	0.000	0.026	0.825	24.923	50.456	0.000	0.252	0.252	0.505	49.699	0.278	0.769	0.278	1.047	0.000	0.272	0.272	0.775	1.525	0.272	1.797	0.000	0.270	0.270	1.527	0.270	2.77	6.06
27-Dec	0	0.2	0.2	24.923	0.000	0.2	24.723	0.000	0.025	0.000	0.025	0.791	23.907	50.491	0.000	0.252	0.252	0.505	49.733	0.277	0.775	0.277	1.052	0.000	0.273	0.273	0.778	1.527	0.273	1.801	0.000	0.270	0.270	1.531	0.270	2.77	5.12
28-Dec	0	0.2	0.2	23.907	0.000	0.2	23.707	0.000	0.024	0.000	0.024	0.759	22.924	50.492	0.000	0.252	0.252	0.505	49.734	0.276	0.778	0.276	1.054	0.000	0.274	0.274	0.780	1.531	0.274	1.805	0.000	0.271	0.271	1.534	0.271	2.78	4.35
29-Dec	0	0.2	0.2	22.924	0.000	0.2	22.724	0.000	0.023	0.000	0.023	0.727	21.974	50.462	0.000	0.252	0.252	0.505	49.705	0.275	0.780	0.275	1.055	0.000	0.274	0.274	0.781	1.534	0.274	1.809	0.000	0.271	0.271	1.537	0.271	2.78	3.94
30-Dec	0	0.2	0.2	21.974	0.000	0.2	21.774	0.000	0.022	0.000	0.022	0.697	21.056	50.401	0.000	0.252	0.252	0.504	49.645	0.274	0.781	0.274	1.055	0.000	0.274	0.274	0.781	1.537	0.274	1.812	0.000	0.272	0.272	1.540	0.272	2.79	3.48
31-Dec	0	0.2	0.2	21.056	0.000	0.2	20.856	0.000	0.021	0.000	0.021	0.667	20.168	50.313	0.000	0.252	0.252	0.503	49.558	0.272	0.781	0.272	1.053	0.000	0.274	0.274	0.779	1.540	0.274	1.814	0.000	0.272	0.272	1.542	0.272	2.79	3.38
1-Jan	0		0.0	20.168	0.000	0.2	19.968	0.000	0.020	0.000	0.020	0.639	19.309	50.197	0.000	0.251	0.251	0.502	49.444	0.271	0.779	0.271	1.050	0.000	0.273	0.273	0.777	1.542	0.273	1.815	0.000	0.272	0.272	1.542	0.272	2.79	3.22
2-Jan	0		0.0	19.309	0.000	0.0	19.309	0.000	0.019	0.000	0.019	0.618	18.672	50.062	0.000	0.250	0.250	0.501	49.311	0.270	0.777	0.270	1.047	0.000	0.272	0.272	0.775	1.542	0.272	1.815	0.000	0.272	0.272	1.542	0.272	2.79	3.04
3-Jan	0		0.0	18.672	0.000	0.0	18.672	0.000	0.019	0.000	0.019	0.597	18.055	49.909	0.000	0.250	0.250	0.499	49.160	0.268	0.775	0.268	1.043	0.000	0.271	0.271	0.772	1.542	0.271	1.813	0.000	0.272	0.272	1.541	0.272	2.79	2.85
4-Jan	0		0.0	18.055	0.000	0.0	18.055	0.000	0.018	0.000	0.018	0.578	17.460	49.738	0.000	0.249	0.249	0.497	48.992	0.267	0.772	0.267	1.038	0.000	0.270	0.270	0.768	1.541	0.270	1.811	0.000	0.272	0.272	1.540	0.272	2.79	2.85
5-Jan	0		0.0	17.460	0.000	0.0	17.460	0.000	0.017	0.000	0.017	0.559	16.883	49.550	0.000	0.248	0.248	0.496	48.807	0.265	0.768	0.265	1.034	0.000	0.269	0.269	0.765	1.540	0.269	1.808	0.000	0.271	0.271	1.537	0.271	2.78	2.67
6-Jan	0		0.0	16.883	0.000	0.0	16.883	0.000	0.017	0.000	0.017	0.540	16.326	49.347	0.000	0.247	0.247	0.493	48.607	0.264	0.765	0.264	1.029	0.000	0.267	0.267	0.761	1.537	0.267	1.805	0.000	0.271	0.271	1.534	0.271	2.78	2.71
7-Jan	0		0.0	16.326	0.000	0.0	16.326	0.000	0.016	0.000	0.016	0.522	15.787	49.130	0.000	0.246	0.246	0.491	48.393	0.262	0.761	0.262	1.023	0.000	0.266	0.266	0.757	1.534	0.266	1.800	0.000	0.270	0.270	1.530	0.270	2.77	2.81
8-Jan	0		0.0	15.787	0.000	0.0	15.787	0.000	0.016	0.000	0.016	0.505	15.266	48.898	0.000	0.244	0.244	0.489	48.164	0.260	0.757	0.260	1.017	0.000	0.265	0.265	0.753	1.530	0.265	1.794	0.000	0.269	0.269	1.525	0.269	2.76	2.76
9-Jan	0		0.0	15.266	0.000	0.0	15.266	0.000	0.015	0.000	0.015	0.489	14.763	48.653	0.000	0.243	0.243	0.487	47.923	0.259	0.753	0.259	1.011	0.000	0.263	0.263	0.748	1.525	0.263	1.788	0.000	0.268	0.268	1.520	0.268	2.75	2.67
10-Jan	0		0.0	14.763	0.000	0.0	14.763	0.000	0.015	0.000	0.015	0.472	14.276	48.396	0.000	0.242	0.242	0.484	47.670	0.257	0.748	0.257	1.005	0.000	0.261	0.261	0.744	1.520	0.261	1.781	0.000	0.267	0.267	1.514	0.267	2.74	2.67
11-Jan	0		0.0	14.276	0.000	0.0	14.276	0.000	0.014	0.000	0.014	0.457	13.804	48.126	0.000	0.241	0.241	0.481	47.405	0.255	0.744	0.255	0.999	0.000	0.260	0.260	0.739	1.514	0.260	1.774	0.000	0.266	0.266	1.508	0.266	2.73	2.76
12-Jan	0		0.0	13.804	0.000	0.0	13.804	0.000	0.014	0.000	0.014	0.442	13.349	47.846	0.000	0.239	0.239	0.478	47.129	0.253	0.739	0.253	0.992	0.000	0.258	0.258	0.734	1.508	0.258	1.766	0.000	0.265	0.265	1.501	0.265	2.72	2.71
13-Jan	0		0.0	13.349	0.000	0.0	13.349	0.000	0.013	0.000	0.013	0.427	12.908	47.556	0.000	0.238	0.238	0.476	46.842	0.251	0.734	0.251	0.985	0.000	0.256	0.256	0.729	1.501	0.256	1.757	0.000	0.264	0.264	1.493	0.264	2.70	2.71
14-Jan	0		0.0	12.908	0.000	0.0	12.908	0.000	0.013	0.000	0.013	0.413	12.482	47.255	0.000	0.236	0.236	0.473	46.547	0.249	0.729	0.249	0.978	0.000	0.254	0.254	0.724	1.493	0.254	1.748	0.000	0.262	0.262	1.486	0.262	2.69	2.76
15-Jan	0		0.0	12.482	0.000	0.0	12.482	0.000	0.012	0.000	0.012	0.399	12.070	46.946	0.000	0.235	0.235	0.469	46.242	0.247	0.724	0.247	0.971	0.000	0.252	0.252	0.719	1.486	0.252	1.738	0.000	0.261	0.261	1.477	0.261	2.68	2.84
16-Jan	0		0.0	12.070	0.000	0.0	12.070	0.000	0.012	0.000	0.012	0.386	11.672	46.628	0.000	0.233	0.233	0.466	45.929	0.245	0.719	0.245	0.964	0.000	0.251	0.251	0.713	1.477	0.251	1.728	0.000	0.259	0.259	1.469	0.259	2.66	2.79
17-Jan	0		0.0	11.672	0.000	0.0	11.672	0.000	0.012	0.000	0.012	0.374	11.287	46.302	0.000	0.232	0.232	0.463	45.608	0.243	0.713	0.243	0.956	0.000	0.249	0.249	0.708	1.469	0.249	1.717	0.000	0.258	0.258	1.460	0.258	2.64	2.66
18-Jan	0		0.0	11.287	0.000	0.0	11.287	0.000	0.011	0.000	0.011	0.361	10.914	45.969	0.000	0.230	0.230	0.460	45.279	0.241	0.708	0.241	0.949	0.000	0.247	0.247	0.702	1.460	0.247	1.707	0.000	0.256	0.256	1.451	0.256	2.63	2.61
19-Jan	0		0.0	10.914	0.000	0.0	10.914	0.000	0.011	0.000	0.011	0.349	10.554	45.629	0.000	0.228	0.228	0.456	44.944	0.239	0.702	0.239	0.941	0.000	0.245	0.245	0.697	1.451	0.245	1.695	0.000	0.254	0.254	1.441	0.254	2.61	2.48
20-Jan	0		0.0	10.554	0.000	0.0	10.554	0.000	0.011	0.000	0.011	0.338	10.206	45.282	0.000	0.226	0.226	0.453	44.603	0.237	0.697	0.237	0.933	0.000	0.243	0.243	0.691	1.441	0.243	1.684	0.000	0.253	0.253	1.431	0.253	2.59	2.44
21-Jan	0		0.0	10.206	0.000	0.0	10.206	0.000	0.010	0.000	0.010	0.327	9.869	44.929	0.000	0.225	0.225	0.449	44.255	0.235	0.691	0.235	0.926	0.000	0.241	0.241	0.685	1.431	0.241	1.672	0.000	0.251	0.251	1.421	0.251	2.57	2.55
22-Jan	0		0.0	9.869	0.000	0.0	9.869	0.000	0.010	0.000	0.010	0.316	9.544	44.571	0.000	0.223	0.223	0.446	43.903	0.233	0.685	0.233	0.918	0.000	0.239	0.239	0.679	1.421	0.239	1.660	0.000	0.249	0.249	1.411	0.249	2.55	2.50
23-Jan	4.9		0.0	9.544	0.000	0.0	9.544	0.000	0.010	0.000	0.010	0.305	9.229	44.208	0.000	0.221	0.221	0.442	43.545	0.231	0.679	0.231	0.910	0.000	0.237	0.237	0.673	1.411	0.237	1.647	0.000	0.247	0.247	1.400	0.247	2.54	2.84
24-Jan	0.1		0.0	9.229	4.900	0.0	14.129	0.000	0.014	0.000	0.014	0.452	13.662	43.997	0.000	0.220	0.220	0.440	43.337	0.234	0.673	0.234	0.907	0.000	0.236	0.236	0.671	1.400	0.236	1.636	0.000	0.245	0.245	1.391	0.245	2.52	3.33
25-Jan	5.8		0.0	13.662	0.100	0.0	13.762	0.000	0.014	0.000	0.014	0.440	13.308	43.777	0.000	0.219	0.219	0.438	43.121	0.233	0.671	0.233	0.904	0.000	0.235	0.235	0.669	1.391	0.235	1.626	0.000	0.244	0.244	1.382	0.244	2.50	3.70
26-Jan	0.2		0.0	13.308	5.800	0.0	19.108	0.000	0.019	0.000	0.019	0.611	18.478	43.732	0.000	0.219	0.219	0.437	43.076	0.238	0.669	0.238	0.907	0.000	0.236	0.236	0.671	1.382	0.236	1.618	0.000	0.243	0.243	1.375	0.243	2.49	3.96
27-Jan	0.2		0.0	18.478	0.200	0.0	18.678	0.000	0.019	0.000	0.019	0.598	18.061	43.674	0.000	0.218	0.218	0.437	43.019	0.237	0.671	0.237	0.908	0.000	0.236	0.236	0.672	1.375	0.236	1.611	0.000	0.242	0.242	1.369	0.242	2.48	3.96
28-Jan	0		0.0	18.061	0.200	0.0	18.261	0.000	0.018	0.000	0.018	0.584	17.659	43.603	0.000	0.218	0.218	0.436	42.949	0.236	0.672	0.236	0.908	0.000	0.236	0.236	0.672	1.369	0.236	1.606	0.000	0.241	0.241	1.365	0.241	2.47	3.79
29-Jan	0		0.0	17.659	0.000	0.0	17.659	0.000	0.018	0.000	0.018	0.565	17.076	43.514	0.000	0.218	0.218	0.435	42.861	0.235	0.672	0.235	0.907	0.000	0.236	0.236	0.671	1.365	0.236	1.601	0.000	0.240	0.240	1.361	0.240	2.46	3.70
30-Jan	0		0.0	17.076	0.000	0.0	17.076	0.000	0.017	0.000	0.017	0.546	16.512	43.408	0.000	0.217	0.217	0.434	42.757	0.234	0.671	0.234	0.906	0.000	0.235	0.235	0.670	1.361	0.235	1.596	0.000	0.239	0.239	1.357	0.239	2.46	3.46
31-Jan	0		0.0	16.512	0.000	0.0	16.512	0.000	0.017	0.000	0.017	0.528	15.967	43.285	0.000	0.216	0.216	0.433	42.636	0.233	0.670	0.233	0.903	0.000	0.235	0.235	0.668	1.357	0.235	1.591	0.000	0.239	0.239	1.353	0.239	2.45	3.38
1-Feb	0		0.0	15.967	0.000	0.0	15.967	0.000	0.016	0.000	0.016	0.511	15.441	43.147	0.000	0.216	0.216	0.431	42.500	0.232	0.668	0.232	0.900	0.000	0.234	0.234	0.666	1.353	0.234	1.587	0.000	0.238	0.238	1.349	0.238	2.44	3.29
2-Feb	0		0.0	15.441	0.000	0.0	15.441	0.000	0.015	0.000	0.015	0.494	14.931	42.994	0.000	0.215	0.215	0.430	42.349	0.230	0.666	0.230	0.896	0.000	0.233	0.233	0.663	1.349	0.233	1.582	0.000	0.237	0.237	1.344	0.237	2.43	3.06
3-Feb	0		0.0	14.931	0.000	0.0	14.931	0.000	0.015	0.000	0.015	0.478	14.438	42.827	0.000	0.214	0.214	0.428	42.184	0.229	0.663	0.229	0.892	0.000	0.232	0.232	0.660	1.344	0.232	1.576	0.000	0.236	0.236	1.340	0.236	2.43	3.06
4-Feb	0		0.0	14.438	0.000	0.0	14.438	0.000	0.014	0.000	0.014	0.462	13.962	42.646	0.000	0.213	0.213	0.426	42.007	0.228	0.660	0.228	0.888	0.000	0.231	0.231	0.657	1.340	0.231	1.571	0.000	0.236	0.236	1.335	0.236	2.42	2.99
5-Feb	0		0.0	13.962	0.000	0.0	13.962	0.000	0.014	0.000	0.014	0.447	13.501	42.453	0.000	0.212	0.212	0.425	41.817	0.226	0.657	0.226	0.883	0.000	0.230	0.230	0.654	1.335	0.230	1.565	0.000	0.235	0.235	1.330	0.235	2.41	2.85
6-Feb	0		0.0	13.501	0.000	0.0	13.501	0.000	0.014	0.000	0.014	0.432	13.056	42.249	0.000	0.211	0.211	0.422	41.615	0.225	0.654	0.225	0.878	0.000	0.228	0.228	0.650	1.330	0.228	1.559	0.000	0.234	0.234	1.325	0.234	2.40	2.71
7-Feb	0		0.0	13.056	0.000	0.0	13.056	0.000	0.013	0.000	0.013	0.418	12.625	42.033	0.000	0.210	0.210	0.420	41.402	0.223	0.650	0.223	0.873	0.000	0.227	0.227	0.646	1.325	0.227	1.552	0.000	0.233	0.233	1.319	0.233	2.39	2.57
8-Feb	0		0.0	12.625	0.000	0.0	12.625	0.000	0.013	0.000	0.013	0.404	12.208	41.806	0.000	0.209	0.209	0.418	41.179	0.222	0.646	0.222	0.868	0.000	0.226	0.226	0.642	1.319	0.226	1.545	0.000	0.232	0.232	1.313	0.232	2.38	2.37
9-Feb	0		0.0	12.208	0.000	0.0	12.208	0.000	0.012	0.000	0.012	0.391	11.805	41.570	0.000	0.208	0.208	0.416	40.946	0.220	0.642	0.220	0.862	0.000	0.224	0.224	0.638	1.313	0.224	1.537	0.000	0.231	0.231	1.307	0.231	2.37	2.30
10-Feb	0		0.0	11.805	0.000	0.0	11.805	0.000	0.012	0.000	0.012	0.378	11.416	41.324	0.000	0.207	0.207	0.413	40.704	0.218	0.638	0.218	0.857	0.000	0.223	0.223	0.634	1.307	0.223	1.529	0.000	0.229	0.229	1.300	0.229	2.35	2.18
11-Feb	0		0.0	11.416	0.000	0.0	11.416	0.000	0.011	0.000	0.011	0.365	11.039	41.069	0.000	0.205	0.205	0.411	40.453	0.217	0.634	0.217	0.851	0.000	0.221	0.221	0.629	1.300	0.221	1.521	0.000	0.228	0.228	1.293	0.228	2.34	2.18
12-Feb	0		0.0	11.039	0.000	0.0	11.039	0.000	0.011	0.000	0.011	0.353	10.675	40.807	0.000	0.204	0.204	0.408	40.194	0.215	0.629	0.215	0.845	0.000	0.220	0.220	0.625	1.293	0.220	1.512	0.000	0.227	0.227	1.286	0.227	2.33	2.18
13-Feb	0		0.0	10.675	0.000	0.0	10.675	0.000	0.011	0.000	0.011	0.342	10.322	40.536	0.000	0.203	0.203	0.405	39.928	0.213	0.625	0.213	0.838	0.000	0.218	0.218	0.620	1.286	0.218	1.504	0.000	0.226	0.226	1.278	0.226	2.31	2.20
14-Feb	0		0.0	10.322	0.000	0.0	10.322	0.000	0.010	0.000	0.010	0.330	9.982	40.258	0.000	0.201	0.201	0.403	39.654	0.212	0.620	0.212	0.832	0.000	0.216	0.216	0.616	1.278	0.216	1.494	0.000	0.224	0.224	1.270	0.224	2.30	2.13
15-Feb	0		0.0	9.982	0.000	0.0	9.982	0.000	0.010	0.000	0.010	0.319	9.652	39.974	0.000	0.200	0.200	0.400	39.374	0.210	0.616	0.210	0.825	0.000	0.215	0.215	0.611	1.270	0.215	1.485	0.000	0.223	0.223	1.262	0.223	2.29	2.08

8) Series Tank Model Calculation Sheet : Pededze 1986

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
	Height of Orifice							30	0	0		0			0	0		65						0	0		0				0	0		0			
	Coefficient of Orifice							0.65	0.001	0		0.032			0	0.005		0.01						0	0.26						0	0.15					
	Rain	Evapotranspiration	Converted Evapotranspiration	Storage of previous day	Rain of previous day	Evapotran-spiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltra-tion	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra-tion	Balance of Storage	Total specific dischareg	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Discharege	Measured River Discharge
16-Feb	0		0.0	9.652	0.000	0.0	9.652	0.000	0.010	0.000	0.010	0.309	9.334	39.683	0.000	0.198	0.198	0.397	39.088	0.208	0.611	0.208	0.819	0.000	0.213	0.213	0.606	1.262	0.213	1.475	0.000	0.221	0.221	1.254	0.221	2.27	2.03
17-Feb	0		0.0	9.334	0.000	0.0	9.334	0.000	0.009	0.000	0.009	0.299	9.026	39.387	0.000	0.197	0.197	0.394	38.796	0.206	0.606	0.206	0.812	0.000	0.211	0.211	0.601	1.254	0.211	1.465	0.000	0.220	0.220	1.245	0.220	2.25	1.98
18-Feb	0		0.0	9.026	0.000	0.0	9.026	0.000	0.009	0.000	0.009	0.289	8.728	39.085	0.000	0.195	0.195	0.391	38.498	0.204	0.601	0.204	0.806	0.000	0.209	0.209	0.596	1.245	0.209	1.455	0.000	0.218	0.218	1.236	0.218	2.24	1.87
19-Feb	0		0.0	8.728	0.000	0.0	8.728	0.000	0.009	0.000	0.009	0.279	8.440	38.778	0.000	0.194	0.194	0.388	38.196	0.203	0.596	0.203	0.799	0.000	0.208	0.208	0.591	1.236	0.208	1.444	0.000	0.217	0.217	1.227	0.217	2.22	1.76
20-Feb	0		0.0	8.440	0.000	0.0	8.440	0.000	0.008	0.000	0.008	0.270	8.161	38.466	0.000	0.192	0.192	0.385	37.889	0.201	0.591	0.201	0.792	0.000	0.206	0.206	0.586	1.227	0.206	1.433	0.000	0.215	0.215	1.218	0.215	2.21	1.76
21-Feb	0		0.0	8.161	0.000	0.0	8.161	0.000	0.008	0.000	0.008	0.261	7.892	38.150	0.000	0.191	0.191	0.382	37.578	0.199	0.586	0.199	0.785	0.000	0.204	0.204	0.581	1.218	0.204	1.422	0.000	0.213	0.213	1.209	0.213	2.19	1.66
22-Feb	0		0.0	7.892	0.000	0.0	7.892	0.000	0.008	0.000	0.008	0.253	7.632	37.831	0.000	0.189	0.189	0.378	37.263	0.197	0.581	0.197	0.778	0.000	0.202	0.202	0.576	1.209	0.202	1.411	0.000	0.212	0.212	1.200	0.212	2.17	1.56
23-Feb	0		0.0	7.632	0.000	0.0	7.632	0.000	0.008	0.000	0.008	0.244	7.380	37.507	0.000	0.188	0.188	0.375	36.945	0.195	0.576	0.195	0.771	0.000	0.200	0.200	0.570	1.200	0.200	1.400	0.000	0.210	0.210	1.190	0.210	2.15	1.52
24-Feb	0		0.0	7.380	0.000	0.0	7.380	0.000	0.007	0.000	0.007	0.236	7.136	37.181	0.000	0.186	0.186	0.372	36.623	0.193	0.570	0.193	0.764	0.000	0.199	0.199	0.565	1.190	0.199	1.389	0.000	0.208	0.208	1.180	0.208	2.14	1.52
25-Feb	0		0.0	7.136	0.000	0.0	7.136	0.000	0.007	0.000	0.007	0.228	6.901	36.851	0.000	0.184	0.184	0.369	36.299	0.191	0.565	0.191	0.756	0.000	0.197	0.197	0.560	1.180	0.197	1.377	0.000	0.207	0.207	1.170	0.207	2.12	1.42
26-Feb	0		0.0	6.901	0.000	0.0	6.901	0.000	0.007	0.000	0.007	0.221	6.673	36.520	0.000	0.183	0.183	0.365	35.972	0.189	0.560	0.189	0.749	0.000	0.195	0.195	0.554	1.170	0.195	1.365	0.000	0.205	0.205	1.160	0.205	2.10	1.38
27-Feb	0		0.0	6.673	0.000	0.0	6.673	0.000	0.007	0.000	0.007	0.214	6.453	36.185	0.000	0.181	0.181	0.362	35.643	0.188	0.554	0.188	0.742	0.000	0.193	0.193	0.549	1.160	0.193	1.353	0.000	0.203	0.203	1.150	0.203	2.08	1.33
28-Feb	0		0.0	6.453	0.000	0.0	6.453	0.000	0.006	0.000	0.006	0.206	6.240	35.849	0.000	0.179	0.179	0.358	35.311	0.186	0.549	0.186	0.735	0.000	0.191	0.191	0.544	1.150	0.191	1.341	0.000	0.201	0.201	1.140	0.201	2.06	1.29
1-Mar	0		0.0	6.240	0.000	0.0	6.240	0.000	0.006	0.000	0.006	0.200	6.034	35.511	0.000	0.178	0.178	0.355	34.978	0.184	0.544	0.184	0.728	0.000	0.189	0.189	0.538	1.140	0.189	1.329	0.000	0.199	0.199	1.130	0.199	2.05	1.34
2-Mar	0		0.0	6.034	0.000	0.0	6.034	0.000	0.006	0.000	0.006	0.193	5.835	35.171	0.000	0.176	0.176	0.352	34.644	0.182	0.538	0.182	0.720	0.000	0.187	0.187	0.533	1.130	0.187	1.317	0.000	0.198	0.198	1.120	0.198	2.03	1.38
3-Mar	0		0.0	5.835	0.000	0.0	5.835	0.000	0.006	0.000	0.006	0.187	5.642	34.831	0.000	0.174	0.174	0.348	34.308	0.180	0.533	0.180	0.713	0.000	0.185	0.185	0.528	1.120	0.185	1.305	0.000	0.196	0.196	1.109	0.196	2.01	1.38
4-Mar	0		0.0	5.642	0.000	0.0	5.642	0.000	0.006	0.000	0.006	0.181	5.456	34.489	0.000	0.172	0.172	0.345	33.971	0.178	0.528	0.178	0.706	0.000	0.183	0.183	0.522	1.109	0.183	1.293	0.000	0.194	0.194	1.099	0.194	1.99	1.42
5-Mar	0		0.0	5.456	0.000	0.0	5.456	0.000	0.005	0.000	0.005	0.175	5.276	34.146	0.000	0.171	0.171	0.341	33.634	0.176	0.522	0.176	0.698	0.000	0.182	0.182	0.517	1.099	0.182	1.280	0.000	0.192	0.192	1.088	0.192	1.97	1.52
6-Mar	0		0.0	5.276	0.000	0.0	5.276	0.000	0.005	0.000	0.005	0.169	5.102	33.803	0.000	0.169	0.169	0.338	33.295	0.174	0.517	0.174	0.691	0.000	0.180	0.180	0.511	1.088	0.180	1.268	0.000	0.190	0.190	1.078	0.190	1.95	1.57
7-Mar	6.2		0.0	5.102	0.000	0.0	5.102	0.000	0.005	0.000	0.005	0.163	4.934	33.459	0.000	0.167	0.167	0.335	32.957	0.172	0.511	0.172	0.684	0.000	0.178	0.178	0.506	1.078	0.178	1.256	0.000	0.188	0.188	1.067	0.188	1.93	1.93
8-Mar	13.5		0.0	4.934	6.200	0.0	11.134	0.000	0.011	0.000	0.011	0.356	10.766	33.313	0.000	0.167	0.167	0.333	32.813	0.178	0.506	0.178	0.684	0.000	0.178	0.178	0.506	1.067	0.178	1.245	0.000	0.187	0.187	1.058	0.187	1.92	2.92
9-Mar	4.6		0.0	10.766	13.500	0.0	24.266	0.000	0.024	0.000	0.024	0.777	23.465	33.590	0.000	0.168	0.168	0.336	33.086	0.192	0.506	0.192	0.698	0.000	0.182	0.182	0.517	1.058	0.182	1.240	0.000	0.186	0.186	1.054	0.186	1.91	4.07
10-Mar	0		0.0	23.465	4.600	0.0	28.065	0.000	0.028	0.000	0.028	0.898	27.139	33.984	0.000	0.170	0.170	0.340	33.474	0.198	0.517	0.198	0.715	0.000	0.186	0.186	0.529	1.054	0.186	1.240	0.000	0.186	0.186	1.054	0.186	1.91	4.37
11-Mar	0		0.0	27.139	0.000	0.0	27.139	0.000	0.027	0.000	0.027	0.868	26.244	34.343	0.000	0.172	0.172	0.343	33.828	0.199	0.529	0.199	0.728	0.000	0.189	0.189	0.538	1.054	0.189	1.243	0.000	0.186	0.186	1.056	0.186	1.91	3.95
12-Mar	0		0.0	26.244	0.000	0.0	26.244	0.000	0.026	0.000	0.026	0.840	25.378	34.668	0.000	0.173	0.173	0.347	34.148	0.200	0.538	0.200	0.738	0.000	0.192	0.192	0.546	1.056	0.192	1.248	0.000	0.187	0.187	1.061	0.187	1.92	4.06
13-Mar	0		0.0	25.378	0.000	0.0	25.378	0.000	0.025	0.000	0.025	0.812	24.540	34.960	0.000	0.175	0.175	0.350	34.435	0.200	0.546	0.200	0.746	0.000	0.194	0.194	0.552	1.061	0.194	1.255	0.000	0.188	0.188	1.067	0.188	1.93	3.90
14-Mar	0		0.0	24.540	0.000	0.0	24.540	0.000	0.025	0.000	0.025	0.785	23.730	35.221	0.000	0.176	0.176	0.352	34.692	0.201	0.552	0.201	0.753	0.000	0.196	0.196	0.557	1.067	0.196	1.263	0.000	0.189	0.189	1.073	0.189	1.94	3.66
15-Mar	0		0.0	23.730	0.000	0.0	23.730	0.000	0.024	0.000	0.024	0.759	22.947	35.452	0.000	0.177	0.177	0.355	34.920	0.201	0.557	0.201	0.758	0.000	0.197	0.197	0.561	1.073	0.197	1.270	0.000	0.191	0.191	1.080	0.191	1.96	3.44
16-Mar	0		0.0	22.947	0.000	0.0	22.947	0.000	0.023	0.000	0.023	0.734	22.190	35.654	0.000	0.178	0.178	0.357	35.119	0.201	0.561	0.201	0.762	0.000	0.198	0.198	0.564	1.080	0.198	1.278	0.000	0.192	0.192	1.086	0.192	1.97	3.22
17-Mar	0		0.0	22.190	0.000	0.0	22.190	0.000	0.022	0.000	0.022	0.710	21.458	35.829	0.000	0.179	0.179	0.358	35.292	0.201	0.564	0.201	0.765	0.000	0.199	0.199	0.566	1.086	0.199	1.285	0.000	0.193	0.193	1.093	0.193	1.98	3.08
18-Mar	2.7		0.0	21.458	0.000	0.0	21.458	0.000	0.021	0.000	0.021	0.687	20.750	35.979	0.000	0.180	0.180	0.360	35.439	0.201	0.566	0.201	0.768	0.000	0.200	0.200	0.568	1.093	0.200	1.292	0.000	0.194	0.194	1.098	0.194	1.99	3.01
19-Mar	3.9		0.0	20.750	2.700	0.0	23.450	0.000	0.023	0.000	0.023	0.750	22.676	36.189	0.000	0.181	0.181	0.362	35.646	0.204	0.568	0.204	0.773	0.000	0.201	0.201	0.572	1.098	0.201	1.299	0.000	0.195	0.195	1.104	0.195	2.00	2.94
20-Mar	3.8		0.0	22.676	3.900	0.0	26.576	0.000	0.027	0.000	0.027	0.850	25.699	36.497	0.000	0.182	0.182	0.365	35.949	0.209	0.572	0.209	0.781	0.000	0.203	0.203	0.578	1.104	0.203	1.307	0.000	0.196	0.196	1.111	0.196	2.01	3.16
21-Mar	7.6		0.0	25.699	3.800	0.0	29.499	0.000	0.029	0.000	0.029	0.944	28.525	36.893	0.000	0.184	0.184	0.369	36.340	0.214	0.578	0.214	0.792	0.000	0.206	0.206	0.586	1.111	0.206	1.317	0.000	0.198	0.198	1.119	0.198	2.03	3.61
22-Mar	5.2		0.0	28.525	7.600	0.0	36.125	3.981	0.036	0.000	4.018	1.156	30.952	37.496	0.000	0.187	0.187	0.375	36.934	4.205	0.586	4.205	4.791	0.000	1.246	1.246	3.545	1.119	1.246	2.365	0.000	0.355	0.355	2.010	0.355	3.64	4.28
23-Mar	6.9		0.0	30.952	5.200	0.0	36.152	3.999	0.036	0.000	4.035	1.157	30.960	38.090	0.000	0.190	0.190	0.381	37.519	4.225	3.545	4.225	7.770	0.000	2.020	2.020	5.750	2.010	2.020	4.031	0.000	0.605	0.605	3.426	0.605	6.20	5.38
24-Mar	1.7		0.0	30.960	6.900	0.0	37.860	5.109	0.038	0.000	5.147	1.212	31.502	38.731	0.000	0.194	0.194	0.387	38.150	5.341	5.750	5.341	11.091	0.000	2.884	2.884	8.207	3.426	2.884	6.310	0.000	0.946	0.946	5.363	0.946	9.71	6.73
25-Mar	4.8		0.0	31.502	1.700	0.0	33.202	2.081	0.033	0.000	2.114	1.062	30.025	39.212	0.000	0.196	0.196	0.392	38.624	2.310	8.207	2.310	10.517	0.000	2.735	2.735	7.783	5.363	2.735	8.098	0.000	1.215	1.215	6.883	1.215	12.46	7.57
26-Mar	4.4		0.0	30.025	4.800	0.0	34.825	3.136	0.035	0.000	3.171	1.114	30.540	39.738	0.000	0.199	0.199	0.397	39.142	3.370	7.783	3.370	11.153	0.000	2.900	2.900	8.253	6.883	2.900	9.783	0.000	1.467	1.467	8.315	1.467	15.06	9.15
27-Mar	11.3		0.0	30.540	4.400	0.0	34.940	3.211	0.035	0.000	3.246	1.118	30.576	40.260	0.000	0.201	0.201	0.403	39.656	3.447	8.253	3.447	11.700	0.000	3.042	3.042	8.658	8.315	3.042	11.357	0.000	1.704	1.704	9.654	1.704	17.48	14.20
28-Mar	11.9		0.0	30.576	11.300	0.0	41.876	7.719	0.042	0.000	7.761	1.340	32.775	40.996	0.000	0.205	0.205	0.410	40.381	7.966	8.658	7.966	16.624	0.000	4.322	4.322	12.302	9.654	4.322	13.976	0.000	2.096	2.096	11.880	2.096	21.51	21.00
29-Mar	17.6		0.0	32.775	11.900	0.0	44.675	9.539	0.045	0.000	9.583	1.430	33.662	41.811	0.000	0.209	0.209	0.418	41.184	9.792	12.302	9.792	22.094	0.000	5.744	5.744	16.350	11.880	5.744	17.624	0.000	2.644	2.644	14.980	2.644	27.13	31.00
30-Mar	4.2		0.0	33.662	17.600	0.0	51.262	13.820	0.051	0.000	13.871	1.640	35.750	42.824	0.000	0.214	0.214	0.428	42.182	14.086	16.350	14.086	30.435	0.000	7.913	7.913	22.522	14.980	7.913	22.894	0.000	3.434	3.434	19.460	3.434	35.24	42.00
31-Mar	7.1		0.0	35.750	4.200	0.0	39.950	6.468	0.040	0.000	6.507	1.278	32.164	43.460	0.000	0.217	0.217	0.435	42.808	6.725	22.522	6.725	29.247	0.000	7.604	7.604	21.643	19.460	7.604	27.064	0.000	4.060	4.060	23.004	4.060	41.66	54.50
1-Apr	0.7	1.5	0.8	32.164	7.100	0.0	39.264	6.022	0.039	0.000	6.061	1.256	31.947	44.065	0.000	0.220	0.220	0.441	43.404	6.281	21.643	6.281	27.924	0.000	7.260	7.260	20.664	23.004	7.260	30.264	0.000	4.540	4.540	25.725	4.540	46.58	65.70
2-Apr	6.8	1.5	0.8	31.947	0.700	0.8	31.897	1.233	0.032	0.000	1.265	1.021	29.611	44.425	0.000	0.222	0.222	0.444	43.758	1.487	20.664	1.487	22.151	0.000	5.759	5.759	16.391	25.725	5.759	31.484	0.000	4.723	4.723	26.761	4.723	48.46	77.50
3-Apr	2	1.5	0.8	29.611	6.800	0.8	35.661	3.680	0.036	0.000	3.715	1.141	30.805	44.899	0.000	0.224	0.224	0.449	44.226	3.940	16.391	3.940	20.331	0.000	5.286	5.286	15.045	26.761	5.286	32.047	0.000	4.807	4.807	27.240	4.807	49.33	80.40
4-Apr	2.7	1.5	0.8	30.805	2.000	0.8	32.055	1.336	0.032	0.000	1.368	1.026	29.661	45.252	0.000	0.226	0.226	0.453	44.573	1.594	15.045	1.594	16.639	0.000	4.326	4.326	12.313	27.240	4.326	31.567	0.000	4.735	4.735	26.832	4.735	48.59	67.00
5-Apr	0	1.5	1.5	29.661	2.700	0.8	31.611	1.047	0.032	0.000	1.079	1.012	29.521	45.584	0.000	0.228	0.228	0.456	44.901	1.307	12.313	1.307	13.620	0.000	3.541	3.541	10.079	26.832	3.541	30.373	0.000	4.556	4.556	25.817	4.556	46.75	51.00
6-Apr	0	1.5	1.5	29.521	0.000	1.5	28.021	0.000	0.028	0.000	0.028	0.897	27.096	45.797	0.000	0.229	0.229	0.458	45.110	0.257	10.079	0.257	10.336	0.000	2.687	2.687	7.648	25.817	2.687	28.504	0.000	4.276	4.276	24.228	4.276	43.87	42.00
7-Apr	0	1.5	1.5	27.096	0.000	1.5	25.596	0.000	0.026	0.000	0.026	0.819	24.751	45.929	0.000	0.230	0.230	0.459	45.240	0.255	7.648	0.255	7.904	0.000	2.055	2.055	5.849	24.228	2.055	26.283	0.000	3.943	3.943	22.341	3.943	40.46	37.80
8-Apr	0.3	1.5	1.5	24.751	0.000	1.5	23.251	0.000	0.023	0.000	0.023	0.744	22.484	45.985	0.000	0.230	0.230	0.460	45.295	0.253	5.849	0.253	6.102	0.000	1.586	1.586	4.515	22.341	1.586	23.927	0.000	3.589	3.589	20.338	3.589	36.83	34.40
9-Apr	0	1.5	1.5	22.484	0.300	1.5	21.284	0.000	0.021	0.000	0.021	0.681	20.582	45.976	0.000	0.230	0.230	0.460	45.286	0.251	4.515	0.251	4.767	0.000	1.239	1.239	3.527	20.338	1.239	21.578	0.000	3.237	3.237	18.341	3.237	33.21	31.50
10-Apr	4.6	1.5	0.8	20.582	0.000	1.5	19.082	0.000	0.019	0.000	0.019	0.611	18.452	45.897	0.000	0.229	0.229	0.459	45.208	0.249	3.527	0.249	3.776	0.000	0.982	0.982	2.794	18.341	0.982	19.323	0.000	2.898	2.898	16.424	2.898	29.74	27.70
11-Apr	0	1.5	1.5	18.452	4.600	0.8	22.302	0.000	0.022	0.000	0.022	0.714	21.566	45.922	0.000	0.230	0.230	0.459	45.233	0.252	2.794	0.252	3.046	0.000	0.792	0.792	2.254	16.424	0.792	17.216	0.000	2.582	2.582	14.634	2.582	26.50	22.80
12-Apr	0	1.5	1.5	21.566	0.000	1.5	20.066	0.000	0.020	0.000	0.020	0.642	19.404	45.875	0.000	0.229	0.229	0.459	45.187	0.249	2.254	0.249	2.503	0.000	0.651	0.651	1.853	14.634	0.651	15.285	0.000	2.293	2.293	12.992	2.293	23.53	25.00
13-Apr	0	1.5	1.5	19.404	0.000	1.5	17.904	0.000	0.018	0.000	0.018	0.573	17.313	45.760	0.000	0.229	0.229	0.458	45.074	0.247	1.853	0.247	2.099	0.000	0.546	0.546	1.553	12.992	0.546	13.538	0.000	2.031	2.031	11.507	2.031	20.84	23.70
14-Apr	0	1.5	1.5	17.313	0.000	1.5	15.813	0.000	0.016	0.000	0.016	0.506	15.291	45.580	0.000	0.228	0.228	0.456	44.896	0.244	1.553	0.244	1.797	0.000	0.467	0.467	1.330	11.507	0.467	11.974	0.000	1.796	1.796	10.178	1.796	18.43	20.30
15-Apr	0	1.5	1.5	15.291	0.000	1.5	13.791	0.000	0.014	0.000	0.014	0.441	13.336	45.337	0.000	0.227	0.227	0.453	44.657	0.240	1.330	0.240	1.570	0.000	0.408	0.408	1.162	10.178	0.408	10.587	0.000	1.588	1.588	8.999	1.588	16.30	17.40
16-Apr	0	1.5	1.5	13.336	0.000	1.5	11.836	0.000	0.012	0.000	0.012	0.379	11.446	45.036	0.000	0.225	0.225	0.450	44.361	0.237	1.162	0.237	1.399	0.000	0.364	0.364	1.035	8.999	0.364	9.362	0.000	1.404	1.404	7.958	1.404	14.41	14.60
17-Apr	0.5	1.5	1.5	11.446	0.000	1.5	9.946	0.000	0.010	0.000	0.010	0.318	9.617	44.679	0.000	0.223	0.223	0.447	44.009	0.233	1.035	0.233	1.269	0.000	0.330	0.330	0.939	7.958	0.330	8.288	0.000	1.243	1.243	7.045	1.243	12.76	11.90
18-Apr	0	1.5	1.5	9.617	0.500	1.5	8.617	0.000	0.009	0.000	0.009	0.276	8.333	44.284	0.000	0.221	0.221	0.443	43.620	0.230	0.939	0.230	1.169	0.000	0.304	0.304	0.865	7.045	0.304	7.349	0.000	1.102	1.102	6.246	1.102	11.31	12.30
19-Apr	10	1.5	0.8	8.333	0.000	1.5	6.833	0.000	0.007	0.000	0.007	0.219	6.607	43.839	0.000	0.219	0.219	0.438	43.181	0.226	0.865	0.226	1.091	0.000	0.284	0.284	0.807	6.246	0.284	6.530	0.000	0.979	0.979	5.550	0.979	10.05	13.80
20-Apr	21.4	1.5	0.8	6.607	10.000	0.8	15.857	0.000	0.016	0.000	0.016	0.507	15.334	43.689	0.000	0.218	0.218	0.437	43.033	0.234	0.807	0.234	1.042	0.000	0.271	0.271	0.771	5.550	0.271	5.821	0.000	0.873	0.873	4.948	0.873	8.96	30.00
21-Apr	5	1.5	0.8	15.334	21.400	0.8	35.984	3.890	0.036	0.000	3.926	1.151	30.907	44.185	0.000	0.221	0.221	0.442	43.522	4.147	0.771	4.147	4.917	0.000	1.279	1.279	3.639	4.948	1.279	6.227	0.000	0.934	0.934	5.293	0.934	9.58	46.20
22-Apr	0.1	1.5	1.5	30.907	5.000	0.8	35.157	3.352	0.035	0.000	3.387	1.125	30.645	44.647	0.000	0.223	0.223	0.446	43.977	3.610	3.639	3.610	7.249	0.000	1.885	1.885	5.365	5.293	1.885	7.177	0.000	1.077	1.077	6.101	1.077	11.05	64.50
23-Apr	0	1.5	1.5	30.645	0.100	1.5	29.245	0.000	0.029	0.000	0.029	0.936	28.280	44.913	0.000	0.225	0.225	0.449	44.239	0.254	5.365	0.254	5.618	0.000	1.461	1.461	4.158	6.101	1.461	7.562	0.000	1.134	1.134	6.427	1.134	11.64	66.40
24-Apr	0	1.5	1.5	28.280	0.000	1.5	26.780	0.000	0.027	0.000	0.027	0.857	25.896	45.096	0.000	0.225	0.225	0.451	44.420	0.252	4.158	0.252	4.410	0.000	1.147	1.147	3.263	6.427	1.147	7.574	0.000	1.136	1.136	6.438	1.136	11.66	58.20
25-Apr	0	1.5	1.5	25.896	0.000	1.5	24.396	0.000	0.024	0.000	0.024	0.781	23.591	45.201	0.000	0.226	0.226	0.452	44.523	0.250	3.263	0.250	3.514	0.000	0.914	0.914	2.600	6.438	0.914	7.351	0.000	1.103	1.103	6.249	1.103	11.32	53.00
26-Apr	0	1.5	1.5	23.591	0.000	1.5	22.091	0.000	0.022	0.000	0.022	0.707	21.362	45.230	0.000	0.226	0.226	0.452	44.551	0.248	2.600	0.248	2.848	0.000	0.741	0.741	2.108	6.249	0.741	6.989	0.000	1.048	1.048	5.941	1.048	10.76	49.50
27-Apr	0	1.5	1.5	21.362	0.000	1.5	19.862	0.000	0.020	0.000	0.020	0.636	19.206	45.187	0.000	0.226	0.226	0.452	44.509	0.246	2.108	0.246	2.354	0.000	0.612	0.612	1.742	5.941	0.612	6.553	0.000	0.983	0.983	5.570	0.983	10.09	45.20
28-Apr	0	1.5	1.5	19.206	0.000	1.5	17.706	0.000	0.018	0.000	0.018	0.567	17.122	45.075	0.000	0.225	0.225	0.451	44.399	0.243	1.742	0.243	1.985	0.000	0.516	0.516	1.469	5.570	0.516	6.086	0.000	0.913	0.913	5.173	0.913	9.37	38.90
29-Apr	0	1.5	1.5	17.122	0.000	1.5	15.622	0.000	0.016	0.000	0.016	0.500	15.107	44.899	0.000	0.224	0.224	0.449	44.226	0.240	1.469	0.240	1.709	0.000	0.444	0.444	1.265	5.173	0.444	5.617	0.000	0.843	0.843	4.775	0.843	8.65	30.40
30-Apr	0	1.5	1.5	15.107	0.000	1.5	13.607	0.000	0.014	0.000	0.014	0.435	13.158	44.661	0.000	0.223	0.223	0.447	43.991	0.237	1.265	0.237	1.501	0.000	0.390	0.390	1.111	4.775	0.390	5.165	0.000	0.775	0.775	4.390	0.775	7.95	24.10

9) Estimated Precipitaion : Pededze Model 1986

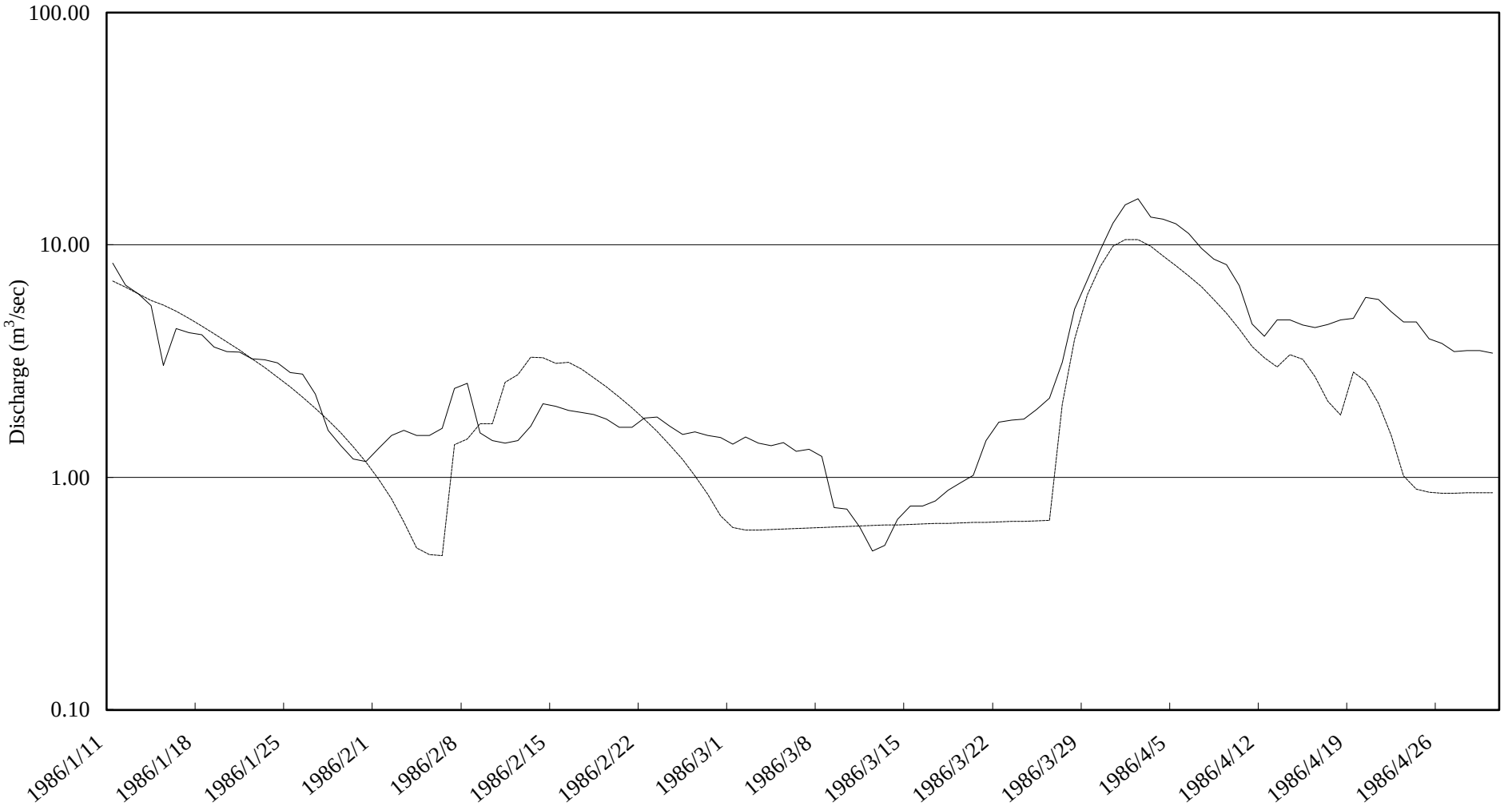
	A= 858.4					m = 4				A= 28.2					m = 4				Total
	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipitation	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipitation	Rain of previous day
1-Dec				0.2	0.2	0.0	0.00						0.2			0.00			0.0
2-Dec	0.3	-9.4	8.0	0.2	0.2	0.0	0.30	0.00	0.00	0.2	-8.3	9.0	0.2	0.2	0.0	0.00	0.00	0.00	0.0
3-Dec		-11.7	8.0	0.2	0.2	0.0	0.30	0.00	0.00		-12.2	9.0	0.2	0.2	0.0	0.20	0.00	0.00	0.0
4-Dec	0.3	-11.3	12.0	0.2	0.1	0.0	0.60	0.00	0.00	0.6	-11.6	9.0	0.2	0.1	0.0	0.20	0.00	0.00	0.0
5-Dec	10.3	-1.6	3.0	0.2	0.1	0.0	10.90	0.00	0.00	5.8	-0.5	10.0	0.2	0.1	0.0	0.80	0.00	0.00	0.0
6-Dec	6.4	2.4	5.0	0.2	0.1	6.4	10.90	9.79	16.19	1.5	3.1	1.0	0.2	0.1	1.5	6.60	6.60	8.10	15.9
7-Dec	4.7	-2.3	1.0	0.2	0.1	0.0	5.81	0.00	0.00	7.7	-0.9	4.0	0.2	0.1	0.0	0.00	0.00	0.00	0.0
8-Dec	1.3	-3.6	1.0	0.2	0.2	0.0	7.11	0.00	0.00	1.4	-2.2	2.0	0.2	0.1	0.0	7.70	0.00	0.00	0.0
9-Dec		-9.3	1.0	0.2	0.2	0.0	7.11	0.00	0.00	4.0	-8.0	2.0	0.2	0.1	0.0	9.10	0.00	0.00	0.0
10-Dec		-8.1	1.0	0.2	0.1	0.0	7.11	0.00	0.00	1.2	-9.4	2.0	0.2	0.1	0.0	13.10	0.00	0.00	0.0
11-Dec	1.6	-4.2	8.0	0.2	0.1	0.0	8.71	0.00	0.00	1.0	-3.9	3.0	0.2	0.1	0.0	14.30	0.00	0.00	0.0
12-Dec	1.2	-5.6	8.0	0.2	0.2	0.0	9.91	0.00	0.00	0.8	-4.9	5.0	0.2	0.1	0.0	15.30	0.00	0.00	0.0
13-Dec		-7.5	8.0	0.2	0.2	0.0	9.91	0.00	0.00		-8.2	5.0	0.2	0.2	0.0	16.10	0.00	0.00	0.0
14-Dec	0.3	-3.8	7.0	0.2	0.1	0.0	10.21	0.00	0.00		-3.9	5.0	0.2	0.2	0.0	16.10	0.00	0.00	0.0
15-Dec	2.1	0.0	7.0	0.2	0.2	0.0	12.31	0.00	0.00	2.0	0.4	5.0	0.2	0.1	2.0	16.10	1.61	3.61	0.1
16-Dec	0.4	-1.2	7.0	0.2	0.1	0.0	12.71	0.00	0.00	0.4	-1.2	4.0	0.2	0.2	0.0	14.49	0.00	0.00	0.0
17-Dec	0.6	-3.9	8.0	0.2	0.1	0.0	13.31	0.00	0.00	0.0	-3.7	4.0	0.2	0.2	0.0	14.89	0.00	0.00	0.0
18-Dec	0.8	-10.6	8.0	0.2	0.2	0.0	14.11	0.00	0.00	1.1	-9.3	4.0	0.2	0.1	0.0	14.89	0.00	0.00	0.0
19-Dec	0.4	-12.8	8.0	0.2	0.2	0.0	14.51	0.00	0.00	0.7	-12.4	5.0	0.2	0.1	0.0	15.99	0.00	0.00	0.0
20-Dec	0.2	-14.0	8.0	0.2	0.1	0.0	14.71	0.00	0.00	0.4	-14.3	5.0	0.2	0.2	0.0	16.69	0.00	0.00	0.0
21-Dec	1.0	-12.9	8.0	0.2	0.2	0.0	15.71	0.00	0.00	1.0	-12.4	5.0	0.2	0.1	0.0	17.09	0.00	0.00	0.0
22-Dec		-11.5	7.0	0.2	0.1	0.0	15.71	0.00	0.00	0.4	-11.2	6.0	0.2	0.2	0.0	18.09	0.00	0.00	0.0
23-Dec	6.3	1.5	3.0	0.2	0.1	6.3	15.71	6.12	12.42		1.6	3.0	0.2	0.2	0.0	18.49	6.40	6.40	12.2
24-Dec	1.1	1.5		0.2	0.1	1.1	9.59	6.02	7.12		1.5		0.2	0.2	0.0	12.09	6.00	6.00	7.1
25-Dec	1.5	0.6		0.2	0.2	1.5	3.57	2.41	3.91		0.7		0.2	0.2	0.0	6.09	2.80	2.80	3.9
26-Dec	0.5	-0.3	3.0	0.2	0.1	0.0	1.66	0.00	0.00		-0.2		0.2	0.2	0.0	3.29	0.00	0.00	0.0
27-Dec	4.1	-2.0	5.0	0.2	0.2	0.0	5.76	0.00	0.00	2.1	-1.6	1.0	0.2	0.1	0.0	3.29	0.00	0.00	0.0
28-Dec	0.4	-1.7	6.0	0.2	0.2	0.0	6.16	0.00	0.00		-1.3	1.0	0.2	0.2	0.0	5.39	0.00	0.00	0.0
29-Dec		-10.5	6.0	0.2	0.2	0.0	6.16	0.00	0.00		-9.3	1.0	0.2	0.2	0.0	5.39	0.00	0.00	0.0
30-Dec		-11.3	6.0	0.2	0.1	0.0	6.16	0.00	0.00		-11.5	1.0	0.2	0.2	0.0	5.39	0.00	0.00	0.0
31-Dec	0.6	-11.6	7.0	0.2	0.1	0.0	6.76	0.00	0.00	0.2	-9.9	1.0	0.2	0.2	0.0	5.39	0.00	0.00	0.0
1-Jan	1.5	-5.4	11.0		0.0	0.0	8.26	0.00	0.00	0.3	-5.1	2.0		0.0	0.0	5.59	0.00	0.00	0.0
2-Jan	5.1	-5.3	11.0		0.0	0.0	13.36	0.00	0.00	1.7	-5.7	3.0		0.0	0.0	5.89	0.00	0.00	0.0
3-Jan		-7.7	11.0		0.0	0.0	13.36	0.00	0.00		-6.1	3.0		0.0	0.0	7.59	0.00	0.00	0.0
4-Jan	0.4	-7.9	11.0		0.0	0.0	13.76	0.00	0.00	0.9	-7.5	4.0		0.0	0.0	7.59	0.00	0.00	0.0
5-Jan	0.3	-6.0	11.0		0.0	0.0	14.06	0.00	0.00	0.2	-5.1	4.0		0.0	0.0	8.49	0.00	0.00	0.0
6-Jan	3.7	-3.2	12.0		0.0	0.0	17.76	0.00	0.00	3.9	-2.7	4.0		0.0	0.0	8.69	0.00	0.00	0.0
7-Jan	0.2	-6.0	12.0		0.0	0.0	17.96	0.00	0.00		-6.3	8.0		0.0	0.0	12.59	0.00	0.00	0.0
8-Jan		-9.6	12.0		0.0	0.0	17.96	0.00	0.00		-8.9	8.0		0.0	0.0	12.59	0.00	0.00	0.0
9-Jan	0.8	-10.9	13.0		0.0	0.0	18.76	0.00	0.00	0.8	-10.7	9.0		0.0	0.0	12.59	0.00	0.00	0.0
10-Jan	6.0	-9.1	18.0		0.0	0.0	24.76	0.00	0.00	5.6	-8.4	10.0		0.0	0.0	13.39	0.00	0.00	0.0
11-Jan	1.9	-7.9	18.0		0.0	0.0	26.66	0.00	0.00	1.4	-7.5	14.0		0.0	0.0	18.99	0.00	0.00	0.0
12-Jan	0.4	-10.5	18.0		0.0	0.0	27.06	0.00	0.00	0.7	-8.1	14.0		0.0	0.0	20.39	0.00	0.00	0.0
13-Jan	1.7	-9.8	19.0		0.0	0.0	28.76	0.00	0.00	2.3	-8.8	15.0		0.0	0.0	21.09	0.00	0.00	0.0
14-Jan	2.4	-3.4	22.0		0.0	0.0	31.16	0.00	0.00	3.6	-2.4	16.0		0.0	0.0	23.39	0.00	0.00	0.0
15-Jan	3.0	-0.4	25.0		0.0	0.0	34.16	0.00	0.00	4.3	0.0	17.0		0.0	0.0	26.99	0.00	0.00	0.0
16-Jan	2.9	-0.3	26.0		0.0	0.0	37.06	0.00	0.00	0.7	-0.1	17.0		0.0	0.0	31.29	0.00	0.00	0.0
17-Jan	1.6	-8.9	26.0		0.0	0.0	38.66	0.00	0.00	1.6	-7.7	18.0		0.0	0.0	31.99	0.00	0.00	0.0
18-Jan	1.1	-13.8	27.0		0.0	0.0	39.76	0.00	0.00	0.5	-13.8	18.0		0.0	0.0	33.59	0.00	0.00	0.0
19-Jan	2.7	-14.3	28.0		0.0	0.0	42.46	0.00	0.00	0.9	-13.8	18.0		0.0	0.0	34.09	0.00	0.00	0.0
20-Jan	1.2	-9.9	27.0		0.0	0.0	43.66	0.00	0.00	1.9	-8.8	19.0		0.0	0.0	34.99	0.00	0.00	0.0
21-Jan	2.0	-7.0	27.0		0.0	0.0	45.66	0.00	0.00	3.7	-5.7	20.0		0.0	0.0	36.89	0.00	0.00	0.0
22-Jan	1.1	-14.0	24.0		0.0	0.0	46.76	0.00	0.00	1.6	-13.7	24.0		0.0	0.0	40.59	0.00	0.00	0.0
23-Jan	0.6	1.2	27.0		0.0	0.6	46.76	4.81	5.41	2.3	1.4	23.0		0.0	2.3	42.19	5.64	7.94	5.5
24-Jan	4.2	-0.2	23.0		0.0	0.0	46.15	0.00	0.00	2.1	0.2	18.0		0.0	2.1	36.55	0.81	2.91	0.1
25-Jan	2.9	0.8	23.0		0.0	2.9	46.15	3.23	6.13	4.8	1.0	18.0		0.0	4.8	35.74	4.06	8.86	6.2
26-Jan	5.8	0.0	24.0		0.0	0.0	48.72	0.00	0.00	4.5	0.3	17.0		0.0	4.5	31.68	1.22	5.72	0.2
27-Jan	7.4	0.0	27.0		0.0	0.0	56.12	0.00	0.00	4.4	0.6	15.0		0.0	4.4	30.46	2.43	6.83	0.2
28-Jan	3.8	-0.4	28.0		0.0	0.0	59.92	0.00	0.00	4.8	-0.3	16.0		0.0	0.0	28.03	0.00	0.00	0.0
29-Jan	2.0	-2.8	27.0		0.0	0.0	61.92	0.00	0.00	3.0	-2.6	17.0		0.0	0.0	32.83	0.00	0.00	0.0
30-Jan	0.3	-4.5	27.0		0.0	0.0	62.22	0.00	0.00	0.2	-3.9	19.0		0.0	0.0	35.83	0.00	0.00	0.0
31-Jan		-4.6	27.0		0.0	0.0	62.22	0.00	0.00		-4.1	19.0		0.0	0.0	36.03	0.00	0.00	0.0
1-Feb		-4.2	27.0		0.0	0.0	62.22	0.00	0.00		-3.5	19.0		0.0	0.0	36.03	0.00	0.00	0.0
2-Feb		-9.7	27.0		0.0	0.0	62.22	0.00	0.00		-8.9	19.0		0.0	0.0	36.03	0.00	0.00	0.0
3-Feb		-13.6	27.0		0.0	0.0	62.22	0.00	0.00		-13.3	19.0		0.0	0.0	36.03	0.00	0.00	0.0
4-Feb		-13.0	27.0		0.0	0.0	62.22	0.00	0.00		-12.4	19.0		0.0	0.0	36.03	0.00	0.00	0.0
5-Feb	0.2	-12.9	27.0		0.0	0.0	62.42	0.00	0.00		-13.0	19.0		0.0	0.0	36.03	0.00	0.00	0.0
6-Feb	3.6	-14.2	31.0		0.0	0.0	66.02	0.00	0.00	1.4	-14.2	19.0		0.0	0.0	36.03	0.00	0.00	0.0
7-Feb	0.6	-15.0	31.0		0.0	0.0	66.62	0.00	0.00	0.4	-15.0	19.0		0.0	0.0	37.43	0.00	0.00	0.0
8-Feb		-19.6	31.0		0.0	0.0	66.62	0.00	0.00		-18.8	19.0		0.0	0.0	37.83	0.00	0.00	0.0
9-Feb		-16.8	31.0		0.0	0.0	66.62	0.00	0.00		-15.8	19.0		0.0	0.0	37.83	0.00	0.00	0.0
10-Feb		-10.6	31.0		0.0	0.0	66.62	0.00	0.00		-10.4	19.0		0.0	0.0	37.83	0.00	0.00	0.0
11-Feb	1.9	-8.1	31.0		0.0	0.0	68.52	0.00	0.00	0.7	-7.3	19.0		0.0	0.0	37.83	0.00	0.00	0.0
12-Feb		-5.8	31.0		0.0	0.0	68.52	0.00	0.00		-5.6	19.0		0.0	0.0	38.53	0.00	0.00	0.0
13-Feb		-5.8	30.0		0.0	0.0	68.52	0.00	0.00		-5.7	19.0		0.0	0.0	38.53	0.00	0.00	0.0
14-Feb	1.0	-5.2	32.0		0.0	0.0	69.52	0.00	0.00	1.3	-5.6	19.0		0.0	0.0	38.53	0.00	0.00	0.0
15-Feb	1.0	-4.9	32.0		0.0	0.0	70.52	0.00	0.00	1.1	-5.5	21.0		0.0	0.0	39.83	0.00	0.00	0.0
16-Feb		-9.5	32.0		0.0	0.0	70.52	0.00	0.00		-10.4	23.0		0.0	0.0	40.93	0.00	0.00	0.0
17-Feb		-11.9	32.0		0.0	0.0	70.52	0.00	0.00		-13.2	23.0		0.0	0.0	40.93	0.00	0.00	0.0
18-Feb	0.8	-11.2	33.0		0.0	0.0	71.32	0.00	0.00	0.2	-11.7	23.0		0.0	0.0	40.93	0.00	0.00	0.0
19-Feb		-11.6	33.0		0.0	0.0	71.32	0.00	0.00		-12.0	23.0		0.0	0.0	41.13	0.00	0.00	0.0
20-Feb		-15.3	33.0		0.0	0.0	71.32	0.00	0.00		-15.1	23.0		0.0	0.0	41.13	0.00	0.00	0.0
21-Feb		-17.6	33.0		0.0	0.0	71.32	0.00	0.00		-17.5	23.0		0.0	0.0	41.13	0.00	0.00	0.0
22-Feb		-14.9	30.0		0.0	0.0	71.32	0.00	0.00		-14.5	23.0		0.0	0.0	41.13	0.00	0.00	0.0
23-Feb	0.2	-16.4	33.0		0.0	0.0	71.52	0.00	0.00	0.4	-16.2	23.0		0.0	0.0	41.13	0.00	0.00	0.0
24-Feb	1.4	-12.1	34.0		0.0	0.0	72.92	0.00	0.00	1.2	-11.2	23.0		0.0	0.0	41.53	0.00	0.00	0.0
25-Feb	0.4	-17.1	34.0		0.0	0.0	73.32	0.00	0.00	0.2	-16.0	24.0		0.0	0.0	42.73	0.00	0.00	0.0
26-Feb		-17.7	34.0		0.0	0.0	73.32	0.00	0.00	0.6	-16.8	24.0		0.0	0.0	42.93	0.00	0.00	0.0
27-Feb	1.3	-14.5	39.0		0.0	0.0	74.62	0.00	0.00	0.5	-14.7	24.0		0.0	0.0	43.53	0.00	0.00	0.0
28-Feb	5.6	-4.4	41.0		0.0	0.0	80.22	0.00	0.00	2.0	-4.3	25.0		0.0	0.0	44.03	0.00	0.00	0.0
1-Mar	0.9	-11.1	40.0		0.0	0.0	81.12	0.00	0.00	0.8	-10.3	26.0		0.0	0.0	46.03	0.00	0.00	0.0
2-Mar	0.6	-7.3	40.0		0.0	0.0	81.72	0.00	0.00	0.2	-6.7	26.0		0.0	0.0	46.83	0.00	0.00	0.0
3-Mar	0.4	-6.4	39.0		0.0	0.0	82.12	0.00	0.00		-5.2	26.0		0.0	0.0	47.03	0.00	0.00	0.0

9) Estimated Precipitaion : Pededze Model 1986

	A= 858.4					m = 4				A= 28.2					m = 4				Total
	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day
4-Mar		-4.3	36.0		0.0	0.0	82.12	0.00	0.00		-4.0	26.0		0.0	0.0	47.03	0.00	0.00	0.0
5-Mar		-4.1	36.0		0.0	0.0	82.12	0.00	0.00		-4.0	25.0		0.0	0.0	47.03	0.00	0.00	0.0
6-Mar	2.9	-1.9	37.0		0.0	0.0	85.02	0.00	0.00	2.6	-1.6	25.0		0.0	0.0	47.03	0.00	0.00	0.0
7-Mar	0.6	1.6	29.0		0.0	0.6	85.02	6.41	7.01	0.3	1.8	25.0		0.0	0.3	49.63	7.21	7.51	7.0
8-Mar	7.4	1.7	26.0		0.0	7.4	78.61	6.96	14.36	6.3	1.7	16.0		0.0	6.3	42.42	6.93	13.23	14.3
9-Mar		1.3	22.0		0.0	0.0	71.65	5.20	5.20	0.9	1.5	14.0		0.0	0.9	35.49	6.02	6.92	5.3
10-Mar		-1.1	22.0		0.0	0.0	66.45	0.00	0.00		-0.5	11.0		0.0	0.0	29.47	0.00	0.00	0.0
11-Mar		-1.8	22.0		0.0	0.0	66.45	0.00	0.00		-1.4	10.0		0.0	0.0	29.47	0.00	0.00	0.0
12-Mar		-2.5	22.0		0.0	0.0	66.45	0.00	0.00		-2.4	10.0		0.0	0.0	29.47	0.00	0.00	0.0
13-Mar		-2.2	22.0		0.0	0.0	66.45	0.00	0.00	0.0	-2.0	10.0		0.0	0.0	29.47	0.00	0.00	0.0
14-Mar		-1.9	22.0		0.0	0.0	66.45	0.00	0.00		-1.7	10.0		0.0	0.0	29.47	0.00	0.00	0.0
15-Mar		-3.7	22.0		0.0	0.0	66.45	0.00	0.00		-3.8	10.0		0.0	0.0	29.47	0.00	0.00	0.0
16-Mar		-5.3	22.0		0.0	0.0	66.45	0.00	0.00		-4.7	10.0		0.0	0.0	29.47	0.00	0.00	0.0
17-Mar		-2.6	21.0		0.0	0.0	66.45	0.00	0.00		-3.1	10.0		0.0	0.0	29.47	0.00	0.00	0.0
18-Mar		0.8	20.0		0.0	0.0	66.45	3.20	3.20		-0.4	9.0		0.0	0.0	29.47	0.00	0.00	3.1
19-Mar		1.1	18.0		0.0	0.0	63.25	4.40	4.40		1.1	9.0		0.0	0.0	29.47	4.40	4.40	4.4
20-Mar		1.1	17.0		0.0	0.0	58.85	4.40	4.40		1.0	8.0		0.0	0.0	25.07	4.00	4.00	4.4
21-Mar		2.2	15.0		0.0	0.0	54.45	8.80	8.80		1.5	7.0		0.0	0.0	21.07	6.00	6.00	8.7
22-Mar		1.5	14.0		0.0	0.0	45.65	6.00	6.00		0.9	6.0		0.0	0.0	15.07	3.60	3.60	5.9
23-Mar		2.0	9.0		0.0	0.0	39.65	8.00	8.00		1.1	5.0		0.0	0.0	11.47	4.40	4.40	7.9
24-Mar		0.5	6.0		0.0	0.0	31.65	2.00	2.00		0.4	2.0		0.0	0.0	7.07	1.60	1.60	2.0
25-Mar	3.6	0.3	5.0		0.0	3.6	29.65	1.21	4.81	3.8	1.1	1.0		0.0	3.8	5.47	4.45	8.25	4.9
26-Mar	2.6	0.5	5.0		0.0	2.6	28.44	2.02	4.62	4.7	0.6	1.0		0.0	4.7	1.02	1.02	5.72	4.7
27-Mar	2.2	2.6	3.0		0.0	2.2	26.42	10.47	12.67	1.2	3.1	1.0		0.0	1.2	0.00	0.00	1.20	12.3
28-Mar		3.5	1.0		0.0	0.0	15.95	14.00	14.00		3.9			0.0	0.0	0.00	0.00	0.00	13.6
29-Mar	3.4	4.1	0.0		0.0	3.4	1.95	1.95	5.35	8.0	4.3			0.0	8.0	0.00	0.00	8.00	5.4
30-Mar	2.6	4.3	0.0		0.0	2.6	0.00	0.00	2.60		5.3			0.0	0.0	0.00	0.00	0.00	2.5
31-Mar	7.0	1.8	0.0		0.0	7.0	0.00	0.00	7.00	10.5	2.3			0.0	10.5	0.00	0.00	10.50	7.1
1-Apr	0.6	1.7		1.5	0.8	0.6	0.00	0.00	0.60	3.6	1.6		1.5	0.8	3.6	0.00	0.00	3.60	0.7
2-Apr	6.7	3.9	1.0	1.5	0.8	6.7	0.00	0.00	6.70	8.5	4.6		1.5	0.8	8.5	0.00	0.00	8.50	6.8
3-Apr	2.0	0.4	3.0	1.5	0.8	2.0	0.00	0.00	2.00	3.3	1.1		1.5	0.8	3.3	0.00	0.00	3.30	2.0
4-Apr	2.7	1.6		1.5	1.5	2.7	0.00	0.00	2.70	1.7	2.4		1.5	0.8	1.7	0.00	0.00	1.70	2.7
5-Apr		1.8		1.5	1.5	0.0	0.00	0.00	0.00		2.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
6-Apr		1.6		1.5	1.5	0.0	0.00	0.00	0.00		2.1		1.5	1.5	0.0	0.00	0.00	0.00	0.0
7-Apr		1.4		1.5	1.5	0.0	0.00	0.00	0.00		2.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
8-Apr	0.3	2.0		1.5	1.5	0.3	0.00	0.00	0.30		2.2		1.5	1.5	0.0	0.00	0.00	0.00	0.3
9-Apr		2.0	5.0	1.5	0.8	0.0	0.00	0.00	0.00		2.9		1.5	1.5	0.0	0.00	0.00	0.00	0.0
10-Apr	4.4	0.6		1.5	1.5	4.4	0.00	0.00	4.40	11.7	0.3	7.0	1.5	0.8	11.7	0.00	0.00	11.70	4.6
11-Apr		-1.7		1.5	0.8	0.0	0.00	0.00	0.00	0.3	-1.0	4.0	1.5	1.5	0.0	0.00	0.00	0.00	0.0
12-Apr	3.0	-5.1	11.0	1.5	0.8	0.0	3.00	0.00	0.00	2.4	-4.8	5.0	1.5	0.8	0.0	0.30	0.00	0.00	0.0
13-Apr	19.0	-5.3	19.0	1.5	1.5	0.0	22.00	0.00	0.00	8.9	-4.9	9.0	1.5	0.8	0.0	2.70	0.00	0.00	0.0
14-Apr	0.3	-3.1	18.0	1.5	1.5	0.0	22.30	0.00	0.00	1.0	-3.2	12.0	1.5	0.8	0.0	11.60	0.00	0.00	0.0
15-Apr		-1.8	15.0	1.5	1.5	0.0	22.30	0.00	0.00		-1.7	12.0	1.5	1.5	0.0	12.60	0.00	0.00	0.0
16-Apr		-0.3	10.0	1.5	1.5	0.0	22.30	0.00	0.00		0.3	7.0	1.5	1.5	0.0	12.60	1.20	1.20	0.0
17-Apr		0.1	7.0	1.5	0.8	0.0	22.30	0.40	0.40		1.2	6.0	1.5	1.5	0.0	11.40	4.80	4.80	0.5
18-Apr	0.6	-0.5	6.0	1.5	0.8	0.0	22.50	0.00	0.00		-0.2	4.0	1.5	1.5	0.0	6.60	0.00	0.00	0.0
19-Apr	3.0	2.0	4.0	1.5	0.8	3.0	22.50	8.08	11.08	0.4	2.2	1.0	1.5	1.5	0.4	6.60	6.60	7.00	11.0
20-Apr	6.5	5.2		1.5	0.8	6.5	14.42	14.42	20.92	5.1	5.4	1.0	1.5	0.8	5.1	0.00	0.00	5.10	20.4
21-Apr	4.9	6.5		1.5	1.5	4.9	0.00	0.00	4.90	8.8	7.1		1.5	0.8	8.8	0.00	0.00	8.80	5.0
22-Apr	0.0	2.9		1.5	1.5	0.0	0.00	0.00	0.00	4.6	3.5		1.5	0.8	4.6	0.00	0.00	4.60	0.1
23-Apr		6.7		1.5	1.5	0.0	0.00	0.00	0.00	0.6	7.0		1.5	0.8	0.6	0.00	0.00	0.60	0.0
24-Apr		9.8		1.5	1.5	0.0	0.00	0.00	0.00		10.3		1.5	1.5	0.0	0.00	0.00	0.00	0.0
25-Apr		14.7		1.5	1.5	0.0	0.00	0.00	0.00		14.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
26-Apr		15.5		1.5	1.5	0.0	0.00	0.00	0.00		16.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
27-Apr		15.5		1.5	1.5	0.0	0.00	0.00	0.00		16.3		1.5	1.5	0.0	0.00	0.00	0.00	0.0
28-Apr		15.8		1.5	1.5	0.0	0.00	0.00	0.00		17.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
29-Apr		16.4		1.5	1.5	0.0	0.00	0.00	0.00		16.9		1.5	1.5	0.0	0.00	0.00	0.00	0.0
30-Apr		16.8		1.5	1.5	0.0	0.00	0.00	0.00		17.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0

10) Series Tank Model Calculation : Rezekne 1988

	Estimated	Actual	Ratio	Varification	
Discharge (mm)	31.75	45.63238	69.6%	Correlation Coefficien t=	82.1%
Precipitation(mm)	122.1			R =	0.3882
Runoff Ratio	26%	37.4%		R^2 =	0.7729



11) Series Tank Model Calculation Sheet : Rezekne 1988

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
	Height of Orifice							30	0	0		0			0	0		25						0	0		0				0	0		0			
	Coefficient of Orifice							0.025	0	0		0.02			0	0.001		0.0025						0	0.75						0	1					
	Rain	Evapotranspiration	Converted Evapotranspiration	Storage of previous day	Rain of previous day	Evapotranspiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltration	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltration	Balance of Storage	Total specific discharge	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Discharege	Measured River Discharge
1-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.800	0.000	0.025	0.025	0.062	24.713	0.025	0.000	0.025	0.025	0.000	0.019	0.019	0.006	0.000	0.019	0.019	0.000	0.019	0.019	0.000	0.019	0.19	3.79
2-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.513	0.000	0.025	0.025	0.061	24.427	0.025	0.006	0.025	0.031	0.000	0.023	0.023	0.008	0.000	0.023	0.023	0.000	0.023	0.023	0.000	0.023	0.24	3.41
3-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.227	0.000	0.024	0.024	0.061	24.143	0.024	0.008	0.024	0.032	0.000	0.024	0.024	0.008	0.000	0.024	0.024	0.000	0.024	0.024	0.000	0.024	0.25	3.23
4-Dec	0.1	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.943	0.000	0.024	0.024	0.060	23.859	0.024	0.008	0.024	0.032	0.000	0.024	0.024	0.008	0.000	0.024	0.024	0.000	0.024	0.024	0.000	0.024	0.25	2.97
5-Dec	1.2	0.2	0.1	0.000	0.100	0.0	0.100	0.000	0.000	0.000	0.000	0.002	0.098	23.861	0.000	0.024	0.024	0.060	23.777	0.024	0.008	0.024	0.032	0.000	0.024	0.024	0.008	0.000	0.024	0.024	0.000	0.024	0.024	0.000	0.024	0.25	2.61
6-Dec	0	0.2	0.2	0.098	1.200	0.1	1.198	0.000	0.000	0.000	0.000	0.024	1.174	23.801	0.000	0.024	0.024	0.060	23.718	0.024	0.008	0.024	0.032	0.000	0.024	0.024	0.008	0.000	0.024	0.024	0.000	0.024	0.024	0.000	0.024	0.24	1.91
7-Dec	0	0.2	0.2	1.174	0.000	0.2	0.974	0.000	0.000	0.000	0.000	0.019	0.955	23.737	0.000	0.024	0.024	0.059	23.654	0.024	0.008	0.024	0.032	0.000	0.024	0.024	0.008	0.000	0.024	0.024	0.000	0.024	0.024	0.000	0.024	0.24	1.45
8-Dec	0	0.2	0.2	0.955	0.000	0.2	0.755	0.000	0.000	0.000	0.000	0.015	0.739	23.669	0.000	0.024	0.024	0.059	23.587	0.024	0.008	0.024	0.032	0.000	0.024	0.024	0.008	0.000	0.024	0.024	0.000	0.024	0.024	0.000	0.024	0.24	1.98
9-Dec	0	0.2	0.2	0.739	0.000	0.2	0.539	0.000	0.000	0.000	0.000	0.011	0.529	23.597	0.000	0.024	0.024	0.059	23.515	0.024	0.008	0.024	0.031	0.000	0.024	0.024	0.008	0.000	0.024	0.024	0.000	0.024	0.024	0.000	0.024	0.24	3.29
10-Dec	0	0.2	0.2	0.529	0.000	0.2	0.329	0.000	0.000	0.000	0.000	0.007	0.322	23.521	0.000	0.024	0.024	0.059	23.439	0.024	0.008	0.024	0.031	0.000	0.024	0.024	0.008	0.000	0.024	0.024	0.000	0.024	0.024	0.000	0.024	0.24	2.88
11-Dec	0	0.2	0.2	0.322	0.000	0.2	0.122	0.000	0.000	0.000	0.000	0.002	0.120	23.441	0.000	0.023	0.023	0.059	23.359	0.023	0.008	0.023	0.031	0.000	0.023	0.023	0.008	0.000	0.023	0.023	0.000	0.023	0.023	0.000	0.023	0.24	2.37
12-Dec	0	0.2	0.2	0.120	0.000	0.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.279	0.000	0.023	0.023	0.058	23.198	0.023	0.008	0.023	0.031	0.000	0.023	0.023	0.008	0.000	0.023	0.023	0.000	0.023	0.023	0.000	0.023	0.24	1.94
13-Dec	0	0.2	0.2	0.000	0.000	0.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.998	0.000	0.023	0.023	0.057	22.917	0.023	0.008	0.023	0.031	0.000	0.023	0.023	0.008	0.000	0.023	0.023	0.000	0.023	0.023	0.000	0.023	0.24	1.94
14-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.717	0.000	0.023	0.023	0.057	22.638	0.023	0.008	0.023	0.030	0.000	0.023	0.023	0.008	0.000	0.023	0.023	0.000	0.023	0.023	0.000	0.023	0.23	1.98
15-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.438	0.000	0.022	0.022	0.056	22.359	0.022	0.008	0.022	0.030	0.000	0.023	0.023	0.008	0.000	0.023	0.023	0.000	0.023	0.023	0.000	0.023	0.23	1.78
16-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.159	0.000	0.022	0.022	0.055	22.082	0.022	0.008	0.022	0.030	0.000	0.022	0.022	0.007	0.000	0.022	0.022	0.000	0.022	0.022	0.000	0.022	0.23	1.66
17-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.882	0.000	0.022	0.022	0.055	21.805	0.022	0.007	0.022	0.029	0.000	0.022	0.022	0.007	0.000	0.022	0.022	0.000	0.022	0.022	0.000	0.022	0.23	1.94
18-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.605	0.000	0.022	0.022	0.054	21.529	0.022	0.007	0.022	0.029	0.000	0.022	0.022	0.007	0.000	0.022	0.022	0.000	0.022	0.022	0.000	0.022	0.22	1.86
19-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.329	0.000	0.021	0.021	0.053	21.255	0.021	0.007	0.021	0.029	0.000	0.021	0.021	0.007	0.000	0.021	0.021	0.000	0.021	0.021	0.000	0.021	0.22	1.86
20-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.055	0.000	0.021	0.021	0.053	20.981	0.021	0.007	0.021	0.028	0.000	0.021	0.021	0.007	0.000	0.021	0.021	0.000	0.021	0.021	0.000	0.021	0.22	1.70
21-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.781	0.000	0.021	0.021	0.052	20.708	0.021	0.007	0.021	0.028	0.000	0.021	0.021	0.007	0.000	0.021	0.021	0.000	0.021	0.021	0.000	0.021	0.21	1.70
22-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.508	0.000	0.021	0.021	0.051	20.436	0.021	0.007	0.021	0.027	0.000	0.021	0.021	0.007	0.000	0.021	0.021	0.000	0.021	0.021	0.000	0.021	0.21	1.62
23-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.236	0.000	0.020	0.020	0.051	20.166	0.020	0.007	0.020	0.027	0.000	0.020	0.020	0.007	0.000	0.020	0.020	0.000	0.020	0.020	0.000	0.020	0.21	1.60
24-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.966	0.000	0.020	0.020	0.050	19.896	0.020	0.007	0.020	0.027	0.000	0.020	0.020	0.007	0.000	0.020	0.020	0.000	0.020	0.020	0.000	0.020	0.21	1.71
25-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.696	0.000	0.020	0.020	0.049	19.627	0.020	0.007	0.020	0.026	0.000	0.020	0.020	0.007	0.000	0.020	0.020	0.000	0.020	0.020	0.000	0.020	0.20	1.98
26-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.427	0.000	0.019	0.019	0.049	19.359	0.019	0.007	0.019	0.026	0.000	0.020	0.020	0.007	0.000	0.020	0.020	0.000	0.020	0.020	0.000	0.020	0.20	2.00
27-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.159	0.000	0.019	0.019	0.048	19.092	0.019	0.007	0.019	0.026	0.000	0.019	0.019	0.006	0.000	0.019	0.019	0.000	0.019	0.019	0.000	0.019	0.20	2.13
28-Dec	5.9	0.2	0.1	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.992	0.000	0.019	0.019	0.047	18.925	0.019	0.006	0.019	0.025	0.000	0.019	0.019	0.006	0.000	0.019	0.019	0.000	0.019	0.019	0.000	0.019	0.20	2.41
29-Dec	0.7	0.2	0.1	0.000	5.900	0.0	5.900	0.000	0.000	0.000	0.000	0.118	5.782	19.043	0.000	0.019	0.019	0.048	18.977	0.019	0.006	0.019	0.025	0.000	0.019	0.019	0.006	0.000	0.019	0.019	0.000	0.019	0.019	0.000	0.019	0.20	2.57
30-Dec	0	0.2	0.2	5.782	0.700	0.1	6.382	0.000	0.000	0.000	0.000	0.128	6.254	19.104	0.000	0.019	0.019	0.048	19.037	0.019	0.006	0.019	0.025	0.000	0.019	0.019	0.006	0.000	0.019	0.019	0.000	0.019	0.019	0.000	0.019	0.20	2.93
31-Dec	12	0.2	0.1	6.254	0.000	0.2	6.054	0.000	0.000	0.000	0.000	0.121	5.933	19.159	0.000	0.019	0.019	0.048	19.091	0.019	0.006	0.019	0.026	0.000	0.019	0.019	0.006	0.000	0.019	0.019	0.000	0.019	0.019	0.000	0.019	0.20	4.05
1-Jan	0		0.0	5.933	12.000	0.1	17.833	0.000	0.000	0.000	0.000	0.357	17.477	19.448	0.000	0.019	0.019	0.049	19.380	0.019	0.006	0.019	0.026	0.000	0.019	0.019	0.006	0.000	0.019	0.019	0.000	0.019	0.019	0.000	0.019	0.20	3.92
2-Jan	0		0.0	17.477	0.000	0.0	17.477	0.000	0.000	0.000	0.000	0.350	17.127	19.730	0.000	0.020	0.020	0.049	19.661	0.020	0.006	0.020	0.026	0.000	0.020	0.020	0.007	0.000	0.020	0.020	0.000	0.020	0.020	0.000	0.020	0.20	4.53
3-Jan	12.6		0.0	17.127	0.000	0.0	17.127	0.000	0.000	0.000	0.000	0.343	16.785	20.003	0.000	0.020	0.020	0.050	19.933	0.020	0.007	0.020	0.027	0.000	0.020	0.020	0.007	0.000	0.020	0.020	0.000	0.020	0.020	0.000	0.020	0.20	7.44
4-Jan	21.4		0.0	16.785	12.600	0.0	29.385	0.000	0.000	0.000	0.000	0.588	28.797	20.521	0.000	0.021	0.021	0.051	20.449	0.021	0.007	0.021	0.027	0.000	0.020	0.020	0.007	0.000	0.020	0.020	0.000	0.020	0.020	0.000	0.020	0.21	11.70
5-Jan	2.6		0.0	28.797	21.400	0.0	50.197	0.505	0.000	0.000	0.505	1.004	48.688	21.453	0.000	0.021	0.021	0.054	21.378	0.526	0.007	0.526	0.533	0.000	0.400	0.400	0.133	0.000	0.400	0.400	0.000	0.400	0.400	0.000	0.400	4.10	13.20
6-Jan	4.3		0.0	48.688	2.600	0.0	51.288	0.532	0.000	0.000	0.532	1.026	49.730	22.404	0.000	0.022	0.022	0.056	22.325	0.555	0.133	0.555	0.688	0.000	0.516	0.516	0.172	0.000	0.516	0.516	0.000	0.516	0.516	0.000	0.516	5.29	13.80
7-Jan	0.1		0.0	49.730	4.300	0.0	54.030	0.601	0.000	0.000	0.601	1.081	52.349	23.406	0.000	0.023	0.023	0.059	23.324	0.624	0.172	0.624	0.796	0.000	0.597	0.597	0.199	0.000	0.597	0.597	0.000	0.597	0.597	0.000	0.597	6.13	12.70
8-Jan	7.3		0.0	52.349	0.100	0.0	52.449	0.561	0.000	0.000	0.561	1.049	50.838	24.373	0.000	0.024	0.024	0.061	24.287	0.586	0.199	0.586	0.785	0.000	0.588	0.588	0.196	0.000	0.588	0.588	0.000	0.588	0.588	0.000	0.588	6.04	11.70
9-Jan	1.2		0.0	50.838	7.300	0.0	58.138	0.703	0.000	0.000	0.703	1.163	56.272	25.450	0.000	0.025	0.025	0.064	25.361	0.729	0.196	0.729	0.925	0.000	0.694	0.694	0.231	0.000	0.694	0.694	0.000	0.694	0.694	0.000	0.694	7.12	11.40
10-Jan	0.1		0.0	56.272	1.200	0.0	57.472	0.687	0.000	0.000	0.687	1.149	55.636	26.511	0.000	0.027	0.027	0.066	26.418	0.713	0.231	0.713	0.945	0.000	0.708	0.708	0.236	0.000	0.708	0.708	0.000	0.708	0.708	0.000	0.708	7.27	11.40
11-Jan	0		0.0	55.636	0.100	0.0	55.736	0.643	0.000	0.000	0.643	1.115	53.978	27.533	0.000	0.028	0.028	0.069	27.436	0.671	0.236	0.671	0.907	0.000	0.680	0.680	0.227	0.000	0.680	0.680	0.000	0.680	0.680	0.000	0.680	6.98	8.35
12-Jan	0		0.0	53.978	0.000	0.0	53.978	0.599	0.000	0.000	0.599	1.080	52.299	28.516	0.000	0.029	0.029	0.071	28.416	0.628	0.227	0.628	0.855	0.000	0.641	0.641	0.214	0.000	0.641	0.641	0.000	0.641	0.641	0.000	0.641	6.58	6.72
13-Jan	0		0.0	52.299	0.000	0.0	52.299	0.557	0.000	0.000	0.557	1.046	50.695	29.462	0.000	0.029	0.029	0.074	29.359	0.587	0.214	0.587	0.801	0.000	0.600	0.600	0.200	0.000	0.600	0.600	0.000	0.600	0.600	0.000	0.600	6.16	6.15
14-Jan	0.8		0.0	50.695	0.000	0.0	50.695	0.517	0.000	0.000	0.517	1.014	49.164	30.373	0.000	0.030	0.030	0.076	30.266	0.548	0.200	0.548	0.748	0.000	0.561	0.561	0.187	0.000	0.561	0.561	0.000	0.561	0.561	0.000	0.561	5.76	5.49
15-Jan	0		0.0	49.164	0.800	0.0	49.964	0.499	0.000	0.000	0.499	0.999	48.466	31.266	0.000	0.031	0.031	0.078	31.156	0.530	0.187	0.530	0.717	0.000	0.538	0.538	0.179	0.000	0.538	0.538	0.000	0.538	0.538	0.000	0.538	5.52	3.03
16-Jan	0		0.0	48.466	0.000	0.0	48.466	0.462	0.000	0.000	0.462	0.969	47.035	32.126	0.000	0.032	0.032	0.080	32.013	0.494	0.179	0.494	0.673	0.000	0.505	0.505	0.168	0.000	0.505	0.505	0.000	0.505	0.505	0.000	0.505	5.18	4.36
17-Jan	0		0.0	47.035	0.000	0.0	47.035	0.426	0.000	0.000	0.426	0.941	45.668	32.954	0.000	0.033	0.033	0.082	32.839	0.459	0.168	0.459	0.627	0.000	0.470	0.470	0.157	0.000	0.470	0.470	0.000	0.470	0.470	0.000	0.470	4.83	4.20
18-Jan	0		0.0	45.668	0.000	0.0	45.668	0.392	0.000	0.000	0.392	0.913	44.363	33.752	0.000	0.034	0.034	0.084	33.634	0.425	0.157	0.425	0.582	0.000	0.437	0.437	0.146	0.000	0.437	0.437	0.000	0.437	0.437	0.000	0.437	4.48	4.10
19-Jan	0		0.0	44.363	0.000	0.0	44.363	0.359	0.000	0.000	0.359	0.887	43.117	34.521	0.000	0.035	0.035	0.086	34.400	0.394	0.146	0.394	0.539	0.000	0.404	0.404	0.135	0.000	0.404	0.404	0.000	0.404	0.404	0.000	0.404	4.15	3.63
20-Jan	0		0.0	43.117	0.000	0.0	43.117	0.328	0.000	0.000	0.328	0.862	41.927	35.263	0.000	0.035	0.035	0.088	35.139	0.363	0.135	0.363	0.498	0.000	0.373	0.373	0.124	0.000	0.373	0.373	0.000	0.373	0.373	0.000	0.373	3.83	3.47
21-Jan	0		0.0	41.927	0.000	0.0	41.927	0.298	0.000	0.000	0.298	0.839	40.790	35.978	0.000	0.036	0.036	0.090	35.852	0.334	0.124	0.334	0.459	0.000	0.344	0.344	0.115	0.000	0.344	0.344	0.000	0.344	0.344	0.000	0.344	3.53	3.46
22-Jan	0		0.0	40.790	0.000	0.0	40.790	0.270	0.000	0.000	0.270	0.816	39.704	36.668	0.000	0.037	0.037	0.092	36.539	0.306	0.115	0.306	0.421	0.000	0.316	0.316	0.105	0.000	0.316	0.316	0.000	0.316	0.316	0.000	0.316	3.24	3.23
23-Jan	0		0.0	39.704	0.000	0.0	39.704	0.243	0.000	0.000	0.243	0.794	38.668	37.333	0.000	0.037	0.037	0.093	37.203	0.280	0.105	0.280	0.385	0.000	0.289	0.289	0.096	0.000	0.289	0.289	0.000	0.289	0.289	0.000	0.289	2.96	3.21
24-Jan	0		0.0	38.668	0.000	0.0	38.668	0.217	0.000	0.000	0.217	0.773	37.678	37.976	0.000	0.038	0.038	0.095	37.843	0.255	0.096	0.255	0.351	0.000	0.263	0.263	0.088	0.000	0.263	0.263	0.000	0.263	0.263	0.000	0.263	2.70	3.11
25-Jan	0		0.0	37.678	0.000	0.0	37.678	0.192	0.000	0.000	0.192	0.754	36.732	38.597	0.000	0.039	0.039	0.096	38.461	0.231	0.088	0.231	0.318	0.000	0.239	0.239	0.080	0.000	0.239	0.239	0.000	0.239	0.239	0.000	0.239	2.45	2.82
26-Jan	0		0.0	36.732	0.000	0.0	36.732	0.168	0.000	0.000	0.168	0.735	35.829	39.196	0.000	0.039	0.039	0.098	39.059	0.207	0.080	0.207	0.287	0.000	0.215	0.215	0.072	0.000	0.215	0.215	0.000	0.215	0.215	0.000	0.215	2.21	2.78
27-Jan	0		0.0	35.829	0.000	0.0	35.829	0.146	0.000	0.000	0.146	0.717	34.967	39.776	0.000	0.040	0.040	0.099	39.636	0.186	0.072	0.186	0.257	0.000	0.193	0.193	0.064	0.000	0.193	0.193	0.000	0.193	0.193	0.000	0.193	1.98	2.28
28-Jan	0		0.0	34.967	0.000	0.0	34.967	0.124	0.000	0.000	0.124	0.699	34.143	40.336	0.000	0.040	0.040	0.101	40.194	0.165	0.064	0.165	0.229	0.000	0.172	0.172	0.057	0.000	0.172	0.172	0.000	0.172	0.172	0.000	0.172	1.76	1.59
29-Jan	0		0.0	34.143	0.000	0.0	34.143	0.104	0.000	0.000	0.104	0.683	33.357	40.877	0.000	0.041	0.041	0.102	40.734	0.144	0.057	0.144	0.202	0.000	0.151	0.151	0.050	0.000	0.151	0.151	0.000	0.151	0.151	0.000	0.151	1.55	1.37
30-Jan	0		0.0	33.357	0.000	0.0	33.357	0.084	0.000	0.000	0.084	0.667	32.606	41.401	0.000	0.041	0.041	0.104	41.256	0.125	0.050	0.125	0.176	0.000	0.132	0.132	0.044	0.000	0.132	0.132	0.000	0.132	0.132	0.000	0.132	1.35	1.20
31-Jan	0		0.0	32.606	0.000	0.0	32.606	0.065	0.000	0.000	0.065	0.652	31.889	41.909	0.000	0.042	0.042	0.105	41.762	0.107	0.044	0.107	0.151	0.000	0.113	0.113	0.038	0.000	0.113	0.113	0.000	0.113	0.113	0.000	0.113	1.16	1.17
1-Feb	0		0.0	31.889	0.000	0.0	31.889	0.047	0.000	0.000	0.047	0.638	31.204	42.400	0.000	0.042	0.042	0.106	42.251	0.090	0.038	0.090	0.127	0.000	0.096	0.096	0.032	0.000	0.096	0.096	0.000	0.096	0.096	0.000	0.096	0.98	1.33
2-Feb	0		0.0	31.204	0.000	0.0	31.204	0.030	0.000	0.000	0.030	0.624	30.549	42.875	0.000	0.043	0.043	0.107	42.725	0.073	0.032	0.073	0.105	0.000	0.079	0.079	0.026	0.000	0.079	0.079	0.000	0.079	0.079	0.000	0.079	0.81	1.51
3-Feb	0		0.0	30.549	0.000	0.0	30.549	0.014	0.000	0.000	0.014	0.611	29.925	43.336	0.000	0.043	0.043	0.108	43.185	0.057	0.026	0.057	0.083	0.000	0.062	0.062	0.021	0.000	0.062	0.062	0.000	0.062	0.062	0.000	0.062	0.64	1.59
4-Feb	0		0.0	29.925	0.000	0.0	29.925	0.000	0.000	0.000	0.000	0.598	29.326	43.783	0.000	0.044	0.044	0.109	43.630	0.044	0.021	0.044	0.065	0.000	0.048	0.048	0.016	0.000	0.048	0.048	0.000	0.048	0.048	0.000	0.048	0.50	1.51
5-Feb	0		0.0	29.326	0.000	0.0	29.326	0.000	0.000	0.000	0.000	0.587	28.740	44.216	0.000	0.044	0.044	0.111	44.062	0.044	0.016	0.044	0.060	0.000	0.045	0.045	0.015	0.000	0.045	0.045	0.000	0.045	0.045	0.000	0.045	0.46	1.51
6-Feb	6.6		0.0	28.740	0.000	0.0	28.740	0.000	0.000	0.000	0.000	0.575	28.165	44.636	0.000	0.045	0.045	0.112	44.480	0.045	0.015	0.045	0.060	0.000	0.045	0.045	0.015	0.000	0.045	0.045	0.000	0.045	0.045	0.000	0.045	0.46	1.62
7-Feb	0		0.0	28.165	6.600	0.0	34.765	0.119	0.000	0.000	0.119	0.695	33.950	45.176	0.000	0.045	0.045	0.113	45.017	0.164	0.015	0.164	0.179	0.000	0.134	0.134	0.045	0.000	0.134	0.134	0.000	0.134	0.134	0.000	0.134	1.38	2.41
8-Feb	1.9		0.0	33.950	0.000	0.0	33.950	0.099	0.000	0.000	0.099	0.679	33.173	45.696	0.000	0.046	0.046	0.114	45.536	0.144	0.045	0.144	0.189	0.000	0.142	0.142	0.047	0.000	0.142	0.142	0.000	0.142	0.142	0.000	0.142	1.46	2.54
9-Feb	0.5		0.0	33.173	1.900	0.0	35.073	0.127	0.000	0.000	0.127	0.701	34.244	46.238	0.000	0.046	0.046	0.116	46.076	0.173	0.047	0.173	0.220	0.000	0.165	0.165	0.055	0.000	0.165	0.165	0.000	0.165	0.165	0.000	0.165	1.70	1.55
10-Feb	5.3		0.0	34.244	0.500	0.0	34.744	0.119	0.000	0.000	0.119	0.695	33.931	46.771	0.000	0.047	0.047	0.117	46.607	0.165	0.055	0.165	0.220	0.000	0.165	0.165	0.055	0.000	0.165	0.165	0.000	0.165	0.165	0.000	0.165	1.70	1.44
11-Feb	0.9		0.0	33.931	5.300	0.0	39.231	0.231	0.000	0.000	0.231	0.785	38.216	47.392	0.000	0.047	0.047	0.118	47.226	0.278	0.055	0.278	0.333	0.000	0.250	0.250	0.083	0.000	0.250	0.250	0.000	0.250	0.250	0.000	0.250	2.57	1.40
12-Feb	3.4		0.0	38.216	0.900	0.0	39.116	0.228	0.000	0.000	0.228	0.782	38.105	48.008	0.000	0.048	0.048	0.120	47.840	0.276	0.083	0.276	0.359	0.000	0.269	0.269	0.090	0.000	0.269	0.269	0.000	0.269	0.269	0.000	0.269	2.76	1.44
13-Feb	0.4		0.0	38.105	3.400	0.0	41.505	0.288	0.000	0.000	0.288	0.830	40.388	48.670	0.000	0.049	0.049	0.122	48.500	0.336	0.090	0.336	0.426	0.000	0.320	0.320	0.107	0.000	0.320	0.320	0.000	0.320	0.320	0.000	0.320	3.28	1.66
14-Feb	0.1		0.0	40.388	0.400	0.0	40.788	0.270	0.000	0.000	0.270	0.816	39.702	49.316	0.000	0.049	0.049	0.123	49.143	0.319	0.107	0.319	0.426	0.000	0.319	0.319	0.106	0.000	0.319	0.319	0.000	0.319	0.319	0.000	0.319	3.27	2.07

11) Series Tank Model Calculation Sheet : Rezekne 1988

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
Height of Orifice								30	0	0		0			0	0		25						0	0		0				0	0		0			
Coefficient of Orifice								0.025	0	0		0.02			0	0.001		0.0025						0	0.75						0	1					
	Rain	Evapotranspiration	Converted Evapotranspiration	Storage of previous day	Rain of previous day	Evapotranspiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltration	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltration	Balance of Storage	Total specific dischareg	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Total	Estimated River Discharege	Measured River Discharge
15-Feb	1.4		0.0	39.702	0.100	0.0	39.802	0.245	0.000	0.000	0.245	0.796	38.761	49.939	0.000	0.050	0.050	0.125	49.764	0.295	0.106	0.295	0.401	0.000	0.301	0.301	0.100	0.000	0.301	0.301	0.000	0.301	0.301	0.000	0.301	3.09	2.02
16-Feb	0		0.0	38.761	1.400	0.0	40.161	0.254	0.000	0.000	0.254	0.803	39.104	50.568	0.000	0.051	0.051	0.126	50.391	0.305	0.100	0.305	0.405	0.000	0.304	0.304	0.101	0.000	0.304	0.304	0.000	0.304	0.304	0.000	0.304	3.12	1.94
17-Feb	0		0.0	39.104	0.000	0.0	39.104	0.228	0.000	0.000	0.228	0.782	38.094	51.173	0.000	0.051	0.051	0.128	50.994	0.279	0.101	0.279	0.380	0.000	0.285	0.285	0.095	0.000	0.285	0.285	0.000	0.285	0.285	0.000	0.285	2.92	1.90
18-Feb	0		0.0	38.094	0.000	0.0	38.094	0.202	0.000	0.000	0.202	0.762	37.130	51.756	0.000	0.052	0.052	0.129	51.574	0.254	0.095	0.254	0.349	0.000	0.262	0.262	0.087	0.000	0.262	0.262	0.000	0.262	0.262	0.000	0.262	2.69	1.86
19-Feb	0		0.0	37.130	0.000	0.0	37.130	0.178	0.000	0.000	0.178	0.743	36.209	52.317	0.000	0.052	0.052	0.131	52.134	0.231	0.087	0.231	0.318	0.000	0.238	0.238	0.079	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.45	1.78
20-Feb	0		0.0	36.209	0.000	0.0	36.209	0.155	0.000	0.000	0.155	0.724	35.330	52.858	0.000	0.053	0.053	0.132	52.673	0.208	0.079	0.208	0.288	0.000	0.216	0.216	0.072	0.000	0.216	0.216	0.000	0.216	0.216	0.000	0.216	2.21	1.64
21-Feb	0		0.0	35.330	0.000	0.0	35.330	0.133	0.000	0.000	0.133	0.707	34.490	53.380	0.000	0.053	0.053	0.133	53.193	0.187	0.072	0.187	0.259	0.000	0.194	0.194	0.065	0.000	0.194	0.194	0.000	0.194	0.194	0.000	0.194	1.99	1.64
22-Feb	0		0.0	34.490	0.000	0.0	34.490	0.112	0.000	0.000	0.112	0.690	33.688	53.883	0.000	0.054	0.054	0.135	53.694	0.166	0.065	0.166	0.231	0.000	0.173	0.173	0.058	0.000	0.173	0.173	0.000	0.173	0.173	0.000	0.173	1.78	1.80
23-Feb	0		0.0	33.688	0.000	0.0	33.688	0.092	0.000	0.000	0.092	0.674	32.922	54.368	0.000	0.054	0.054	0.136	54.178	0.147	0.058	0.147	0.204	0.000	0.153	0.153	0.051	0.000	0.153	0.153	0.000	0.153	0.153	0.000	0.153	1.57	1.82
24-Feb	0		0.0	32.922	0.000	0.0	32.922	0.073	0.000	0.000	0.073	0.658	32.190	54.836	0.000	0.055	0.055	0.137	54.644	0.128	0.051	0.128	0.179	0.000	0.134	0.134	0.045	0.000	0.134	0.134	0.000	0.134	0.134	0.000	0.134	1.38	1.66
25-Feb	0		0.0	32.190	0.000	0.0	32.190	0.055	0.000	0.000	0.055	0.644	31.492	55.288	0.000	0.055	0.055	0.138	55.094	0.110	0.045	0.110	0.155	0.000	0.116	0.116	0.039	0.000	0.116	0.116	0.000	0.116	0.116	0.000	0.116	1.19	1.53
26-Feb	0		0.0	31.492	0.000	0.0	31.492	0.037	0.000	0.000	0.037	0.630	30.825	55.724	0.000	0.056	0.056	0.139	55.529	0.093	0.039	0.093	0.132	0.000	0.099	0.099	0.033	0.000	0.099	0.099	0.000	0.099	0.099	0.000	0.099	1.01	1.57
27-Feb	0		0.0	30.825	0.000	0.0	30.825	0.021	0.000	0.000	0.021	0.616	30.188	56.146	0.000	0.056	0.056	0.140	55.949	0.077	0.033	0.077	0.110	0.000	0.082	0.082	0.027	0.000	0.082	0.082	0.000	0.082	0.082	0.000	0.082	0.84	1.51
28-Feb	0		0.0	30.188	0.000	0.0	30.188	0.005	0.000	0.000	0.005	0.604	29.579	56.553	0.000	0.057	0.057	0.141	56.355	0.061	0.027	0.061	0.089	0.000	0.066	0.066	0.022	0.000	0.066	0.066	0.000	0.066	0.066	0.000	0.066	0.68	1.48
1-Mar	0		0.0	29.579	0.000	0.0	29.579	0.000	0.000	0.000	0.000	0.592	28.988	56.947	0.000	0.057	0.057	0.142	56.747	0.057	0.022	0.057	0.079	0.000	0.059	0.059	0.020	0.000	0.059	0.059	0.000	0.059	0.059	0.000	0.059	0.61	1.39
2-Mar	0		0.0	28.988	0.000	0.0	28.988	0.000	0.000	0.000	0.000	0.580	28.408	57.327	0.000	0.057	0.057	0.143	57.126	0.057	0.020	0.057	0.077	0.000	0.058	0.058	0.019	0.000	0.058	0.058	0.000	0.058	0.058	0.000	0.058	0.59	1.49
3-Mar	0		0.0	28.408	0.000	0.0	28.408	0.000	0.000	0.000	0.000	0.568	27.840	57.694	0.000	0.058	0.058	0.144	57.493	0.058	0.019	0.058	0.077	0.000	0.058	0.058	0.019	0.000	0.058	0.058	0.000	0.058	0.058	0.000	0.058	0.59	1.40
4-Mar	0		0.0	27.840	0.000	0.0	27.840	0.000	0.000	0.000	0.000	0.557	27.283	58.049	0.000	0.058	0.058	0.145	57.846	0.058	0.019	0.058	0.077	0.000	0.058	0.058	0.019	0.000	0.058	0.058	0.000	0.058	0.058	0.000	0.058	0.59	1.37
5-Mar	0		0.0	27.283	0.000	0.0	27.283	0.000	0.000	0.000	0.000	0.546	26.737	58.392	0.000	0.058	0.058	0.146	58.187	0.058	0.019	0.058	0.078	0.000	0.058	0.058	0.019	0.000	0.058	0.058	0.000	0.058	0.058	0.000	0.058	0.60	1.41
6-Mar	0		0.0	26.737	0.000	0.0	26.737	0.000	0.000	0.000	0.000	0.535	26.202	58.722	0.000	0.059	0.059	0.147	58.517	0.059	0.019	0.059	0.078	0.000	0.059	0.059	0.020	0.000	0.059	0.059	0.000	0.059	0.059	0.000	0.059	0.60	1.29
7-Mar	0		0.0	26.202	0.000	0.0	26.202	0.000	0.000	0.000	0.000	0.524	25.678	59.041	0.000	0.059	0.059	0.148	58.834	0.059	0.020	0.059	0.079	0.000	0.059	0.059	0.020	0.000	0.059	0.059	0.000	0.059	0.059	0.000	0.059	0.60	1.32
8-Mar	0		0.0	25.678	0.000	0.0	25.678	0.000	0.000	0.000	0.000	0.514	25.165	59.348	0.000	0.059	0.059	0.148	59.140	0.059	0.020	0.059	0.079	0.000	0.059	0.059	0.020	0.000	0.059	0.059	0.000	0.059	0.059	0.000	0.059	0.61	1.23
9-Mar	0		0.0	25.165	0.000	0.0	25.165	0.000	0.000	0.000	0.000	0.503	24.662	59.643	0.000	0.060	0.060	0.149	59.434	0.060	0.020	0.060	0.079	0.000	0.060	0.060	0.020	0.000	0.060	0.060	0.000	0.060	0.060	0.000	0.060	0.61	0.74
10-Mar	0		0.0	24.662	0.000	0.0	24.662	0.000	0.000	0.000	0.000	0.493	24.168	59.928	0.000	0.060	0.060	0.150	59.718	0.060	0.020	0.060	0.080	0.000	0.060	0.060	0.020	0.000	0.060	0.060	0.000	0.060	0.060	0.000	0.060	0.61	0.73
11-Mar	0		0.0	24.168	0.000	0.0	24.168	0.000	0.000	0.000	0.000	0.483	23.685	60.201	0.000	0.060	0.060	0.151	59.991	0.060	0.020	0.060	0.080	0.000	0.060	0.060	0.020	0.000	0.060	0.060	0.000	0.060	0.060	0.000	0.060	0.62	0.61
12-Mar	0		0.0	23.685	0.000	0.0	23.685	0.000	0.000	0.000	0.000	0.474	23.211	60.464	0.000	0.060	0.060	0.151	60.253	0.060	0.020	0.060	0.081	0.000	0.060	0.060	0.020	0.000	0.060	0.060	0.000	0.060	0.060	0.000	0.060	0.62	0.48
13-Mar	0		0.0	23.211	0.000	0.0	23.211	0.000	0.000	0.000	0.000	0.464	22.747	60.717	0.000	0.061	0.061	0.152	60.504	0.061	0.020	0.061	0.081	0.000	0.061	0.061	0.020	0.000	0.061	0.061	0.000	0.061	0.061	0.000	0.061	0.62	0.51
14-Mar	0		0.0	22.747	0.000	0.0	22.747	0.000	0.000	0.000	0.000	0.455	22.292	60.959	0.000	0.061	0.061	0.152	60.746	0.061	0.020	0.061	0.081	0.000	0.061	0.061	0.020	0.000	0.061	0.061	0.000	0.061	0.061	0.000	0.061	0.62	0.66
15-Mar	0		0.0	22.292	0.000	0.0	22.292	0.000	0.000	0.000	0.000	0.446	21.846	61.192	0.000	0.061	0.061	0.153	60.978	0.061	0.020	0.061	0.081	0.000	0.061	0.061	0.020	0.000	0.061	0.061	0.000	0.061	0.061	0.000	0.061	0.63	0.75
16-Mar	0		0.0	21.846	0.000	0.0	21.846	0.000	0.000	0.000	0.000	0.437	21.409	61.415	0.000	0.061	0.061	0.154	61.200	0.061	0.020	0.061	0.082	0.000	0.061	0.061	0.020	0.000	0.061	0.061	0.000	0.061	0.061	0.000	0.061	0.63	0.75
17-Mar	0		0.0	21.409	0.000	0.0	21.409	0.000	0.000	0.000	0.000	0.428	20.981	61.628	0.000	0.062	0.062	0.154	61.412	0.062	0.020	0.062	0.082	0.000	0.062	0.062	0.021	0.000	0.062	0.062	0.000	0.062	0.062	0.000	0.062	0.63	0.79
18-Mar	0		0.0	20.981	0.000	0.0	20.981	0.000	0.000	0.000	0.000	0.420	20.561	61.832	0.000	0.062	0.062	0.155	61.615	0.062	0.021	0.062	0.082	0.000	0.062	0.062	0.021	0.000	0.062	0.062	0.000	0.062	0.062	0.000	0.062	0.63	0.88
19-Mar	2.7		0.0	20.561	0.000	0.0	20.561	0.000	0.000	0.000	0.000	0.411	20.150	62.027	0.000	0.062	0.062	0.155	61.809	0.062	0.021	0.062	0.083	0.000	0.062	0.062	0.021	0.000	0.062	0.062	0.000	0.062	0.062	0.000	0.062	0.64	0.95
20-Mar	0		0.0	20.150	2.700	0.0	22.850	0.000	0.000	0.000	0.000	0.457	22.393	62.266	0.000	0.062	0.062	0.156	62.049	0.062	0.021	0.062	0.083	0.000	0.062	0.062	0.021	0.000	0.062	0.062	0.000	0.062	0.062	0.000	0.062	0.64	1.02
21-Mar	0		0.0	22.393	0.000	0.0	22.393	0.000	0.000	0.000	0.000	0.448	21.945	62.496	0.000	0.062	0.062	0.156	62.278	0.062	0.021	0.062	0.083	0.000	0.062	0.062	0.021	0.000	0.062	0.062	0.000	0.062	0.062	0.000	0.062	0.64	1.44
22-Mar	0		0.0	21.945	0.000	0.0	21.945	0.000	0.000	0.000	0.000	0.439	21.506	62.717	0.000	0.063	0.063	0.157	62.497	0.063	0.021	0.063	0.084	0.000	0.063	0.063	0.021	0.000	0.063	0.063	0.000	0.063	0.063	0.000	0.063	0.64	1.73
23-Mar	0		0.0	21.506	0.000	0.0	21.506	0.000	0.000	0.000	0.000	0.430	21.076	62.927	0.000	0.063	0.063	0.157	62.707	0.063	0.021	0.063	0.084	0.000	0.063	0.063	0.021	0.000	0.063	0.063	0.000	0.063	0.063	0.000	0.063	0.65	1.76
24-Mar	0		0.0	21.076	0.000	0.0	21.076	0.000	0.000	0.000	0.000	0.422	20.655	63.128	0.000	0.063	0.063	0.158	62.907	0.063	0.021	0.063	0.084	0.000	0.063	0.063	0.021	0.000	0.063	0.063	0.000	0.063	0.063	0.000	0.063	0.65	1.78
25-Mar	6.6		0.0	20.655	0.000	0.0	20.655	0.000	0.000	0.000	0.000	0.413	20.242	63.321	0.000	0.063	0.063	0.158	63.099	0.063	0.021	0.063	0.084	0.000	0.063	0.063	0.021	0.000	0.063	0.063	0.000	0.063	0.063	0.000	0.063	0.65	1.96
26-Mar	11		0.0	20.242	6.600	0.0	26.842	0.000	0.000	0.000	0.000	0.537	26.305	63.636	0.000	0.064	0.064	0.159	63.413	0.064	0.021	0.064	0.085	0.000	0.064	0.064	0.021	0.000	0.064	0.064	0.000	0.064	0.064	0.000	0.064	0.65	2.19
27-Mar	8.7		0.0	26.305	11.000	0.0	37.305	0.183	0.000	0.000	0.183	0.746	36.376	64.159	0.000	0.064	0.064	0.160	63.935	0.247	0.021	0.247	0.268	0.000	0.201	0.201	0.067	0.000	0.201	0.201	0.000	0.201	0.201	0.000	0.201	2.06	3.12
28-Mar	10.1		0.0	36.376	8.700	0.0	45.076	0.377	0.000	0.000	0.377	0.902	43.798	64.836	0.000	0.065	0.065	0.162	64.609	0.442	0.067	0.442	0.509	0.000	0.382	0.382	0.127	0.000	0.382	0.382	0.000	0.382	0.382	0.000	0.382	3.92	5.30
29-Mar	9.1		0.0	43.798	10.100	0.0	53.898	0.597	0.000	0.000	0.597	1.078	52.222	65.687	0.000	0.066	0.066	0.164	65.457	0.663	0.127	0.663	0.790	0.000	0.593	0.593	0.198	0.000	0.593	0.593	0.000	0.593	0.593	0.000	0.593	6.08	7.06
30-Mar	8.9		0.0	52.222	9.100	0.0	61.322	0.783	0.000	0.000	0.783	1.226	59.313	66.684	0.000	0.067	0.067	0.167	66.450	0.850	0.198	0.850	1.047	0.000	0.785	0.785	0.262	0.000	0.785	0.785	0.000	0.785	0.785	0.000	0.785	8.06	9.49
31-Mar	3.2		0.0	59.313	8.900	0.0	68.213	0.955	0.000	0.000	0.955	1.364	65.893	67.815	0.000	0.068	0.068	0.170	67.577	1.023	0.262	1.023	1.285	0.000	0.964	0.964	0.321	0.000	0.964	0.964	0.000	0.964	0.964	0.000	0.964	9.89	12.40
1-Apr	2.3	1.5	0.8	65.893	3.200	0.0	69.093	0.977	0.000	0.000	0.977	1.382	66.734	68.959	0.000	0.069	0.069	0.172	68.718	1.046	0.321	1.046	1.368	0.000	1.026	1.026	0.342	0.000	1.026	1.026	0.000	1.026	1.026	0.000	1.026	10.52	14.90
2-Apr	0.2	1.5	1.5	66.734	2.300	0.8	68.284	0.957	0.000	0.000	0.957	1.366	65.961	70.083	0.000	0.070	0.070	0.175	69.838	1.027	0.342	1.027	1.369	0.000	1.027	1.027	0.342	0.000	1.027	1.027	0.000	1.027	1.027	0.000	1.027	10.54	15.80
3-Apr	0	1.5	1.5	65.961	0.200	1.5	64.661	0.867	0.000	0.000	0.867	1.293	62.502	71.131	0.000	0.071	0.071	0.178	70.882	0.938	0.342	0.938	1.280	0.000	0.960	0.960	0.320	0.000	0.960	0.960	0.000	0.960	0.960	0.000	0.960	9.85	13.20
4-Apr	0.2	1.5	1.5	62.502	0.000	1.5	61.002	0.775	0.000	0.000	0.775	1.220	59.006	72.102	0.000	0.072	0.072	0.180	71.850	0.847	0.320	0.847	1.167	0.000	0.875	0.875	0.292	0.000	0.875	0.875	0.000	0.875	0.875	0.000	0.875	8.98	12.90
5-Apr	0.3	1.5	1.5	59.006	0.200	1.5	57.706	0.693	0.000	0.000	0.693	1.154	55.860	73.004	0.000	0.073	0.073	0.183	72.749	0.766	0.292	0.766	1.057	0.000	0.793	0.793	0.264	0.000	0.793	0.793	0.000	0.793	0.793	0.000	0.793	8.14	12.30
6-Apr	0.3	1.5	1.5	55.860	0.300	1.5	54.660	0.616	0.000	0.000	0.616	1.093	52.950	73.842	0.000	0.074	0.074	0.185	73.583	0.690	0.264	0.690	0.955	0.000	0.716	0.716	0.239	0.000	0.716	0.716	0.000	0.716	0.716	0.000	0.716	7.35	11.20
7-Apr	0	1.5	1.5	52.950	0.300	1.5	51.750	0.544	0.000	0.000	0.544	1.035	50.171	74.618	0.000	0.075	0.075	0.187	74.357	0.618	0.239	0.618	0.857	0.000	0.643	0.643	0.214	0.000	0.643	0.643	0.000	0.643	0.643	0.000	0.643	6.60	9.69
8-Apr	0	1.5	1.5	50.171	0.000	1.5	48.671	0.467	0.000	0.000	0.467	0.973	47.231	75.331	0.000	0.075	0.075	0.188	75.067	0.542	0.214	0.542	0.756	0.000	0.567	0.567	0.189	0.000	0.567	0.567	0.000	0.567	0.567	0.000	0.567	5.82	8.67
9-Apr	0	1.5	1.5	47.231	0.000	1.5	45.731	0.393	0.000	0.000	0.393	0.915	44.423	75.982	0.000	0.076	0.076	0.190	75.716	0.469	0.189	0.469	0.658	0.000	0.494	0.494	0.165	0.000	0.494	0.494	0.000	0.494	0.494	0.000	0.494	5.07	8.23
10-Apr	0	1.5	1.5	44.423	0.000	1.5	42.923	0.323	0.000	0.000	0.323	0.858	41.742	76.574	0.000	0.077	0.077	0.191	76.306	0.400	0.165	0.400	0.564	0.000	0.423	0.423	0.141	0.000	0.423	0.423	0.000	0.423	0.423	0.000	0.423	4.34	6.69
11-Apr	0.7	1.5	0.8	41.742	0.000	1.5	40.242	0.256	0.000	0.000	0.256	0.805	39.181	77.111	0.000	0.077	0.077	0.193	76.841	0.333	0.141	0.333	0.474	0.000	0.356	0.356	0.119	0.000	0.356	0.356	0.000	0.356	0.356	0.000	0.356	3.65	4.56
12-Apr	0.8	1.5	0.8	39.181	0.700	0.8	39.131	0.228	0.000	0.000	0.228	0.783	38.120	77.624	0.000	0.078	0.078	0.194	77.352	0.306	0.119	0.306	0.424	0.000	0.318	0.318	0.106	0.000	0.318	0.318	0.000	0.318	0.318	0.000	0.318	3.27	4.05
13-Apr	4	1.5	0.8	38.120	0.800	0.8	38.170	0.204	0.000	0.000	0.204	0.763	37.202	78.115	0.000	0.078	0.078	0.195	77.842	0.282	0.106	0.282	0.388	0.000	0.291	0.291	0.097	0.000	0.291	0.291	0.000	0.291	0.291	0.000	0.291	2.99	4.76
14-Apr	0.6	1.5	0.8	37.202	4.000	0.8	40.452	0.261	0.000	0.000	0.261	0.809	39.382	78.651	0.000	0.079	0.079	0.197	78.376	0.340	0.097	0.340	0.437	0.000	0.328	0.328	0.109	0.000	0.328	0.328	0.000	0.328	0.328	0.000	0.328	3.36	4.76
15-Apr	0	1.5	1.5	39.382	0.600	0.8	39.232	0.231	0.000	0.000	0.231	0.785	38.216	79.160	0.000	0.079	0.079	0.198	78.883	0.310	0.109	0.310	0.419	0.000	0.314	0.314	0.105	0.000	0.314	0.314	0.000	0.314	0.314	0.000	0.314	3.23	4.51
16-Apr	0	1.5	1.5	38.216	0.000	1.5	36.716	0.168	0.000	0.000	0.168	0.734	35.814	79.618	0.000	0.080	0.080	0.199	79.339	0.248	0.105	0.248	0.352	0.000	0.264	0.264	0.088	0.000	0.264	0.264	0.000	0.264	0.264	0.000	0.264	2.71	4.40
17-Apr	0.9	1.5	0.8	35.814	0.000	1.5	34.314	0.108	0.000	0.000	0.108	0.686	33.520	80.025	0.000	0.080	0.080	0.200	79.745	0.188	0.088	0.188	0.276	0.000	0.207	0.207	0.069	0.000	0.207	0.207	0.000	0.207	0.207	0.000	0.207	2.12	4.55
18-Apr	6.9	1.5	0.8	33.520	0.900	0.8	33.670	0.092	0.000	0.000	0.092	0.673	32.905	80.419	0.000	0.080	0.080	0.201	80.137	0.172	0.069	0.172	0.241	0.000	0.181	0.181	0.060	0.000	0.181	0.181	0.000	0.181	0.181	0.000	0.181	1.86	4.76
19-Apr	0	1.5	1.5	32.905	6.900	0.8	39.055	0.226	0.000	0.000	0.226	0.781	38.047	80.918	0.000	0.081	0.081	0.202	80.635	0.307	0.060	0.307	0.368	0.000	0.276	0.276	0.092	0.000	0.276	0.276	0.000	0.276	0.276	0.000	0.276	2.83	4.82
20-Apr	0	1.5	1.5	38.047	0.000	1.5	36.547	0.164	0.000	0.000	0.164	0.731	35.653	81.366	0.000	0.081	0.081	0.203	81.081	0.245	0.092	0.245	0.337	0.000	0.253	0.253	0.084	0.000	0.253	0.253	0.000	0.253	0.253	0.000	0.253	2.59	5.95
21-Apr	0	1.5	1.5	35.653	0.000	1.5	34.153	0.104	0.000	0.000	0.104	0.683	33.366	81.764	0.000	0.082	0.082	0.204	81.478	0.186	0.084	0.186	0.270	0.000	0.202	0.202	0.067	0.000	0.202	0.202	0.000	0.202	0.202	0.000	0.202	2.08	5.83
22-Apr	0	1.5	1.5	33.366	0.000	1.5	31.866	0.047	0.000	0.000	0.047	0.637	31.182	82.115	0.000	0.082	0.082	0.205	81.828	0.129	0.067	0.129	0.196	0.000	0.147	0.147	0.049	0.000	0.147	0.147	0.000	0.147	0.147	0.000	0.147	1.51	5.16
23-Apr	0	1.5	1.5	31.182	0.000	1.5	29.682	0.000	0.000	0.000	0.000	0.594	29.088	82.422	0.000	0.082	0.082	0.206	82.133	0.082	0.049	0.082	0.131	0.000	0.099	0.099	0.033	0.000	0.099	0.099	0.000	0.099	0.099	0.000	0.099	1.01	4.65
24-Apr	1.3	1.5	0.8	29.088	0.000	1.5	27.588	0.000	0.000	0.000	0.000	0.552	27.037	82.685	0.000	0.083	0.083	0.207	82.396	0.083	0.033	0.083	0.116	0.000	0.087	0.087	0.029	0.000	0.087	0.087	0.000	0.087	0.087	0.000	0.087	0.89	4.65
25-Apr	0	1.5	1.5	27.037	1.300	0.8	27.587	0.000	0.000	0.000	0.000	0.552	27.035	82.947	0.000	0.083	0.083	0.207	82.657	0.083	0.029	0.083	0.112	0.000	0.084	0.084	0.028	0.000	0.084	0.084	0.000	0.084	0.084	0.000	0.084	0.86	3.95
26-Apr	0	1.5	1.5	27.035	0.000	1.5	25.535	0.000	0.000	0.000	0.000	0.511	25.024	83.168	0.000	0.083	0.083	0.208	82.877	0.083	0.028	0.083	0.111	0.000	0.083	0.083	0.028	0.000	0.083	0.083	0.000	0.083	0.083	0.000	0.083	0.86	3.76
27-Apr	0	1.5	1.5	25.024	0.000	1.5	23.524	0.000	0.000	0.000	0.000	0.470	23.054	83.347	0.000	0.083	0.083	0.208	83.055	0.083	0.028	0.083	0.111	0.000	0.083	0.083	0.028	0.000	0.083	0.083	0.000	0.083	0.083	0.000	0.083	0.86	3.47
28-Apr	0	1.5	1.5	23.054	0.000	1.5	21.554	0.000	0.000	0.000	0.000	0.431	21.123	83.486	0.000	0.083	0.083	0.209	83.194	0.083	0.028	0.083	0.111	0.000	0.083	0.083	0.028	0.000	0.083	0.083	0.000	0.083	0.083	0.000	0.083	0.86	3.51
29-Apr	0	1.5	1.5	21.123	0.000	1.5	19.623	0.000	0.000	0.000	0.000	0.392	19.230	83.587	0.000	0.084	0.084	0.209	83.294	0.084	0.028	0.084	0.111	0.000	0.084	0.084	0.028	0.000	0.084	0.084	0.000	0.084	0.084	0.000	0.084	0.86	3.51
30-Apr	6.4	1.5	0.8	19.230	0.000	1.5	17.730	0.000	0.000	0.000	0.000	0.355	17.375	83.649	0.000	0.084	0.084	0.209	83.356	0.084	0.028	0.084	0.111	0.000	0.084	0.084	0.028	0.000	0.084	0.084	0.000	0.084	0.084	0.000	0.084	0.86	3.42

12) Estimated Precipitaion : Rezekne Model 1988

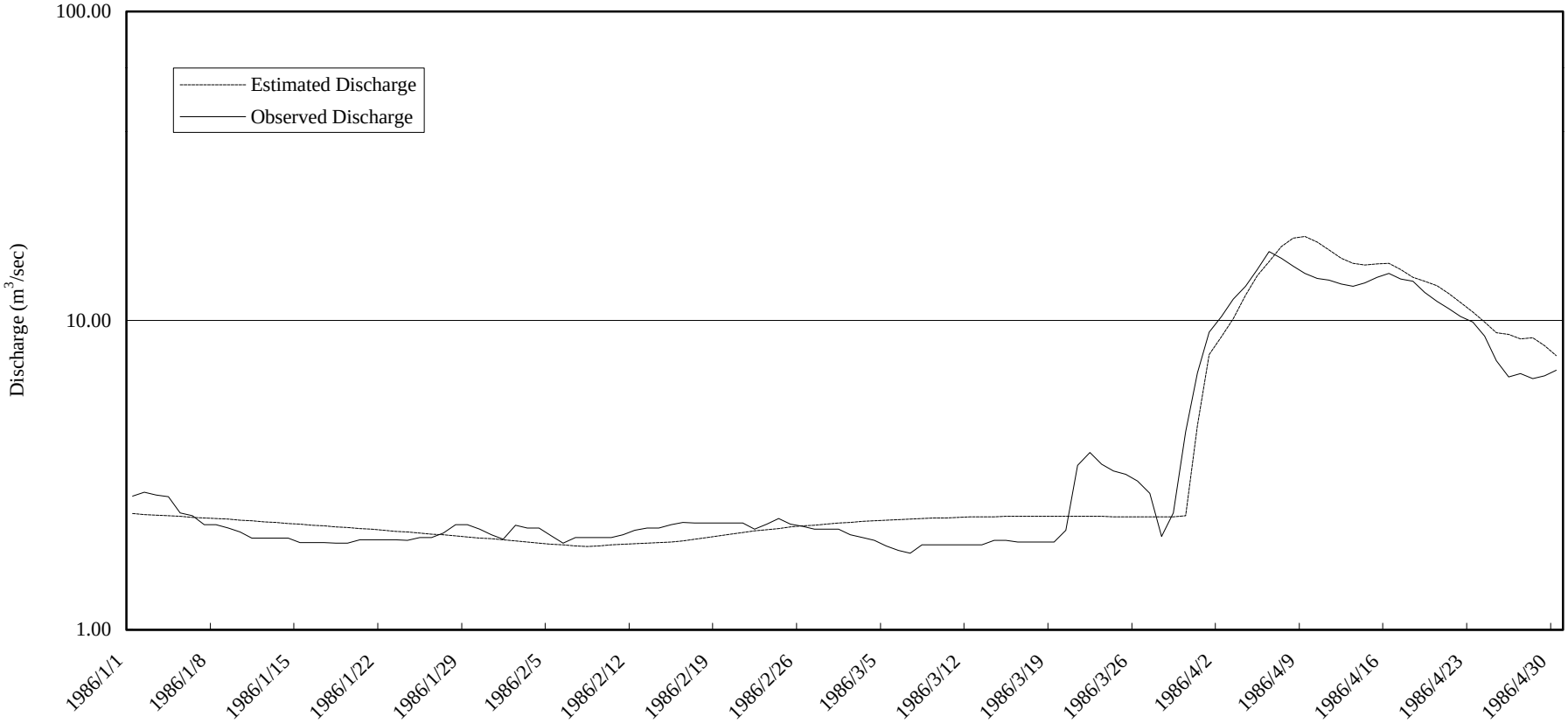
	A= 409					m = 4.5				A= 136					m = 5			Total
	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day
1-Dec				0.2	0.2	0.0	0.00						0.2			0.00			0.0
2-Dec		0.0		0.2	0.2	0.0	0.00	0.00	0.00	0.1	1.3		0.2	0.2	0.1	0.00	0.00	0.10	0.0
3-Dec		0.2		0.2	0.1	0.0	0.00	0.00	0.00		-0.1		0.2	0.2	0.0	0.00	0.00	0.00	0.0
4-Dec	1.0	-0.1		0.2	0.1	0.0	1.00	0.00	0.00	0.6	0.2		0.2	0.1	0.6	0.00	0.00	0.60	0.1
5-Dec	0.6	1.8		0.2	0.2	0.6	1.00	1.00	1.60	0.1	1.9		0.2	0.2	0.1	0.00	0.00	0.10	1.2
6-Dec	0.3	-0.5		0.2	0.2	0.0	0.30	0.00	0.00	0.0	-0.6		0.2	0.2	0.0	0.00	0.00	0.00	0.0
7-Dec		-1.7		0.2	0.1	0.0	0.30	0.00	0.00		-1.8		0.2	0.2	0.0	0.00	0.00	0.00	0.0
8-Dec	1.7	-2.8		0.2	0.1	0.0	2.00	0.00	0.00	1.2	-3.1		0.2	0.1	0.0	0.00	0.00	0.00	0.0
9-Dec	2.8	-7.2	2.0	0.2	0.1	0.0	4.80	0.00	0.00	1.5	-6.8	2.0	0.2	0.1	0.0	1.20	0.00	0.00	0.0
10-Dec	2.5	-7.0	5.0	0.2	0.1	0.0	7.30	0.00	0.00	6.9	-5.8	3.0	0.2	0.1	0.0	2.70	0.00	0.00	0.0
11-Dec	2.4	-6.5	6.0	0.2	0.1	0.0	9.70	0.00	0.00	1.5	-6.2	8.0	0.2	0.1	0.0	9.60	0.00	0.00	0.0
12-Dec	8.4	-3.5	16.0	0.2	0.1	0.0	18.10	0.00	0.00	6.1	-2.8	17.0	0.2	0.1	0.0	11.10	0.00	0.00	0.0
13-Dec	0.8	-9.5	17.0	0.2	0.1	0.0	18.90	0.00	0.00	0.2	-9.6	16.0	0.2	0.2	0.0	17.20	0.00	0.00	0.0
14-Dec	3.0	-4.7	19.0	0.2	0.1	0.0	21.90	0.00	0.00	2.2	-5.0	16.0	0.2	0.1	0.0	17.40	0.00	0.00	0.0
15-Dec	0.9	-0.2	14.0	0.2	0.2	0.0	22.80	0.00	0.00	0.5	-0.5	12.0	0.2	0.2	0.0	19.60	0.00	0.00	0.0
16-Dec		-12.0	11.0	0.2	0.1	0.0	22.80	0.00	0.00		-11.4	12.0	0.2	0.2	0.0	20.10	0.00	0.00	0.0
17-Dec	3.4	-3.0	11.0	0.2	0.2	0.0	26.20	0.00	0.00	4.2	-3.0	17.0	0.2	0.1	0.0	20.10	0.00	0.00	0.0
18-Dec		-8.9	11.0	0.2	0.2	0.0	26.20	0.00	0.00	0.0	-8.2	17.0	0.2	0.2	0.0	24.30	0.00	0.00	0.0
19-Dec	0.2	-9.4	11.0	0.2	0.1	0.0	26.40	0.00	0.00		-10.7	17.0	0.2	0.2	0.0	24.30	0.00	0.00	0.0
20-Dec	7.1	-2.7	15.0	0.2	0.2	0.0	33.50	0.00	0.00	10.2	-2.8	18.0	0.2	0.1	0.0	24.30	0.00	0.00	0.0
21-Dec		-4.0	19.0	0.2	0.1	0.0	33.50	0.00	0.00	0.2	-4.0	19.0	0.2	0.2	0.0	34.50	0.00	0.00	0.0
22-Dec	1.9	-1.5	19.0	0.2	0.2	0.0	35.40	0.00	0.00	2.1	-1.7	20.0	0.2	0.1	0.0	34.70	0.00	0.00	0.0
23-Dec	0.0	-10.1	18.0	0.2	0.2	0.0	35.40	0.00	0.00	0.0	-10.4	20.0	0.2	0.2	0.0	36.80	0.00	0.00	0.0
24-Dec		-19.1	18.0	0.2	0.2	0.0	35.40	0.00	0.00		-18.6	21.0	0.2	0.2	0.0	36.80	0.00	0.00	0.0
25-Dec	0.2	-12.8	18.0	0.2	0.2	0.0	35.60	0.00	0.00	0.0	-17.4	21.0	0.2	0.2	0.0	36.80	0.00	0.00	0.0
26-Dec	0.2	-3.0	19.0	0.2	0.2	0.0	35.80	0.00	0.00	0.7	-4.3	21.0	0.2	0.1	0.0	36.80	0.00	0.00	0.0
27-Dec	0.0	-2.3	18.0	0.2	0.1	0.0	35.80	0.00	0.00	0.7	-3.0	21.0	0.2	0.1	0.0	37.50	0.00	0.00	0.0
28-Dec	3.5	0.6	15.0	0.2	0.1	3.5	35.80	2.73	6.23	3.6	0.4	19.0	0.2	0.1	3.6	38.20	1.82	5.42	6.0
29-Dec	1.9	-0.1	11.0	0.2	0.2	0.0	34.97	0.00	0.00	1.5	0.3	15.0	0.2	0.1	1.5	36.38	1.36	2.86	0.7
30-Dec	0.0	-4.4	11.0	0.2	0.1	0.0	34.97	0.00	0.00		-4.1	14.0	0.2	0.2	0.0	35.02	0.00	0.00	0.0
31-Dec	4.5	1.6	10.0	0.2	0.1	4.5	34.97	7.29	11.79	6.1	1.9	13.0	0.2	0.1	6.1	35.02	8.69	14.79	12.5
1-Jan	0.8	-5.9	6.0		0.0	0.0	28.48	0.00	0.00	0.0	-5.5	8.0		0.0	0.0	26.33	0.00	0.00	0.0
2-Jan	0.0	-9.5	6.0		0.0	0.0	28.48	0.00	0.00	0.6	-10.6	8.0		0.0	0.0	26.33	0.00	0.00	0.0
3-Jan	4.9	1.8	6.0		0.0	4.9	28.48	8.21	13.11	7.1	1.3	8.0		0.0	7.1	26.93	5.97	13.07	13.1
4-Jan	1.9	4.6	1.0		0.0	1.9	20.27	20.27	22.17	3.9	4.2	3.0		0.0	3.9	20.96	19.10	23.00	22.4
5-Jan		4.3			0.0	0.0	0.00	0.00	0.00	0.1	3.6	1.0		0.0	0.1	1.86	1.86	1.96	0.5
6-Jan	4.9	2.7			0.0	4.9	0.00	0.00	4.90	2.4	2.1			0.0	2.4	0.00	0.00	2.40	4.3
7-Jan		2.0			0.0	0.0	0.00	0.00	0.00	0.6	1.5			0.0	0.6	0.00	0.00	0.60	0.1
8-Jan	7.6	1.5	3.0		0.0	7.6	0.00	0.00	7.60	6.2	1.5	3.0		0.0	6.2	0.00	0.00	6.20	7.3
9-Jan	0.5	2.4			0.0	0.5	0.00	0.00	0.50	3.5	2.2			0.0	3.5	0.00	0.00	3.50	1.2
10-Jan	0.0	1.0			0.0	0.0	0.00	0.00	0.00	0.3	1.4			0.0	0.3	0.00	0.00	0.30	0.1
11-Jan		0.1			0.0	0.0	0.00	0.00	0.00		0.1			0.0	0.0	0.00	0.00	0.00	0.0
12-Jan		-0.5			0.0	0.0	0.00	0.00	0.00		-1.0			0.0	0.0	0.00	0.00	0.00	0.0
13-Jan	0.7	-0.6			0.0	0.0	0.70	0.00	0.00	1.0	-1.0			0.0	0.0	0.00	0.00	0.00	0.0
14-Jan		0.9	1.0		0.0	0.0	0.70	0.70	0.70	0.1	1.0	2.0		0.0	0.1	1.00	1.00	1.10	0.8
15-Jan		-0.6			0.0	0.0	0.00	0.00	0.00	0.0	-0.7			0.0	0.0	0.00	0.00	0.00	0.0
16-Jan		-2.3			0.0	0.0	0.00	0.00	0.00		-2.7			0.0	0.0	0.00	0.00	0.00	0.0
17-Jan		-3.7			0.0	0.0	0.00	0.00	0.00		-4.8			0.0	0.0	0.00	0.00	0.00	0.0
18-Jan	0.0	-3.7			0.0	0.0	0.00	0.00	0.00		-4.7			0.0	0.0	0.00	0.00	0.00	0.0
19-Jan		-2.6			0.0	0.0	0.00	0.00	0.00	0.0	-3.9			0.0	0.0	0.00	0.00	0.00	0.0
20-Jan		-3.5			0.0	0.0	0.00	0.00	0.00		-4.3			0.0	0.0	0.00	0.00	0.00	0.0
21-Jan	0.4	-4.8			0.0	0.0	0.40	0.00	0.00	0.0	-5.1			0.0	0.0	0.00	0.00	0.00	0.0
22-Jan		-4.8	0.0		0.0	0.0	0.40	0.00	0.00		-5.4			0.0	0.0	0.00	0.00	0.00	0.0
23-Jan		-6.2	0.0		0.0	0.0	0.40	0.00	0.00		-6.6			0.0	0.0	0.00	0.00	0.00	0.0
24-Jan		-5.1	0.0		0.0	0.0	0.40	0.00	0.00		-5.8			0.0	0.0	0.00	0.00	0.00	0.0
25-Jan		-9.5			0.0	0.0	0.40	0.00	0.00		-10.7			0.0	0.0	0.00	0.00	0.00	0.0
26-Jan		-11.6			0.0	0.0	0.40	0.00	0.00		-12.8			0.0	0.0	0.00	0.00	0.00	0.0
27-Jan		-12.4			0.0	0.0	0.40	0.00	0.00		-13.8			0.0	0.0	0.00	0.00	0.00	0.0
28-Jan		-14.5			0.0	0.0	0.40	0.00	0.00		-15.3			0.0	0.0	0.00	0.00	0.00	0.0
29-Jan		-13.2			0.0	0.0	0.40	0.00	0.00		-14.2			0.0	0.0	0.00	0.00	0.00	0.0
30-Jan		-13.2			0.0	0.0	0.40	0.00	0.00		-14.3			0.0	0.0	0.00	0.00	0.00	0.0
31-Jan		-11.9			0.0	0.0	0.40	0.00	0.00		-12.8			0.0	0.0	0.00	0.00	0.00	0.0
1-Feb		-10.7			0.0	0.0	0.40	0.00	0.00		-11.8			0.0	0.0	0.00	0.00	0.00	0.0
2-Feb		-9.2			0.0	0.0	0.40	0.00	0.00		-10.3			0.0	0.0	0.00	0.00	0.00	0.0
3-Feb	0.2	-5.8			0.0	0.0	0.60	0.00	0.00	1.7	-6.7			0.0	0.0	0.00	0.00	0.00	0.0
4-Feb	1.3	-5.0	1.0		0.0	0.0	1.90	0.00	0.00	3.5	-5.8	3.0		0.0	0.0	1.70	0.00	0.00	0.0
5-Feb	5.1	-0.6	5.0		0.0	0.0	7.00	0.00	0.00	6.1	-1.0	6.0		0.0	0.0	5.20	0.00	0.00	0.0
6-Feb		1.7	2.0		0.0	0.0	7.00	7.00	7.00	0.1	1.3	4.0		0.0	0.1	11.30	5.85	5.95	6.7
7-Feb		0.4	1.0		0.0	0.0	0.00	0.00	0.00	1.5	-0.3	5.0		0.0	0.0	5.45	0.00	0.00	0.0
8-Feb	0.6	1.2	1.0		0.0	0.6	0.00	0.00	0.60	2.1	0.9	5.0		0.0	2.1	6.95	4.07	6.17	2.0
9-Feb		0.6	1.0		0.0	0.0	0.00	0.00	0.00		0.5	3.0		0.0	0.0	2.88	2.25	2.25	0.6
10-Feb	5.3	0.4	5.0		0.0	5.3	0.00	0.00	5.30	4.2	0.3	5.0		0.0	4.2	0.63	0.63	4.83	5.2
11-Feb	1.2	0.4	2.0		0.0	1.2	0.00	0.00	1.20	1.7	-0.1	5.0		0.0	0.0	0.00	0.00	0.00	0.9
12-Feb	3.2	0.2	5.0		0.0	3.2	0.00	0.00	3.20	3.5	0.1	10.0		0.0	3.5	1.70	0.45	3.95	3.4
13-Feb	0.5	0.2	4.0		0.0	0.5	0.00	0.00	0.50	0.8	-0.2	10.0		0.0	0.0	1.25	0.00	0.00	0.4
14-Feb	0.1	0.2	5.0		0.0	0.1	0.00	0.00	0.10	0.8	-0.5	10.0		0.0	0.0	2.05	0.00	0.00	0.1
15-Feb	1.9	0.3	7.0		0.0	1.9	0.00	0.00	1.90	2.1	0.0	12.0		0.0	0.0	2.85	0.00	0.00	1.4
16-Feb	0.2	-0.4	7.0		0.0	0.0	0.20	0.00	0.00		-0.3	11.0		0.0	0.0	4.95	0.00	0.00	0.0
17-Feb		-0.8	6.0		0.0	0.0	0.20	0.00	0.00		-1.2	11.0		0.0	0.0	4.95	0.00	0.00	0.0
18-Feb		-3.5	6.0		0.0	0.0	0.20	0.00	0.00	0.7	-4.0	10.0		0.0	0.0	4.95	0.00	0.00	0.0
19-Feb	4.1	-4.9	9.0		0.0	0.0	4.30	0.00	0.00	3.8	-4.6	12.0		0.0	0.0	5.65	0.00	0.00	0.0
20-Feb	0.3	-9.9	10.0		0.0	0.0	4.60	0.00	0.00	0.5	-9.5	13.0		0.0	0.0	9.45	0.00	0.00	0.0
21-Feb	0.2	-13.5	10.0		0.0	0.0	4.80	0.00	0.00		-14.5	13.0		0.0	0.0	9.95	0.00	0.00	0.0
22-Feb	0.3	-14.8	10.0		0.0	0.0	5.10	0.00	0.00		-15.2	13.0		0.0	0.0	9.95	0.00	0.00	0.0
23-Feb	0.4	-8.0	10.0		0.0	0.0	5.50	0.00	0.00	0.9	-9.3	13.0		0.0	0.0	9.95	0.00	0.00	0.0
24-Feb	0.2	-9.0	10.0		0.0	0.0	5.70	0.00	0.00		-9.5	13.0		0.0	0.0	10.85	0.00	0.00	0.0
25-Feb		-5.5	10.0		0.0	0.0	5.70	0.00	0.00	0.0	-6.2	11.0		0.0	0.0	10.85	0.00	0.00	0.0
26-Feb	0.0	-8.5	10.0		0.0	0.0	5.70	0.00	0.00	0.0	-7.0	9.0		0.0	0.0	10.85	0.00	0.00	0.0
27-Feb		-10.1	10.0		0.0	0.0	5.70	0.00	0.00		-8.5	9.0		0.0	0.0	10.85	0.00	0.00	0.0
28-Feb		-5.1	10.0		0.0	0.0	5.70	0.00	0.00		-6.0	9.0		0.0	0.0	10.85	0.00	0.00	0.0
1-Mar		-7.1	10.0		0.0	0.0	5.70	0.00	0.00		-8.9	9.0		0.0	0.0	10.85	0.00	0.00	0.0
2-Mar	0.8	-7.4	-		0.0	0.0	6.50	0.00	0.00	0.5	-7.3	9.0		0.0	0.0	10.85	0.00	0.00	0.0
3-Mar	0.7	-3.1	11.0		0.0	0.0	7.20	0.00	0.00	0.7	-3.0	9.0		0.0	0.0	11.35	0.00	0.00	0.0

12) Estimated Precipitaion : Rezekne Model 1988

	A= 409						m = 4.5			A= 136						m = 5			Total
	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita- tion	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita- tion	Rain of previous day
4-Mar		-3.2	11.0		0.0	0.0	7.20	0.00	0.00		-4.1	10.0		0.0	0.0	12.05	0.00	0.00	0.0
5-Mar		-4.2	10.0		0.0	0.0	7.20	0.00	0.00	0.2	-3.5	9.0		0.0	0.0	12.05	0.00	0.00	0.0
6-Mar	0.0	-2.3	10.0		0.0	0.0	7.20	0.00	0.00		-1.8	10.0		0.0	0.0	12.25	0.00	0.00	0.0
7-Mar		-1.3	10.0		0.0	0.0	7.20	0.00	0.00		-1.7	10.0		0.0	0.0	12.25	0.00	0.00	0.0
8-Mar	2.2	-1.5	8.0		0.0	0.0	9.40	0.00	0.00	2.3	-2.5	9.0		0.0	0.0	12.25	0.00	0.00	0.0
9-Mar	5.1	-1.3	13.0		0.0	0.0	14.50	0.00	0.00	7.9	-1.2	17.0		0.0	0.0	14.55	0.00	0.00	0.0
10-Mar		-5.4	13.0		0.0	0.0	14.50	0.00	0.00		-6.3	17.0		0.0	0.0	22.45	0.00	0.00	0.0
11-Mar	0.5	-2.9	13.0		0.0	0.0	15.00	0.00	0.00	0.3	-2.8	16.0		0.0	0.0	22.45	0.00	0.00	0.0
12-Mar	2.2	-3.2	15.0		0.0	0.0	17.20	0.00	0.00	3.8	-2.5	19.0		0.0	0.0	22.75	0.00	0.00	0.0
13-Mar	0.0	-3.2	15.0		0.0	0.0	17.20	0.00	0.00		-4.0	19.0		0.0	0.0	26.55	0.00	0.00	0.0
14-Mar	1.6	-2.9	16.0		0.0	0.0	18.80	0.00	0.00	3.1	-3.3	21.0		0.0	0.0	26.55	0.00	0.00	0.0
15-Mar	7.7	-1.8	19.0		0.0	0.0	26.50	0.00	0.00	7.3	-2.2	22.0		0.0	0.0	29.65	0.00	0.00	0.0
16-Mar	2.6	-4.7	25.0		0.0	0.0	29.10	0.00	0.00	0.0	-4.9	22.0		0.0	0.0	36.95	0.00	0.00	0.0
17-Mar	0.3	-4.7	25.0		0.0	0.0	29.40	0.00	0.00	2.6	-5.0	24.0		0.0	0.0	36.95	0.00	0.00	0.0
18-Mar	2.7	-4.7	23.0		0.0	0.0	32.10	0.00	0.00	4.0	-5.6	23.0		0.0	0.0	39.55	0.00	0.00	0.0
19-Mar	0.0	0.5	24.0		0.0	0.0	32.10	2.25	2.25	0.3	1.0	24.0		0.0	0.3	43.55	4.50	4.80	2.9
20-Mar	2.0	-0.2	18.0		0.0	0.0	31.85	0.00	0.00	1.4	-0.2	18.0		0.0	0.0	39.05	0.00	0.00	0.0
21-Mar		-2.7	18.0		0.0	0.0	31.85	0.00	0.00	0.3	-2.5	18.0		0.0	0.0	40.45	0.00	0.00	0.0
22-Mar		-4.0	18.0		0.0	0.0	31.85	0.00	0.00		-3.3	16.0		0.0	0.0	40.75	0.00	0.00	0.0
23-Mar	1.8	-0.8	18.0		0.0	0.0	33.65	0.00	0.00	3.0	-1.1	16.0		0.0	0.0	40.75	0.00	0.00	0.0
24-Mar	2.1	-0.3	19.0		0.0	0.0	35.75	0.00	0.00	1.6	-0.4	17.0		0.0	0.0	43.75	0.00	0.00	0.0
25-Mar	7.9	0.2	20.0		0.0	7.9	35.75	0.92	8.82	6.1	0.0	20.0		0.0	0.0	45.35	0.00	0.00	6.6
26-Mar	6.8	1.1	24.0		0.0	6.8	34.83	5.04	11.84	6.3	0.7	22.0		0.0	6.3	51.45	3.21	9.51	11.3
27-Mar	1.8	1.5	20.0		0.0	1.8	29.79	6.78	8.58	4.6	1.4	16.0		0.0	4.6	48.24	6.38	10.98	9.2
28-Mar		2.5	15.0		0.0	0.0	23.01	11.25	11.25	0.7	1.9	13.0		0.0	0.7	41.86	8.57	9.27	10.8
29-Mar	3.8	1.4	10.0		0.0	3.8	11.76	6.37	10.17	2.1	1.2	11.0		0.0	2.1	33.29	5.43	7.53	9.5
30-Mar	1.4	1.7	8.0		0.0	1.4	5.39	5.39	6.79	1.8	1.9	8.0		0.0	1.8	27.86	8.59	10.39	7.7
31-Mar		2.7	6.0		0.0	0.0	0.00	0.00	0.00		2.8	4.0		0.0	0.0	19.27	12.60	12.60	3.1
1-Apr		2.7	2.0	1.5	1.5	0.0	0.00	0.00	0.00		2.2	2.0	1.5	1.5	0.0	6.67	6.67	6.67	1.7
2-Apr		3.7		1.5	1.5	0.0	0.00	0.00	0.00		3.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
3-Apr		5.8		1.5	1.5	0.0	0.00	0.00	0.00		5.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
4-Apr		7.2		1.5	1.5	0.0	0.00	0.00	0.00	0.9	6.3		1.5	0.8	0.9	0.00	0.00	0.90	0.2
5-Apr		6.0		1.5	1.5	0.0	0.00	0.00	0.00	1.1	5.5		1.5	0.8	1.1	0.00	0.00	1.10	0.3
6-Apr	0.3	5.0		1.5	1.5	0.3	0.00	0.00	0.30	0.4	4.6		1.5	1.5	0.4	0.00	0.00	0.40	0.3
7-Apr		4.5		1.5	1.5	0.0	0.00	0.00	0.00		3.6		1.5	1.5	0.0	0.00	0.00	0.00	0.0
8-Apr		4.9		1.5	1.5	0.0	0.00	0.00	0.00		5.0		1.5	1.5	0.0	0.00	0.00	0.00	0.0
9-Apr		4.9		1.5	1.5	0.0	0.00	0.00	0.00		5.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
10-Apr		9.2		1.5	0.8	0.0	0.00	0.00	0.00		8.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
11-Apr	0.8	4.2		1.5	1.5	0.8	0.00	0.00	0.80	0.3	3.9		1.5	1.5	0.3	0.00	0.00	0.30	0.7
12-Apr	0.5	0.6		1.5	0.8	0.5	0.00	0.00	0.50	1.7	0.2	3.0	1.5	0.8	1.7	0.00	0.00	1.70	0.8
13-Apr	4.1	0.1	2.0	1.5	0.8	4.1	0.00	0.00	4.10	3.5	0.3	2.0	1.5	0.8	3.5	0.00	0.00	3.50	4.0
14-Apr	0.8	0.5	1.0	1.5	0.8	0.8	0.00	0.00	0.80	0.0	0.6		1.5	1.5	0.0	0.00	0.00	0.00	0.6
15-Apr	6.8	-1.6		1.5	1.5	0.0	6.80	0.00	0.00	7.9	-1.5	1.0	1.5	0.8	0.0	0.00	0.00	0.00	0.0
16-Apr	0.5	-0.2	7.0	1.5	1.5	0.0	7.30	0.00	0.00	1.5	-0.7	7.0	1.5	0.8	0.0	7.90	0.00	0.00	0.0
17-Apr		0.3		1.5	1.5	0.0	7.30	1.35	1.35		-0.3	4.0	1.5	1.5	0.0	9.40	0.00	0.00	1.0
18-Apr		6.1		1.5	1.5	0.0	5.95	5.95	5.95		4.8	2.0	1.5	1.5	0.0	9.40	9.40	9.40	6.8
19-Apr		8.2		1.5	1.5	0.0	0.00	0.00	0.00		7.8		1.5	1.5	0.0	0.00	0.00	0.00	0.0
20-Apr		10.4		1.5	1.5	0.0	0.00	0.00	0.00		10.5		1.5	1.5	0.0	0.00	0.00	0.00	0.0
21-Apr		5.6		1.5	1.5	0.0	0.00	0.00	0.00		6.5		1.5	1.5	0.0	0.00	0.00	0.00	0.0
22-Apr		8.4		1.5	1.5	0.0	0.00	0.00	0.00		7.5		1.5	1.5	0.0	0.00	0.00	0.00	0.0
23-Apr		11.9		1.5	0.8	0.0	0.00	0.00	0.00		11.8		1.5	1.5	0.0	0.00	0.00	0.00	0.0
24-Apr	1.7	4.4		1.5	1.5	1.7	0.00	0.00	1.70	0.1	5.9		1.5	1.5	0.1	0.00	0.00	0.10	1.3
25-Apr	0.0	2.2		1.5	0.8	0.0	0.00	0.00	0.00	0.0	2.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
26-Apr	4.5	-1.2	3.0	1.5	0.8	0.0	4.50	0.00	0.00	4.3	-1.2	1.0	1.5	0.8	0.0	0.00	0.00	0.00	0.0
27-Apr	1.9	-2.9	4.0	1.5	1.5	0.0	6.40	0.00	0.00	1.5	-2.4	4.0	1.5	0.8	0.0	4.30	0.00	0.00	0.0
28-Apr	0.0	-1.7		1.5	1.5	0.0	6.40	0.00	0.00	0.5	-1.4		1.5	1.5	0.0	5.80	0.00	0.00	0.0
29-Apr		-0.9		1.5	1.5	0.0	6.40	0.00	0.00	0.0	-0.8		1.5	1.5	0.0	6.30	0.00	0.00	0.0
30-Apr		2.5		1.5	1.5	0.0	6.40	6.40	6.40		2.3		1.5	1.5	0.0	6.30	6.30	6.30	6.4

13) Series Tank Model Calculation : Rezekne 1987

	Estimated	Actual	Ratio	Varification	
Discharge (mm)	56.6	53.4	106%	Correlation Coefficien t=	98.2%
Precipitation(mm)	149.6			R =	0.136
Runoff Ratio	37.9%	35.7%		R^2 =	0.143



14) Series Tank Model Calculation Sheet : Rezekne 1987

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
	Height of Orifice							30	0	0		0			0	0		25						0	0		0				0	0		0			
	Coefficient of Orifice							0.025	0	0		0.02			0	0.01		0.0025						0	0.75						0	1					
	Rain	Evapotranspiration	Converted Evapotran-spiration	Storage of previous day	Rain of previous day	Evapotran-spiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltra-tion	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra-tion	Balance of Storage	Total specific discharge	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Discharege	Measured River Discharge
1-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.800	0.000	0.248	0.248	0.062	24.490	0.248	0.000	0.248	0.248	0.000	0.186	0.186	0.062	0.000	0.186	0.186	0.000	0.186	0.186	0.000	0.186	1.91	3.45
2-Dec	0.1	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.290	0.000	0.243	0.243	0.061	23.986	0.243	0.062	0.243	0.305	0.000	0.229	0.229	0.076	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.229	2.35	3.45
3-Dec	1.9	0.2	0.1	0.000	0.100	0.0	0.100	0.000	0.000	0.000	0.000	0.002	0.098	23.988	0.000	0.240	0.240	0.060	23.689	0.240	0.076	0.240	0.316	0.000	0.237	0.237	0.079	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.43	3.30
4-Dec	0	0.2	0.2	0.098	1.900	0.1	1.898	0.000	0.000	0.000	0.000	0.038	1.860	23.726	0.000	0.237	0.237	0.059	23.430	0.237	0.079	0.237	0.316	0.000	0.237	0.237	0.079	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.43	3.51
5-Dec	8.8	0.2	0.1	1.860	0.000	0.2	1.660	0.000	0.000	0.000	0.000	0.033	1.627	23.463	0.000	0.235	0.235	0.059	23.170	0.235	0.079	0.235	0.314	0.000	0.235	0.235	0.078	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.235	2.41	4.01
6-Dec	2.4	0.2	0.1	1.627	8.800	0.1	10.327	0.000	0.000	0.000	0.000	0.207	10.120	23.376	0.000	0.234	0.234	0.058	23.084	0.234	0.078	0.234	0.312	0.000	0.234	0.234	0.078	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.234	2.40	5.00
7-Dec	7.4	0.2	0.1	10.120	2.400	0.1	12.420	0.000	0.000	0.000	0.000	0.248	12.172	23.333	0.000	0.233	0.233	0.058	23.041	0.233	0.078	0.233	0.311	0.000	0.234	0.234	0.078	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.234	2.40	5.73
8-Dec	0	0.2	0.2	12.172	7.400	0.1	19.472	0.000	0.000	0.000	0.000	0.389	19.082	23.430	0.000	0.234	0.234	0.059	23.137	0.234	0.078	0.234	0.312	0.000	0.234	0.234	0.078	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.234	2.40	5.60
9-Dec	0	0.2	0.2	19.082	0.000	0.2	18.882	0.000	0.000	0.000	0.000	0.378	18.505	23.515	0.000	0.235	0.235	0.059	23.221	0.235	0.078	0.235	0.313	0.000	0.235	0.235	0.078	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.235	2.41	8.19
10-Dec	0	0.2	0.2	18.505	0.000	0.2	18.305	0.000	0.000	0.000	0.000	0.366	17.939	23.587	0.000	0.236	0.236	0.059	23.292	0.236	0.078	0.236	0.314	0.000	0.236	0.236	0.079	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.236	2.42	9.51
11-Dec	0	0.2	0.2	17.939	0.000	0.2	17.739	0.000	0.000	0.000	0.000	0.355	17.384	23.647	0.000	0.236	0.236	0.059	23.352	0.236	0.079	0.236	0.315	0.000	0.236	0.236	0.079	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.236	2.42	5.80
12-Dec	1.1	0.2	0.1	17.384	0.000	0.2	17.184	0.000	0.000	0.000	0.000	0.344	16.840	23.695	0.000	0.237	0.237	0.059	23.399	0.237	0.079	0.237	0.316	0.000	0.237	0.237	0.079	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.43	4.08
13-Dec	0	0.2	0.2	16.840	1.100	0.1	17.840	0.000	0.000	0.000	0.000	0.357	17.483	23.756	0.000	0.238	0.238	0.059	23.459	0.238	0.079	0.238	0.316	0.000	0.237	0.237	0.079	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.44	3.77
14-Dec	0	0.2	0.2	17.483	0.000	0.2	17.283	0.000	0.000	0.000	0.000	0.346	16.938	23.805	0.000	0.238	0.238	0.060	23.507	0.238	0.079	0.238	0.317	0.000	0.238	0.238	0.079	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.46
15-Dec	0	0.2	0.2	16.938	0.000	0.2	16.738	0.000	0.000	0.000	0.000	0.335	16.403	23.842	0.000	0.238	0.238	0.060	23.544	0.238	0.079	0.238	0.318	0.000	0.238	0.238	0.079	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.45	1.89
16-Dec	0	0.2	0.2	16.403	0.000	0.2	16.203	0.000	0.000	0.000	0.000	0.324	15.879	23.868	0.000	0.239	0.239	0.060	23.570	0.239	0.079	0.239	0.318	0.000	0.239	0.239	0.080	0.000	0.239	0.239	0.000	0.239	0.239	0.000	0.239	2.45	1.76
17-Dec	0	0.2	0.2	15.879	0.000	0.2	15.679	0.000	0.000	0.000	0.000	0.314	15.365	23.883	0.000	0.239	0.239	0.060	23.585	0.239	0.080	0.239	0.318	0.000	0.239	0.239	0.080	0.000	0.239	0.239	0.000	0.239	0.239	0.000	0.239	2.45	1.72
18-Dec	0	0.2	0.2	15.365	0.000	0.2	15.165	0.000	0.000	0.000	0.000	0.303	14.862	23.888	0.000	0.239	0.239	0.060	23.589	0.239	0.080	0.239	0.318	0.000	0.239	0.239	0.080	0.000	0.239	0.239	0.000	0.239	0.239	0.000	0.239	2.45	1.68
19-Dec	0	0.2	0.2	14.862	0.000	0.2	14.662	0.000	0.000	0.000	0.000	0.293	14.369	23.882	0.000	0.239	0.239	0.060	23.584	0.239	0.080	0.239	0.318	0.000	0.239	0.239	0.080	0.000	0.239	0.239	0.000	0.239	0.239	0.000	0.239	2.45	1.61
20-Dec	0	0.2	0.2	14.369	0.000	0.2	14.169	0.000	0.000	0.000	0.000	0.283	13.885	23.867	0.000	0.239	0.239	0.060	23.569	0.239	0.080	0.239	0.318	0.000	0.239	0.239	0.080	0.000	0.239	0.239	0.000	0.239	0.239	0.000	0.239	2.45	1.53
21-Dec	0	0.2	0.2	13.885	0.000	0.2	13.685	0.000	0.000	0.000	0.000	0.274	13.412	23.843	0.000	0.238	0.238	0.060	23.545	0.238	0.080	0.238	0.318	0.000	0.238	0.238	0.079	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.45	1.57
22-Dec	0	0.2	0.2	13.412	0.000	0.2	13.212	0.000	0.000	0.000	0.000	0.264	12.948	23.809	0.000	0.238	0.238	0.060	23.511	0.238	0.079	0.238	0.318	0.000	0.238	0.238	0.079	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	1.59
23-Dec	0	0.2	0.2	12.948	0.000	0.2	12.748	0.000	0.000	0.000	0.000	0.255	12.493	23.766	0.000	0.238	0.238	0.059	23.469	0.238	0.079	0.238	0.317	0.000	0.238	0.238	0.079	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	1.68
24-Dec	0	0.2	0.2	12.493	0.000	0.2	12.293	0.000	0.000	0.000	0.000	0.246	12.047	23.715	0.000	0.237	0.237	0.059	23.419	0.237	0.079	0.237	0.316	0.000	0.237	0.237	0.079	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.44	1.57
25-Dec	0	0.2	0.2	12.047	0.000	0.2	11.847	0.000	0.000	0.000	0.000	0.237	11.610	23.656	0.000	0.237	0.237	0.059	23.360	0.237	0.079	0.237	0.316	0.000	0.237	0.237	0.079	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.43	1.55
26-Dec	0	0.2	0.2	11.610	0.000	0.2	11.410	0.000	0.000	0.000	0.000	0.228	11.182	23.588	0.000	0.236	0.236	0.059	23.293	0.236	0.079	0.236	0.315	0.000	0.236	0.236	0.079	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.236	2.42	1.60
27-Dec	0	0.2	0.2	11.182	0.000	0.2	10.982	0.000	0.000	0.000	0.000	0.220	10.762	23.513	0.000	0.235	0.235	0.059	23.219	0.235	0.079	0.235	0.314	0.000	0.235	0.235	0.078	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.235	2.42	1.53
28-Dec	0	0.2	0.2	10.762	0.000	0.2	10.562	0.000	0.000	0.000	0.000	0.211	10.351	23.430	0.000	0.234	0.234	0.059	23.137	0.234	0.078	0.234	0.313	0.000	0.235	0.235	0.078	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.235	2.41	1.77
29-Dec	0	0.2	0.2	10.351	0.000	0.2	10.151	0.000	0.000	0.000	0.000	0.203	9.948	23.340	0.000	0.233	0.233	0.058	23.049	0.233	0.078	0.233	0.312	0.000	0.234	0.234	0.078	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.234	2.40	2.22
30-Dec	0	0.2	0.2	9.948	0.000	0.2	9.748	0.000	0.000	0.000	0.000	0.195	9.553	23.243	0.000	0.232	0.232	0.058	22.953	0.232	0.078	0.232	0.310	0.000	0.233	0.233	0.078	0.000	0.233	0.233	0.000	0.233	0.233	0.000	0.233	2.39	2.41
31-Dec	0	0.2	0.2	9.553	0.000	0.2	9.353	0.000	0.000	0.000	0.000	0.187	9.166	23.140	0.000	0.231	0.231	0.058	22.851	0.231	0.078	0.231	0.309	0.000	0.232	0.232	0.077	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.232	2.38	2.62
1-Jan	0		0.0	9.166	0.000	0.2	8.966	0.000	0.000	0.000	0.000	0.179	8.786	23.030	0.000	0.230	0.230	0.058	22.742	0.230	0.077	0.230	0.308	0.000	0.231	0.231	0.077	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.37	2.70
2-Jan	0		0.0	8.786	0.000	0.0	8.786	0.000	0.000	0.000	0.000	0.176	8.611	22.918	0.000	0.229	0.229	0.057	22.631	0.229	0.077	0.229	0.306	0.000	0.230	0.230	0.077	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.230	2.36	2.78
3-Jan	0		0.0	8.611	0.000	0.0	8.611	0.000	0.000	0.000	0.000	0.172	8.438	22.804	0.000	0.228	0.228	0.057	22.519	0.228	0.077	0.228	0.305	0.000	0.228	0.228	0.076	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.228	2.34	2.72
4-Jan	0		0.0	8.438	0.000	0.0	8.438	0.000	0.000	0.000	0.000	0.169	8.270	22.687	0.000	0.227	0.227	0.057	22.404	0.227	0.076	0.227	0.303	0.000	0.227	0.227	0.076	0.000	0.227	0.227	0.000	0.227	0.227	0.000	0.227	2.33	2.69
5-Jan	0		0.0	8.270	0.000	0.0	8.270	0.000	0.000	0.000	0.000	0.165	8.104	22.569	0.000	0.226	0.226	0.056	22.287	0.226	0.076	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	2.38
6-Jan	0		0.0	8.104	0.000	0.0	8.104	0.000	0.000	0.000	0.000	0.162	7.942	22.449	0.000	0.224	0.224	0.056	22.169	0.224	0.075	0.224	0.300	0.000	0.225	0.225	0.075	0.000	0.225	0.225	0.000	0.225	0.225	0.000	0.225	2.31	2.33
7-Jan	0		0.0	7.942	0.000	0.0	7.942	0.000	0.000	0.000	0.000	0.159	7.783	22.327	0.000	0.223	0.223	0.056	22.048	0.223	0.075	0.223	0.298	0.000	0.224	0.224	0.075	0.000	0.224	0.224	0.000	0.224	0.224	0.000	0.224	2.30	2.18
8-Jan	0		0.0	7.783	0.000	0.0	7.783	0.000	0.000	0.000	0.000	0.156	7.628	22.204	0.000	0.222	0.222	0.056	21.926	0.222	0.075	0.222	0.297	0.000	0.222	0.222	0.074	0.000	0.222	0.222	0.000	0.222	0.222	0.000	0.222	2.28	2.18
9-Jan	0		0.0	7.628	0.000	0.0	7.628	0.000	0.000	0.000	0.000	0.153	7.475	22.079	0.000	0.221	0.221	0.055	21.803	0.221	0.074	0.221	0.295	0.000	0.221	0.221	0.074	0.000	0.221	0.221	0.000	0.221	0.221	0.000	0.221	2.27	2.13
10-Jan	0		0.0	7.475	0.000	0.0	7.475	0.000	0.000	0.000	0.000	0.150	7.326	21.952	0.000	0.220	0.220	0.055	21.678	0.220	0.074	0.220	0.293	0.000	0.220	0.220	0.073	0.000	0.220	0.220	0.000	0.220	0.220	0.000	0.220	2.26	2.07
11-Jan	0		0.0	7.326	0.000	0.0	7.326	0.000	0.000	0.000	0.000	0.147	7.179	21.825	0.000	0.218	0.218	0.055	21.552	0.218	0.073	0.218	0.292	0.000	0.219	0.219	0.073	0.000	0.219	0.219	0.000	0.219	0.219	0.000	0.219	2.24	1.97
12-Jan	0		0.0	7.179	0.000	0.0	7.179	0.000	0.000	0.000	0.000	0.144	7.036	21.695	0.000	0.217	0.217	0.054	21.424	0.217	0.073	0.217	0.290	0.000	0.217	0.217	0.072	0.000	0.217	0.217	0.000	0.217	0.217	0.000	0.217	2.23	1.97
13-Jan	0		0.0	7.036	0.000	0.0	7.036	0.000	0.000	0.000	0.000	0.141	6.895	21.565	0.000	0.216	0.216	0.054	21.295	0.216	0.072	0.216	0.288	0.000	0.216	0.216	0.072	0.000	0.216	0.216	0.000	0.216	0.216	0.000	0.216	2.22	1.97
14-Jan	0		0.0	6.895	0.000	0.0	6.895	0.000	0.000	0.000	0.000	0.138	6.757	21.433	0.000	0.214	0.214	0.054	21.165	0.214	0.072	0.214	0.286	0.000	0.215	0.215	0.072	0.000	0.215	0.215	0.000	0.215	0.215	0.000	0.215	2.20	1.97
15-Jan	0		0.0	6.757	0.000	0.0	6.757	0.000	0.000	0.000	0.000	0.135	6.622	21.300	0.000	0.213	0.213	0.053	21.034	0.213	0.072	0.213	0.285	0.000	0.213	0.213	0.071	0.000	0.213	0.213	0.000	0.213	0.213	0.000	0.213	2.19	1.91
16-Jan	0		0.0	6.622	0.000	0.0	6.622	0.000	0.000	0.000	0.000	0.132	6.489	21.167	0.000	0.212	0.212	0.053	20.902	0.212	0.071	0.212	0.283	0.000	0.212	0.212	0.071	0.000	0.212	0.212	0.000	0.212	0.212	0.000	0.212	2.18	1.91
17-Jan	0		0.0	6.489	0.000	0.0	6.489	0.000	0.000	0.000	0.000	0.130	6.360	21.032	0.000	0.210	0.210	0.053	20.769	0.210	0.071	0.210	0.281	0.000	0.211	0.211	0.070	0.000	0.211	0.211	0.000	0.211	0.211	0.000	0.211	2.16	1.91
18-Jan	0		0.0	6.360	0.000	0.0	6.360	0.000	0.000	0.000	0.000	0.127	6.232	20.896	0.000	0.209	0.209	0.052	20.635	0.209	0.070	0.209	0.279	0.000	0.209	0.209	0.070	0.000	0.209	0.209	0.000	0.209	0.209	0.000	0.209	2.15	1.90
19-Jan	0		0.0	6.232	0.000	0.0	6.232	0.000	0.000	0.000	0.000	0.125	6.108	20.760	0.000	0.208	0.208	0.052	20.500	0.208	0.070	0.208	0.277	0.000	0.208	0.208	0.069	0.000	0.208	0.208	0.000	0.208	0.208	0.000	0.208	2.13	1.90
20-Jan	0		0.0	6.108	0.000	0.0	6.108	0.000	0.000	0.000	0.000	0.122	5.986	20.622	0.000	0.206	0.206	0.052	20.364	0.206	0.069	0.206	0.276	0.000	0.207	0.207	0.069	0.000	0.207	0.207	0.000	0.207	0.207	0.000	0.207	2.12	1.95
21-Jan	0		0.0	5.986	0.000	0.0	5.986	0.000	0.000	0.000	0.000	0.120	5.866	20.484	0.000	0.205	0.205	0.051	20.228	0.205	0.069	0.205	0.274	0.000	0.205	0.205	0.068	0.000	0.205	0.205	0.000	0.205	0.205	0.000	0.205	2.11	1.95
22-Jan	0		0.0	5.866	0.000	0.0	5.866	0.000	0.000	0.000	0.000	0.117	5.749	20.345	0.000	0.203	0.203	0.051	20.091	0.203	0.068	0.203	0.272	0.000	0.204	0.204	0.068	0.000	0.204	0.204	0.000	0.204	0.204	0.000	0.204	2.09	1.95
23-Jan	0		0.0	5.749	0.000	0.0	5.749	0.000	0.000	0.000	0.000	0.115	5.634	20.206	0.000	0.202	0.202	0.051	19.953	0.202	0.068	0.202	0.270	0.000	0.203	0.203	0.068	0.000	0.203	0.203	0.000	0.203	0.203	0.000	0.203	2.08	1.95
24-Jan	0		0.0	5.634	0.000	0.0	5.634	0.000	0.000	0.000	0.000	0.113	5.521	20.066	0.000	0.201	0.201	0.050	19.815	0.201	0.068	0.201	0.268	0.000	0.201	0.201	0.067	0.000	0.201	0.201	0.000	0.201	0.201	0.000	0.201	2.06	1.94
25-Jan	0		0.0	5.521	0.000	0.0	5.521	0.000	0.000	0.000	0.000	0.110	5.410	19.926	0.000	0.199	0.199	0.050	19.677	0.199	0.067	0.199	0.266	0.000	0.200	0.200	0.067	0.000	0.200	0.200	0.000	0.200	0.200	0.000	0.200	2.05	1.98
26-Jan	0		0.0	5.410	0.000	0.0	5.410	0.000	0.000	0.000	0.000	0.108	5.302	19.785	0.000	0.198	0.198	0.049	19.538	0.198	0.067	0.198	0.264	0.000	0.198	0.198	0.066	0.000	0.198	0.198	0.000	0.198	0.198	0.000	0.198	2.04	1.98
27-Jan	0		0.0	5.302	0.000	0.0	5.302	0.000	0.000	0.000	0.000	0.106	5.196	19.644	0.000	0.196	0.196	0.049	19.398	0.196	0.066	0.196	0.263	0.000	0.197	0.197	0.066	0.000	0.197	0.197	0.000	0.197	0.197	0.000	0.197	2.02	2.05
28-Jan	0		0.0	5.196	0.000	0.0	5.196	0.000	0.000	0.000	0.000	0.104	5.092	19.502	0.000	0.195	0.195	0.049	19.258	0.195	0.066	0.195	0.261	0.000	0.195	0.195	0.065	0.000	0.195	0.195	0.000	0.195	0.195	0.000	0.195	2.01	2.18
29-Jan	0		0.0	5.092	0.000	0.0	5.092	0.000	0.000	0.000	0.000	0.102	4.990	19.360	0.000	0.194	0.194	0.048	19.118	0.194	0.065	0.194	0.259	0.000	0.194	0.194	0.065	0.000	0.194	0.194	0.000	0.194	0.194	0.000	0.194	1.99	2.18
30-Jan	0		0.0	4.990	0.000	0.0	4.990	0.000	0.000	0.000	0.000	0.100	4.891	19.218	0.000	0.192	0.192	0.048	18.978	0.192	0.065	0.192	0.257	0.000	0.193	0.193	0.064	0.000	0.193	0.193	0.000	0.193	0.193	0.000	0.193	1.98	2.11
31-Jan	0		0.0	4.891	0.000	0.0	4.891	0.000	0.000	0.000	0.000	0.098	4.793	19.075	0.000	0.191	0.191	0.048	18.837	0.191	0.064	0.191	0.255	0.000	0.191	0.191	0.064	0.000	0.191	0.191	0.000	0.191	0.191	0.000	0.191	1.96	2.02
1-Feb	0		0.0	4.793	0.000	0.0	4.793	0.000	0.000	0.000	0.000	0.096	4.697	18.933	0.000	0.189	0.189	0.047	18.696	0.189	0.064	0.189	0.253	0.000	0.190	0.190	0.063	0.000	0.190	0.190	0.000	0.190	0.190	0.000	0.190	1.95	1.96
2-Feb	0		0.0	4.697	0.000	0.0	4.697	0.000	0.000	0.000	0.000	0.094	4.603	18.790	0.000	0.188	0.188	0.047	18.555	0.188	0.063	0.188	0.251	0.000	0.188	0.188	0.063	0.000	0.188	0.188	0.000	0.188	0.188	0.000	0.188	1.93	2.17
3-Feb	0		0.0	4.603	0.000	0.0	4.603	0.000	0.000	0.000	0.000	0.092	4.511	18.647	0.000	0.186	0.186	0.047	18.414	0.186	0.063	0.186	0.249	0.000	0.187	0.187	0.062	0.000	0.187	0.187	0.000	0.187	0.187	0.000	0.187	1.92	2.13
4-Feb	0		0.0	4.511	0.000	0.0	4.511	0.000	0.000	0.000	0.000	0.090	4.421	18.504	0.000	0.185	0.185	0.046	18.273	0.185	0.062	0.185	0.247	0.000	0.186	0.186	0.062	0.000	0.186	0.186	0.000	0.186	0.186	0.000	0.186	1.90	2.13
5-Feb	0		0.0	4.421	0.000	0.0	4.421	0.000	0.000	0.000	0.000	0.088	4.332	18.362	0.000	0.184	0.184	0.046	18.132	0.184	0.062	0.184	0.245	0.000	0.184	0.184	0.061	0.000	0.184	0.184	0.000	0.184	0.184	0.000	0.184	1.89	2.01
6-Feb	0		0.0	4.332	0.000	0.0	4.332	0.000	0.000	0.000	0.000	0.087	4.246	18.219	0.000	0.182	0.182	0.046	17.991	0.182	0.061	0.182	0.244	0.000	0.183	0.183	0.061	0.000	0.183	0.183	0.000	0.183	0.183	0.000	0.183	1.87	1.90
7-Feb	7.1		0.0	4.246	0.000	0.0	4.246	0.000	0.000	0.000	0.000	0.085	4.161	18.076	0.000	0.181	0.181	0.045	17.850	0.181	0.061	0.181	0.242	0.000	0.181	0.181	0.060	0.000	0.181	0.181	0.000	0.181	0.181	0.000	0.181	1.86	1.98
8-Feb	6.1		0.0	4.161	7.100	0.0	11.261	0.000	0.000	0.000	0.000	0.225	11.036	18.075	0.000	0.181	0.181	0.045	17.849	0.181	0.060	0.181	0.241	0.000	0.181	0.181	0.060	0.000	0.181	0.181	0.000	0.181	0.181	0.000	0.181	1.86	1.98
9-Feb	0		0.0	11.036	6.100	0.0	17.136	0.000	0.000	0.000	0.000	0.343	16.793	18.192	0.000	0.182	0.182	0.045	17.965	0.182	0.060	0.182	0.242	0.000	0.182	0.182	0.061	0.000	0.182	0.182	0.000	0.182	0.182	0.000	0.182	1.86	1.98
10-Feb	0		0.0	16.793	0.000	0.0	16.793	0.000	0.000	0.000	0.000	0.336	16.457	18.300	0.000	0.183	0.183	0.046	18.072	0.183	0.061	0.183	0.244	0.000	0.183	0.183	0.061	0.000	0.183	0.183	0.000	0.183	0.183	0.000	0.183	1.87	1.98
11-Feb	0		0.0	16.457	0.000	0.0	16.457	0.000	0.000	0.000	0.000	0.329	16.128	18.401	0.000	0.184	0.184	0.046	18.171	0.184	0.061	0.184	0.245	0.000	0.184	0.184	0.061	0.000	0.184	0.184	0.000	0.184	0.184	0.000	0.184	1.88	2.02
12-Feb	0		0.0	16.128	0.000	0.0	16.128	0.000	0.000	0.000	0.000	0.323	15.805	18.493	0.000	0.185	0.185	0.046	18.262	0.185	0.061	0.185	0.246	0.000	0.185	0.185	0.062	0.000	0.185	0.185	0.000	0.185	0.185	0.000	0.185	1.89	2.09
13-Feb	0		0.0	15.805	0.000	0.0	15.805	0.000	0.000	0.000	0.000	0.316	15.489	18.578	0.000	0.186	0.186	0.046	18.346	0.186	0.062	0.186	0.247	0.000	0.185	0.185	0.062	0.000	0.185	0.185	0.000	0.185	0.185	0.000	0.185	1.90	2.13
14-Feb	0		0.0	15.489	0.000	0.0	15.489	0.000	0.000	0.000	0.000	0.310	15.179	18.656	0.000	0.187	0.187	0.047	18.423	0.187	0.062	0.187	0.248	0.000	0.186	0.186	0.062	0.000	0.186	0.186	0.000	0.186	0.186	0.000	0.186	1.91	2.13

14) Series Tank Model Calculation Sheet : Rezekne 1987

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
Height of Orifice								30	0	0		0			0	0		25						0	0		0				0	0		0			
Coefficient of Orifice								0.025	0	0		0.02			0	0.01		0.0025						0	0.75						0	1					
	Rain	Evapotranspiration	Converted Evapotran-spiration	Storage of previous day	Rain of previous day	Evapotran-spiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltra-tion	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra-tion	Balance of Storage	Total specific dischareg	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Discharege	Measured River Discharge
15-Feb	3.1		0.0	15.179	0.000	0.0	15.179	0.000	0.000	0.000	0.000	0.304	14.876	18.726	0.000	0.187	0.187	0.047	18.492	0.187	0.062	0.187	0.249	0.000	0.187	0.187	0.062	0.000	0.187	0.187	0.000	0.187	0.187	0.000	0.187	1.92	2.18
16-Feb	7.5		0.0	14.876	3.100	0.0	17.976	0.000	0.000	0.000	0.000	0.360	17.616	18.852	0.000	0.189	0.189	0.047	18.616	0.189	0.062	0.189	0.251	0.000	0.188	0.188	0.063	0.000	0.188	0.188	0.000	0.188	0.188	0.000	0.188	1.93	2.22
17-Feb	0.9		0.0	17.616	7.500	0.0	25.116	0.000	0.000	0.000	0.000	0.502	24.614	19.118	0.000	0.191	0.191	0.048	18.879	0.191	0.063	0.191	0.254	0.000	0.190	0.190	0.063	0.000	0.190	0.190	0.000	0.190	0.190	0.000	0.190	1.95	2.21
18-Feb	0		0.0	24.614	0.900	0.0	25.514	0.000	0.000	0.000	0.000	0.510	25.004	19.390	0.000	0.194	0.194	0.048	19.147	0.194	0.063	0.194	0.257	0.000	0.193	0.193	0.064	0.000	0.193	0.193	0.000	0.193	0.193	0.000	0.193	1.98	2.21
19-Feb	0		0.0	25.004	0.000	0.0	25.004	0.000	0.000	0.000	0.000	0.500	24.504	19.647	0.000	0.196	0.196	0.049	19.402	0.196	0.064	0.196	0.261	0.000	0.196	0.196	0.065	0.000	0.196	0.196	0.000	0.196	0.196	0.000	0.196	2.01	2.21
20-Feb	0		0.0	24.504	0.000	0.0	24.504	0.000	0.000	0.000	0.000	0.490	24.014	19.892	0.000	0.199	0.199	0.050	19.643	0.199	0.065	0.199	0.264	0.000	0.198	0.198	0.066	0.000	0.198	0.198	0.000	0.198	0.198	0.000	0.198	2.03	2.21
21-Feb	0		0.0	24.014	0.000	0.0	24.014	0.000	0.000	0.000	0.000	0.480	23.533	20.123	0.000	0.201	0.201	0.050	19.872	0.201	0.066	0.201	0.267	0.000	0.200	0.200	0.067	0.000	0.200	0.200	0.000	0.200	0.200	0.000	0.200	2.06	2.21
22-Feb	0		0.0	23.533	0.000	0.0	23.533	0.000	0.000	0.000	0.000	0.471	23.063	20.343	0.000	0.203	0.203	0.051	20.088	0.203	0.067	0.203	0.270	0.000	0.203	0.203	0.068	0.000	0.203	0.203	0.000	0.203	0.203	0.000	0.203	2.08	2.11
23-Feb	0		0.0	23.063	0.000	0.0	23.063	0.000	0.000	0.000	0.000	0.461	22.601	20.550	0.000	0.205	0.205	0.051	20.293	0.205	0.068	0.205	0.273	0.000	0.205	0.205	0.068	0.000	0.205	0.205	0.000	0.205	0.205	0.000	0.205	2.10	2.19
24-Feb	0		0.0	22.601	0.000	0.0	22.601	0.000	0.000	0.000	0.000	0.452	22.149	20.745	0.000	0.207	0.207	0.052	20.485	0.207	0.068	0.207	0.276	0.000	0.207	0.207	0.069	0.000	0.207	0.207	0.000	0.207	0.207	0.000	0.207	2.12	2.28
25-Feb	0		0.0	22.149	0.000	0.0	22.149	0.000	0.000	0.000	0.000	0.443	21.706	20.928	0.000	0.209	0.209	0.052	20.667	0.209	0.069	0.209	0.278	0.000	0.209	0.209	0.070	0.000	0.209	0.209	0.000	0.209	0.209	0.000	0.209	2.14	2.19
26-Feb	0		0.0	21.706	0.000	0.0	21.706	0.000	0.000	0.000	0.000	0.434	21.272	21.101	0.000	0.211	0.211	0.053	20.837	0.211	0.070	0.211	0.281	0.000	0.210	0.210	0.070	0.000	0.210	0.210	0.000	0.210	0.210	0.000	0.210	2.16	2.15
27-Feb	0		0.0	21.272	0.000	0.0	21.272	0.000	0.000	0.000	0.000	0.425	20.847	21.263	0.000	0.213	0.213	0.053	20.997	0.213	0.070	0.213	0.283	0.000	0.212	0.212	0.071	0.000	0.212	0.212	0.000	0.212	0.212	0.000	0.212	2.18	2.11
28-Feb	0		0.0	20.847	0.000	0.0	20.847	0.000	0.000	0.000	0.000	0.417	20.430	21.414	0.000	0.214	0.214	0.054	21.146	0.214	0.071	0.214	0.285	0.000	0.214	0.214	0.071	0.000	0.214	0.214	0.000	0.214	0.214	0.000	0.214	2.19	2.11
1-Mar	0		0.0	20.430	0.000	0.0	20.430	0.000	0.000	0.000	0.000	0.409	20.021	21.555	0.000	0.216	0.216	0.054	21.285	0.216	0.071	0.216	0.287	0.000	0.215	0.215	0.072	0.000	0.215	0.215	0.000	0.215	0.215	0.000	0.215	2.21	2.11
2-Mar	0		0.0	20.021	0.000	0.0	20.021	0.000	0.000	0.000	0.000	0.400	19.621	21.686	0.000	0.217	0.217	0.054	21.415	0.217	0.072	0.217	0.289	0.000	0.216	0.216	0.072	0.000	0.216	0.216	0.000	0.216	0.216	0.000	0.216	2.22	2.02
3-Mar	0		0.0	19.621	0.000	0.0	19.621	0.000	0.000	0.000	0.000	0.392	19.228	21.807	0.000	0.218	0.218	0.055	21.534	0.218	0.072	0.218	0.290	0.000	0.218	0.218	0.073	0.000	0.218	0.218	0.000	0.218	0.218	0.000	0.218	2.23	1.98
4-Mar	0		0.0	19.228	0.000	0.0	19.228	0.000	0.000	0.000	0.000	0.385	18.844	21.919	0.000	0.219	0.219	0.055	21.645	0.219	0.073	0.219	0.292	0.000	0.219	0.219	0.073	0.000	0.219	0.219	0.000	0.219	0.219	0.000	0.219	2.25	1.94
5-Mar	0		0.0	18.844	0.000	0.0	18.844	0.000	0.000	0.000	0.000	0.377	18.467	22.022	0.000	0.220	0.220	0.055	21.747	0.220	0.073	0.220	0.293	0.000	0.220	0.220	0.073	0.000	0.220	0.220	0.000	0.220	0.220	0.000	0.220	2.26	1.86
6-Mar	0		0.0	18.467	0.000	0.0	18.467	0.000	0.000	0.000	0.000	0.369	18.098	22.116	0.000	0.221	0.221	0.055	21.839	0.221	0.073	0.221	0.294	0.000	0.221	0.221	0.074	0.000	0.221	0.221	0.000	0.221	0.221	0.000	0.221	2.27	1.80
7-Mar	0		0.0	18.098	0.000	0.0	18.098	0.000	0.000	0.000	0.000	0.362	17.736	22.201	0.000	0.222	0.222	0.056	21.924	0.222	0.074	0.222	0.296	0.000	0.222	0.222	0.074	0.000	0.222	0.222	0.000	0.222	0.222	0.000	0.222	2.28	1.76
8-Mar	0		0.0	17.736	0.000	0.0	17.736	0.000	0.000	0.000	0.000	0.355	17.381	22.279	0.000	0.223	0.223	0.056	22.000	0.223	0.074	0.223	0.297	0.000	0.223	0.223	0.074	0.000	0.223	0.223	0.000	0.223	0.223	0.000	0.223	2.28	1.88
9-Mar	0		0.0	17.381	0.000	0.0	17.381	0.000	0.000	0.000	0.000	0.348	17.033	22.348	0.000	0.223	0.223	0.056	22.068	0.223	0.074	0.223	0.298	0.000	0.223	0.223	0.074	0.000	0.223	0.223	0.000	0.223	0.223	0.000	0.223	2.29	1.88
10-Mar	0		0.0	17.033	0.000	0.0	17.033	0.000	0.000	0.000	0.000	0.341	16.693	22.409	0.000	0.224	0.224	0.056	22.129	0.224	0.074	0.224	0.299	0.000	0.224	0.224	0.075	0.000	0.224	0.224	0.000	0.224	0.224	0.000	0.224	2.30	1.88
11-Mar	0		0.0	16.693	0.000	0.0	16.693	0.000	0.000	0.000	0.000	0.334	16.359	22.463	0.000	0.225	0.225	0.056	22.182	0.225	0.075	0.225	0.299	0.000	0.224	0.224	0.075	0.000	0.224	0.224	0.000	0.224	0.224	0.000	0.224	2.30	1.88
12-Mar	0		0.0	16.359	0.000	0.0	16.359	0.000	0.000	0.000	0.000	0.327	16.032	22.509	0.000	0.225	0.225	0.056	22.228	0.225	0.075	0.225	0.300	0.000	0.225	0.225	0.075	0.000	0.225	0.225	0.000	0.225	0.225	0.000	0.225	2.31	1.88
13-Mar	0		0.0	16.032	0.000	0.0	16.032	0.000	0.000	0.000	0.000	0.321	15.711	22.548	0.000	0.225	0.225	0.056	22.267	0.225	0.075	0.225	0.300	0.000	0.225	0.225	0.075	0.000	0.225	0.225	0.000	0.225	0.225	0.000	0.225	2.31	1.88
14-Mar	0		0.0	15.711	0.000	0.0	15.711	0.000	0.000	0.000	0.000	0.314	15.397	22.581	0.000	0.226	0.226	0.056	22.299	0.226	0.075	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	1.94
15-Mar	0		0.0	15.397	0.000	0.0	15.397	0.000	0.000	0.000	0.000	0.308	15.089	22.607	0.000	0.226	0.226	0.057	22.324	0.226	0.075	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	1.94
16-Mar	0		0.0	15.089	0.000	0.0	15.089	0.000	0.000	0.000	0.000	0.302	14.787	22.626	0.000	0.226	0.226	0.057	22.343	0.226	0.075	0.226	0.302	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	1.92
17-Mar	0		0.0	14.787	0.000	0.0	14.787	0.000	0.000	0.000	0.000	0.296	14.491	22.639	0.000	0.226	0.226	0.057	22.356	0.226	0.075	0.226	0.302	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	1.92
18-Mar	0		0.0	14.491	0.000	0.0	14.491	0.000	0.000	0.000	0.000	0.290	14.202	22.645	0.000	0.226	0.226	0.057	22.362	0.226	0.075	0.226	0.302	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	1.92
19-Mar	0		0.0	14.202	0.000	0.0	14.202	0.000	0.000	0.000	0.000	0.284	13.917	22.646	0.000	0.226	0.226	0.057	22.363	0.226	0.075	0.226	0.302	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	1.92
20-Mar	0		0.0	13.917	0.000	0.0	13.917	0.000	0.000	0.000	0.000	0.278	13.639	22.642	0.000	0.226	0.226	0.057	22.359	0.226	0.075	0.226	0.302	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	2.09
21-Mar	0		0.0	13.639	0.000	0.0	13.639	0.000	0.000	0.000	0.000	0.273	13.366	22.631	0.000	0.226	0.226	0.057	22.349	0.226	0.075	0.226	0.302	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	3.39
22-Mar	0		0.0	13.366	0.000	0.0	13.366	0.000	0.000	0.000	0.000	0.267	13.099	22.616	0.000	0.226	0.226	0.057	22.333	0.226	0.075	0.226	0.302	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	3.74
23-Mar	0.1		0.0	13.099	0.000	0.0	13.099	0.000	0.000	0.000	0.000	0.262	12.837	22.595	0.000	0.226	0.226	0.056	22.313	0.226	0.075	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	3.42
24-Mar	0		0.0	12.837	0.100	0.0	12.937	0.000	0.000	0.000	0.000	0.259	12.678	22.571	0.000	0.226	0.226	0.056	22.289	0.226	0.075	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	3.26
25-Mar	2.2		0.0	12.678	0.000	0.0	12.678	0.000	0.000	0.000	0.000	0.254	12.425	22.543	0.000	0.225	0.225	0.056	22.261	0.225	0.075	0.225	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.31	3.17
26-Mar	0		0.0	12.425	2.200	0.0	14.625	0.000	0.000	0.000	0.000	0.292	14.332	22.554	0.000	0.226	0.226	0.056	22.272	0.226	0.075	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.31	3.02
27-Mar	0		0.0	14.332	0.000	0.0	14.332	0.000	0.000	0.000	0.000	0.287	14.046	22.558	0.000	0.226	0.226	0.056	22.276	0.226	0.075	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.31	2.76
28-Mar	0		0.0	14.046	0.000	0.0	14.046	0.000	0.000	0.000	0.000	0.281	13.765	22.557	0.000	0.226	0.226	0.056	22.275	0.226	0.075	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.31	2.00
29-Mar	9.5		0.0	13.765	0.000	0.0	13.765	0.000	0.000	0.000	0.000	0.275	13.489	22.551	0.000	0.226	0.226	0.056	22.269	0.226	0.075	0.226	0.301	0.000	0.226	0.226	0.075	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.31	2.38
30-Mar	18.9		0.0	13.489	9.500	0.0	22.989	0.000	0.000	0.000	0.000	0.460	22.530	22.728	0.000	0.227	0.227	0.057	22.444	0.227	0.075	0.227	0.302	0.000	0.227	0.227	0.076	0.000	0.227	0.227	0.000	0.227	0.227	0.000	0.227	2.33	4.36
31-Mar	14.4		0.0	22.530	18.900	0.0	41.430	0.286	0.000	0.000	0.286	0.829	40.315	23.273	0.000	0.233	0.233	0.058	22.982	0.518	0.076	0.518	0.594	0.000	0.446	0.446	0.149	0.000	0.446	0.446	0.000	0.446	0.446	0.000	0.446	4.57	6.76
1-Apr	3.8	1.5	0.8	40.315	14.400	0.0	54.715	0.618	0.000	0.000	0.618	1.094	53.003	24.076	0.000	0.241	0.241	0.060	23.775	0.859	0.149	0.859	1.007	0.000	0.755	0.755	0.252	0.000	0.755	0.755	0.000	0.755	0.755	0.000	0.755	7.75	9.15
2-Apr	7.2	1.5	0.8	53.003	3.800	0.8	56.053	0.651	0.000	0.000	0.651	1.121	54.281	24.896	0.000	0.249	0.249	0.062	24.585	0.900	0.252	0.900	1.152	0.000	0.864	0.864	0.288	0.000	0.864	0.864	0.000	0.864	0.864	0.000	0.864	8.87	10.30
3-Apr	10.7	1.5	0.8	54.281	7.200	0.8	60.731	0.768	0.000	0.000	0.768	1.215	58.748	25.800	0.000	0.258	0.258	0.064	25.477	1.026	0.288	1.026	1.314	0.000	0.986	0.986	0.329	0.000	0.986	0.986	0.000	0.986	0.986	0.000	0.986	10.11	11.70
4-Apr	10.1	1.5	0.8	58.748	10.700	0.8	68.698	0.967	0.000	0.000	0.967	1.374	66.356	26.851	0.000	0.269	0.269	0.067	26.516	1.236	0.329	1.236	1.565	0.000	1.173	1.173	0.391	0.000	1.173	1.173	0.000	1.173	1.173	0.000	1.173	12.04	12.90
5-Apr	8.5	1.5	0.8	66.356	10.100	0.8	75.706	1.143	0.000	0.000	1.143	1.514	73.050	28.030	0.000	0.280	0.280	0.070	27.679	1.423	0.391	1.423	1.814	0.000	1.361	1.361	0.454	0.000	1.361	1.361	0.000	1.361	1.361	0.000	1.361	13.96	14.60
6-Apr	10.6	1.5	0.8	73.050	8.500	0.8	80.800	1.270	0.000	0.000	1.270	1.616	77.914	29.295	0.000	0.293	0.293	0.073	28.929	1.563	0.454	1.563	2.016	0.000	1.512	1.512	0.504	0.000	1.512	1.512	0.000	1.512	1.512	0.000	1.512	15.52	16.70
7-Apr	6.7	1.5	0.8	77.914	10.600	0.8	87.764	1.444	0.000	0.000	1.444	1.755	84.564	30.685	0.000	0.307	0.307	0.077	30.301	1.751	0.504	1.751	2.255	0.000	1.691	1.691	0.564	0.000	1.691	1.691	0.000	1.691	1.691	0.000	1.691	17.36	15.90
8-Apr	3.2	1.5	0.8	84.564	6.700	0.8	90.514	1.513	0.000	0.000	1.513	1.810	87.191	32.111	0.000	0.321	0.321	0.080	31.710	1.834	0.564	1.834	2.398	0.000	1.798	1.798	0.599	0.000	1.798	1.798	0.000	1.798	1.798	0.000	1.798	18.45	15.00
9-Apr	0	1.5	1.5	87.191	3.200	0.8	89.641	1.491	0.000	0.000	1.491	1.793	86.357	33.503	0.000	0.335	0.335	0.084	33.084	1.826	0.599	1.826	2.425	0.000	1.819	1.819	0.606	0.000	1.819	1.819	0.000	1.819	1.819	0.000	1.819	18.67	14.20
10-Apr	0	1.5	1.5	86.357	0.000	1.5	84.857	1.371	0.000	0.000	1.371	1.697	81.789	34.781	0.000	0.348	0.348	0.087	34.346	1.719	0.606	1.719	2.326	0.000	1.744	1.744	0.581	0.000	1.744	1.744	0.000	1.744	1.744	0.000	1.744	17.90	13.70
11-Apr	0	1.5	1.5	81.789	0.000	1.5	80.289	1.257	0.000	0.000	1.257	1.606	77.426	35.952	0.000	0.360	0.360	0.090	35.503	1.617	0.581	1.617	2.198	0.000	1.649	1.649	0.550	0.000	1.649	1.649	0.000	1.649	1.649	0.000	1.649	16.92	13.50
12-Apr	1.3	1.5	0.8	77.426	0.000	1.5	75.926	1.148	0.000	0.000	1.148	1.519	73.259	37.021	0.000	0.370	0.370	0.093	36.558	1.518	0.550	1.518	2.068	0.000	1.551	1.551	0.517	0.000	1.551	1.551	0.000	1.551	1.551	0.000	1.551	15.91	13.10
13-Apr	2.5	1.5	0.8	73.259	1.300	0.8	73.809	1.095	0.000	0.000	1.095	1.476	71.238	38.035	0.000	0.380	0.380	0.095	37.559	1.476	0.517	1.476	1.993	0.000	1.494	1.494	0.498	0.000	1.494	1.494	0.000	1.494	1.494	0.000	1.494	15.33	12.90
14-Apr	3.9	1.5	0.8	71.238	2.500	0.8	72.988	1.075	0.000	0.000	1.075	1.460	70.453	39.019	0.000	0.390	0.390	0.098	38.531	1.465	0.498	1.465	1.963	0.000	1.472	1.472	0.491	0.000	1.472	1.472	0.000	1.472	1.472	0.000	1.472	15.11	13.20
15-Apr	3.1	1.5	0.8	70.453	3.900	0.8	73.603	1.090	0.000	0.000	1.090	1.472	71.041	40.003	0.000	0.400	0.400	0.100	39.503	1.490	0.491	1.490	1.981	0.000	1.486	1.486	0.495	0.000	1.486	1.486	0.000	1.486	1.486	0.000	1.486	15.25	13.80
16-Apr	0	1.5	1.5	71.041	3.100	0.8	73.391	1.085	0.000	0.000	1.085	1.468	70.838	40.971	0.000	0.410	0.410	0.102	40.459	1.494	0.495	1.494	1.990	0.000	1.492	1.492	0.497	0.000	1.492	1.492	0.000	1.492	1.492	0.000	1.492	15.31	14.20
17-Apr	0	1.5	1.5	70.838	0.000	1.5	69.338	0.983	0.000	0.000	0.983	1.387	66.968	41.846	0.000	0.418	0.418	0.105	41.323	1.402	0.497	1.402	1.899	0.000	1.425	1.425	0.475	0.000	1.425	1.425	0.000	1.425	1.425	0.000	1.425	14.62	13.60
18-Apr	1.9	1.5	0.8	66.968	0.000	1.5	65.468	0.887	0.000	0.000	0.887	1.309	63.272	42.632	0.000	0.426	0.426	0.107	42.099	1.313	0.475	1.313	1.788	0.000	1.341	1.341	0.447	0.000	1.341	1.341	0.000	1.341	1.341	0.000	1.341	13.76	13.40
19-Apr	0.8	1.5	0.8	63.272	1.900	0.8	64.422	0.861	0.000	0.000	0.861	1.288	62.273	43.387	0.000	0.434	0.434	0.108	42.845	1.294	0.447	1.294	1.741	0.000	1.306	1.306	0.435	0.000	1.306	1.306	0.000	1.306	1.306	0.000	1.306	13.40	12.30
20-Apr	0	1.5	1.5	62.273	0.800	0.8	62.323	0.808	0.000	0.000	0.808	1.246	60.269	44.092	0.000	0.441	0.441	0.110	43.540	1.249	0.435	1.249	1.684	0.000	1.263	1.263	0.421	0.000	1.263	1.263	0.000	1.263	1.263	0.000	1.263	12.96	11.50
21-Apr	0	1.5	1.5	60.269	0.000	1.5	58.769	0.719	0.000	0.000	0.719	1.175	56.874	44.716	0.000	0.447	0.447	0.112	44.157	1.166	0.421	1.166	1.587	0.000	1.191	1.191	0.397	0.000	1.191	1.191	0.000	1.191	1.191	0.000	1.191	12.22	10.90
22-Apr	0	1.5	1.5	56.874	0.000	1.5	55.374	0.634	0.000	0.000	0.634	1.107	53.632	45.264	0.000	0.453	0.453	0.113	44.699	1.087	0.397	1.087	1.484	0.000	1.113	1.113	0.371	0.000	1.113	1.113	0.000	1.113	1.113	0.000	1.113	11.42	10.30
23-Apr	0	1.5	1.5	53.632	0.000	1.5	52.132	0.553	0.000	0.000	0.553	1.043	50.536	45.741	0.000	0.457	0.457	0.114	45.169	1.011	0.371	1.011	1.382	0.000	1.036	1.036	0.345	0.000	1.036	1.036	0.000	1.036	1.036	0.000	1.036	10.63	9.88
24-Apr	0	1.5	1.5	50.536	0.000	1.5	49.036	0.476	0.000	0.000	0.476	0.981	47.580	46.150	0.000	0.462	0.462	0.115	45.573	0.937	0.345	0.937	1.283	0.000	0.962	0.962	0.321	0.000	0.962	0.962	0.000	0.962	0.962	0.000	0.962	9.87	8.89
25-Apr	2.2	1.5	0.8	47.580	0.000	1.5	46.080	0.402	0.000	0.000	0.402	0.922	44.756	46.495	0.000	0.465	0.465	0.116	45.914	0.867	0.321	0.867	1.188	0.000	0.891	0.891	0.297	0.000	0.891	0.891	0.000	0.891	0.891	0.000	0.891	9.14	7.40
26-Apr	0.6	1.5	0.8	44.756	2.200	0.8	46.206	0.405	0.000	0.000	0.405	0.924	44.877	46.838	0.000	0.468	0.468	0.117	46.252	0.874	0.297	0.874	1.170	0.000	0.878	0.878	0.293	0.000	0.878	0.878	0.000	0.878	0.878	0.000	0.878	9.01	6.57
27-Apr	2.7	1.5	0.8	44.877	0.600	0.8	44.727	0.368	0.000	0.000	0.368	0.895	43.464	47.147	0.000	0.471	0.471	0.118	46.558	0.840	0.293	0.840	1.132	0.000	0.849	0.849	0.283	0.000	0.849	0.849	0.000	0.849	0.849	0.000	0.849	8.71	6.73
28-Apr	0	1.5	1.5	43.464	2.700	0.8	45.414	0.385	0.000	0.000	0.385	0.908	44.120	47.466	0.000	0.475	0.475	0.119	46.873	0.860	0.283	0.860	1.143	0.000	0.857	0.857	0.286	0.000	0.857	0.857	0.000	0.857	0.857	0.000	0.857	8.80	6.49
29-Apr	0	1.5	1.5	44.120	0.000	1.5	42.620	0.316	0.000	0.000	0.316	0.852	41.453	47.725	0.000	0.477	0.477	0.119	47.128	0.793	0.286	0.793	1.079	0.000	0.809	0.809	0.270	0.000	0.809	0.809	0.000	0.809	0.809	0.000	0.809	8.30	6.61
30-Apr	0	1.5	1.5	41.453	0.000	1.5	39.953	0.249	0.000	0.000	0.249	0.799	38.905	47.927	0.000	0.479	0.479	0.120	47.328	0.728	0.270	0.728	0.998	0.000	0.748	0.748	0.249	0.000	0.748	0.748	0.000	0.748	0.748	0.000	0.748	7.68	6.89

15) Estimated Precipitaion : Rezekne Model 1987

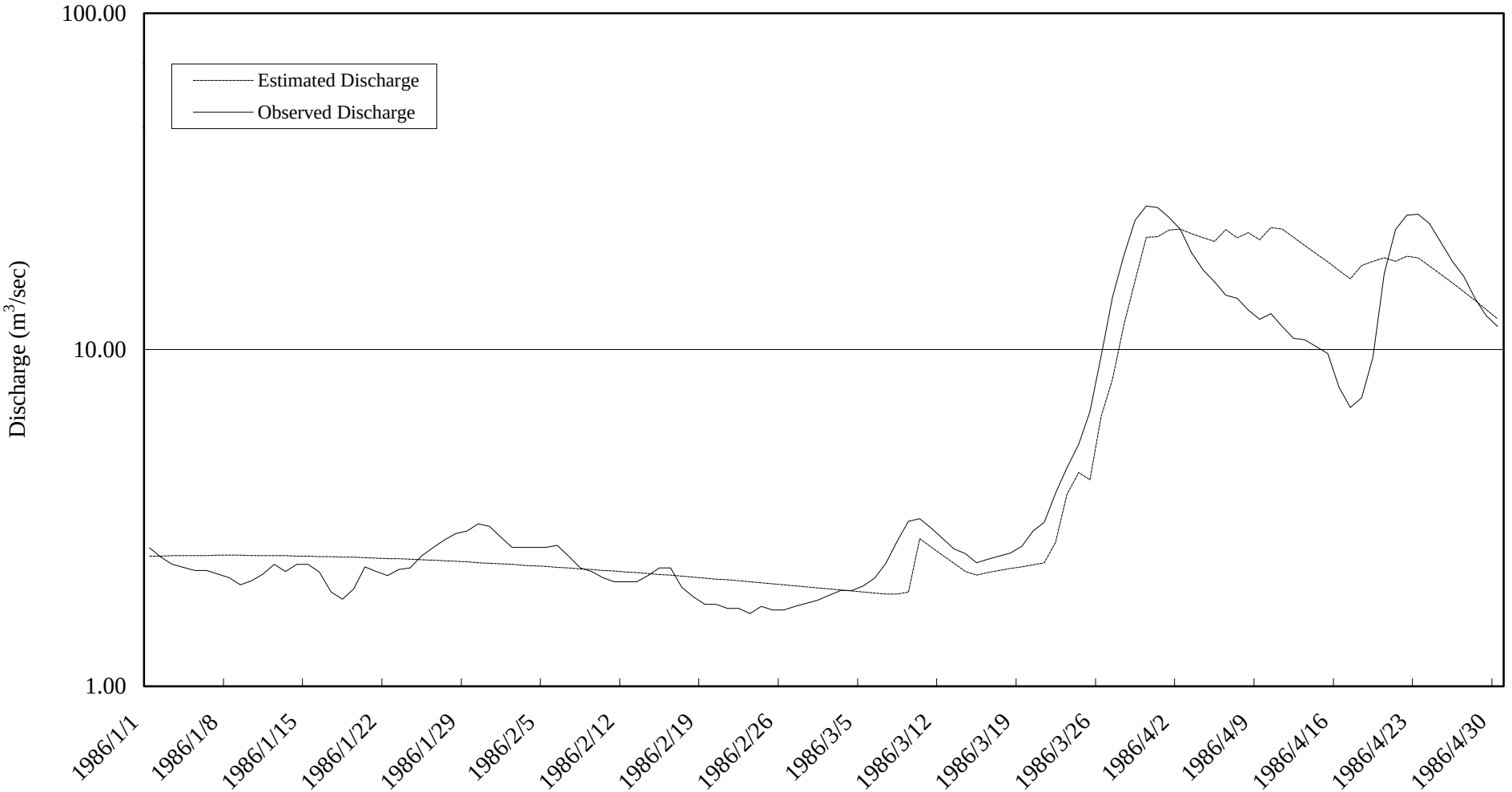
	A= 409					m = 4.5				A= 136					m = 5				Total
	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day	Mean tempera ture	Measured snow depth	Evapot ranspir ation	Converted Evapotran spiration	Convert ed rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipita-tion	Rain of previous day
1-Dec				0.2	0.2	0.1	0.00						0.2			0.00			0.0
2-Dec	0.1	4.7		0.2	0.1	0.1	0.00	0.00	0.10	0.3	4.0		0.2	0.2	0.3	0.00	0.00	0.30	0.1
3-Dec	1.4	1.6		0.2	0.1	1.4	0.00	0.00	1.40	3.5	1.5		0.2	0.1	3.5	0.00	0.00	3.50	1.9
4-Dec	2.8	-0.9	0.0	0.2	0.1	0.0	2.80	0.00	0.00	1.8	-0.8		0.2	0.1	0.0	0.00	0.00	0.00	0.0
5-Dec	7.9	7.4		0.2	0.1	7.9	2.80	2.80	10.70	1.1	7.6		0.2	0.1	1.1	1.80	1.80	2.90	8.8
6-Dec	1.2	4.0		0.2	0.1	1.2	0.00	0.00	1.20	6.1	4.7		0.2	0.1	6.1	0.00	0.00	6.10	2.4
7-Dec	7.6	5.8		0.2	0.1	7.6	0.00	0.00	7.60	6.7	6.2		0.2	0.1	6.7	0.00	0.00	6.70	7.4
8-Dec	0.8	-1.7		0.2	0.2	0.0	0.80	0.00	0.00	0.9	-1.2		0.2	0.1	0.0	0.00	0.00	0.00	0.0
9-Dec		-6.7		0.2	0.2	0.0	0.80	0.00	0.00		-6.2		0.2	0.2	0.0	0.90	0.00	0.00	0.0
10-Dec		-4.4		0.2	0.2	0.0	0.80	0.00	0.00		-4.7		0.2	0.2	0.0	0.90	0.00	0.00	0.0
11-Dec		-3.0		0.2	0.2	0.0	0.80	0.00	0.00		-3.8		0.2	0.2	0.0	0.90	0.00	0.00	0.0
12-Dec	0.3	1.8		0.2	0.2	0.3	0.80	0.80	1.10		1.6		0.2	0.2	0.0	0.90	0.90	0.90	1.1
13-Dec		-1.0		0.2	0.2	0.0	0.00	0.00	0.00		-0.9		0.2	0.2	0.0	0.00	0.00	0.00	0.0
14-Dec	0.0	-2.1		0.2	0.1	0.0	0.00	0.00	0.00	0.0	-2.4		0.2	0.2	0.0	0.00	0.00	0.00	0.0
15-Dec	2.4	-2.1		0.2	0.2	0.0	2.40	0.00	0.00	1.5	-2.0	1.0	0.2	0.1	0.0	0.00	0.00	0.00	0.0
16-Dec	0.5	-13.0	3.0	0.2	0.1	0.0	2.90	0.00	0.00	0.0	-12.3	3.0	0.2	0.2	0.0	1.50	0.00	0.00	0.0
17-Dec	1.0	-14.1	3.0	0.2	0.1	0.0	3.90	0.00	0.00	0.4	-14.0	3.0	0.2	0.2	0.0	1.50	0.00	0.00	0.0
18-Dec	4.9	-7.9	6.0	0.2	0.1	0.0	8.80	0.00	0.00	6.9	-7.5	4.0	0.2	0.1	0.0	1.90	0.00	0.00	0.0
19-Dec	1.8	-4.9	10.0	0.2	0.1	0.0	10.60	0.00	0.00	6.5	-2.2	8.0	0.2	0.1	0.0	8.80	0.00	0.00	0.0
20-Dec	1.0	-6.0	10.0	0.2	0.1	0.0	11.60	0.00	0.00	1.3	-3.1	9.0	0.2	0.1	0.0	15.30	0.00	0.00	0.0
21-Dec	6.1	-2.6	13.0	0.2	0.1	0.0	17.70	0.00	0.00	4.3	-2.0	9.0	0.2	0.1	0.0	16.60	0.00	0.00	0.0
22-Dec	5.3	-4.1	14.0	0.2	0.1	0.0	23.00	0.00	0.00	8.1	-3.8	10.0	0.2	0.1	0.0	20.90	0.00	0.00	0.0
23-Dec	3.0	-7.1	20.0	0.2	0.2	0.0	26.00	0.00	0.00	2.6	-7.0	14.0	0.2	0.1	0.0	29.00	0.00	0.00	0.0
24-Dec	0.2	-9.1	21.0	0.2	0.2	0.0	26.20	0.00	0.00	0.9	-8.7	14.0	0.2	0.1	0.0	31.60	0.00	0.00	0.0
25-Dec	0.5	-11.7	21.0	0.2	0.1	0.0	26.70	0.00	0.00		-12.1	14.0	0.2	0.2	0.0	32.50	0.00	0.00	0.0
26-Dec	0.7	-12.1	23.0	0.2	0.1	0.0	27.40	0.00	0.00	0.8	-13.0	14.0	0.2	0.1	0.0	32.50	0.00	0.00	0.0
27-Dec	1.8	-13.8	26.0	0.2	0.1	0.0	29.20	0.00	0.00	2.0	-15.8	16.0	0.2	0.1	0.0	33.30	0.00	0.00	0.0
28-Dec	0.6	-17.0	26.0	0.2	0.1	0.0	29.80	0.00	0.00	0.6	-18.1	16.0	0.2	0.1	0.0	35.30	0.00	0.00	0.0
29-Dec	1.3	-13.7	27.0	0.2	0.1	0.0	31.10	0.00	0.00	2.8	-14.8	17.0	0.2	0.1	0.0	35.90	0.00	0.00	0.0
30-Dec	1.9	-9.3	27.0	0.2	0.1	0.0	33.00	0.00	0.00	3.0	-9.7	17.0	0.2	0.1	0.0	38.70	0.00	0.00	0.0
31-Dec	7.3	-8.0	20.0	0.2	0.2	0.0	40.30	0.00	0.00	7.9	-8.0	14.0	0.2	0.1	0.0	41.70	0.00	0.00	0.0
1-Jan	0.3	-14.2	20.0		0.0	0.0	40.60	0.00	0.00	0.3	-13.5	14.0		0.0	0.0	49.60	0.00	0.00	0.0
2-Jan	0.2	-15.0	20.0		0.0	0.0	40.80	0.00	0.00	0.7	-14.3	14.0		0.0	0.0	49.90	0.00	0.00	0.0
3-Jan	0.5	-18.8	20.0		0.0	0.0	41.30	0.00	0.00	0.4	-19.6	14.0		0.0	0.0	50.60	0.00	0.00	0.0
4-Jan	1.1	-19.2	21.0		0.0	0.0	42.40	0.00	0.00	0.9	-17.6	16.0		0.0	0.0	51.00	0.00	0.00	0.0
5-Jan	0.2	-24.5	21.0		0.0	0.0	42.60	0.00	0.00		-24.0	16.0		0.0	0.0	51.90	0.00	0.00	0.0
6-Jan		-30.2	21.0		0.0	0.0	42.60	0.00	0.00		-28.6	16.0		0.0	0.0	51.90	0.00	0.00	0.0
7-Jan		-29.0	21.0		0.0	0.0	42.60	0.00	0.00		-26.9	16.0		0.0	0.0	51.90	0.00	0.00	0.0
8-Jan		-29.2	21.0		0.0	0.0	42.60	0.00	0.00		-28.1	16.0		0.0	0.0	51.90	0.00	0.00	0.0
9-Jan	1.2	-22.5	22.0		0.0	0.0	43.80	0.00	0.00	2.4	-23.0	17.0		0.0	0.0	51.90	0.00	0.00	0.0
10-Jan	0.6	-26.9	22.0		0.0	0.0	44.40	0.00	0.00	1.1	-24.5	18.0		0.0	0.0	54.30	0.00	0.00	0.0
11-Jan	0.3	-29.8	23.0		0.0	0.0	44.70	0.00	0.00		-27.2	20.0		0.0	0.0	55.40	0.00	0.00	0.0
12-Jan		-33.3	23.0		0.0	0.0	44.70	0.00	0.00		-31.7	20.0		0.0	0.0	55.40	0.00	0.00	0.0
13-Jan		-26.4	23.0		0.0	0.0	44.70	0.00	0.00	0.5	-23.2	20.0		0.0	0.0	55.40	0.00	0.00	0.0
14-Jan	1.2	-18.7	18.0		0.0	0.0	45.90	0.00	0.00	2.0	-17.2	18.0		0.0	0.0	55.90	0.00	0.00	0.0
15-Jan	0.4	-12.9	18.0		0.0	0.0	46.30	0.00	0.00	0.9	-12.4	20.0		0.0	0.0	57.90	0.00	0.00	0.0
16-Jan		-16.7	19.0		0.0	0.0	46.30	0.00	0.00		-16.5	20.0		0.0	0.0	58.80	0.00	0.00	0.0
17-Jan		-17.0	19.0		0.0	0.0	46.30	0.00	0.00		-20.5	20.0		0.0	0.0	58.80	0.00	0.00	0.0
18-Jan	0.0	-12.6	19.0		0.0	0.0	46.30	0.00	0.00		-13.2	20.0		0.0	0.0	58.80	0.00	0.00	0.0
19-Jan	0.2	-7.5	19.0		0.0	0.0	46.50	0.00	0.00		-8.2	20.0		0.0	0.0	58.80	0.00	0.00	0.0
20-Jan		-7.2	19.0		0.0	0.0	46.50	0.00	0.00		-8.0	20.0		0.0	0.0	58.80	0.00	0.00	0.0
21-Jan		-7.5	19.0		0.0	0.0	46.50	0.00	0.00		-8.1	20.0		0.0	0.0	58.80	0.00	0.00	0.0
22-Jan	1.4	-12.5	19.0		0.0	0.0	47.90	0.00	0.00	1.7	-12.8	20.0		0.0	0.0	58.80	0.00	0.00	0.0
23-Jan		-4.8	21.0		0.0	0.0	47.90	0.00	0.00		-5.1	21.0		0.0	0.0	60.50	0.00	0.00	0.0
24-Jan	0.6	-6.5	22.0		0.0	0.0	48.50	0.00	0.00	1.1	-6.2	22.0		0.0	0.0	60.50	0.00	0.00	0.0
25-Jan	0.3	-14.1	22.0		0.0	0.0	48.80	0.00	0.00		-13.5	21.0		0.0	0.0	61.60	0.00	0.00	0.0
26-Jan	9.4	-4.6	24.0		0.0	0.0	58.20	0.00	0.00	12.1	-5.6	21.0		0.0	0.0	61.60	0.00	0.00	0.0
27-Jan	2.1	-8.9	27.0		0.0	0.0	60.30	0.00	0.00	3.4	-8.2	26.0		0.0	0.0	73.70	0.00	0.00	0.0
28-Jan	0.2	-17.5	23.0		0.0	0.0	60.50	0.00	0.00	0.3	-17.3	29.0		0.0	0.0	77.10	0.00	0.00	0.0
29-Jan	6.7	-17.1	30.0		0.0	0.0	67.20	0.00	0.00	5.4	-15.9	33.0		0.0	0.0	77.40	0.00	0.00	0.0
30-Jan		-25.5	30.0		0.0	0.0	67.20	0.00	0.00		-24.0	33.0		0.0	0.0	82.80	0.00	0.00	0.0
31-Jan	0.7	-21.9	30.0		0.0	0.0	67.90	0.00	0.00	0.8	-21.6	33.0		0.0	0.0	82.80	0.00	0.00	0.0
1-Feb	2.4	-5.5	29.0		0.0	0.0	70.30	0.00	0.00	7.3	-6.2	35.0		0.0	0.0	83.60	0.00	0.00	0.0
2-Feb		-2.4	30.0		0.0	0.0	70.30	0.00	0.00	0.6	-2.2	35.0		0.0	0.0	90.90	0.00	0.00	0.0
3-Feb	0.2	-4.6	30.0		0.0	0.0	70.50	0.00	0.00	0.0	-3.8	35.0		0.0	0.0	91.50	0.00	0.00	0.0
4-Feb	0.2	-3.7	31.0		0.0	0.0	70.70	0.00	0.00	0.3	-3.6	35.0		0.0	0.0	91.50	0.00	0.00	0.0
5-Feb		-5.8	31.0		0.0	0.0	70.70	0.00	0.00		-5.6	33.0		0.0	0.0	91.80	0.00	0.00	0.0
6-Feb		-2.5	31.0		0.0	0.0	70.70	0.00	0.00	0.0	-2.9	33.0		0.0	0.0	91.80	0.00	0.00	0.0
7-Feb	1.5	1.4	30.0		0.0	1.5	70.70	6.33	7.83	1.2	1.2	29.0		0.0	1.2	91.80	5.42	6.62	7.5
8-Feb	7.3	0.2	25.0		0.0	7.3	64.37	0.92	8.22	12.1	-0.1	28.0		0.0	0.0	86.38	0.00	0.00	6.2
9-Feb	2.4	-5.7	27.0		0.0	0.0	65.85	0.00	0.00	0.7	-5.6	28.0		0.0	0.0	98.48	0.00	0.00	0.0
10-Feb	3.1	-13.1	30.0		0.0	0.0	68.95	0.00	0.00	1.4	-13.0	31.0		0.0	0.0	99.18	0.00	0.00	0.0
11-Feb		-11.0	30.0		0.0	0.0	68.95	0.00	0.00	0.0	-11.6	31.0		0.0	0.0	100.58	0.00	0.00	0.0
12-Feb	2.3	-10.4	30.0		0.0	0.0	71.25	0.00	0.00	2.8	-11.2	31.0		0.0	0.0	100.58	0.00	0.00	0.0
13-Feb	0.0	-4.9	31.0		0.0	0.0	71.25	0.00	0.00	0.4	-5.8	32.0		0.0	0.0	103.38	0.00	0.00	0.0
14-Feb	0.6	-0.7	32.0		0.0	0.0	71.85	0.00	0.00	0.6	-1.0	33.0		0.0	0.0	103.78	0.00	0.00	0.0
15-Feb	2.8	0.3	30.0		0.0	2.8	71.85	1.36	4.16	2.5	-0.2	32.0		0.0	0.0	104.38	0.00	0.00	3.1
16-Feb	6.9	0.5	29.0		0.0	6.9	70.49	2.29	9.19	1.2	0.4	31.0		0.0	1.2	106.88	1.81	3.01	7.6
17-Feb	0.3	0.2	28.0		0.0	0.3	68.20	0.90	1.20		-0.3	29.0		0.0	0.0	105.07	0.00	0.00	0.9
18-Feb	0.7	-2.6	26.0		0.0	0.0	68.00	0.00	0.00	1.6	-3.3	29.0		0.0	0.0	105.07	0.00	0.00	0.0
19-Feb	0.5	0.0	28.0		0.0	0.0	68.50	0.00	0.00	0.0	-0.4	31.0		0.0	0.0	106.67	0.00	0.00	0.0
20-Feb	0.3	-0.2	27.0		0.0	0.0	68.80	0.00	0.00	0.5	-0.2	30.0		0.0	0.0	106.67	0.00	0.00	0.0
21-Feb	0.0	-5.5	27.0		0.0	0.0	68.80	0.00	0.00	7.7	-4.1	39.0		0.0	0.0	107.17	0.00	0.00	0.0
22-Feb		-8.3	27.0		0.0	0.0	68.80	0.00	0.00	0.0	-9.5	39.0		0.0	0.0	114.87	0.00	0.00	0.0
23-Feb	1.1	-4.6	27.0		0.0	0.0	69.90	0.00	0.00	1.5	-4.2	39.0		0.0	0.0	114.87	0.00	0.00	0.0
24-Feb	0.2	-8.7	29.0		0.0	0.0	70.10	0.00	0.00	0.0	-8.4	38.0		0.0	0.0	116.37	0.00	0.00	0.0
25-Feb	0.2	-12.7	29.0		0.0	0.0	70.30	0.00	0.00	1.0	-12.4	37.0		0.0	0.0	116.37	0.00	0.00	0.0
26-Feb	2.9	-9.7	30.0		0.0	0.0	73.20	0.00	0.00	2.1	-9.6	39.0		0.0	0.0	117.37	0.00	0.00	0.0
27-Feb	0.3	-13.7	32.0		0.0	0.0	73.50	0.00	0.00		-13.5	38.0		0.0	0.0	119.47	0.00	0.00	0.0
28-Feb	0.5	-9.8	32.0		0.0	0.0	74.00	0.00	0.00	0.2	-10.5	38.0		0.0	0.0	119.47	0.00	0.00	0.0
1-Mar	0.9	-10.2	34.0		0.0	0.0	74.90	0.00	0.00	0.4	-11.3	38.0		0.0	0.0	119.67	0.00	0.00	0.0
2-Mar	0.4	-17.7	34.0		0.0	0.0	75.30	0.00	0.00	0.0	-17.4	38.0		0.0	0.0	120.07	0.00	0.00	0.0
3-Mar	0.5	-20.9	34.0		0.0	0.0	75.80	0.00	0.00		-21.6	38.0		0.0	0.0	120.07	0.00	0.00	0.0
4-Mar	0.0	-22.2	34.0		0.0	0.0	75.80	0.00	0.00		-23.3	38.0		0.0	0.0	120.07	0.00	0.00	0.0
5-Mar	1.6	-15.4	34.0		0.0	0.0	77.40	0.00	0.00	1.5	-16.3	39.0		0.0	0.0	120.07	0.00	0.00	0.0

15) Estimated Precipitaion : Rezekne Model 1987

	A= 409					m = 4.5				A= 136					m = 5				Total
	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipitation	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipitation	Rain of previous day
6-Mar	1.2	-14.3	36.0		0.0	0.0	78.60	0.00	0.00	0.7	-14.5	41.0		0.0	0.0	121.57	0.00	0.00	0.0
7-Mar	0.4	-16.1	36.0		0.0	0.0	79.00	0.00	0.00	0.4	-15.4	41.0		0.0	0.0	122.27	0.00	0.00	0.0
8-Mar	1.0	-6.7	37.0		0.0	0.0	80.00	0.00	0.00		-5.9	40.0		0.0	0.0	122.67	0.00	0.00	0.0
9-Mar		-6.5	37.0		0.0	0.0	80.00	0.00	0.00		-5.6	39.0		0.0	0.0	122.67	0.00	0.00	0.0
10-Mar		-6.0	37.0		0.0	0.0	80.00	0.00	0.00		-5.2	38.0		0.0	0.0	122.67	0.00	0.00	0.0
11-Mar		-6.1	36.0		0.0	0.0	80.00	0.00	0.00		-6.2	38.0		0.0	0.0	122.67	0.00	0.00	0.0
12-Mar		-7.2	36.0		0.0	0.0	80.00	0.00	0.00		-8.3	37.0		0.0	0.0	122.67	0.00	0.00	0.0
13-Mar		-8.3	35.0		0.0	0.0	80.00	0.00	0.00		-7.7	37.0		0.0	0.0	122.67	0.00	0.00	0.0
14-Mar		-6.8	33.0		0.0	0.0	80.00	0.00	0.00		-6.6	37.0		0.0	0.0	122.67	0.00	0.00	0.0
15-Mar		-5.8	32.0		0.0	0.0	80.00	0.00	0.00		-5.7	36.0		0.0	0.0	122.67	0.00	0.00	0.0
16-Mar		-7.5	31.0		0.0	0.0	80.00	0.00	0.00		-7.6	36.0		0.0	0.0	122.67	0.00	0.00	0.0
17-Mar		-5.2	31.0		0.0	0.0	80.00	0.00	0.00		-6.1	36.0		0.0	0.0	122.67	0.00	0.00	0.0
18-Mar		-5.9	31.0		0.0	0.0	80.00	0.00	0.00		-6.2	36.0		0.0	0.0	122.67	0.00	0.00	0.0
19-Mar		-6.0	31.0		0.0	0.0	80.00	0.00	0.00		-6.2	36.0		0.0	0.0	122.67	0.00	0.00	0.0
20-Mar	0.2	-5.1	31.0		0.0	0.0	80.20	0.00	0.00	0.8	-5.8	36.0		0.0	0.0	122.67	0.00	0.00	0.0
21-Mar	0.3	-0.5	31.0		0.0	0.0	80.50	0.00	0.00	0.7	-1.2	38.0		0.0	0.0	123.47	0.00	0.00	0.0
22-Mar	11.3	-0.8	36.0		0.0	0.0	91.80	0.00	0.00	10.5	-0.7	42.0		0.0	0.0	124.17	0.00	0.00	0.0
23-Mar	0.3	-0.4	38.0		0.0	0.0	92.10	0.00	0.00	0.0	0.1	46.0		0.0	0.0	134.67	0.45	0.45	0.1
24-Mar		-1.3	36.0		0.0	0.0	92.10	0.00	0.00		-2.0	44.0		0.0	0.0	134.22	0.00	0.00	0.0
25-Mar		0.7	34.0		0.0	0.0	92.10	3.15	3.15		-0.2	42.0		0.0	0.0	134.22	0.00	0.00	2.4
26-Mar		-3.4	32.0		0.0	0.0	88.95	0.00	0.00		-4.1	41.0		0.0	0.0	134.22	0.00	0.00	0.0
27-Mar		-3.2	32.0		0.0	0.0	88.95	0.00	0.00		-4.8	41.0		0.0	0.0	134.22	0.00	0.00	0.0
28-Mar	3.4	-0.3	32.0		0.0	0.0	92.35	0.00	0.00	2.5	-0.5	41.0		0.0	0.0	134.22	0.00	0.00	0.0
29-Mar	0.1	2.3	33.0		0.0	0.1	92.35	10.35	10.45	2.2	1.5	38.0		0.0	2.2	136.72	6.79	8.99	10.1
30-Mar	5.7	2.9	31.0		0.0	5.7	82.00	13.26	18.96	11.4	2.3	31.0		0.0	11.4	129.93	10.68	22.08	19.7
31-Mar		3.4	23.0		0.0	0.0	68.74	15.30	15.30		3.5	27.0		0.0	0.0	119.25	15.75	15.75	15.4
1-Apr		0.7	18.0	1.5	1.5	0.0	53.44	3.15	3.15		1.5	23.0	1.5	1.5	0.0	103.50	6.75	6.75	4.0
2-Apr	0.5	1.3	17.0	1.5	1.5	0.5	50.29	5.86	6.36	0.3	2.5	19.0	1.5	1.5	0.3	96.75	11.26	11.56	7.7
3-Apr		2.5	15.0	1.5	1.5	0.0	44.43	11.25	11.25		2.7	9.0	1.5	1.5	0.0	85.49	12.15	12.15	11.5
4-Apr		2.3	13.0	1.5	1.5	0.0	33.18	10.35	10.35		2.7	7.0	1.5	1.5	0.0	73.34	12.15	12.15	10.8
5-Apr		2.1	10.0	1.5	1.5	0.0	22.83	9.50	9.50		1.8	4.0	1.5	1.5	0.0	61.19	8.10	8.10	9.2
6-Apr		2.7	7.0	1.5	0.8	0.0	13.33	12.15	12.15		2.0	2.0	1.5	1.5	0.0	53.09	9.00	9.00	11.4
7-Apr	1.8	1.2	2.0	1.5	1.5	1.8	1.18	1.18	2.98	2.0	1.0	1.0	1.5	0.8	2.0	44.09	4.53	6.53	3.9
8-Apr	0.0	1.0	1.0	1.5	1.5	0.0	0.00	0.00	0.00	0.0	0.8	1.0	1.5	1.5	0.0	39.56	3.60	3.60	0.9
9-Apr		-0.1	1.0	1.5	1.5	0.0	0.00	0.00	0.00	0.0	-0.4		1.5	1.5	0.0	35.96	0.00	0.00	0.0
10-Apr		0.1		1.5	1.5	0.0	0.00	0.00	0.00		0.0		1.5	1.5	0.0	35.96	0.00	0.00	0.0
11-Apr		-1.0		1.5	1.5	0.0	0.00	0.00	0.00		-0.6		1.5	1.5	0.0	35.96	0.00	0.00	0.0
12-Apr		1.6		1.5	1.5	0.0	0.00	0.00	0.00		1.2		1.5	1.5	0.0	35.96	5.40	5.40	1.3
13-Apr		2.6		1.5	1.5	0.0	0.00	0.00	0.00		2.4		1.5	1.5	0.0	30.56	10.80	10.80	2.7
14-Apr		4.2		1.5	1.5	0.0	0.00	0.00	0.00		3.7		1.5	1.5	0.0	19.76	16.65	16.65	4.2
15-Apr		4.5		1.5	1.5	0.0	0.00	0.00	0.00		4.8		1.5	1.5	0.0	3.11	3.11	3.11	0.8
16-Apr		4.3		1.5	1.5	0.0	0.00	0.00	0.00		4.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
17-Apr		3.8		1.5	0.8	0.0	0.00	0.00	0.00	0.1	3.8		1.5	1.5	0.1	0.00	0.00	0.10	0.0
18-Apr	2.3	3.4		1.5	0.8	2.3	0.00	0.00	2.30	0.5	3.7		1.5	1.5	0.5	0.00	0.00	0.50	1.9
19-Apr	0.7	0.8		1.5	1.5	0.7	0.00	0.00	0.70	1.3	0.9	2.0	1.5	0.8	1.3	0.00	0.00	1.30	0.8
20-Apr	0.0	-0.2		1.5	1.5	0.0	0.00	0.00	0.00	0.2	-0.2	0.0	1.5	1.5	0.0	0.00	0.00	0.00	0.0
21-Apr		0.8		1.5	1.5	0.0	0.00	0.00	0.00		1.0		1.5	1.5	0.0	0.20	0.20	0.20	0.0
22-Apr		0.9		1.5	1.5	0.0	0.00	0.00	0.00		1.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
23-Apr		0.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0	0.3		1.5	1.5	0.0	0.00	0.00	0.00	0.0
24-Apr		2.4		1.5	0.8	0.0	0.00	0.00	0.00		2.8		1.5	1.5	0.0	0.00	0.00	0.00	0.0
25-Apr	2.4	5.8		1.5	0.8	2.4	0.00	0.00	2.40	1.6	5.3		1.5	0.8	1.6	0.00	0.00	1.60	2.2
26-Apr	0.8	3.7		1.5	0.8	0.8	0.00	0.00	0.80	0.0	4.0		1.5	1.5	0.0	0.00	0.00	0.00	0.6
27-Apr	2.6	1.6		1.5	1.5	2.6	0.00	0.00	2.60	3.1	2.1		1.5	0.8	3.1	0.00	0.00	3.10	2.7
28-Apr		4.9		1.5	1.5	0.0	0.00	0.00	0.00	0.0	4.6		1.5	1.5	0.0	0.00	0.00	0.00	0.0
29-Apr		5.2		1.5	1.5	0.0	0.00	0.00	0.00		5.8		1.5	1.5	0.0	0.00	0.00	0.00	0.0
30-Apr		11.0		1.5	1.5	0.0	0.00	0.00	0.00		10.9		1.5	1.5	0.0	0.00	0.00	0.00	0.0

16) Series Tank Model Calculation : Rezekne 1986

	Estimated	Actual	Ratio	Varification	
Discharge (mm)	83.00	76.10	109%	Correlation Coefficien t=	87.5%
Precipitation(mm)	197.48			R =	0.2354
Runoff Ratio	42%	38.5%		R^2 =	1.2585



17) Series Tank Model Calculation Sheet : Rezekne 1986

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
		Height of Orifice						30	0	0		0			0	0		25						0	0		0				0	0		0			
		Coefficient of Orifice						0.025	0	0		0.02			0	0.01		0.0025						0	1						0	1					
	Rain	Evapotranspiration	Converted Evapotran-spiration	Storage of previous day	Rain of previous day	Evapotran-spiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltra-tion	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra-tion	Balance of Storage	Total specific dischareg	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Discharege	Measured River Discharge
1-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.800	0.000	0.248	0.248	0.062	24.490	0.248	0.000	0.248	0.248	0.000	0.248	0.248	0.000	0.000	0.248	0.248	0.000	0.248	0.248	0.000	0.248	2.54	1.38
2-Dec		0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.290	0.000	0.243	0.243	0.061	23.986	0.243	0.000	0.243	0.243	0.000	0.243	0.243	0.000	0.000	0.243	0.243	0.000	0.243	0.243	0.000	0.243	2.49	1.42
3-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.786	0.000	0.238	0.238	0.059	23.489	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	1.46
4-Dec	0	0.2	0.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.289	0.000	0.233	0.233	0.058	22.998	0.233	0.000	0.233	0.233	0.000	0.233	0.233	0.000	0.000	0.233	0.233	0.000	0.233	0.233	0.000	0.233	2.39	1.72
5-Dec	11.9	0.2	0.1	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.898	0.000	0.229	0.229	0.057	22.612	0.229	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.229	2.35	2.27
6-Dec	2	0.2	0.1	0.000	11.900	0.0	11.900	0.000	0.000	0.000	0.000	0.238	11.662	22.850	0.000	0.228	0.228	0.057	22.564	0.228	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.228	2.34	2.90
7-Dec	5.1	0.2	0.1	11.662	2.000	0.1	13.562	0.000	0.000	0.000	0.000	0.271	13.291	22.835	0.000	0.228	0.228	0.057	22.550	0.228	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.228	2.34	3.56
8-Dec	0	0.2	0.2	13.291	5.100	0.1	18.291	0.000	0.000	0.000	0.000	0.366	17.925	22.916	0.000	0.229	0.229	0.057	22.629	0.229	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.229	2.35	4.64
9-Dec	0	0.2	0.2	17.925	0.000	0.2	17.725	0.000	0.000	0.000	0.000	0.354	17.370	22.984	0.000	0.230	0.230	0.057	22.696	0.230	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.230	2.36	3.77
10-Dec	0	0.2	0.2	17.370	0.000	0.2	17.170	0.000	0.000	0.000	0.000	0.343	16.827	23.040	0.000	0.230	0.230	0.058	22.752	0.230	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.230	2.36	4.06
11-Dec	0	0.2	0.2	16.827	0.000	0.2	16.627	0.000	0.000	0.000	0.000	0.333	16.294	23.084	0.000	0.231	0.231	0.058	22.796	0.231	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.37	3.88
12-Dec	0	0.2	0.2	16.294	0.000	0.2	16.094	0.000	0.000	0.000	0.000	0.322	15.773	23.118	0.000	0.231	0.231	0.058	22.829	0.231	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.37	3.44
13-Dec	0	0.2	0.2	15.773	0.000	0.2	15.573	0.000	0.000	0.000	0.000	0.311	15.261	23.140	0.000	0.231	0.231	0.058	22.851	0.231	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.37	3.00
14-Dec	0	0.2	0.2	15.261	0.000	0.2	15.061	0.000	0.000	0.000	0.000	0.301	14.760	23.152	0.000	0.232	0.232	0.058	22.863	0.232	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.232	2.38	3.66
15-Dec	0	0.2	0.2	14.760	0.000	0.2	14.560	0.000	0.000	0.000	0.000	0.291	14.269	23.154	0.000	0.232	0.232	0.058	22.865	0.232	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.232	2.38	3.47
16-Dec	0	0.2	0.2	14.269	0.000	0.2	14.069	0.000	0.000	0.000	0.000	0.281	13.787	23.146	0.000	0.231	0.231	0.058	22.857	0.231	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.38	3.33
17-Dec	0	0.2	0.2	13.787	0.000	0.2	13.587	0.000	0.000	0.000	0.000	0.272	13.316	23.128	0.000	0.231	0.231	0.058	22.839	0.231	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.37	3.00
18-Dec	0	0.2	0.2	13.316	0.000	0.2	13.116	0.000	0.000	0.000	0.000	0.262	12.853	23.102	0.000	0.231	0.231	0.058	22.813	0.231	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.37	2.74
19-Dec	0	0.2	0.2	12.853	0.000	0.2	12.653	0.000	0.000	0.000	0.000	0.253	12.400	23.066	0.000	0.231	0.231	0.058	22.778	0.231	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.37	3.33
20-Dec	0	0.2	0.2	12.400	0.000	0.2	12.200	0.000	0.000	0.000	0.000	0.244	11.956	23.022	0.000	0.230	0.230	0.058	22.734	0.230	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.230	2.36	3.33
21-Dec	0	0.2	0.2	11.956	0.000	0.2	11.756	0.000	0.000	0.000	0.000	0.235	11.521	22.969	0.000	0.230	0.230	0.057	22.682	0.230	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.230	2.36	3.33
22-Dec	0	0.2	0.2	11.521	0.000	0.2	11.321	0.000	0.000	0.000	0.000	0.226	11.095	22.908	0.000	0.229	0.229	0.057	22.622	0.229	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.229	2.35	2.84
23-Dec	6.32	0.2	0.1	11.095	0.000	0.2	10.895	0.000	0.000	0.000	0.000	0.218	10.677	22.840	0.000	0.228	0.228	0.057	22.554	0.228	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.228	2.34	3.40
24-Dec	5	0.2	0.1	10.677	6.320	0.1	16.897	0.000	0.000	0.000	0.000	0.338	16.559	22.892	0.000	0.229	0.229	0.057	22.606	0.229	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.229	2.35	3.19
25-Dec	0	0.2	0.2	16.559	5.000	0.1	21.459	0.000	0.000	0.000	0.000	0.429	21.030	23.035	0.000	0.230	0.230	0.058	22.747	0.230	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.230	2.36	2.93
26-Dec	0	0.2	0.2	21.030	0.000	0.2	20.830	0.000	0.000	0.000	0.000	0.417	20.413	23.164	0.000	0.232	0.232	0.058	22.874	0.232	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.232	2.38	2.79
27-Dec	0	0.2	0.2	20.413	0.000	0.2	20.213	0.000	0.000	0.000	0.000	0.404	19.809	23.279	0.000	0.233	0.233	0.058	22.988	0.233	0.000	0.233	0.233	0.000	0.233	0.233	0.000	0.000	0.233	0.233	0.000	0.233	0.233	0.000	0.233	2.39	2.79
28-Dec	0	0.2	0.2	19.809	0.000	0.2	19.609	0.000	0.000	0.000	0.000	0.392	19.217	23.380	0.000	0.234	0.234	0.058	23.088	0.234	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.234	2.40	2.44
29-Dec	0	0.2	0.2	19.217	0.000	0.2	19.017	0.000	0.000	0.000	0.000	0.380	18.636	23.468	0.000	0.235	0.235	0.059	23.175	0.235	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.235	2.41	2.62
30-Dec	0	0.2	0.2	18.636	0.000	0.2	18.436	0.000	0.000	0.000	0.000	0.369	18.068	23.543	0.000	0.235	0.235	0.059	23.249	0.235	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.235	2.42	2.74
31-Dec	0	0.2	0.2	18.068	0.000	0.2	17.868	0.000	0.000	0.000	0.000	0.357	17.510	23.606	0.000	0.236	0.236	0.059	23.311	0.236	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.236	2.42	2.88
1-Jan	0		0.0	17.510	0.000	0.2	17.310	0.000	0.000	0.000	0.000	0.346	16.964	23.657	0.000	0.237	0.237	0.059	23.362	0.237	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.43	2.57
2-Jan	0		0.0	16.964	0.000	0.0	16.964	0.000	0.000	0.000	0.000	0.339	16.625	23.701	0.000	0.237	0.237	0.059	23.405	0.237	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.43	2.41
3-Jan	0		0.0	16.625	0.000	0.0	16.625	0.000	0.000	0.000	0.000	0.332	16.292	23.737	0.000	0.237	0.237	0.059	23.441	0.237	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.44	2.30
4-Jan	0		0.0	16.292	0.000	0.0	16.292	0.000	0.000	0.000	0.000	0.326	15.966	23.766	0.000	0.238	0.238	0.059	23.469	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.25
5-Jan	0		0.0	15.966	0.000	0.0	15.966	0.000	0.000	0.000	0.000	0.319	15.647	23.789	0.000	0.238	0.238	0.059	23.491	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.20
6-Jan	0		0.0	15.647	0.000	0.0	15.647	0.000	0.000	0.000	0.000	0.313	15.334	23.804	0.000	0.238	0.238	0.060	23.507	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.20
7-Jan	0		0.0	15.334	0.000	0.0	15.334	0.000	0.000	0.000	0.000	0.307	15.027	23.813	0.000	0.238	0.238	0.060	23.516	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.15
8-Jan	0		0.0	15.027	0.000	0.0	15.027	0.000	0.000	0.000	0.000	0.301	14.727	23.816	0.000	0.238	0.238	0.060	23.518	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.10
9-Jan	0		0.0	14.727	0.000	0.0	14.727	0.000	0.000	0.000	0.000	0.295	14.432	23.813	0.000	0.238	0.238	0.060	23.515	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.00
10-Jan	0		0.0	14.432	0.000	0.0	14.432	0.000	0.000	0.000	0.000	0.289	14.144	23.804	0.000	0.238	0.238	0.060	23.506	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.05
11-Jan	0		0.0	14.144	0.000	0.0	14.144	0.000	0.000	0.000	0.000	0.283	13.861	23.789	0.000	0.238	0.238	0.059	23.492	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.15
12-Jan	0		0.0	13.861	0.000	0.0	13.861	0.000	0.000	0.000	0.000	0.277	13.584	23.769	0.000	0.238	0.238	0.059	23.472	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.44	2.30
13-Jan	0		0.0	13.584	0.000	0.0	13.584	0.000	0.000	0.000	0.000	0.272	13.312	23.744	0.000	0.237	0.237	0.059	23.447	0.237	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.44	2.19
14-Jan	0		0.0	13.312	0.000	0.0	13.312	0.000	0.000	0.000	0.000	0.266	13.046	23.713	0.000	0.237	0.237	0.059	23.417	0.237	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.43	2.30
15-Jan	0		0.0	13.046	0.000	0.0	13.046	0.000	0.000	0.000	0.000	0.261	12.785	23.678	0.000	0.237	0.237	0.059	23.382	0.237	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.000	0.237	0.237	0.000	0.237	0.237	0.000	0.237	2.43	2.30
16-Jan	0		0.0	12.785	0.000	0.0	12.785	0.000	0.000	0.000	0.000	0.256	12.529	23.637	0.000	0.236	0.236	0.059	23.342	0.236	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.236	2.43	2.18
17-Jan	0		0.0	12.529	0.000	0.0	12.529	0.000	0.000	0.000	0.000	0.251	12.279	23.593	0.000	0.236	0.236	0.059	23.298	0.236	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.000	0.236	0.236	0.000	0.236	0.236	0.000	0.236	2.42	1.90
18-Jan	0		0.0	12.279	0.000	0.0	12.279	0.000	0.000	0.000	0.000	0.246	12.033	23.543	0.000	0.235	0.235	0.059	23.249	0.235	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.235	2.42	1.81
19-Jan	0		0.0	12.033	0.000	0.0	12.033	0.000	0.000	0.000	0.000	0.241	11.792	23.490	0.000	0.235	0.235	0.059	23.196	0.235	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.000	0.235	0.235	0.000	0.235	0.235	0.000	0.235	2.41	1.94
20-Jan	0		0.0	11.792	0.000	0.0	11.792	0.000	0.000	0.000	0.000	0.236	11.556	23.432	0.000	0.234	0.234	0.059	23.139	0.234	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.234	2.40	2.26
21-Jan	0		0.0	11.556	0.000	0.0	11.556	0.000	0.000	0.000	0.000	0.231	11.325	23.370	0.000	0.234	0.234	0.058	23.078	0.234	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.000	0.234	0.234	0.000	0.234	0.234	0.000	0.234	2.40	2.19
22-Jan	0		0.0	11.325	0.000	0.0	11.325	0.000	0.000	0.000	0.000	0.227	11.099	23.304	0.000	0.233	0.233	0.058	23.013	0.233	0.000	0.233	0.233	0.000	0.233	0.233	0.000	0.000	0.233	0.233	0.000	0.233	0.233	0.000	0.233	2.39	2.13
23-Jan	0		0.0	11.099	0.000	0.0	11.099	0.000	0.000	0.000	0.000	0.222	10.877	23.235	0.000	0.232	0.232	0.058	22.945	0.232	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.232	2.38	2.22
24-Jan	0		0.0	10.877	0.000	0.0	10.877	0.000	0.000	0.000	0.000	0.218	10.659	23.162	0.000	0.232	0.232	0.058	22.873	0.232	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.000	0.232	0.232	0.000	0.232	0.232	0.000	0.232	2.38	2.24
25-Jan	0		0.0	10.659	0.000	0.0	10.659	0.000	0.000	0.000	0.000	0.213	10.446	23.086	0.000	0.231	0.231	0.058	22.797	0.231	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.000	0.231	0.231	0.000	0.231	0.231	0.000	0.231	2.37	2.43
26-Jan	0		0.0	10.446	0.000	0.0	10.446	0.000	0.000	0.000	0.000	0.209	10.237	23.006	0.000	0.230	0.230	0.058	22.719	0.230	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.000	0.230	0.230	0.000	0.230	0.230	0.000	0.230	2.36	2.57
27-Jan	0		0.0	10.237	0.000	0.0	10.237	0.000	0.000	0.000	0.000	0.205	10.032	22.923	0.000	0.229	0.229	0.057	22.637	0.229	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.000	0.229	0.229	0.000	0.229	0.229	0.000	0.229	2.35	2.71
28-Jan	0		0.0	10.032	0.000	0.0	10.032	0.000	0.000	0.000	0.000	0.201	9.832	22.837	0.000	0.228	0.228	0.057	22.552	0.228	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.000	0.228	0.228	0.000	0.228	0.228	0.000	0.228	2.34	2.84
29-Jan	0		0.0	9.832	0.000	0.0	9.832	0.000	0.000	0.000	0.000	0.197	9.635	22.749	0.000	0.227	0.227	0.057	22.464	0.227	0.000	0.227	0.227	0.000	0.227	0.227	0.000	0.000	0.227	0.227	0.000	0.227	0.227	0.000	0.227	2.33	2.89
30-Jan	0		0.0	9.635	0.000	0.0	9.635	0.000	0.000	0.000	0.000	0.193	9.442	22.657	0.000	0.227	0.227	0.057	22.374	0.227	0.000	0.227	0.227	0.000	0.227	0.227	0.000	0.000	0.227	0.227	0.000	0.227	0.227	0.000	0.227	2.32	3.03
31-Jan	0		0.0	9.442	0.000	0.0	9.442	0.000	0.000	0.000	0.000	0.189	9.254	22.563	0.000	0.226	0.226	0.056	22.281	0.226	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	2.98
1-Feb	0		0.0	9.254	0.000	0.0	9.254	0.000	0.000	0.000	0.000	0.185	9.069	22.466	0.000	0.225	0.225	0.056	22.185	0.225	0.000	0.225	0.225	0.000	0.225	0.225	0.000	0.000	0.225	0.225	0.000	0.225	0.225	0.000	0.225	2.31	2.77
2-Feb	0		0.0	9.069	0.000	0.0	9.069	0.000	0.000	0.000	0.000	0.181	8.887	22.366	0.000	0.224	0.224	0.056	22.087	0.224	0.000	0.224	0.224	0.000	0.224	0.224	0.000	0.000	0.224	0.224	0.000	0.224	0.224	0.000	0.224	2.30	2.58
3-Feb	0		0.0	8.887	0.000	0.0	8.887	0.000	0.000	0.000	0.000	0.178	8.709	22.264	0.000	0.223	0.223	0.056	21.986	0.223	0.000	0.223	0.223	0.000	0.223	0.223	0.000	0.000	0.223	0.223	0.000	0.223	0.223	0.000	0.223	2.28	2.58
4-Feb	0		0.0	8.709	0.000	0.0	8.709	0.000	0.000	0.000	0.000	0.174	8.535	22.160	0.000	0.222	0.222	0.055	21.883	0.222	0.000	0.222	0.222	0.000	0.222	0.222	0.000	0.000	0.222	0.222	0.000	0.222	0.222	0.000	0.222	2.27	2.58
5-Feb	0		0.0	8.535	0.000	0.0	8.535	0.000	0.000	0.000	0.000	0.171	8.365	22.054	0.000	0.221	0.221	0.055	21.778	0.221	0.000	0.221	0.221	0.000	0.221	0.221	0.000	0.000	0.221	0.221	0.000	0.221	0.221	0.000	0.221	2.26	2.58
6-Feb	0		0.0	8.365	0.000	0.0	8.365	0.000	0.000	0.000	0.000	0.167	8.197	21.946	0.000	0.219	0.219	0.055	21.671	0.219	0.000	0.219	0.219	0.000	0.219	0.219	0.000	0.000	0.219	0.219	0.000	0.219	0.219	0.000	0.219	2.25	2.62
7-Feb	0		0.0	8.197	0.000	0.0	8.197	0.000	0.000	0.000	0.000	0.164	8.033	21.835	0.000	0.218	0.218	0.055	21.562	0.218	0.000	0.218	0.218	0.000	0.218	0.218	0.000	0.000	0.218	0.218	0.000	0.218	0.218	0.000	0.218	2.24	2.43
8-Feb	0		0.0	8.033	0.000	0.0	8.033	0.000	0.000	0.000	0.000	0.161	7.873	21.723	0.000	0.217	0.217	0.054	21.451	0.217	0.000	0.217	0.217	0.000	0.217	0.217	0.000	0.000	0.217	0.217	0.000	0.217	0.217	0.000	0.217	2.23	2.24
9-Feb	0		0.0	7.873	0.000	0.0	7.873	0.000	0.000	0.000	0.000	0.157	7.715	21.609	0.000	0.216	0.216	0.054	21.339	0.216	0.000	0.216	0.216	0.000	0.216	0.216	0.000	0.000	0.216	0.216	0.000	0.216	0.216	0.000	0.216	2.22	2.19
10-Feb	0		0.0	7.715	0.000	0.0	7.715	0.000	0.000	0.000	0.000	0.154	7.561	21.493	0.000	0.215	0.215	0.054	21.224	0.215	0.000	0.215	0.215	0.000	0.215	0.215	0.000	0.000	0.215	0.215	0.000	0.215	0.215	0.000	0.215	2.21	2.10
11-Feb	0		0.0	7.561	0.000	0.0	7.561	0.000	0.000	0.000	0.000	0.151	7.410	21.376	0.000	0.214	0.214	0.053	21.108	0.214	0.000	0.214	0.214	0.000	0.214	0.214	0.000	0.000	0.214	0.214	0.000	0.214	0.214	0.000	0.214	2.19	2.04
12-Feb	0		0.0	7.410	0.000	0.0	7.410	0.000	0.000	0.000	0.000	0.148	7.261	21.257	0.000	0.213	0.213	0.053	20.991	0.213	0.000	0.213	0.213	0.000	0.213	0.213	0.000	0.000	0.213	0.213	0.000	0.213	0.213	0.000	0.213	2.18	2.04
13-Feb	0		0.0	7.261	0.000	0.0	7.261	0.000	0.000	0.000	0.000	0.145	7.116	21.136	0.000	0.211	0.211	0.053	20.872	0.211	0.000	0.211	0.211	0.000	0.211	0.211	0.000	0.000	0.211	0.211	0.000	0.211	0.211	0.000	0.211	2.17	2.04
14-Feb	0		0.0	7.116	0.000	0.0	7.116	0.000	0.000	0.000	0.000	0.142	6.974	21.014	0.000	0.210	0.210	0.053	20.752	0.210	0.000	0.210	0.210	0.000	0.210	0.210	0.000	0.000	0.210	0.210	0.000	0.210	0.210	0.000	0.210	2.16	2.13

17) Series Tank Model Calculation Sheet : Rezekne 1986

Tank Model Coefficient				1st Tank										2nd Tank						Total	Channel Storage 1							Channel Storage 2									
Height of Orifice								30	0	0		0			0	0		25						0	0		0				0	0		0			
Coefficient of Orifice								0.025	0	0		0.02			0	0.01		0.0025						0	1						0	1					
	Rain	Evapotranspira-tion	Converted Evapotran-spiration	Storage of previous day	Rain of previous day	Evapotran-spiration	Total stoage	Discharge: upper orifice	Discharge : middle orifice	Discharge : lower orifice	Sub-total	Infiltra-tion	Balance of Storage	Stoage	Discharge: upper orifice	Discharge : lower orifice	Sub total of specific discharge	Infiltra-tion	Balance of Storage	Total specific dischareg e	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Storage of previous day	Inflow	Total stoage	Runoff: upper orifice	Runoff: lower orifice	Total	Balance of Storage	Grand Tortal	Estimated River Dischareg e	Measured River Discharge
15-Feb	0		0.0	6.974	0.000	0.0	6.974	0.000	0.000	0.000	0.000	0.139	6.834	20.891	0.000	0.209	0.209	0.052	20.630	0.209	0.000	0.209	0.209	0.000	0.209	0.209	0.000	0.000	0.209	0.209	0.000	0.209	0.209	0.000	0.209	2.14	2.24
16-Feb	0		0.0	6.834	0.000	0.0	6.834	0.000	0.000	0.000	0.000	0.137	6.698	20.767	0.000	0.208	0.208	0.052	20.507	0.208	0.000	0.208	0.208	0.000	0.208	0.208	0.000	0.000	0.208	0.208	0.000	0.208	0.208	0.000	0.208	2.13	2.24
17-Feb	0		0.0	6.698	0.000	0.0	6.698	0.000	0.000	0.000	0.000	0.134	6.564	20.641	0.000	0.206	0.206	0.052	20.383	0.206	0.000	0.206	0.206	0.000	0.206	0.206	0.000	0.000	0.206	0.206	0.000	0.206	0.206	0.000	0.206	2.12	1.96
18-Feb	0		0.0	6.564	0.000	0.0	6.564	0.000	0.000	0.000	0.000	0.131	6.433	20.514	0.000	0.205	0.205	0.051	20.258	0.205	0.000	0.205	0.205	0.000	0.205	0.205	0.000	0.000	0.205	0.205	0.000	0.205	0.205	0.000	0.205	2.11	1.84
19-Feb	0		0.0	6.433	0.000	0.0	6.433	0.000	0.000	0.000	0.000	0.129	6.304	20.386	0.000	0.204	0.204	0.051	20.132	0.204	0.000	0.204	0.204	0.000	0.204	0.204	0.000	0.000	0.204	0.204	0.000	0.204	0.204	0.000	0.204	2.09	1.75
20-Feb	0		0.0	6.304	0.000	0.0	6.304	0.000	0.000	0.000	0.000	0.126	6.178	20.258	0.000	0.203	0.203	0.051	20.004	0.203	0.000	0.203	0.203	0.000	0.203	0.203	0.000	0.000	0.203	0.203	0.000	0.203	0.203	0.000	0.203	2.08	1.75
21-Feb	0		0.0	6.178	0.000	0.0	6.178	0.000	0.000	0.000	0.000	0.124	6.054	20.128	0.000	0.201	0.201	0.050	19.876	0.201	0.000	0.201	0.201	0.000	0.201	0.201	0.000	0.000	0.201	0.201	0.000	0.201	0.201	0.000	0.201	2.07	1.70
22-Feb	0		0.0	6.054	0.000	0.0	6.054	0.000	0.000	0.000	0.000	0.121	5.933	19.997	0.000	0.200	0.200	0.050	19.748	0.200	0.000	0.200	0.200	0.000	0.200	0.200	0.000	0.000	0.200	0.200	0.000	0.200	0.200	0.000	0.200	2.05	1.70
23-Feb	0		0.0	5.933	0.000	0.0	5.933	0.000	0.000	0.000	0.000	0.119	5.814	19.866	0.000	0.199	0.199	0.050	19.618	0.199	0.000	0.199	0.199	0.000	0.199	0.199	0.000	0.000	0.199	0.199	0.000	0.199	0.199	0.000	0.199	2.04	1.64
24-Feb	0		0.0	5.814	0.000	0.0	5.814	0.000	0.000	0.000	0.000	0.116	5.698	19.734	0.000	0.197	0.197	0.049	19.487	0.197	0.000	0.197	0.197	0.000	0.197	0.197	0.000	0.000	0.197	0.197	0.000	0.197	0.197	0.000	0.197	2.03	1.72
25-Feb	0		0.0	5.698	0.000	0.0	5.698	0.000	0.000	0.000	0.000	0.114	5.584	19.601	0.000	0.196	0.196	0.049	19.356	0.196	0.000	0.196	0.196	0.000	0.196	0.196	0.000	0.000	0.196	0.196	0.000	0.196	0.196	0.000	0.196	2.01	1.68
26-Feb	0		0.0	5.584	0.000	0.0	5.584	0.000	0.000	0.000	0.000	0.112	5.473	19.468	0.000	0.195	0.195	0.049	19.225	0.195	0.000	0.195	0.195	0.000	0.195	0.195	0.000	0.000	0.195	0.195	0.000	0.195	0.195	0.000	0.195	2.00	1.68
27-Feb	0		0.0	5.473	0.000	0.0	5.473	0.000	0.000	0.000	0.000	0.109	5.363	19.334	0.000	0.193	0.193	0.048	19.093	0.193	0.000	0.193	0.193	0.000	0.193	0.193	0.000	0.000	0.193	0.193	0.000	0.193	0.193	0.000	0.193	1.98	1.72
28-Feb	0		0.0	5.363	0.000	0.0	5.363	0.000	0.000	0.000	0.000	0.107	5.256	19.200	0.000	0.192	0.192	0.048	18.960	0.192	0.000	0.192	0.192	0.000	0.192	0.192	0.000	0.000	0.192	0.192	0.000	0.192	0.192	0.000	0.192	1.97	1.76
1-Mar	0		0.0	5.256	0.000	0.0	5.256	0.000	0.000	0.000	0.000	0.105	5.151	19.065	0.000	0.191	0.191	0.048	18.827	0.191	0.000	0.191	0.191	0.000	0.191	0.191	0.000	0.000	0.191	0.191	0.000	0.191	0.191	0.000	0.191	1.96	1.80
2-Mar	0		0.0	5.151	0.000	0.0	5.151	0.000	0.000	0.000	0.000	0.103	5.048	18.930	0.000	0.189	0.189	0.047	18.693	0.189	0.000	0.189	0.189	0.000	0.189	0.189	0.000	0.000	0.189	0.189	0.000	0.189	0.189	0.000	0.189	1.94	1.86
3-Mar	0		0.0	5.048	0.000	0.0	5.048	0.000	0.000	0.000	0.000	0.101	4.947	18.794	0.000	0.188	0.188	0.047	18.559	0.188	0.000	0.188	0.188	0.000	0.188	0.188	0.000	0.000	0.188	0.188	0.000	0.188	0.188	0.000	0.188	1.93	1.92
4-Mar	0		0.0	4.947	0.000	0.0	4.947	0.000	0.000	0.000	0.000	0.099	4.848	18.658	0.000	0.187	0.187	0.047	18.425	0.187	0.000	0.187	0.187	0.000	0.187	0.187	0.000	0.000	0.187	0.187	0.000	0.187	0.187	0.000	0.187	1.91	1.92
5-Mar	0		0.0	4.848	0.000	0.0	4.848	0.000	0.000	0.000	0.000	0.097	4.751	18.522	0.000	0.185	0.185	0.046	18.290	0.185	0.000	0.185	0.185	0.000	0.185	0.185	0.000	0.000	0.185	0.185	0.000	0.185	0.185	0.000	0.185	1.90	1.98
6-Mar	0		0.0	4.751	0.000	0.0	4.751	0.000	0.000	0.000	0.000	0.095	4.656	18.385	0.000	0.184	0.184	0.046	18.155	0.184	0.000	0.184	0.184	0.000	0.184	0.184	0.000	0.000	0.184	0.184	0.000	0.184	0.184	0.000	0.184	1.89	2.09
7-Mar	8.21		0.0	4.656	0.000	0.0	4.656	0.000	0.000	0.000	0.000	0.093	4.563	18.248	0.000	0.182	0.182	0.046	18.020	0.182	0.000	0.182	0.182	0.000	0.182	0.182	0.000	0.000	0.182	0.182	0.000	0.182	0.182	0.000	0.182	1.87	2.31
8-Mar	12.05		0.0	4.563	8.210	0.0	12.773	0.000	0.000	0.000	0.000	0.255	12.517	18.276	0.000	0.183	0.183	0.046	18.047	0.183	0.000	0.183	0.183	0.000	0.183	0.183	0.000	0.000	0.183	0.183	0.000	0.183	0.183	0.000	0.183	1.88	2.69
9-Mar	9		0.0	12.517	12.050	0.0	24.567	0.000	0.000	0.000	0.000	0.491	24.076	18.539	0.000	0.185	0.185	0.046	18.307	0.185	0.000	0.185	0.185	0.000	0.185	0.185	0.000	0.000	0.185	0.185	0.000	0.185	0.185	0.000	0.185	1.90	3.09
10-Mar	0		0.0	24.076	9.000	0.0	33.076	0.077	0.000	0.000	0.077	0.662	32.338	18.969	0.000	0.190	0.190	0.047	18.731	0.267	0.000	0.267	0.267	0.000	0.267	0.267	0.000	0.000	0.267	0.267	0.000	0.267	0.267	0.000	0.267	2.74	3.14
11-Mar	0		0.0	32.338	0.000	0.0	32.338	0.058	0.000	0.000	0.058	0.647	31.632	19.378	0.000	0.194	0.194	0.048	19.136	0.252	0.000	0.252	0.252	0.000	0.252	0.252	0.000	0.000	0.252	0.252	0.000	0.252	0.252	0.000	0.252	2.59	2.95
12-Mar	0		0.0	31.632	0.000	0.0	31.632	0.041	0.000	0.000	0.041	0.633	30.959	19.769	0.000	0.198	0.198	0.049	19.521	0.238	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.000	0.238	0.238	0.000	0.238	0.238	0.000	0.238	2.45	2.75
13-Mar	0		0.0	30.959	0.000	0.0	30.959	0.024	0.000	0.000	0.024	0.619	30.316	20.141	0.000	0.201	0.201	0.050	19.889	0.225	0.000	0.225	0.225	0.000	0.225	0.225	0.000	0.000	0.225	0.225	0.000	0.225	0.225	0.000	0.225	2.31	2.55
14-Mar	0		0.0	30.316	0.000	0.0	30.316	0.008	0.000	0.000	0.008	0.606	29.702	20.495	0.000	0.205	0.205	0.051	20.239	0.213	0.000	0.213	0.213	0.000	0.213	0.213	0.000	0.000	0.213	0.213	0.000	0.213	0.213	0.000	0.213	2.18	2.47
15-Mar	0		0.0	29.702	0.000	0.0	29.702	0.000	0.000	0.000	0.000	0.594	29.107	20.833	0.000	0.208	0.208	0.052	20.573	0.208	0.000	0.208	0.208	0.000	0.208	0.208	0.000	0.000	0.208	0.208	0.000	0.208	0.208	0.000	0.208	2.14	2.32
16-Mar	0		0.0	29.107	0.000	0.0	29.107	0.000	0.000	0.000	0.000	0.582	28.525	21.155	0.000	0.212	0.212	0.053	20.890	0.212	0.000	0.212	0.212	0.000	0.212	0.212	0.000	0.000	0.212	0.212	0.000	0.212	0.212	0.000	0.212	2.17	2.38
17-Mar	0		0.0	28.525	0.000	0.0	28.525	0.000	0.000	0.000	0.000	0.571	27.955	21.461	0.000	0.215	0.215	0.054	21.193	0.215	0.000	0.215	0.215	0.000	0.215	0.215	0.000	0.000	0.215	0.215	0.000	0.215	0.215	0.000	0.215	2.20	2.43
18-Mar	0		0.0	27.955	0.000	0.0	27.955	0.000	0.000	0.000	0.000	0.559	27.396	21.752	0.000	0.218	0.218	0.054	21.480	0.218	0.000	0.218	0.218	0.000	0.218	0.218	0.000	0.000	0.218	0.218	0.000	0.218	0.218	0.000	0.218	2.23	2.48
19-Mar	0		0.0	27.396	0.000	0.0	27.396	0.000	0.000	0.000	0.000	0.548	26.848	22.028	0.000	0.220	0.220	0.055	21.752	0.220	0.000	0.220	0.220	0.000	0.220	0.220	0.000	0.000	0.220	0.220	0.000	0.220	0.220	0.000	0.220	2.26	2.60
20-Mar	3		0.0	26.848	0.000	0.0	26.848	0.000	0.000	0.000	0.000	0.537	26.311	22.289	0.000	0.223	0.223	0.056	22.011	0.223	0.000	0.223	0.223	0.000	0.223	0.223	0.000	0.000	0.223	0.223	0.000	0.223	0.223	0.000	0.223	2.29	2.89
21-Mar	2.5		0.0	26.311	3.000	0.0	29.311	0.000	0.000	0.000	0.000	0.586	28.725	22.597	0.000	0.226	0.226	0.056	22.314	0.226	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.000	0.226	0.226	0.000	0.226	0.226	0.000	0.226	2.32	3.06
22-Mar	4.5		0.0	28.725	2.500	0.0	31.225	0.031	0.000	0.000	0.031	0.624	30.570	22.939	0.000	0.229	0.229	0.057	22.652	0.260	0.000	0.260	0.260	0.000	0.260	0.260	0.000	0.000	0.260	0.260	0.000	0.260	0.260	0.000	0.260	2.67	3.74
23-Mar	3		0.0	30.570	4.500	0.0	35.070	0.127	0.000	0.000	0.127	0.701	34.241	23.354	0.000	0.234	0.234	0.058	23.062	0.360	0.000	0.360	0.360	0.000	0.360	0.360	0.000	0.000	0.360	0.360	0.000	0.360	0.360	0.000	0.360	3.70	4.45
24-Mar	0		0.0	34.241	3.000	0.0	37.241	0.181	0.000	0.000	0.181	0.745	36.316	23.807	0.000	0.238	0.238	0.060	23.509	0.419	0.000	0.419	0.419	0.000	0.419	0.419	0.000	0.000	0.419	0.419	0.000	0.419	0.419	0.000	0.419	4.30	5.22
25-Mar	9.35		0.0	36.316	0.000	0.0	36.316	0.158	0.000	0.000	0.158	0.726	35.431	24.235	0.000	0.242	0.242	0.061	23.932	0.400	0.000	0.400	0.400	0.000	0.400	0.400	0.000	0.000	0.400	0.400	0.000	0.400	0.400	0.000	0.400	4.11	6.55
26-Mar	8.02		0.0	35.431	9.350	0.0	44.781	0.370	0.000	0.000	0.370	0.896	43.516	24.828	0.000	0.248	0.248	0.062	24.518	0.618	0.000	0.618	0.618	0.000	0.618	0.618	0.000	0.000	0.618	0.618	0.000	0.618	0.618	0.000	0.618	6.34	9.60
27-Mar	15.39		0.0	43.516	8.020	0.0	51.536	0.538	0.000	0.000	0.538	1.031	49.967	25.548	0.000	0.255	0.255	0.064	25.229	0.794	0.000	0.794	0.794	0.000	0.794	0.794	0.000	0.000	0.794	0.794	0.000	0.794	0.794	0.000	0.794	8.15	14.30
28-Mar	18		0.0	49.967	15.390	0.0	65.357	0.884	0.000	0.000	0.884	1.307	63.166	26.536	0.000	0.265	0.265	0.066	26.204	1.149	0.000	1.149	1.149	0.000	1.149	1.149	0.000	0.000	1.149	1.149	0.000	1.149	1.149	0.000	1.149	11.79	19.00
29-Mar	23.86		0.0	63.166	18.000	0.0	81.166	1.279	0.000	0.000	1.279	1.623	78.264	27.828	0.000	0.278	0.278	0.070	27.480	1.557	0.000	1.557	1.557	0.000	1.557	1.557	0.000	0.000	1.557	1.557	0.000	1.557	1.557	0.000	1.557	15.98	24.20
30-Mar	3.7		0.0	78.264	23.860	0.0	######	1.803	0.000	0.000	1.803	2.042	98.278	29.522	0.000	0.295	0.295	0.074	29.153	2.098	0.000	2.098	2.098	0.000	2.098	2.098	0.000	0.000	2.098	2.098	0.000	2.098	2.098	0.000	2.098	21.53	26.70
31-Mar	7		0.0	98.278	3.700	0.0	######	1.799	0.000	0.000	1.799	2.040	98.139	31.193	0.000	0.312	0.312	0.078	30.803	2.111	0.000	2.111	2.111	0.000	2.111	2.111	0.000	0.000	2.111	2.111	0.000	2.111	2.111	0.000	2.111	21.67	26.40
1-Apr	4.8	1.5	0.8	98.139	7.000	0.0	######	1.878	0.000	0.000	1.878	2.103	101.158	32.906	0.000	0.329	0.329	0.082	32.494	2.208	0.000	2.208	2.208	0.000	2.208	2.208	0.000	0.000	2.208	2.208	0.000	2.208	2.208	0.000	2.208	22.65	24.70
2-Apr	1.1	1.5	0.8	101.158	4.800	0.8	######	1.880	0.000	0.000	1.880	2.104	101.223	34.599	0.000	0.346	0.346	0.086	34.166	2.226	0.000	2.226	2.226	0.000	2.226	2.226	0.000	0.000	2.226	2.226	0.000	2.226	2.226	0.000	2.226	22.84	22.80
3-Apr	1.8	1.5	0.8	101.223	1.100	0.8	######	1.789	0.000	0.000	1.789	2.031	97.753	36.198	0.000	0.362	0.362	0.090	35.745	2.151	0.000	2.151	2.151	0.000	2.151	2.151	0.000	0.000	2.151	2.151	0.000	2.151	2.151	0.000	2.151	22.08	19.40
4-Apr	1.6	1.5	0.8	97.753	1.800	0.8	98.803	1.720	0.000	0.000	1.720	1.976	95.106	37.721	0.000	0.377	0.377	0.094	37.250	2.097	0.000	2.097	2.097	0.000	2.097	2.097	0.000	0.000	2.097	2.097	0.000	2.097	2.097	0.000	2.097	21.52	17.20
5-Apr	10.6	1.5	0.8	95.106	1.600	0.8	95.956	1.649	0.000	0.000	1.649	1.919	92.388	39.169	0.000	0.392	0.392	0.098	38.679	2.041	0.000	2.041	2.041	0.000	2.041	2.041	0.000	0.000	2.041	2.041	0.000	2.041	2.041	0.000	2.041	20.94	15.90
6-Apr	0	1.5	1.5	92.388	10.600	0.8	######	1.806	0.000	0.000	1.806	2.045	98.388	40.724	0.000	0.407	0.407	0.102	40.215	2.213	0.000	2.213	2.213	0.000	2.213	2.213	0.000	0.000	2.213	2.213	0.000	2.213	2.213	0.000	2.213	22.71	14.50
7-Apr	6.9	1.5	0.8	98.388	0.000	1.5	96.888	1.672	0.000	0.000	1.672	1.938	93.278	42.153	0.000	0.422	0.422	0.105	41.626	2.094	0.000	2.094	2.094	0.000	2.094	2.094	0.000	0.000	2.094	2.094	0.000	2.094	2.094	0.000	2.094	21.48	14.20
8-Apr	0.4	1.5	1.5	93.278	6.900	0.8	99.428	1.736	0.000	0.000	1.736	1.989	95.703	43.614	0.000	0.436	0.436	0.109	43.069	2.172	0.000	2.172	2.172	0.000	2.172	2.172	0.000	0.000	2.172	2.172	0.000	2.172	2.172	0.000	2.172	22.29	13.10
9-Apr	11	1.5	0.8	95.703	0.400	1.5	94.603	1.615	0.000	0.000	1.615	1.892	91.096	44.961	0.000	0.450	0.450	0.112	44.399	2.065	0.000	2.065	2.065	0.000	2.065	2.065	0.000	0.000	2.065	2.065	0.000	2.065	2.065	0.000	2.065	21.19	12.30
10-Apr	2.9	1.5	0.8	91.096	11.000	0.8	######	1.784	0.000	0.000	1.784	2.027	97.536	46.426	0.000	0.464	0.464	0.116	45.846	2.248	0.000	2.248	2.248	0.000	2.248	2.248	0.000	0.000	2.248	2.248	0.000	2.248	2.248	0.000	2.248	23.07	12.80
11-Apr	0	1.5	1.5	97.536	2.900	0.8	99.686	1.742	0.000	0.000	1.742	1.994	95.950	47.839	0.000	0.478	0.478	0.120	47.241	2.221	0.000	2.221	2.221	0.000	2.221	2.221	0.000	0.000	2.221	2.221	0.000	2.221	2.221	0.000	2.221	22.79	11.70
12-Apr	0	1.5	1.5	95.950	0.000	1.5	94.450	1.611	0.000	0.000	1.611	1.889	90.950	49.130	0.000	0.491	0.491	0.123	48.516	2.103	0.000	2.103	2.103	0.000	2.103	2.103	0.000	0.000	2.103	2.103	0.000	2.103	2.103	0.000	2.103	21.58	10.80
13-Apr	0	1.5	1.5	90.950	0.000	1.5	89.450	1.486	0.000	0.000	1.486	1.789	86.174	50.305	0.000	0.503	0.503	0.126	49.676	1.989	0.000	1.989	1.989	0.000	1.989	1.989	0.000	0.000	1.989	1.989	0.000	1.989	1.989	0.000	1.989	20.41	10.70
14-Apr	0	1.5	1.5	86.174	0.000	1.5	84.674	1.367	0.000	0.000	1.367	1.693	81.614	51.370	0.000	0.514	0.514	0.128	50.728	1.881	0.000	1.881	1.881	0.000	1.881	1.881	0.000	0.000	1.881	1.881	0.000	1.881	1.881	0.000	1.881	19.30	10.20
15-Apr	0	1.5	1.5	81.614	0.000	1.5	80.114	1.253	0.000	0.000	1.253	1.602	77.259	52.330	0.000	0.523	0.523	0.131	51.676	1.776	0.000	1.776	1.776	0.000	1.776	1.776	0.000	0.000	1.776	1.776	0.000	1.776	1.776	0.000	1.776	18.23	9.74
16-Apr	0	1.5	1.5	77.259	0.000	1.5	75.759	1.144	0.000	0.000	1.144	1.515	73.100	53.191	0.000	0.532	0.532	0.133	52.526	1.676	0.000	1.676	1.676	0.000	1.676	1.676	0.000	0.000	1.676	1.676	0.000	1.676	1.676	0.000	1.676	17.20	7.70
17-Apr	9	1.5	0.8	73.100	0.000	1.5	71.600	1.040	0.000	0.000	1.040	1.432	69.128	53.958	0.000	0.540	0.540	0.135	53.284	1.580	0.000	1.580	1.580	0.000	1.580	1.580	0.000	0.000	1.580	1.580	0.000	1.580	1.580	0.000	1.580	16.21	6.72
18-Apr	5	1.5	0.8	69.128	9.000	0.8	77.378	1.184	0.000	0.000	1.184	1.548	74.646	54.831	0.000	0.548	0.548	0.137	54.146	1.733	0.000	1.733	1.733	0.000	1.733	1.733	0.000	0.000	1.733	1.733	0.000	1.733	1.733	0.000	1.733	17.78	7.19
19-Apr	5	1.5	0.8	74.646	5.000	0.8	78.896	1.222	0.000	0.000	1.222	1.578	76.095	55.724	0.000	0.557	0.557	0.139	55.027	1.780	0.000	1.780	1.780	0.000	1.780	1.780	0.000	0.000	1.780	1.780	0.000	1.780	1.780	0.000	1.780	18.26	9.48
20-Apr	1.5	1.5	0.8	76.095	5.000	0.8	80.345	1.259	0.000	0.000	1.259	1.607	77.480	56.634	0.000	0.566	0.566	0.142	55.926	1.825	0.000	1.825	1.825	0.000	1.825	1.825	0.000	0.000	1.825	1.825	0.000	1.825	1.825	0.000	1.825	18.73	16.80
21-Apr	5.7	1.5	0.8	77.480	1.500	0.8	78.230	1.206	0.000	0.000	1.206	1.565	75.460	57.491	0.000	0.575	0.575	0.144	56.772	1.781	0.000	1.781	1.781	0.000	1.781	1.781	0.000	0.000	1.781	1.781	0.000	1.781	1.781	0.000	1.781	18.27	22.70
22-Apr	2.6	1.5	0.8	75.460	5.700	0.8	80.410	1.260	0.000	0.000	1.260	1.608	77.541	58.380	0.000	0.584	0.584	0.146	57.651	1.844	0.000	1.844	1.844	0.000	1.844	1.844	0.000	0.000	1.844	1.844	0.000	1.844	1.844	0.000	1.844	18.92	25.10
23-Apr	0	1.5	1.5	77.541	2.600	0.8	79.391	1.235	0.000	0.000	1.235	1.588	76.569	59.239	0.000	0.592	0.592	0.148	58.498	1.827	0.000	1.827	1.827	0.000	1.827	1.827	0.000	0.000	1.827	1.827	0.000	1.827	1.827	0.000	1.827	18.75	25.30
24-Apr	0	1.5	1.5	76.569	0.000	1.5	75.069	1.127	0.000	0.000	1.127	1.501	72.440	59.999	0.000	0.600	0.600	0.150	59.249	1.727	0.000	1.727	1.727	0.000	1.727	1.727	0.000	0.000	1.727	1.727	0.000	1.727	1.727	0.000	1.727	17.72	23.70
25-Apr	0	1.5	1.5	72.440	0.000	1.5	70.940	1.024	0.000	0.000	1.024	1.419	68.498	60.668	0.000	0.607	0.607	0.152	59.910	1.630	0.000	1.630	1.630	0.000	1.630	1.630	0.000	0.000	1.630	1.630	0.000	1.630	1.630	0.000	1.630	16.73	20.90
26-Apr	0	1.5	1.5	68.498	0.000	1.5	66.998	0.925	0.000	0.000	0.925	1.340	64.733	61.250	0.000	0.612	0.612	0.153	60.484	1.537	0.000	1.537	1.537	0.000	1.537	1.537	0.000	0.000	1.537	1.537	0.000	1.537	1.537	0.000	1.537	15.78	18.30
27-Apr	0	1.5	1.5	64.733	0.000	1.5	63.233	0.831	0.000	0.000	0.831	1.265	61.138	61.749	0.000	0.617	0.617	0.154	60.977	1.448	0.000	1.448	1.448	0.000	1.448	1.448	0.000	0.000	1.448	1.448	0.000	1.448	1.448	0.000	1.448	14.86	16.50
28-Apr	0	1.5	1.5	61.138	0.000	1.5	59.638	0.741	0.000	0.000	0.741	1.193	57.704	62.170	0.000	0.622	0.622	0.155	61.393	1.363	0.000	1.363	1.363	0.000	1.363	1.363	0.000	0.000	1.363	1.363	0.000	1.363	1.363	0.000	1.363	13.98	14.20
29-Apr	0	1.5	1.5	57.704	0.000	1.5	56.204	0.655	0.000	0.000	0.655	1.124	54.425	62.517	0.000	0.625	0.625	0.156	61.735	1.280	0.000	1.280	1.280	0.000	1.280	1.280	0.000	0.000	1.280	1.280	0.000	1.280	1.280	0.000	1.280	13.14	12.60
30-Apr	0	1.5	1.5	54.425	0.000	1.5	52.925	0.573	0.000	0.000	0.573	1.058	51.293	62.794	0.000	0.628	0.628	0.157	62.009	1.201	0.000	1.201	1.201	0.000	1.201	1.201	0.000	0.000	1.201	1.201	0.000	1.201	1.201	0.000	1.201	12.32	11.70

18) Estimated Precipitaion : Rezekne Model 1986

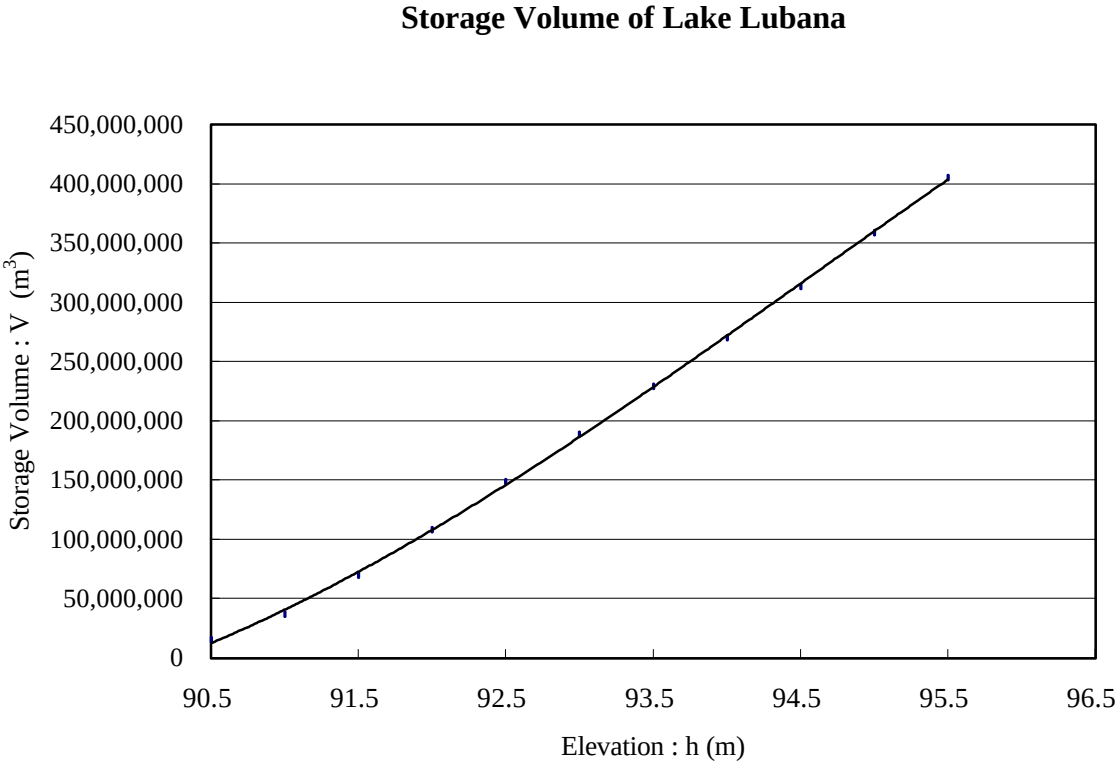
	A= 409					m = 4.5				A= 136					m = 5				Total
	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipitation	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipitation	Rain of previous day
1-Dec				0.2	0.1	0.0	0.00						0.2			0.00			0.0
2-Dec	2.2	-7.9	10.0	0.2	0.2	0.0	2.20	0.00	0.00	0.3	-7.1	5.0	0.2	0.2	0.0	0.00	0.00	0.00	0.0
3-Dec		-10.6	10.0	0.2	0.2	0.0	2.20	0.00	0.00		-9.6	4.0	0.2	0.2	0.0	0.30	0.00	0.00	0.0
4-Dec		-9.7	10.0	0.2	0.1	0.0	2.20	0.00	0.00	0.2	-9.5	4.0	0.2	0.2	0.0	0.30	0.00	0.00	0.0
5-Dec	9.0	0.2	8.0	0.2	0.1	9.0	2.20	0.92	9.92	11.7	0.4	6.0	0.2	0.1	11.7	0.50	0.50	12.20	10.5
6-Dec	0.9	3.7		0.2	0.1	0.9	1.28	1.28	2.18	2.0	3.8		0.2	0.1	2.0	0.00	0.00	2.00	2.1
7-Dec	7.3	1.1	4.0	0.2	0.1	7.3	0.00	0.00	7.30	5.1	2.2		0.2	0.1	5.1	0.00	0.00	5.10	6.8
8-Dec	2.9	-0.8		0.2	0.1	0.0	2.90	0.00	0.00	2.6	-0.6	0.0	0.2	0.1	0.0	0.00	0.00	0.00	0.0
9-Dec	4.2	-7.4	4.0	0.2	0.2	0.0	7.10	0.00	0.00	5.8	-7.0	7.0	0.2	0.1	0.0	2.60	0.00	0.00	0.0
10-Dec	0.5	-8.8	4.0	0.2	0.1	0.0	7.60	0.00	0.00		-11.7	7.0	0.2	0.2	0.0	8.40	0.00	0.00	0.0
11-Dec	1.1	-3.7	4.0	0.2	0.1	0.0	8.70	0.00	0.00	1.8	-3.7	8.0	0.2	0.1	0.0	8.40	0.00	0.00	0.0
12-Dec	1.4	-4.4	5.0	0.2	0.2	0.0	10.10	0.00	0.00	0.5	-4.1	8.0	0.2	0.2	0.0	10.20	0.00	0.00	0.0
13-Dec		-8.6	5.0	0.2	0.2	0.0	10.10	0.00	0.00		-8.3	9.0	0.2	0.2	0.0	10.70	0.00	0.00	0.0
14-Dec		-4.6	5.0	0.2	0.1	0.0	10.10	0.00	0.00		-5.2	9.0	0.2	0.2	0.0	10.70	0.00	0.00	0.0
15-Dec	2.1	-0.1	6.0	0.2	0.2	0.0	12.20	0.00	0.00	3.8	-0.1	8.0	0.2	0.1	0.0	10.70	0.00	0.00	0.0
16-Dec		-0.9	3.0	0.2	0.2	0.0	12.20	0.00	0.00		-0.8	6.0	0.2	0.2	0.0	14.50	0.00	0.00	0.0
17-Dec	0.4	-4.5	3.0	0.2	0.2	0.0	12.60	0.00	0.00	0.3	-4.4	6.0	0.2	0.2	0.0	14.50	0.00	0.00	0.0
18-Dec	0.5	-8.9	4.0	0.2	0.2	0.0	13.10	0.00	0.00	1.9	-8.0	10.0	0.2	0.1	0.0	14.80	0.00	0.00	0.0
19-Dec	0.4	-13.4	4.0	0.2	0.2	0.0	13.50	0.00	0.00	0.2	-14.8	11.0	0.2	0.2	0.0	16.70	0.00	0.00	0.0
20-Dec	0.3	-14.3	4.0	0.2	0.1	0.0	13.80	0.00	0.00	0.4	-14.7	11.0	0.2	0.2	0.0	16.90	0.00	0.00	0.0
21-Dec	1.2	-12.0	4.0	0.2	0.2	0.0	15.00	0.00	0.00	0.8	-12.8	11.0	0.2	0.1	0.0	17.30	0.00	0.00	0.0
22-Dec		-10.1	5.0	0.2	0.1	0.0	15.00	0.00	0.00	0.0	-10.1	11.0	0.2	0.2	0.0	18.10	0.00	0.00	0.0
23-Dec	2.3	1.2	4.0	0.2	0.2	2.3	15.00	5.43	7.73	2.3	0.8	8.0	0.2	0.1	2.3	18.10	3.62	5.92	7.3
24-Dec		1.6		0.2	0.2	0.0	9.57	7.20	7.20		1.0	1.0	0.2	0.2	0.0	14.48	4.50	4.50	6.5
25-Dec		0.1		0.2	0.1	0.0	2.37	0.45	0.45		-0.7		0.2	0.2	0.0	9.98	0.00	0.00	0.3
26-Dec	0.7	-0.4		0.2	0.1	0.0	2.62	0.00	0.00	0.0	-1.5		0.2	0.2	0.0	9.98	0.00	0.00	0.0
27-Dec	1.6	-1.9	0.0	0.2	0.1	0.0	4.22	0.00	0.00	2.0	-2.5		0.2	0.1	0.0	9.98	0.00	0.00	0.0
28-Dec	0.8	-0.8	2.0	0.2	0.2	0.0	5.02	0.00	0.00	2.9	-0.8	3.0	0.2	0.1	0.0	11.98	0.00	0.00	0.0
29-Dec		-9.5	2.0	0.2	0.2	0.0	5.02	0.00	0.00		-8.5	3.0	0.2	0.2	0.0	14.88	0.00	0.00	0.0
30-Dec		-11.8	2.0	0.2	0.2	0.0	5.02	0.00	0.00		-12.3	3.0	0.2	0.2	0.0	14.88	0.00	0.00	0.0
31-Dec	0.3	-8.8	2.0	0.2	0.1	0.0	5.32	0.00	0.00	0.0	-8.4	3.0	0.2	0.2	0.0	14.88	0.00	0.00	0.0
1-Jan	0.6	-5.0	2.0		0.0	0.0	5.92	0.00	0.00	0.7	-5.8	3.0		0.0	0.0	14.88	0.00	0.00	0.0
2-Jan	1.3	-6.5	3.0		0.0	0.0	7.22	0.00	0.00	0.2	-7.3	4.0		0.0	0.0	15.58	0.00	0.00	0.0
3-Jan		-6.4	4.0		0.0	0.0	7.22	0.00	0.00		-6.9	4.0		0.0	0.0	15.78	0.00	0.00	0.0
4-Jan	0.7	-8.2	5.0		0.0	0.0	7.92	0.00	0.00	0.7	-9.2	4.0		0.0	0.0	15.78	0.00	0.00	0.0
5-Jan	0.0	-4.6	5.0		0.0	0.0	7.92	0.00	0.00		-5.2	4.0		0.0	0.0	16.48	0.00	0.00	0.0
6-Jan	3.6	-2.5	5.0		0.0	0.0	11.52	0.00	0.00	2.5	-3.2	6.0		0.0	0.0	16.48	0.00	0.00	0.0
7-Jan	0.7	-7.1	9.0		0.0	0.0	12.22	0.00	0.00	0.6	-7.8	7.0		0.0	0.0	18.98	0.00	0.00	0.0
8-Jan	1.2	-8.5	10.0		0.0	0.0	13.42	0.00	0.00	3.6	-7.5	11.0		0.0	0.0	19.58	0.00	0.00	0.0
9-Jan		-9.9	10.0		0.0	0.0	13.42	0.00	0.00	0.2	-8.1	11.0		0.0	0.0	23.18	0.00	0.00	0.0
10-Jan	6.8	-8.2	12.0		0.0	0.0	20.22	0.00	0.00	5.7	-8.2	11.0		0.0	0.0	23.38	0.00	0.00	0.0
11-Jan	4.0	-8.6	16.0		0.0	0.0	24.22	0.00	0.00	3.0	-9.3	12.0		0.0	0.0	29.08	0.00	0.00	0.0
12-Jan	0.4	-7.8	17.0		0.0	0.0	24.62	0.00	0.00	0.5	-8.3	12.0		0.0	0.0	32.08	0.00	0.00	0.0
13-Jan	0.5	-8.1	17.0		0.0	0.0	25.12	0.00	0.00	2.2	-8.4	13.0		0.0	0.0	32.58	0.00	0.00	0.0
14-Jan	2.2	-1.9	17.0		0.0	0.0	27.32	0.00	0.00	2.8	-2.1	14.0		0.0	0.0	34.78	0.00	0.00	0.0
15-Jan	2.3	0.2	18.0		0.0	2.3	27.32	0.91	3.21	2.3	-0.1	15.0		0.0	0.0	37.58	0.00	0.00	2.4
16-Jan	3.0	-0.2	22.0		0.0	0.0	29.41	0.00	0.00	5.3	-0.4	21.0		0.0	0.0	39.88	0.00	0.00	0.0
17-Jan	2.0	-6.0	23.0		0.0	0.0	31.41	0.00	0.00	3.8	-5.7	23.0		0.0	0.0	45.18	0.00	0.00	0.0
18-Jan	0.2	-13.4	23.0		0.0	0.0	31.61	0.00	0.00	0.2	-13.1	21.0		0.0	0.0	48.98	0.00	0.00	0.0
19-Jan	1.0	-14.3	23.0		0.0	0.0	32.61	0.00	0.00	0.9	-13.9	22.0		0.0	0.0	49.18	0.00	0.00	0.0
20-Jan	0.8	-7.8	24.0		0.0	0.0	33.41	0.00	0.00	2.1	-8.5	26.0		0.0	0.0	50.08	0.00	0.00	0.0
21-Jan	8.1	-4.5	26.0		0.0	0.0	41.51	0.00	0.00	5.9	-4.0	26.0		0.0	0.0	52.18	0.00	0.00	0.0
22-Jan	1.1	-13.0	29.0		0.0	0.0	42.61	0.00	0.00	1.3	-12.8	23.0		0.0	0.0	58.08	0.00	0.00	0.0
23-Jan	1.4	0.8	22.0		0.0	1.4	42.61	3.61	5.01	2.8	0.7	23.0		0.0	2.8	59.38	3.17	5.97	5.2
24-Jan	4.7	0.2	25.0		0.0	4.7	39.00	0.91	5.61	2.3	0.2	27.0		0.0	2.3	56.21	0.91	3.21	5.0
25-Jan	4.1	1.2	18.0		0.0	4.1	38.09	5.46	9.56	3.2	0.9	27.0		0.0	3.2	55.30	4.09	7.29	9.0
26-Jan	7.3	0.5	23.0		0.0	7.3	32.63	2.30	9.60	7.2	0.3	24.0		0.0	7.2	51.21	1.38	8.58	9.3
27-Jan	7.4	0.7	21.0		0.0	7.4	30.33	3.21	10.61	8.5	0.5	20.0		0.0	8.5	49.83	2.30	10.80	10.7
28-Jan	3.4	-0.4	20.0		0.0	0.0	30.52	0.00	0.00	6.0	-0.9	23.0		0.0	0.0	47.53	0.00	0.00	0.0
29-Jan	3.5	-2.6	25.0		0.0	0.0	34.02	0.00	0.00	1.7	-2.9	27.0		0.0	0.0	53.53	0.00	0.00	0.0
30-Jan		-3.7	25.0		0.0	0.0	34.02	0.00	0.00	0.2	-4.4	27.0		0.0	0.0	55.23	0.00	0.00	0.0
31-Jan		-4.4	25.0		0.0	0.0	34.02	0.00	0.00		-4.0	25.0		0.0	0.0	55.43	0.00	0.00	0.0
1-Feb		-3.7	25.0		0.0	0.0	34.02	0.00	0.00		-4.8	25.0		0.0	0.0	55.43	0.00	0.00	0.0
2-Feb		-9.7	25.0		0.0	0.0	34.02	0.00	0.00		-10.4	25.0		0.0	0.0	55.43	0.00	0.00	0.0
3-Feb		-13.6	25.0		0.0	0.0	34.02	0.00	0.00		-13.5	25.0		0.0	0.0	55.43	0.00	0.00	0.0
4-Feb		-14.0	25.0		0.0	0.0	34.02	0.00	0.00		-13.5	25.0		0.0	0.0	55.43	0.00	0.00	0.0
5-Feb		-13.7	25.0		0.0	0.0	34.02	0.00	0.00		-15.2	25.0		0.0	0.0	55.43	0.00	0.00	0.0
6-Feb	0.8	-15.1	25.0		0.0	0.0	34.82	0.00	0.00	0.8	-16.5	25.0		0.0	0.0	55.43	0.00	0.00	0.0
7-Feb	1.0	-16.1	26.0		0.0	0.0	35.82	0.00	0.00	0.7	-17.0	25.0		0.0	0.0	56.23	0.00	0.00	0.0
8-Feb		-17.7	26.0		0.0	0.0	35.82	0.00	0.00		-15.6	24.0		0.0	0.0	56.93	0.00	0.00	0.0
9-Feb		-15.3	26.0		0.0	0.0	35.82	0.00	0.00		-13.6	24.0		0.0	0.0	56.93	0.00	0.00	0.0
10-Feb		-9.5	26.0		0.0	0.0	35.82	0.00	0.00		-10.6	24.0		0.0	0.0	56.93	0.00	0.00	0.0
11-Feb		-8.6	26.0		0.0	0.0	35.82	0.00	0.00		-10.6	24.0		0.0	0.0	56.93	0.00	0.00	0.0
12-Feb		-9.6	26.0		0.0	0.0	35.82	0.00	0.00		-13.0	24.0		0.0	0.0	56.93	0.00	0.00	0.0
13-Feb		-6.2	26.0		0.0	0.0	35.82	0.00	0.00		-6.9	24.0		0.0	0.0	56.93	0.00	0.00	0.0
14-Feb	0.9	-6.7	26.0		0.0	0.0	36.72	0.00	0.00	0.4	-7.1	24.0		0.0	0.0	56.93	0.00	0.00	0.0
15-Feb	0.6	-7.0	27.0		0.0	0.0	37.32	0.00	0.00	0.3	-7.6	25.0		0.0	0.0	57.33	0.00	0.00	0.0
16-Feb		-9.6	27.0		0.0	0.0	37.32	0.00	0.00	0.2	-8.9	26.0		0.0	0.0	57.63	0.00	0.00	0.0
17-Feb		-10.9	27.0		0.0	0.0	37.32	0.00	0.00		-10.7	26.0		0.0	0.0	57.83	0.00	0.00	0.0
18-Feb		-12.4	27.0		0.0	0.0	37.32	0.00	0.00		-15.5	26.0		0.0	0.0	57.83	0.00	0.00	0.0
19-Feb		-13.1	27.0		0.0	0.0	37.32	0.00	0.00		-13.6	26.0		0.0	0.0	57.83	0.00	0.00	0.0
20-Feb		-15.7	27.0		0.0	0.0	37.32	0.00	0.00		-15.2	26.0		0.0	0.0	57.83	0.00	0.00	0.0
21-Feb		-17.6	27.0		0.0	0.0	37.32	0.00	0.00		-17.7	26.0		0.0	0.0	57.83	0.00	0.00	0.0
22-Feb	0.3	-14.2	27.0		0.0	0.0	37.62	0.00	0.00	0.2	-14.9	25.0		0.0	0.0	57.83	0.00	0.00	0.0
23-Feb	0.2	-16.2	27.0		0.0	0.0	37.82	0.00	0.00	0.2	-14.4	24.0		0.0	0.0	58.03	0.00	0.00	0.0
24-Feb	1.5	-10.2	28.0		0.0	0.0	39.32	0.00	0.00	1.5	-11.1	25.0		0.0	0.0	58.23	0.00	0.00	0.0
25-Feb	0.0	-14.7	29.0		0.0	0.0	39.32	0.00	0.00	0.5	-13.6	25.0		0.0	0.0	59.73	0.00	0.00	0.0
26-Feb	0.2	-17.1	29.0		0.0	0.0	39.52	0.00	0.00	0.6	-16.5	25.0		0.0	0.0	60.23	0.00	0.00	0.0
27-Feb	0.8	-16.8	29.0		0.0	0.0	40.32	0.00	0.00	0.7	-15.8	25.0		0.0	0.0	60.83	0.00	0.00	0.0
28-Feb	1.4	-5.5	29.0		0.0	0.0	41.72	0.00	0.00	2.0	-5.9	27.0		0.0	0.0	61.53	0.00	0.00	0.0
1-Mar	1.3	-10.0	29.0		0.0	0.0	43.02	0.00	0.00	1.1	-9.4	28.0		0.0	0.0	63.53	0.00	0.00	0.0
2-Mar	0.5	-8.9	29.0		0.0	0.0	43.52	0.00	0.00	0.9	-9.5	27.0		0.0	0.0	64.63	0.00	0.00	0.0
3-Mar		-6.1	28.0		0.0	0.0	43.52	0.00	0.00	0.0	-6.3	27.0		0.0	0.0	65.53	0.00	0.00	0.0
4-Mar		-5.9	28.0		0.0	0.0	43.52	0.00	0.00		-6.0	27.0		0.0	0.0	65.53	0.00	0.00	0.0
5-Mar		-4.2	28.0		0.0	0.0	43.52	0.00	0.00		-5.3	27.0		0.0	0.0	65.53	0.00	0.00	0.0
6-Mar	1.1	-1.7	28.0		0.0	0.0	44.62	0.00	0.00	1.0	-2.2	27.0		0.0	0.0	65.53	0.00	0.00	0.0

18) Estimated Precipitaion : Rezekne Model 1986

	A= 409					m = 4.5				A= 136					m = 5				Total
	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipitation	Rain of previous day	Mean temperature	Measured snow depth	Evapotranspiration	Converted Evapotranspiration	Converted rain depth	Equivalence to snowdepth	Amount of snow melting	Total precipitation	Rain of previous day
7-Mar	0.7	1.7	27.0		0.0	0.7	44.62	7.66	8.36	0.7	1.5	27.0		0.0	0.7	66.53	6.76	7.46	8.1
8-Mar	1.1	2.1	22.0		0.0	1.1	36.96	9.48	10.58	2.0	2.0	19.0		0.0	2.0	59.77	9.05	11.05	10.7
9-Mar		1.2	17.0		0.0	0.0	27.48	5.40	5.40		1.8	15.0		0.0	0.0	50.72	8.10	8.10	6.1
10-Mar	0.0	-1.7	15.0		0.0	0.0	22.08	0.00	0.00		-2.5	14.0		0.0	0.0	42.62	0.00	0.00	0.0
11-Mar		-0.9	15.0		0.0	0.0	22.08	0.00	0.00	0.0	-1.0	14.0		0.0	0.0	42.62	0.00	0.00	0.0
12-Mar		-1.5	15.0		0.0	0.0	22.08	0.00	0.00		-1.7	13.0		0.0	0.0	42.62	0.00	0.00	0.0
13-Mar		-1.7	15.0		0.0	0.0	22.08	0.00	0.00		-2.2	13.0		0.0	0.0	42.62	0.00	0.00	0.0
14-Mar		-2.4	15.0		0.0	0.0	22.08	0.00	0.00		-3.9	13.0		0.0	0.0	42.62	0.00	0.00	0.0
15-Mar		-3.5	14.0		0.0	0.0	22.08	0.00	0.00		-4.3	13.0		0.0	0.0	42.62	0.00	0.00	0.0
16-Mar		-5.3	14.0		0.0	0.0	22.08	0.00	0.00		-6.0	13.0		0.0	0.0	42.62	0.00	0.00	0.0
17-Mar		-3.0	14.0		0.0	0.0	22.08	0.00	0.00		-2.9	13.0		0.0	0.0	42.62	0.00	0.00	0.0
18-Mar		-0.1	14.0		0.0	0.0	22.08	0.00	0.00		-1.5	12.0		0.0	0.0	42.62	0.00	0.00	0.0
19-Mar		-0.7	13.0		0.0	0.0	22.08	0.00	0.00		-0.4	11.0		0.0	0.0	42.62	0.00	0.00	0.0
20-Mar		1.0	13.0		0.0	0.0	22.08	4.50	4.50		0.6	9.0		0.0	0.0	42.62	2.70	2.70	4.1
21-Mar		1.2	12.0		0.0	0.0	17.58	5.40	5.40		0.5	9.0		0.0	0.0	39.92	2.25	2.25	4.6
22-Mar		1.8	9.0		0.0	0.0	12.18	8.10	8.10		0.9	8.0		0.0	0.0	37.67	4.05	4.05	7.1
23-Mar		1.6	8.0		0.0	0.0	4.08	4.08	4.08		0.6	7.0		0.0	0.0	33.62	2.70	2.70	3.7
24-Mar		0.7	7.0		0.0	0.0	0.00	0.00	0.00		-0.3	5.0		0.0	0.0	30.92	0.00	0.00	0.0
25-Mar	2.0	1.3	7.0		0.0	2.0	0.00	0.00	2.00	4.3	1.0	4.0		0.0	4.3	30.92	4.55	8.85	3.7
26-Mar	2.3	1.0	4.0		0.0	2.3	0.00	0.00	2.30	7.0	0.2	3.0		0.0	7.0	26.37	0.92	7.92	3.7
27-Mar	1.2	3.1	3.0		0.0	1.2	0.00	0.00	1.20	2.8	2.5	5.0		0.0	2.8	25.45	11.34	14.14	4.4
28-Mar		4.5	1.0		0.0	0.0	0.00	0.00	0.00		3.6	2.0		0.0	0.0	14.11	14.11	14.11	3.5
29-Mar	7.0	4.6			0.0	7.0	0.00	0.00	7.00	3.2	4.1	1.0		0.0	3.2	0.00	0.00	3.20	6.1
30-Mar		5.4			0.0	0.0	0.00	0.00	0.00		5.7	0.0		0.0	0.0	0.00	0.00	0.00	0.0
31-Mar	2.6	2.0			0.0	2.6	0.00	0.00	2.60	7.0	2.9			0.0	7.0	0.00	0.00	7.00	3.7
1-Apr	2.2	1.7		1.5	0.8	2.2	0.00	0.00	2.20	4.8	1.7		1.5	0.8	4.8	0.00	0.00	4.80	2.8
2-Apr	1.7	5.5		1.5	0.8	1.7	0.00	0.00	1.70	1.1	5.6		1.5	0.8	1.1	0.00	0.00	1.10	1.6
3-Apr	3.0	1.4		1.5	1.5	3.0	0.00	0.00	3.00	1.8	1.5		1.5	0.8	1.8	0.00	0.00	1.80	2.7
4-Apr		3.0		1.5	0.8	0.0	0.00	0.00	0.00	1.6	3.2		1.5	0.8	1.6	0.00	0.00	1.60	0.4
5-Apr	2.3	2.6		1.5	1.5	2.3	0.00	0.00	2.30	10.6	1.5	2.0	1.5	0.8	10.6	0.00	0.00	10.60	4.4
6-Apr		2.9		1.5	0.8	0.0	0.00	0.00	0.00		3.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
7-Apr	2.7	1.9		1.5	1.5	2.7	0.00	0.00	2.70	6.9	1.6		1.5	0.8	6.9	0.00	0.00	6.90	3.7
8-Apr		1.5		1.5	0.8	0.0	0.00	0.00	0.00	0.4	1.2		1.5	1.5	0.4	0.00	0.00	0.40	0.1
9-Apr	3.8	0.9		1.5	0.8	3.8	0.00	0.00	3.80	11.0	0.3	2.0	1.5	0.8	11.0	0.00	0.00	11.00	5.6
10-Apr	4.1	0.5		1.5	0.8	4.1	0.00	0.00	4.10	2.9	0.5	3.0	1.5	0.8	2.9	0.00	0.00	2.90	3.8
11-Apr	1.2	-0.4	2.0	1.5	0.8	0.0	1.20	0.00	0.00	7.7	-0.3		1.5	0.8	0.0	0.00	0.00	0.00	0.0
12-Apr	13.6	-5.6		1.5	0.8	0.0	14.80	0.00	0.00	3.7	-5.3	3.0	1.5	0.8	0.0	7.70	0.00	0.00	0.0
13-Apr	12.2	-5.0	3.0	1.5	1.5	0.0	27.00	0.00	0.00	6.4	-5.0	6.0	1.5	0.8	0.0	11.40	0.00	0.00	0.0
14-Apr	0.5	-4.4	13.0	1.5	1.5	0.0	27.50	0.00	0.00	0.3	-3.4	9.0	1.5	1.5	0.0	17.80	0.00	0.00	0.0
15-Apr		-2.4	18.0	1.5	1.5	0.0	27.50	0.00	0.00		-3.0	7.0	1.5	1.5	0.0	18.10	0.00	0.00	0.0
16-Apr		0.2	17.0	1.5	1.5	0.0	27.50	0.90	0.90		0.0	5.0	1.5	1.5	0.0	18.10	0.00	0.00	0.7
17-Apr		0.9	11.0	1.5	1.5	0.0	26.60	4.05	4.05		1.8	3.0	1.5	1.5	0.0	18.10	8.10	8.10	5.1
18-Apr		0.2	7.0	1.5	1.5	0.0	22.55	0.90	0.90		1.0		1.5	1.5	0.0	10.00	4.50	4.50	1.8
19-Apr	0.5	2.9	4.0	1.5	0.8	0.5	21.65	13.07	13.57	0.9	3.7		1.5	0.8	0.9	5.50	5.50	6.40	11.8
20-Apr	1.2	5.8	4.0	1.5	0.8	1.2	8.58	8.58	9.78	1.5	6.7		1.5	0.8	1.5	0.00	0.00	1.50	7.7
21-Apr	2.2	7.0	1.0	1.5	0.8	2.2	0.00	0.00	2.20	5.7	7.7		1.5	0.8	5.7	0.00	0.00	5.70	3.1
22-Apr	1.1	3.3		1.5	1.5	1.1	0.00	0.00	1.10	2.6	3.0		1.5	0.8	2.6	0.00	0.00	2.60	1.5
23-Apr		7.6		1.5	1.5	0.0	0.00	0.00	0.00		7.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
24-Apr		9.8		1.5	1.5	0.0	0.00	0.00	0.00		9.7		1.5	1.5	0.0	0.00	0.00	0.00	0.0
25-Apr		15.8		1.5	1.5	0.0	0.00	0.00	0.00		15.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
26-Apr		15.8		1.5	1.5	0.0	0.00	0.00	0.00		14.5		1.5	1.5	0.0	0.00	0.00	0.00	0.0
27-Apr		15.6		1.5	1.5	0.0	0.00	0.00	0.00		15.4		1.5	1.5	0.0	0.00	0.00	0.00	0.0
28-Apr		17.1		1.5	1.5	0.0	0.00	0.00	0.00		16.2		1.5	1.5	0.0	0.00	0.00	0.00	0.0
29-Apr		18.5		1.5	1.5	0.0	0.00	0.00	0.00		16.0		1.5	1.5	0.0	0.00	0.00	0.00	0.0
30-Apr		16.8		1.5	1.5	0.0	0.00	0.00	0.00		17.8		1.5	1.5	0.0	0.00	0.00	0.00	0.0

IV-3 Lake Lubana Water Level Simulation Model

1) Lake Lubana H-Q Curve



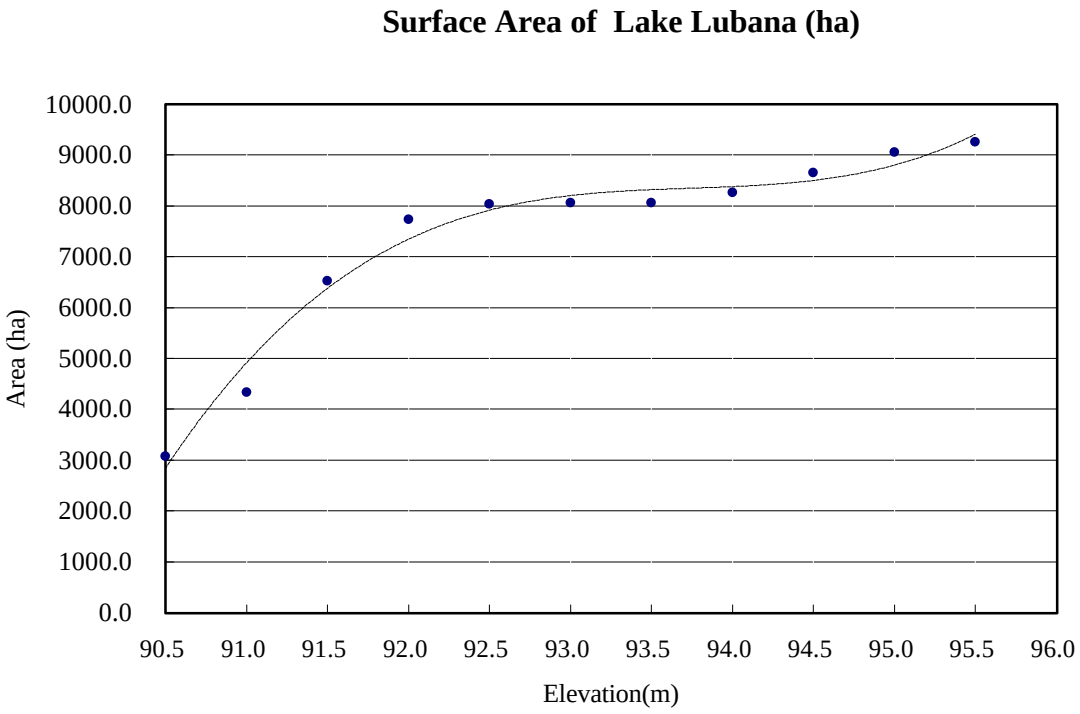
Equation for Volume Calculation

$$\text{Volume} = -7898.8173\ h^4 + 2232232.1797\ h^3 - 209377490.0000\ h^2 + 6521001568.0000\ h$$

Storage Volume of the Lake Lubana

Elevation	Measured Area (cm^2)	Area in Section (cm^2)	Surface Area (km^2)	Storege Volume in Section (m^3)	Storage Volume (m^3)
90.0 ~ 90.5	122.8	122.8	30.7	15,350,000	15,350,000
90.5 ~ 91.0	223.5	173.2	43.3	21,643,750	36,993,750
91.0 ~ 91.5	298.2	260.9	65.2	32,606,250	69,600,000
91.5 ~ 92.0	320.3	309.3	77.3	38,656,250	108,256,250
92.0 ~ 92.5	322.3	321.3	80.3	40,162,500	148,418,750
92.5 ~ 93.0	322.3	322.3	80.6	40,287,500	188,706,250
93.0 ~ 93.5	322.3	322.3	80.6	40,287,500	228,993,750
93.5 ~ 94.0	338.2	330.3	82.6	41,283,333	270,277,083
94.0 ~ 94.5	354.2	346.2	86.6	43,275,000	313,552,083
94.5 ~ 95.0	370.1	362.1	90.5	45,266,667	358,818,750
95.0 ~ 95.5	370.1	370.1	92.5	46,262,500	405,081,250

2) Lake Lubana H-A (Surface Area) Curve



Equation for Water Surface Area Calculation

Water Surface Area = $1.6725\ h^4 - 470.3625\ h^3 + 44092.8370\ h^2 - 1377706.3672\ h + 90.5$

Surface Area of the Lake Lubana

Elevation	Measured Area (cm^2)	Area in Section (cm^2)	Surface Area (ha)
90.0 ~ 90.5	122.8	122.8	3070.0
90.5 ~ 91.0	223.5	173.2	4328.8
91.0 ~ 91.5	298.2	260.9	6521.3
91.5 ~ 92.0	320.3	309.3	7731.3
92.0 ~ 92.5	322.3	321.3	8032.5
92.5 ~ 93.0	322.3	322.3	8057.5
93.0 ~ 93.5	322.3	322.3	8057.5
93.5 ~ 94.0	338.2	330.3	8256.7
94.0 ~ 94.5	354.2	346.2	8655.0
94.5 ~ 95.0	370.1	362.1	9053.3
95.0 ~ 95.5	370.1	370.1	9252.5

3) Inflow

Estimated Total Volume of Spring Flood

	Aiviekste - Lubana					Rezekne - Griškani					Pededze-Litene	
	Average flood discharge	Flood duration (days)	Total flood discharge (m^3)	Peak flood discharge (m^3/sec)	Month	Average flood discharge	Flood duration (days)	Total flood discharge (m^3)	Peak flood discharge (m^3/sec)	Month	Peak flood discharge (m^3/sec)	Month
1968	136.7	27	319,000,000	156.0	Apr	20.6	16	29,000,000	50.7	Mar	93.6	Mar
1969	111.4	29	279,000,000	124.0	Apr	5.6	17	8,000,000	7.9	Apr	80.6	Apr
1970	146.0	39	492,000,000	166.0	Apr	16.8	10	14,000,000	25.8	Apr	76.6	Apr
1971	140.0	28	339,000,000	163.0	Apr	18.3	12	19,000,000	29.2	Apr	69.5	Apr
1972	64.7	22	123,000,000	80.6	Apr	7.4	4	3,000,000	10.0	Apr	54.1	Apr
1973	73.6	24	153,000,000	98.0	Mar	10.6	7	6,000,000	17.8	Mar	31.2	Apr
1974	63.1	25	136,000,000	71.4	Mar	5.1	12	5,000,000	6.8	Mar	34.2	Mar
1975	102.3	26	230,000,000	112.0	Apr	9.9	24	20,000,000	13.0	Apr	35.0	Apr
1976	91.5	14	111,000,000	106.0	Apr	11.8	12	12,000,000	17.6	Apr	30.8	Apr
1977	106.0	19	174,000,000	114.0	Apr	6.2	17	9,000,000	8.5	Mar	54.4	Apr
1978	129.5	57	638,000,000	154.0	Apr	12.8	22	24,000,000	22.9	Apr	89.5	Apr
1979	132.2	50	571,000,000	159.0	Apr	17.1	18	27,000,000	29.8	Apr	61.4	Apr
1980	104.4	29	261,000,000	114.0	Apr	13.4	15	17,000,000	17.7	Apr	47.4	Apr
1981	120.5	50	521,000,000	146.0	Apr	14.3	24	30,000,000	26.9	Mar	52.6	Apr
1982	141.8	33	404,000,000	166.0	Apr	14.3	13	16,000,000	21.1	Mar	80.1	Apr
1983	142.5	28	345,000,000	163.0	Apr	11.1	20	19,000,000	17.5	Mar	88.3	Apr
1984	124.9	14	151,000,000	139.0	Apr	12.7	12	13,000,000	19.5	Apr	83.9	Apr
1985	111.7	47	454,000,000	151.0	Apr	16.8	12	17,000,000	24.3	Apr	45.6	Apr
1986	130.6	45	508,000,000	153.0	Apr	15.6	27	36,000,000	26.7	Mar	80.4	Apr
1987	109.9	32	304,000,000	130.0	Apr	13.0	22	25,000,000	16.7	Apr	51.0	Apr
1988	118.9	35	360,000,000	129.0	Apr	11.3	12	12,000,000	15.8	Apr	102.0	Apr
1989	114.5	59	584,000,000	137.0	Feb	9.0	12	9,000,000	13.0	Mar	56.3	Mar
1990	123.8	67	717,000,000	137.0	Feb	11.2	37	36,000,000	14.4	Jan	82.7	Feb
1991	105.7	23	210,000,000	117.0	Jan	10.3	37	33,000,000	21.5	Jan	48.0	Mar
1992	79.4	34	233,000,000	97.9	Jan	9.9	11	9,000,000	10.0	May	45.0	Jan
1993	86.0	15	111,000,000	100.0	Mar	9.0	23	18,000,000	14.4	Jan	42.2	Mar
1994	136.1	47	553,000,000	160.0	Apr	15.7	42	57,000,000	24.4	Apr	143.0	Apr
1995	129.2	45	502,000,000	156.0	Mar	12.5	27	29,000,000	18.1	Feb	74.7	Mar
1996	93.6	23	186,000,000	112.0	Apr	12.0	11	11,000,000	16.1	Apr	54.3	Apr
1997	98.0	17	144,000,000	113.0	Mar	9.4	14	11,000,000	18.6	Feb	26.1	Mar

3) Inflow : Frequency Anlaysis, Aiviekste

Station: **Aiviekste - Lubana** **Duration :** **30 years from 1968 to 1997**

Final Result by Log Pearson III Distiribution (unit : m^3/s)

Probability	Average y	Root V	K	y	Total Volume
1/100	8.4625	0.2502	2.3260	9.0444	1,107,720,232
1/50			2.0540	8.9764	947,070,437
1/25			1.7510	8.9006	795,387,979
1/20			1.6449	8.8740	748,208,893
1/10			1.2820	8.7832	607,080,928
1/5			0.8420	8.6732	471,160,911
1/2			0.0000	8.4625	290,082,319

Calculation :

Observed year	Total Flood Volume (x)	y = logx	Average y	(y-average y)^2	Variance of y (V)	(y-average y)^3	Cs
1990	717,000,000	8.8555	8.4625	0.1544	0.0626	0.0607	-0.1960
1978	638,000,000	8.8048	8.4625	0.1172		0.0401	
1989	584,000,000	8.7664	8.4625	0.0924		0.0281	
1979	571,000,000	8.7566	8.4625	0.0865		0.0254	
1994	553,000,000	8.7427	8.4625	0.0785		0.0220	
1981	521,000,000	8.7168	8.4625	0.0647		0.0164	
1986	508,000,000	8.7059	8.4625	0.0592		0.0144	
1995	502,000,000	8.7007	8.4625	0.0567		0.0135	
1970	492,000,000	8.6920	8.4625	0.0526		0.0121	
1985	454,000,000	8.6571	8.4625	0.0378		0.0074	
1982	404,000,000	8.6064	8.4625	0.0207		0.0030	
1988	360,000,000	8.5563	8.4625	0.0088		0.0008	
1983	345,000,000	8.5378	8.4625	0.0057		0.0004	
1971	339,000,000	8.5302	8.4625	0.0046		0.0003	
1968	319,000,000	8.5038	8.4625	0.0017		0.0001	
1987	304,000,000	8.4829	8.4625	0.0004		0.0000	
1969	279,000,000	8.4456	8.4625	0.0003		0.0000	
1980	261,000,000	8.4166	8.4625	0.0021		-0.0001	
1992	233,000,000	8.3674	8.4625	0.0091		-0.0009	
1975	230,000,000	8.3617	8.4625	0.0102		-0.0010	
1991	210,000,000	8.3222	8.4625	0.0197		-0.0028	
1996	186,000,000	8.2695	8.4625	0.0373		-0.0072	
1977	174,000,000	8.2405	8.4625	0.0493		-0.0109	
1973	153,000,000	8.1847	8.4625	0.0772		-0.0214	
1984	151,000,000	8.1790	8.4625	0.0804		-0.0228	
1997	144,000,000	8.1584	8.4625	0.0925		-0.0281	
1974	136,000,000	8.1335	8.4625	0.1082		-0.0356	
1972	123,000,000	8.0899	8.4625	0.1388		-0.0517	
1993	111,000,000	8.0453	8.4625	0.1741		-0.0726	
1976	111,000,000	8.0453	8.4625	0.1741		-0.0726	
Total		253.8756		1.8150		-0.0831	

3) Inflow : Frequency Anlaysis, Rezekne

Station: Rezekne - Griskani **Duration : 30 years from 1968 to 1997**

Final Result by Log Pearson III Distiribution (unit : m^3/s)

Probability	Average y	Root V	K	y	Total Volume
1/100	7.2000	0.2842	2.3260	7.8610	72,609,649
1/50			2.0540	7.7837	60,770,476
1/25			1.7510	7.6976	49,840,319
1/20			1.6449	7.6674	46,495,750
1/10			1.2820	7.5643	36,668,421
1/5			0.8420	7.4392	27,494,469
1/2			0.0000	7.2000	15,847,147

Calculation :

Observed year	Total Flood Volume (x)	y = logx	Average y	(y-average y)^2	Variance of y (V)	(y-average y)^3	Cs
1994	57,000,000	7.7559	7.2000	0.3091	0.0808	0.1718	-0.4524
1990	36,000,000	7.5563	7.2000	0.1270		0.0453	
1986	36,000,000	7.5563	7.2000	0.1270		0.0453	
1991	33,000,000	7.5185	7.2000	0.1015		0.0323	
1981	30,000,000	7.4771	7.2000	0.0768		0.0213	
1995	29,000,000	7.4624	7.2000	0.0689		0.0181	
1968	29,000,000	7.4624	7.2000	0.0689		0.0181	
1979	27,000,000	7.4314	7.2000	0.0536		0.0124	
1987	25,000,000	7.3979	7.2000	0.0392		0.0078	
1978	24,000,000	7.3802	7.2000	0.0325		0.0059	
1975	20,000,000	7.3010	7.2000	0.0102		0.0010	
1983	19,000,000	7.2788	7.2000	0.0062		0.0005	
1971	19,000,000	7.2788	7.2000	0.0062		0.0005	
1993	18,000,000	7.2553	7.2000	0.0031		0.0002	
1985	17,000,000	7.2304	7.2000	0.0009		0.0000	
1980	17,000,000	7.2304	7.2000	0.0009		0.0000	
1982	16,000,000	7.2041	7.2000	0.0000		0.0000	
1970	14,000,000	7.1461	7.2000	0.0029		-0.0002	
1984	13,000,000	7.1139	7.2000	0.0074		-0.0006	
1988	12,000,000	7.0792	7.2000	0.0146		-0.0018	
1976	12,000,000	7.0792	7.2000	0.0146		-0.0018	
1997	11,000,000	7.0414	7.2000	0.0251		-0.0040	
1996	11,000,000	7.0414	7.2000	0.0251		-0.0040	
1992	9,000,000	6.9542	7.2000	0.0604		-0.0148	
1989	9,000,000	6.9542	7.2000	0.0604		-0.0148	
1977	9,000,000	6.9542	7.2000	0.0604		-0.0148	
1969	8,000,000	6.9031	7.2000	0.0881		-0.0262	
1973	6,000,000	6.7782	7.2000	0.1779		-0.0750	
1974	5,000,000	6.6990	7.2000	0.2510		-0.1257	
1972	3,000,000	6.4771	7.2000	0.5225		-0.3777	
Total		215.9985		2.3423		-0.2811	

4) Outflow

Estimated Outflow through Aiviekste and Kalnagala Sluices

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1990 Average	0.2	1.3	1.0	6.2	0.5	0.0	0.4	1.2	0.1	5.9	19.6	3.7	3.3
Max.	4.5	25.4	6.9	26.4	5.6	0.0	5.9	8.4	2.8	37.8	54.1	40.4	54.1
1991 Average	9.5	22.6	21.2	35.1	7.4	6.1	21.6	21.4	18.4	2.3	0.1	0.0	13.8
Max.	35.7	23.9	47.0	47.1	20.9	9.2	23.8	27.1	20.7	9.9	0.4	0.0	47.1
1992 Average	4.3	31.6	34.3	31.6	8.6	12.6	6.7	0.9	0.9	0.9	0.9	0.9	11.2
Max.	13.7	39.9	35.5	33.1	13.8	13.7	6.8	0.9	0.9	0.9	0.9	1.0	39.9
1993 Average	3.4	17.9	29.3	10.8	8.7	6.2	7.9	11.9	8.4	4.8	7.5	1.3	9.8
Max.	10.6	34.4	37.6	19.7	9.6	9.3	8.1	14.5	13.7	15.7	17.3	1.3	37.6
1994 Average	6.7	6.4	7.3	34.0	49.5	38.9	29.3	18.2	18.4	6.9	12.5	14.7	20.2
Max.	8.9	7.0	26.9	61.8	55.9	42.9	38.0	18.4	18.4	18.4	17.7	14.8	61.8
1995 Average	10.7	2.2	22.0	15.9	13.3	8.3	6.3	5.0	3.5	1.4	7.8	7.7	8.7
Max.	11.5	14.8	28.2	17.2	35.3	8.7	17.4	6.0	4.3	1.6	7.9	7.8	35.3

4) Sample Calculation of Outflow : 1995

		Aiviekste Sluice												Kalnagala Sluice				Total_Q
		Lubana Lake	Aiviekste River	Opening of No.1 Gate	C_1	Q_1	Opening of No.2 Gate	C_2	Q_2	Opening of No.3 Gate	C_3	Q_3	Total Q_Aiv	Izvad Canal	Meirani Canal	Opening of Gate	Q_K	
January	1	91.80	91.60	0.35	0.33	2.12	0.00	0.00	0.00	0.35	0.33	2.12	4.23	91.74		0.25	6.61	10.85
	2	91.86	91.60	0.35	0.35	2.31	0.00	0.00	0.00	0.35	0.35	2.31	4.62	91.79		0.25	6.68	11.30
	3	91.88	91.60	0.35	0.36	2.35	0.00	0.00	0.00	0.35	0.36	2.35	4.71	91.82		0.25	6.72	11.42
	4	91.89	91.60	0.35	0.36	2.38	0.00	0.00	0.00	0.35	0.36	2.38	4.76	91.82		0.25	6.72	11.47
	5	91.90	91.60	0.35	0.36	2.40	0.00	0.00	0.00	0.35	0.36	2.40	4.81	91.80		0.25	6.69	11.50
	6	91.90	91.60	0.35	0.36	2.40	0.00	0.00	0.00	0.35	0.36	2.40	4.81	91.79		0.25	6.68	11.49
	7	91.90	91.60	0.35	0.36	2.40	0.00	0.00	0.00	0.35	0.36	2.40	4.81	91.78		0.25	6.67	11.47
	8	91.89	91.60	0.35	0.36	2.38	0.00	0.00	0.00	0.35	0.36	2.38	4.76	91.76		0.25	6.64	11.40
	9	91.89	91.60	0.35	0.36	2.38	0.00	0.00	0.00	0.35	0.36	2.38	4.76	91.75		0.25	6.63	11.38
	10	91.88	91.60	0.35	0.36	2.35	0.00	0.00	0.00	0.35	0.36	2.35	4.71	91.74		0.25	6.61	11.32
	11	91.87	91.60	0.35	0.35	2.33	0.00	0.00	0.00	0.35	0.35	2.33	4.66	91.74		0.25	6.61	11.27
	12	91.86	91.60	0.35	0.35	2.30	0.00	0.00	0.00	0.35	0.35	2.30	4.60	91.73		0.25	6.60	11.20
	13	91.85	91.60	0.35	0.35	2.27	0.00	0.00	0.00	0.35	0.35	2.27	4.55	91.73		0.25	6.60	11.15
	14	91.84	91.60	0.35	0.34	2.25	0.00	0.00	0.00	0.35	0.34	2.25	4.49	91.72		0.25	6.59	11.08
	15	91.82	91.60	0.35	0.34	2.19	0.00	0.00	0.00	0.35	0.34	2.19	4.38	91.71		0.25	6.58	10.95
	16	91.81	91.60	0.35	0.33	2.16	0.00	0.00	0.00	0.35	0.33	2.16	4.32	91.70		0.25	6.56	10.88
	17	91.81	91.60	0.35	0.33	2.16	0.00	0.00	0.00	0.35	0.33	2.16	4.32	91.70		0.25	6.56	10.88
	18	91.80	91.60	0.35	0.33	2.12	0.00	0.00	0.00	0.35	0.33	2.12	4.23	91.69		0.25	6.55	10.78
	19	91.80	91.60	0.35	0.33	2.12	0.00	0.00	0.00	0.35	0.33	2.12	4.23	91.68		0.25	6.54	10.77
	20	91.79	91.60	0.35	0.33	2.11	0.00	0.00	0.00	0.35	0.33	2.11	4.22	91.68		0.25	6.54	10.76
	21	91.78	91.60	0.35	0.33	2.11	0.00	0.00	0.00	0.35	0.33	2.11	4.22	91.68		0.25	6.54	10.75
	22	91.77	91.60	0.35	0.33	2.10	0.00	0.00	0.00	0.35	0.33	2.10	4.21	91.66		0.25	6.51	10.72
	23	91.76	91.60	0.35	0.33	2.10	0.00	0.00	0.00	0.35	0.33	2.10	4.20	91.65		0.25	6.50	10.69
	24	91.75	91.60	0.35	0.33	2.09	0.00	0.00	0.00	0.35	0.33	2.09	4.19	91.65		0.25	6.50	10.68
	25	91.74	91.60	0.35	0.33	2.09	0.00	0.00	0.00	0.35	0.33	2.09	4.18	91.64		0.25	6.48	10.66
	26	91.74	91.60	0.35	0.33	2.09	0.00	0.00	0.00	0.35	0.33	2.09	4.18	91.64		0.25	6.48	10.66
	27	91.73	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.33	2.09	2.09	91.64		0.25	6.48	8.57
	28	91.74	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.33	2.09	2.09	91.64		0.25	6.48	8.57
	29	91.75	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.33	2.09	2.09	91.64		0.25	6.48	8.58
	30	91.76	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.33	2.10	2.10	91.65		0.25	6.50	8.59
	31	91.77	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.33	2.10	2.10	91.67		0.25	6.52	8.63
February	1	91.78	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.33	2.11	2.11	91.70		0.25	6.56	8.67
	2	91.80	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.33	2.12	2.12	91.72		0.25	6.59	8.70
	3	91.82	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.34	2.19	2.19	91.74		0.25	6.61	8.80
	4	91.84	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.34	2.25	2.25	91.77		0.25	6.65	8.90
	5	91.87	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.35	2.33	2.33	91.80		0.25	6.69	9.02
	6	91.90	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.36	2.40	2.40	91.83		0.25	6.73	9.13
	7	91.93	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.37	2.47	2.47	91.87		0.25	6.78	9.26
	8	91.96	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.38	2.54	2.54	91.92		0.25	6.85	9.38
	9	92.00	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.39	2.62	2.62	91.96		0.25	6.90	9.52
	10	92.05	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.40	2.71	2.71	91.99		0.20	5.55	8.26
	11	92.09	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.41	2.78	2.78	92.01	91.50	0.40	11.13	13.91
	12	92.10	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.41	2.79	2.79	92.02	91.53	0.40	11.15	13.95
	13	92.11	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.41	2.81	2.81	92.04	91.56	0.40	11.19	14.00
	14	92.13	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.41	2.84	2.84	92.06	91.60	0.40	11.23	14.07
	15	92.15	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.42	2.87	2.87	92.08	91.65	0.40	11.27	14.14
	16	92.17	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.42	2.90	2.90	92.11	91.75	0.40	11.33	14.23
	17	92.22	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.43	2.96	2.96	92.17	91.95	0.40	11.44	14.41
	18	92.27	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.43	3.03	3.03	92.23	92.07	0.40	11.56	14.58
	19	92.34	91.60	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.44	3.10	3.10	92.30	92.18	0.40	11.69	14.80
	20	92.42	92.56	2.00	0.25	-10.16	0.00	0.00	0.00	2.00	0.25	-10.16	-20.31	92.37	92.24	0.40	11.82	-8.49
	21	92.50	92.64	2.00	0.25	-10.30	0.00	0.00	0.00	2.00	0.25	-10.30	-20.59	92.44	92.80	0.40	11.95	-8.64
	22	92.57	92.72	2.00	0.25	-10.42	0.00	0.00	0.00	2.00	0.25	-10.42	-20.83	92.51	92.31	0.40	12.08	-8.75
	23	92.64	92.79	2.00	0.25	-10.54	0.00	0.00	0.00	2.00	0.25	-10.54	-21.07	92.58	92.34	0.00	0.00	-21.07
	24	92.70	92.85	2.00	0.25	-10.64	0.00	0.00	0.00	2.00	0.25	-10.64	-21.28			0.00		-21.28
	25	92.77	92.90	2.00	0.25	-10.76	0.00	0.00	0.00	2.00	0.25	-10.76	-21.52			0.00		-21.52
	26	92.85	92.93	2.00	0.25	-10.89	0.00	0.00	0.00	2.00	0.25	-10.89	-21.79			0.00		-21.79
	27	92.92	92.97	2.00	0.25	-11.01	0.00	0.00	0.00	2.00	0.25	-11.01	-22.02			0.00		-22.02
	28	92.98	93.00	2.00	0.25	-11.11	0.00	0.00	0.00	2.00	0.25	-11.11	-22.22			0.00		-22.22
March	1	93.04	93.04	2.00	0.05	2.08	0.00	0.00	0.00	2.00	0.05	2.08	4.17			0.00		4.17
	2	93.09	93.08	2.00	0.10	4.48	0.00	0.00	0.00	2.00	0.10	4.48	8.96			0.00		8.96
	3	93.15	93.12	2.00	0.15	6.84	0.00	0.00	0.00	2.00	0.15	6.84	13.67			0.00		13.67
	4	93.20	93.17	2.00	0.19	8.44	0.00	0.00	0.00	2.00	0.19	8.44	16.88			0.00		16.88
	5	93.25	93.22	2.00	0.21	9.78	0.00	0.00	0.00	2.00	0.21	9.78	19.55			0.00		19.55
	6	93.30	93.27	2.00	0.24	10.89	0.00	0.00	0.00	2.00	0.24	10.89	21.78			0.00		21.78
	7	93.34	93.32	2.00	0.25	11.65	0.00	0.00	0.00	2.00	0.25	11.65	23.31			0.00		23.31
	8	93.39	93.36	2.00	0.27	12.48	0.00	0.00	0.00	2.00	0.27	12.48	24.95	93.34	92.45	0.00	0.00	24.95
	9	93.43	93.40	2.00	0.28	13.05	0.00	0.00	0.00	2.00	0.28	13.05	26.10			0.00		26.10
	10	93.47	93.44	2.00	0.29	13.57	0.00	0.00	0.00	2.00	0.29	13.57	27.14			0.00		27.14
	11	93.51	93.48	2.00	0.23	10.89	0.00	0.00	0.00	2.00	0.23	10.89	21.78	93.47	92.57	0.00	0.00	21.78
	12	93.55	93.50	2.00	0.23	11.09	0.00	0.00	0.00	2.00	0.23	11.09	22.18			0.00		22.18
	13	93.58	93.50	2.00	0.24	11.33	0.00	0.00	0.00	2.00	0.24	11.33	22.67			0.00		22.67
	14	93.60	93.50	2.00	0.24	11.49	0.00	0.00	0.00	2.00	0.24	11.49	22.98			0.00		22.98
	15	93.61	93.50	2.00	0.24	11.57	0.00	0.00	0.00	2.00	0.24	11.57	23.14			0.00		23.14
	16	93.62	93.49	2.00	0.25	11.73	0.00	0.00	0.00	2.00	0.25	11.73	23.45			0.00		23.45
	17	93.63	93.49	2.00	0.25	11.81	0.00	0.00	0.00	2.00	0.25	11.81	23.61			0.00		23.61
	18	93.63	93.48	2.00	0.25	11.88	0.00	0.00	0.00	2.00	0.25	11.88	23.77			0.00		23.77
	19	93.63	93.48	2.00	0.25	11.88	0.00	0.00	0.00	2.00	0.25	11.88	23.77			0.00		23.77
	20	93.63	93.47	2.00	0.25	11.96	0.00	0.00	0.00	2.00	0.25	11.96	23.92			0.00		23.92
	21	93.63	93.46	2.00	0.25	12.04	0.00	0.00	0.00	2.00	0.25	12.04	24.08			0.00		24.08
	22	93.64	93.45	2.00	0.26	12.20	0.00	0.00	0.00	2.00	0.26	12.20	24.40			0.00		24.40
	23	93.64	93.44	2.00	0.26	12.28	0.00	0.00	0.00	2.00	0.26	12.28	24.56			0.00		24.56
	24	93.63	93.43	2.00	0.26	12.20	0.00	0.00	0.00	2.00	0.26	12.20	24.39			0.00		24.39
	25	93.63	93.41	2.00	0.26	12.20	0.00	0.00	0.00	2.00	0.26	12.20	24.39			0.00		24.39
	26	93.63	93.38	2.00	0.26	12.20	0.00	0.00	0.00	2.00	0.26	12.20	24.39			0.00		24.39
	27	93.62	93.34	2.00	0.27	12.89	0.00	0.00	0.00	2.00	0.27	12.89	25.78			0.00		25.78
	28	93.62	93.29	2.00	0.28	13.28	0.00	0.00	0.00	2.00	0.28	13.28	26.56			0.00		26.56
	29	93.61	93.23	2.00	0.29	13.65	0.00	0.00	0.00	2.00	0.29	13.65	27.31			0.00		27.31
	30	93.61	93.17	2.00	0.30	14.12	0.00	0.00	0.00	2.00	0.30	14.12	28.23			0.00		28.23
	31	93.61	93.10	1.00	0.23	5.38	0.00	0.00	0.00	1.00	0.23	5.38	10.76			0.00		10.76
April	1	93.60	93.04	1.00	0.24	5.68	0.00	0.00	0.00	1.00	0.24	5.68	11.36			0.00		11.36
	2	93.60	92.99	1.00	0.25	5.96	0.00	0.00	0.00	1.00	0.25	5.96	11.92			0.00		11.92

4) Sample Calculation of Outflow : 1995

		Aiviekste Sluice												Kalnagala Sluice				Total_Q
		Lubana Lake	Aiviekste River	Opening of No.1 Gate	C_1	Q_1	Opening of No.2 Gate	C_2	Q_2	Opening of No.3 Gate	C_3	Q_3	Total Q_Aiv	Izvad Canal	Meirani Canal	Opening of Gate	Q_K	
	3	93.60	92.93	1.00	0.26	6.23	0.00	0.00	0.00	1.00	0.26	6.23	12.46			0.00		12.46
	4	93.62	92.87	1.00	0.28	6.62	0.00	0.00	0.00	1.00	0.28	6.62	13.24			0.00		13.24
	5	93.63	92.81	1.00	0.29	6.95	0.00	0.00	0.00	1.00	0.29	6.95	13.89			0.00		13.89
	6	93.65	92.75	1.00	0.31	7.32	0.00	0.00	0.00	1.00	0.31	7.32	14.64			0.00		14.64
	7	93.66	92.70	1.00	0.32	7.59	0.00	0.00	0.00	1.00	0.32	7.59	15.19			0.00		15.19
	8	93.68	92.64	1.00	0.33	7.96	0.00	0.00	0.00	1.00	0.33	7.96	15.91			0.00		15.91
	9	93.69	92.58	1.00	0.34	8.26	0.00	0.00	0.00	1.00	0.34	8.26	16.53			0.00		16.53
	10	93.70	92.65	1.00	0.33	8.01	0.00	0.00	0.00	1.00	0.33	8.01	16.02		91.30	0.00		16.02
	11	93.70	92.62	1.00	0.34	8.14	0.00	0.00	0.00	1.00	0.34	8.14	16.28			0.00		16.28
	12	93.70	92.59	1.00	0.34	8.27	0.00	0.00	0.00	1.00	0.34	8.27	16.53			0.00		16.53
	13	93.70	92.56	1.00	0.35	8.40	0.00	0.00	0.00	1.00	0.35	8.40	16.79			0.00		16.79
	14	93.70	92.53	1.00	0.36	8.52	0.00	0.00	0.00	1.00	0.36	8.52	17.05			0.00		17.05
	15	93.69	92.50	1.00	0.36	8.61	0.00	0.00	0.00	1.00	0.36	8.61	17.21			0.00		17.21
	16	93.69	92.51	1.00	0.36	8.56	0.00	0.00	0.00	1.00	0.36	8.56	17.13			0.00		17.13
	17	93.68	92.52	1.00	0.35	8.47	0.00	0.00	0.00	1.00	0.35	8.47	16.95			0.00		16.95
	18	93.67	92.53	1.00	0.35	8.38	0.00	0.00	0.00	1.00	0.35	8.38	16.77			0.00		16.77
	19	93.66	92.54	1.00	0.35	8.29	0.00	0.00	0.00	1.00	0.35	8.29	16.59			0.00		16.59
	20	93.65	92.55	1.00	0.34	8.20	0.00	0.00	0.00	1.00	0.34	8.20	16.40			0.00		16.40
	21	93.64	92.55	1.00	0.34	8.15	0.00	0.00	0.00	1.00	0.34	8.15	16.30			0.00		16.30
	22	93.63	92.54	1.00	0.34	8.15	0.00	0.00	0.00	1.00	0.34	8.15	16.29			0.00		16.29
	23	93.62	92.53	1.00	0.34	8.14	0.00	0.00	0.00	1.00	0.34	8.14	16.28			0.00		16.28
	24	93.62	92.52	1.00	0.34	8.19	0.00	0.00	0.00	1.00	0.34	8.19	16.37			0.00		16.37
	25	93.61	92.51	1.00	0.34	8.18	0.00	0.00	0.00	1.00	0.34	8.18	16.36			0.00		16.36
	26	93.60	92.50	1.30	0.37	11.52	0.50	0.45	5.34	1.00	0.00	0.00	16.86			0.00		16.86
	27	93.59	92.48	1.30	0.38	11.60	0.50	0.45	5.34	1.00	0.00	0.00	16.93			0.00		16.93
	28	93.58	92.46	1.30	0.38	11.67	0.50	0.45	5.33	1.00	0.00	0.00	17.00			0.00		17.00
	29	93.58	92.44	1.30	0.38	11.78	0.50	0.45	5.33	1.00	0.00	0.00	17.11			0.00		17.11
	30	93.57	92.42	1.30	0.39	11.86	0.50	0.45	5.32	1.00	0.00	0.00	17.18			0.00		17.18
May	1	93.57	92.40	1.30	0.39	11.97	0.50	0.45	5.32	1.00	0.00	0.00	17.29	93.52	90.75	0.00	0.00	17.29
	2	93.56	92.37	0.80	0.34	6.44	0.50	0.45	5.32	1.00	0.00	0.00	11.75			0.00		11.75
	3	93.55	92.25	0.80	0.36	6.88	0.50	0.45	5.31	1.00	0.00	0.00	12.19			0.00		12.19
	4	93.55	92.15	0.80	0.39	7.29	0.50	0.45	5.31	1.00	0.00	0.00	12.60			0.00		12.60
	5	93.54	92.08	1.50	0.50	17.67	0.70	0.00	0.00	1.50	0.50	17.67	35.34			0.00		35.34
	6	93.53	92.10	1.50	0.49	17.40	0.70	0.00	0.00	1.50	0.49	17.40	34.81			0.00		34.81
	7	93.52	92.12	1.50	0.49	17.13	0.70	0.00	0.00	1.50	0.49	17.13	34.26			0.00		34.26
	8	93.50	92.20	1.50	0.45	16.01	0.70	0.00	0.00	1.50	0.45	16.01	32.01			0.00		32.01
	9	93.48	92.22	1.50	0.45	15.72	0.70	0.00	0.00	1.50	0.45	15.72	31.43			0.00		31.43
	10	93.47	92.22	1.50	0.45	15.70	0.70	0.00	0.00	1.50	0.45	15.70	31.39			0.00		31.39
	11	93.45	91.85	1.20	0.46	12.77	0.70	0.00	0.00	0.80	0.45	8.41	21.17			0.00		21.17
	12	93.44	91.85	0.00	0.00	0.00	0.70	0.40	6.59	0.00	0.00	0.00	6.59			0.00		6.59
	13	93.43	91.85	0.00	0.00	0.00	0.70	0.40	6.57	0.00	0.00	0.00	6.57			0.00		6.57
	14	93.43	91.85	0.00	0.00	0.00	0.70	0.40	6.57	0.00	0.00	0.00	6.57			0.00		6.57
	15	93.42	91.85	0.00	0.00	0.00	0.70	0.40	6.55	0.00	0.00	0.00	6.55			0.00		6.55
	16	93.43	91.85	0.00	0.00	0.00	0.70	0.40	6.57	0.00	0.00	0.00	6.57			0.00		6.57
	17	93.43	91.85	0.00	0.00	0.00	0.70	0.40	6.57	0.00	0.00	0.00	6.57			0.00		6.57
	18	93.43	91.85	0.00	0.00	0.00	0.70	0.40	6.57	0.00	0.00	0.00	6.57			0.00		6.57
	19	93.41	91.82	0.00	0.00	0.00	0.70	0.41	6.62	0.00	0.00	0.00	6.62			0.00		6.62
	20	93.40	91.78	0.00	0.00	0.00	0.70	0.41	6.69	0.00	0.00	0.00	6.69			0.00		6.69
	21	93.38	91.75	0.00	0.00	0.00	0.70	0.42	6.78	0.00	0.00	0.00	6.78			0.00		6.78
	22	93.36	91.72	0.00	0.00	0.00	0.70	0.42	6.87	0.00	0.00	0.00	6.87			0.00		6.87
	23	93.35	91.68	0.00	0.00	0.00	0.70	0.43	6.96	0.00	0.00	0.00	6.96			0.00		6.96
	24	93.33	91.65	0.00	0.00	0.00	0.70	0.44	7.05	0.00	0.00	0.00	7.05			0.00		7.05
	25	93.32	91.61	0.00	0.00	0.00	0.70	0.44	7.14	0.00	0.00	0.00	7.14			0.00		7.14
	26	93.30	91.58	0.00	0.00	0.00	0.70	0.45	7.24	0.00	0.00	0.00	7.24			0.00		7.24
	27	93.28	91.55	0.00	0.00	0.00	0.70	0.46	7.33	0.00	0.00	0.00	7.33			0.00		7.33
	28	93.27	91.51	0.00	0.00	0.00	0.70	0.46	7.43	0.00	0.00	0.00	7.43			0.00		7.43
	29	93.25	91.48	0.00	0.00	0.00	0.70	0.47	7.53	0.00	0.00	0.00	7.53			0.00		7.53
	30	93.23	91.45	0.00	0.00	0.00	0.70	0.48	7.63	0.00	0.00	0.00	7.63			0.00		7.63
	31	93.22	91.41	0.00	0.00	0.00	0.70	0.49	7.73	0.00	0.00	0.00	7.73			0.00		7.73
June	1	93.20	91.38	0.00	0.00	0.00	0.70	0.49	7.83	0.00	0.00	0.00	7.83			0.00		7.83
	2	93.18	91.34	0.00	0.00	0.00	0.70	0.50	7.94	0.00	0.00	0.00	7.94			0.00		7.94
	3	93.17	91.31	0.00	0.00	0.00	0.70	0.51	8.04	0.00	0.00	0.00	8.04			0.00		8.04
	4	93.15	91.28	0.00	0.00	0.00	0.70	0.52	8.15	0.00	0.00	0.00	8.15			0.00		8.15
	5	93.14	91.24	0.00	0.00	0.00	0.70	0.52	8.26	0.00	0.00	0.00	8.26			0.00		8.26
	6	93.12	91.21	0.00	0.00	0.00	0.70	0.53	8.36	0.00	0.00	0.00	8.36			0.00		8.36
	7	93.10	91.18	0.00	0.00	0.00	0.70	0.54	8.47	0.00	0.00	0.00	8.47			0.00		8.47
	8	93.09	91.14	0.00	0.00	0.00	0.70	0.55	8.59	0.00	0.00	0.00	8.59			0.00		8.59
	9	93.07	91.11	0.00	0.00	0.00	0.70	0.56	8.70	0.00	0.00	0.00	8.70			0.00		8.70
	10	93.05	91.07	0.00	0.00	0.00	0.70	0.56	8.71	0.00	0.00	0.00	8.71			0.00		8.71
	11	93.04	91.04	0.00	0.00	0.00	0.70	0.56	8.69	0.00	0.00	0.00	8.69			0.00		8.69
	12	93.02	91.01	0.00	0.00	0.00	0.70	0.56	8.67	0.00	0.00	0.00	8.67			0.00		8.67
	13	93.00	90.97	0.00	0.00	0.00	0.70	0.56	8.65	0.00	0.00	0.00	8.65	93.01	90.80	0.00	0.00	8.65
	14	92.99	90.94	0.00	0.00	0.00	0.70	0.56	8.63	0.00	0.00	0.00	8.63	92.99	90.80	0.00	0.00	8.63
	15	92.97	90.91	0.00	0.00	0.00	0.70	0.56	8.61	0.00	0.00	0.00	8.61	92.97	90.80	0.00	0.00	8.61
	16	92.96	90.87	0.00	0.00	0.00	0.70	0.56	8.59	0.00	0.00	0.00	8.59	92.95	90.75	0.00	0.00	8.59
	17	92.94	90.84	0.00	0.00	0.00	0.70	0.56	8.57	0.00	0.00	0.00	8.57	92.94	90.75	0.00	0.00	8.57
	18	92.92	90.80	0.00	0.00	0.00	0.70	0.56	8.54	0.00	0.00	0.00	8.54	92.92	90.75	0.00	0.00	8.54
	19	92.91	90.77	0.00	0.00	0.00	0.70	0.56	8.52	0.00	0.00	0.00	8.52	92.90	90.70	0.00	0.00	8.52
	20	92.89	90.74	0.00	0.00	0.00	0.70	0.56	8.50	0.00	0.00	0.00	8.50	92.88		0.00	0.00	8.50
	21	92.87	90.70	0.00	0.00	0.00	0.70	0.56	8.48	0.00	0.00	0.00	8.48	92.86		0.00	0.00	8.48
	22	92.86	90.67	0.00	0.00	0.00	0.70	0.56	8.46	0.00	0.00	0.00	8.46	92.84		0.00	0.00	8.46
	23	92.84	90.64	0.00	0.00	0.00	0.70	0.56	8.44	0.00	0.00	0.00	8.44	92.82		0.00	0.00	8.44
	24	92.82	90.60	0.00	0.00	0.00	0.70	0.56	8.42	0.00	0.00	0.00	8.42	92.80		0.00	0.00	8.42
	25	92.81	90.57	0.00	0.00	0.00	0.70	0.56	8.40	0.00	0.00	0.00	8.40	92.79		0.00	0.00	8.40
	26	92.79	90.53	0.00	0.00	0.00	0.70	0.56	8.38	0.00	0.00	0.00	8.38	92.77		0.00	0.00	8.38
	27	92.78	90.50	0.00	0.00	0.00	0.70	0.55	8.35	0.00	0.00	0.00	8.35	92.75		0.00	0.00	8.35
	28	92.76	90.47	0.00	0.00	0.00	0.70	0.55	8.32	0.00	0.00	0.00	8.32	92.73		0.00	0.00	8.32
	29	92.74	90.43	0.00	0.00	0.00	0.70	0.55	8.31	0.00	0.00	0.00	8.31	92.71		0.00	0.00	8.31
	30	92.73	90.40	0.00	0.00	0.00	0.70	0.28	4.15	0.00	0.00	0.00	4.15	92.69		0.00	0.00	4.15
July	1	92.71	90.40	0.00	0.00	0.00	0.70	0.55	8.27	0.00	0.00	0.00	8.27	92.66	90.65	0.20	6.18	14.45
	2	92.69	90.40	0.00	0.00	0.00	0.70	0.55	8.24	0.00	0.00	0.00	8.24	92.64	90.65	0.20	6.16	14.40
	3	92.68	90.40	0.00	0.00	0.00	0.70	0.55	8.23	0.00	0.00	0.00	8.23	92.58	90.80	0.30	9.16	17.39

4) Sample Calculation of Outflow : 1995

		Aiviekste Sluice												Kalnagala Sluice				Total_Q
		Lubana Lake	Aiviekste River	Opening of No.1 Gate	C_1	Q_1	Opening of No.2 Gate	C_2	Q_2	Opening of No.3 Gate	C_3	Q_3	Total Q_Aiv	Izvad Canal	Meirani Canal	Opening of Gate	Q_K	
	4	92.66	90.40	0.00	0.00	0.00	0.70	0.55	8.21	0.00	0.00	0.00	8.21	92.56	90.80	0.30	9.13	17.33
	5	92.64	90.40	0.00	0.00	0.00	0.70	0.55	8.18	0.00	0.00	0.00	8.18	92.54	90.75	0.30	9.10	17.28
	6	92.61	90.40	0.00	0.00	0.00	0.70	0.55	8.14	0.00	0.00	0.00	8.14	92.52	90.75	0.30	9.08	17.21
	7	92.59	90.40	0.00	0.00	0.00	0.70	0.55	8.11	0.00	0.00	0.00	8.11	92.50	90.70	0.30	9.05	17.16
	8	92.57	90.40	0.00	0.00	0.00	0.70	0.55	8.09	0.00	0.00	0.00	8.09	92.48	90.70	0.30	9.02	17.11
	9	92.54	90.40	0.15	0.45	1.41	0.70	0.00	0.00	0.00	0.00	0.00	1.41	92.46	90.65	0.30	8.99	10.40
	10	92.52	90.40	0.10	0.45	0.93	0.50	0.00	0.00	0.00	0.00	0.00	0.93	92.47	90.65	0.05	1.50	2.44
	11	92.50	90.35	0.10	0.45	0.93	0.50	0.00	0.00	0.00	0.00	0.00	0.93	92.47	90.40	0.05	1.50	2.43
	12	92.48	90.30	0.10	0.45	0.93	0.50	0.00	0.00	0.00	0.00	0.00	0.93	92.45	90.35	0.05	1.50	2.43
	13	92.47	90.30	0.10	0.45	0.93	0.50	0.00	0.00	0.00	0.00	0.00	0.93	92.44	90.30	0.05	1.49	2.42
	14	92.46	90.30	0.10	0.45	0.93	0.50	0.00	0.00	0.00	0.00	0.00	0.93	92.43	90.30	0.05	1.49	2.42
	15	92.44	90.30	0.10	0.45	0.92	0.50	0.00	0.00	0.00	0.00	0.00	0.92	92.41	90.30	0.05	1.49	2.41
	16	92.43	90.30	0.10	0.45	0.92	0.50	0.00	0.00	0.00	0.00	0.00	0.92	92.40	90.25	0.05	1.48	2.41
	17	92.42	90.25	0.10	0.45	0.92	0.50	0.00	0.00	0.00	0.00	0.00	0.92	92.39	90.25	0.05	1.48	2.40
	18	92.40	90.25	0.10	0.45	0.92	0.50	0.00	0.00	0.00	0.00	0.00	0.92	92.38	90.25	0.05	1.48	2.40
	19	92.39	90.25	0.10	0.45	0.92	0.50	0.00	0.00	0.00	0.00	0.00	0.92	92.37	90.25	0.05	1.48	2.39
	20	92.38	90.25	0.10	0.45	0.92	0.50	0.00	0.00	0.00	0.00	0.00	0.92	92.36	90.25	0.05	1.48	2.39
	21	92.37	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.34	90.25	0.05	1.47	2.39
	22	92.36	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.33	90.20	0.05	1.47	2.38
	23	92.35	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.32	90.20	0.05	1.47	2.38
	24	92.34	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.30	90.20	0.05	1.46	2.37
	25	92.34	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.29	90.20	0.05	1.46	2.37
	26	92.33	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.28	90.20	0.05	1.46	2.37
	27	92.32	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.27	90.20	0.05	1.45	2.36
	28	92.32	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.26	90.20	0.05	1.45	2.36
	29	92.32	90.25	0.10	0.45	0.91	0.50	0.00	0.00	0.00	0.00	0.00	0.91	92.25	90.20	0.05	1.45	2.36
	30	92.29	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.24	90.20	0.05	1.45	2.35
	31	92.29	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.23	90.20	0.05	1.44	2.35
August	1	92.28	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.22	90.20	0.05	1.44	2.34
	2	92.27	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.21	90.20	0.05	1.44	2.34
	3	92.26	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.20	90.20	0.05	1.44	2.34
	4	92.26	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.19	90.15	0.05	1.44	2.33
	5	92.25	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.18	90.15	0.05	1.43	2.33
	6	92.24	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.17	90.15	0.05	1.43	2.33
	7	92.23	90.25	0.10	0.45	0.90	0.50	0.00	0.00	0.00	0.00	0.00	0.90	92.16	90.15	0.05	1.43	2.32
	8	92.22	90.25	0.00	0.00	0.00	0.40	0.56	4.48	0.00	0.00	0.00	4.48	92.15	90.15	0.05	1.43	5.90
	9	92.21	90.20	0.00	0.00	0.00	0.40	0.57	4.53	0.00	0.00	0.00	4.53	92.14	90.15	0.05	1.42	5.95
	10	92.21	90.20	0.00	0.00	0.00	0.40	0.57	4.53	0.00	0.00	0.00	4.53	92.13	90.15	0.05	1.42	5.95
	11	92.20	90.20	0.00	0.00	0.00	0.40	0.57	4.52	0.00	0.00	0.00	4.52	92.12	90.15	0.05	1.42	5.94
	12	92.19	90.20	0.00	0.00	0.00	0.40	0.57	4.52	0.00	0.00	0.00	4.52	92.12	90.15	0.05	1.42	5.93
	13	92.18	90.20	0.00	0.00	0.00	0.40	0.57	4.51	0.00	0.00	0.00	4.51	92.11	90.15	0.05	1.42	5.92
	14	92.18	90.20	0.00	0.00	0.00	0.40	0.57	4.51	0.00	0.00	0.00	4.51	92.10	90.15	0.05	1.41	5.92
	15	92.17	90.20	0.00	0.00	0.00	0.40	0.57	4.50	0.00	0.00	0.00	4.50	92.10	90.10	0.05	1.41	5.91
	16	92.16	90.20	0.00	0.00	0.00	0.40	0.57	4.49	0.00	0.00	0.00	4.49	92.09	90.10	0.05	1.41	5.90
	17	92.15	90.20	0.00	0.00	0.00	0.40	0.57	4.48	0.00	0.00	0.00	4.48	92.07	90.10	0.05	1.41	5.89
	18	92.13	90.20	0.00	0.00	0.00	0.40	0.57	4.47	0.00	0.00	0.00	4.47	92.06	90.10	0.05	1.40	5.87
	19	92.12	90.20	0.00	0.00	0.00	0.40	0.57	4.46	0.00	0.00	0.00	4.46	92.05	90.10	0.05	1.40	5.86
	20	92.11	90.20	0.00	0.00	0.00	0.40	0.57	4.45	0.00	0.00	0.00	4.45	92.04	90.10	0.05	1.40	5.85
	21	92.10	90.20	0.00	0.00	0.00	0.40	0.57	4.44	0.00	0.00	0.00	4.44	92.03	90.10	0.05	1.40	5.84
	22	92.09	90.20	0.00	0.00	0.00	0.40	0.57	4.43	0.00	0.00	0.00	4.43	92.02	90.10	0.05	1.39	5.83
	23	92.08	90.20	0.00	0.00	0.00	0.40	0.57	4.43	0.00	0.00	0.00	4.43	92.01	90.10	0.05	1.39	5.82
	24	92.07	90.20	0.00	0.00	0.00	0.40	0.57	4.42	0.00	0.00	0.00	4.42	92.00	90.10	0.05	1.39	5.81
	25	92.06	90.20	0.00	0.00	0.00	0.40	0.57	4.41	0.00	0.00	0.00	4.41	91.98	90.10	0.05	1.38	5.79
	26	92.06	90.20	0.00	0.00	0.00	0.40	0.57	4.41	0.00	0.00	0.00	4.41	91.97	90.10	0.05	1.38	5.79
	27	92.05	90.20	0.00	0.00	0.00	0.40	0.57	4.40	0.00	0.00	0.00	4.40	91.96	90.15	0.05	1.38	5.78
	28	92.04	90.20	0.00	0.00	0.00	0.40	0.57	4.39	0.00	0.00	0.00	4.39	91.95	90.15	0.05	1.38	5.77
	29	92.03	90.20	0.00	0.00	0.00	0.40	0.57	4.39	0.00	0.00	0.00	4.39	91.94	90.15	0.05	1.37	5.76
	30	92.02	90.20	0.00	0.00	0.00	0.40	0.57	4.38	0.00	0.00	0.00	4.38	91.93	90.10	0.05	1.37	5.75
	31	92.01	90.20	0.00	0.00	0.00	0.40	0.57	4.37	0.00	0.00	0.00	4.37	91.94	90.10	0.02	0.55	4.92
September	1	92.01	90.20	0.00	0.00	0.00	0.35	0.56	3.77	0.00	0.00	0.00	3.77	91.94	90.05	0.02	0.55	4.32
	2	92.00	91.15	0.00	0.00	0.00	0.35	0.39	2.59	0.00	0.00	0.00	2.59	91.93	90.05	0.02	0.55	3.13
	3	91.90	91.15	0.00	0.00	0.00	0.35	0.38	2.47	0.00	0.00	0.00	2.47	91.92	90.05	0.02	0.55	3.02
	4	91.98	90.20	0.00	0.00	0.00	0.35	0.56	3.73	0.00	0.00	0.00	3.73	91.91	90.10	0.02	0.55	4.28
	5	91.98	90.20	0.00	0.00	0.00	0.35	0.56	3.73	0.00	0.00	0.00	3.73	91.90	90.10	0.02	0.55	4.28
	6	91.97	90.20	0.00	0.00	0.00	0.35	0.56	3.72	0.00	0.00	0.00	3.72	91.90	90.10	0.02	0.55	4.27
	7	91.97	90.20	0.00	0.00	0.00	0.35	0.56	3.72	0.00	0.00	0.00	3.72	91.89	90.10	0.02	0.54	4.26
	8	91.96	90.20	0.00	0.00	0.00	0.35	0.56	3.71	0.00	0.00	0.00	3.71	91.88	90.15	0.02	0.54	4.25
	9	91.96	90.20	0.00	0.00	0.00	0.35	0.56	3.71	0.00	0.00	0.00	3.71	91.87	90.15	0.02	0.54	4.25
	10	91.95	90.20	0.00	0.00	0.00	0.35	0.56	3.70	0.00	0.00	0.00	3.70	91.86	90.15	0.02	0.54	4.24
	11	91.94	90.20	0.00	0.00	0.00	0.35	0.55	3.68	0.00	0.00	0.00	3.68	91.85	90.15	0.02	0.54	4.22
	12	91.93	90.20	0.00	0.00	0.00	0.35	0.55	3.67	0.00	0.00	0.00	3.67	91.84	90.15	0.02	0.54	4.21
	13	91.93	90.20	0.00	0.00	0.00	0.35	0.55	3.67	0.00	0.00	0.00	3.67	91.84	90.15	0.02	0.54	4.21
	14	91.92	90.20	0.00	0.00	0.00	0.35	0.55	3.66	0.00	0.00	0.00	3.66	91.83	90.15	0.02	0.54	4.20
	15	91.91	90.20	0.00	0.00	0.00	0.35	0.55	3.65	0.00	0.00	0.00	3.65	91.83	90.15	0.02	0.54	4.19
	16	91.90	90.20	0.00	0.00	0.00	0.35	0.55	3.64	0.00	0.00	0.00	3.64	91.82	90.15	0.02	0.54	4.17
	17	91.90	90.20	0.00	0.00	0.00	0.35	0.55	3.64	0.00	0.00	0.00	3.64	91.82	90.15	0.02	0.54	4.17
	18	91.89	90.20	0.00	0.00	0.00	0.35	0.55	3.63	0.00	0.00	0.00	3.63	91.82	90.20	0.02	0.54	4.16
	19	91.88	90.20	0.00	0.00	0.00	0.35	0.55	3.61	0.00	0.00	0.00	3.61	91.82	90.20	0.02	0.54	4.15
	20	91.88	90.20	0.00	0.00	0.00	0.35	0.55	3.61	0.00	0.00	0.00	3.61	91.84	90.20	0.00	0.00	3.61
	21	91.87	90.20	0.00	0.00	0.00	0.35	0.55	3.60	0.00	0.00	0.00	3.60	91.84	90.15	0.00	0.00	3.60
	22	91.87	90.20	0.00	0.00	0.00	0.35	0.55	3.60	0.00	0.00	0.00	3.60	91.84	90.15	0.00	0.00	3.60
	23	91.87	90.20	0.00	0.00	0.00	0.35	0.55	3.60	0.00	0.00	0.00	3.60	91.84	90.15	0.00	0.00	3.60
	24	91.86	90.20	0.00	0.00	0.00	0.35	0.55	3.59	0.00	0.00	0.00	3.59	91.83	90.15	0.00	0.00	3.59
	25	91.89	90.20	0.00	0.00	0.00	0.15	0.45	1.27	0.00	0.00	0.00	1.27	91.83	90.15	0.00	0.00	1.27
	26	91.89	90.10	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.83	90.15	0.00	0.00	1.64
	27	91.90	90.10	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.83	90.15	0.00	0.00	1.64
	28	91.91	90.10	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.83	90.15	0.00	0.00	1.64
	29	91.91	90.10	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.82	90.15	0.00	0.00	1.64
	30	91.91	90.10	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.82	90.15	0.00	0.00	1.64
October	1	91.91	90.10	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.82	90.10	0.00	0.00	1.64
	2	91.92	90.10	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.82	90.10	0.00	0.00	1.64
	3	91.92	90.10	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.83	90.15	0.00	0.00	1.64

4) Sample Calculation of Outflow : 1995

	Aiviekste Sluice												Kalnagala Sluice				Total_Q
	Lubana Lake	Aiviekste River	Opening of No.1 Gate	C_1	Q_1	Opening of No.2 Gate	C_2	Q_2	Opening of No.3 Gate	C_3	Q_3	Total Q_Aiv	Izvad Canal	Meirani Canal	Opening of Gate	Q_K	
4	91.92	90.15	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.83	90.20	0.00	0.00	1.64
5	91.92	90.20	0.00	0.00	0.00	0.15	0.45	1.28	0.00	0.00	0.00	1.28	91.83	90.20	0.00	0.00	1.28
6	91.92	90.20	0.00	0.00	0.00	0.15	0.45	1.28	0.00	0.00	0.00	1.28	91.83	90.20	0.00	0.00	1.28
7	91.92	90.25	0.00	0.00	0.00	0.15	0.45	1.28	0.00	0.00	0.00	1.28	91.83	9.15	0.00	0.00	1.28
8	91.92	90.25	0.00	0.00	0.00	0.15	0.45	1.28	0.00	0.00	0.00	1.28	91.83	9.15	0.00	0.00	1.28
9	91.92	90.25	0.00	0.00	0.00	0.15	0.45	1.28	0.00	0.00	0.00	1.28	91.83	9.15	0.00	0.00	1.28
10	91.92	90.20	0.00	0.00	0.00	0.15	0.45	1.28	0.00	0.00	0.00	1.28	91.83	9.15	0.00	0.00	1.28
11	91.92	90.20	0.00	0.00	0.00	0.15	0.45	1.28	0.00	0.00	0.00	1.28	91.82	9.15	0.00	0.00	1.28
12	91.91	90.15	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.82	9.15	0.00	0.00	1.64
13	91.91	90.15	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.82	90.10	0.00	0.00	1.64
14	91.91	90.15	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.82	90.10	0.00	0.00	1.64
15	91.90	90.15	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.81	90.10	0.00	0.00	1.64
16	91.90	90.15	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.81	90.10	0.00	0.00	1.64
17	91.89	90.15	0.00	0.00	0.00	0.15	0.58	1.64	0.00	0.00	0.00	1.64	91.81	90.10	0.00	0.00	1.64
18	91.89	91.10	0.00	0.00	0.00	0.15	0.45	1.27	0.00	0.00	0.00	1.27	91.81	90.10	0.00	0.00	1.27
19	91.89	91.10	0.00	0.00	0.00	0.15	0.45	1.27	0.00	0.00	0.00	1.27	91.81	90.10	0.00	0.00	1.27
20	91.88	91.10	0.00	0.00	0.00	0.15	0.45	1.27	0.00	0.00	0.00	1.27	91.81	90.10	0.00	0.00	1.27
21	91.88	91.10	0.00	0.00	0.00	0.15	0.45	1.27	0.00	0.00	0.00	1.27	91.80	90.10	0.00	0.00	1.27
22	91.87	91.10	0.00	0.00	0.00	0.15	0.45	1.27	0.00	0.00	0.00	1.27	91.80	90.10	0.00	0.00	1.27
23	91.87	91.10	0.00	0.00	0.00	0.15	0.45	1.27	0.00	0.00	0.00	1.27	91.80	90.10	0.00	0.00	1.27
24	91.87	91.10	0.00	0.00	0.00	0.15	0.45	1.27	0.00	0.00	0.00	1.27	91.79	90.10	0.00	0.00	1.27
25	91.86	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.79	90.10	0.00	0.00	1.26
26	91.86	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.79	90.05	0.00	0.00	1.26
27	91.86	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.79	90.05	0.00	0.00	1.26
28	91.85	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.78	90.05	0.00	0.00	1.26
29	91.85	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.78	90.05	0.00	0.00	1.26
30	91.85	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.78	90.05	0.00	0.00	1.26
31	91.84	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.78	90.05	0.00	0.00	1.26
November 1	91.84	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.77	90.05	0.25	6.65	7.91
2	91.83	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.77	90.05	0.25	6.65	7.91
3	91.83	91.10	0.00	0.00	0.00	0.15	0.45	1.26	0.00	0.00	0.00	1.26	91.77	90.05	0.25	6.65	7.91
4	91.82	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.76	90.05	0.25	6.64	7.90
5	91.82	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.76	90.05	0.25	6.64	7.90
6	91.81	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.75	90.05	0.25	6.63	7.88
7	91.80	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.74	90.05	0.25	6.61	7.86
8	91.80	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.74	90.05	0.25	6.61	7.86
9	91.80	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.74	90.05	0.25	6.61	7.86
10	91.79	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.74	90.05	0.25	6.61	7.86
11	91.79	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.73	90.05	0.25	6.60	7.85
12	91.79	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.72	90.05	0.25	6.59	7.84
13	91.78	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.72	90.05	0.25	6.59	7.83
14	91.78	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.72	90.05	0.25	6.59	7.83
15	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.10	0.25	6.58	7.82
16	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.10	0.25	6.58	7.82
17	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.10	0.25	6.58	7.82
18	91.78	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.71	90.10	0.25	6.58	7.82
19	91.78	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.71	91.15	0.25	6.58	7.82
20	91.78	91.10	0.00	0.00	0.00	0.15	0.45	1.25	0.00	0.00	0.00	1.25	91.71	91.15	0.25	6.58	7.82
21	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.10	0.25	6.58	7.82
22	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.10	0.25	6.58	7.82
23	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.10	0.25	6.58	7.82
24	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.05	0.25	6.58	7.82
25	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.05	0.25	6.58	7.82
26	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.71	90.10	0.25	6.58	7.82
27	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.70	90.05	0.25	6.56	7.81
28	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.70	90.05	0.25	6.56	7.81
29	91.77	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.70	90.05	0.25	6.56	7.81
30	91.76	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.70	90.05	0.25	6.56	7.80
December 1	91.76	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.69	90.05	0.25	6.55	7.79
2	91.76	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.69	90.05	0.25	6.55	7.79
3	91.76	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.69	90.05	0.25	6.55	7.79
4	91.75	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.68	90.05	0.25	6.54	7.78
5	91.75	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.68	90.05	0.25	6.54	7.78
6	91.74	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.68	90.05	0.25	6.54	7.77
7	91.74	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.67	90.05	0.25	6.52	7.76
8	91.74	91.10	0.00	0.00	0.00	0.15	0.45	1.24	0.00	0.00	0.00	1.24	91.67	90.05	0.25	6.52	7.76
9	91.73	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.67	90.05	0.25	6.52	7.76
10	91.73	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.66	90.05	0.25	6.51	7.74
11	91.72	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.66	90.05	0.25	6.51	7.74
12	91.72	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.65	90.05	0.25	6.50	7.73
13	91.71	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.65	90.05	0.25	6.50	7.73
14	91.71	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.65	90.05	0.25	6.50	7.73
15	91.71	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.64	90.05	0.25	6.48	7.71
16	91.70	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.64	90.05	0.25	6.48	7.71
17	91.70	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.64	90.05	0.25	6.48	7.71
18	91.70	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.64	90.05	0.25	6.48	7.71
19	91.70	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.63	90.05	0.25	6.47	7.70
20	91.70	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.63	90.05	0.25	6.47	7.70
21	91.70	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.63	90.05	0.25	6.47	7.70
22	91.69	91.10	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.63	90.05	0.25	6.47	7.70
23	91.69	91.15	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.63	90.05	0.25	6.47	7.70
24	91.69	91.15	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.62	90.05	0.25	6.46	7.68
25	91.69	91.15	0.00	0.00	0.00	0.15	0.45	1.23	0.00	0.00	0.00	1.23	91.62	90.05	0.25	6.46	7.68
26	91.68	91.15	0.00	0.00	0.00	0.15	0.45	1.22	0.00	0.00	0.00	1.22	91.62	90.05	0.25	6.46	7.68
27	91.68	91.15	0.00	0.00	0.00	0.15	0.45	1.22	0.00	0.00	0.00	1.22	91.62	90.05	0.25	6.46	7.68
28	91.67	91.15	0.00	0.00	0.00	0.15	0.45	1.22	0.00	0.00	0.00	1.22	91.62	90.05	0.25	6.46	7.68
29	91.67	91.15	0.00	0.00	0.00	0.15	0.45	1.22	0.00	0.00	0.00	1.22	91.61	90.05	0.25	6.44	7.66
30	91.67	91.15	0.00	0.00	0.00	0.15	0.45	1.22	0.00	0.00	0.00	1.22	91.60	90.05	0.25	6.43	7.65
31	91.66	91.15	0.00	0.00	0.00	0.15	0.45	1.22	0.00	0.00	0.00	1.22	91.60	90.05	0.25	6.43	7.65
Maximum																	35.34

5) Evaporation

Station : Zoseni

	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	Average
Apr. 1									0.6	1.0	2.0																		1.0			1.0	
2									0.9	1.1	1.7																	0.9	1.9			1.8	
3							1.2		0.8	1.9	1.8											3.0	1.4					1.2	2.1	1.1	0.6	3.9	
Average							1.2		0.8	1.3	1.8											3.0	1.4					1.1	1.7	1.1	0.6	2.2	1.5
May 1				1.7	1.1	2.4	2.3	1.4	1.0	3.6	2.3	2.2	2.0	2.5	1.5	2.3	1.6	2.6	1.6	2.0	1.8	3.3	3.4	1.9	2.5	1.6	2.4	2.5	3.1	2.4	2.1	2.6	
2			2.6	2.1	1.6	2.4	2.5	2.3	2.0	2.5	3.0	2.2	1.9	2.1	2.8	2.6	1.7	2.5	4.0	2.3	3.2	0.7	2.4	3.4	2.5	2.6	1.9	1.4	4.2	3.5	1.6	2.7	
3			2.5	1.5	2.6	2.0	2.1	2.6	1.6	2.0	3.4	3.3	2.0	2.1	2.4	2.0	2.5	2.7	2.5	1.9	3.7	4.0	2.5	2.5	3.2	3.1	2.8	2.5	3.7	2.5	2.4	2.7	
Average	0.0	0.0	2.6	1.8	1.8	2.3	2.3	2.1	1.5	2.7	2.9	2.6	2.0	2.2	2.2	2.3	1.9	2.6	2.7	2.1	2.9	2.7	2.8	2.6	2.7	2.4	2.4	2.1	3.7	2.8	2.0	2.7	2.3
Jun. 1			2.6	2.8	2.5	2.4	2.0	2.9	1.5	2.4	2.3	3.7	1.3	2.1	2.0	2.8	2.2	4.3	2.9	3.5	4.9	4.7	2.5	2.3	3.2	2.6	3.9	2.9	4.7	3.2	1.8	3.3	
2			2.0	2.4	2.9	2.7	2.1	3.6	1.5	2.1	2.4	2.9	1.8	3.0	1.8	1.9	2.3	2.4	2.4	4.0	3.9	2.5	3.7	2.2	3.4	3.3	2.9	2.9	2.4	2.9	4.3	4.7	
3			1.7	1.8	2.6	2.3	1.7	3.4	1.6	3.1	3.1	2.3	2.5	3.1	3.2	2.1	3.0	2.0	2.2	3.2	4.1	3.0	4.0	3.5	3.6	2.0	3.8	2.6	2.5	4.1	4.6	3.2	
Average	0.0	0.0	2.1	2.3	2.7	2.5	1.9	3.3	1.5	2.5	2.6	3.0	1.9	2.7	2.3	2.3	2.5	2.9	2.5	3.6	4.3	3.4	3.4	2.7	3.4	2.6	3.5	2.8	3.2	3.4	3.6	3.7	2.7
Jul. 1			2.6	2.0	2.8	3.0		3.4	2.4	1.8	3.5	2.9	2.8	3.3	2.3	1.8	2.9	2.0	3.0	3.2	2.7	2.1	2.9	2.6	4.2	2.4	5.0	2.3	4.3	3.9	4.0	3.0	
2			2.0	1.8	3.6	3.3		2.9	1.5	1.1	2.4	3.0	2.0	1.8	2.2	1.8	3.2	2.7	3.0	2.0	2.5	2.0	2.9	2.4	3.4	2.4	3.2	2.8	4.0	2.9	4.2	2.6	
3			2.1	2.3	2.6	3.1		3.1	2.2	1.8	3.0	2.9	2.3	1.8	1.7	1.9	2.3	2.3	2.4	2.5	2.0	2.2	1.5	2.9	3.0	2.5	2.4	3.8	3.8	2.5	3.9	2.9	
Average	0.0	0.0	2.3	2.1	3.0	3.1		3.1	2.0	1.6	3.0	2.9	2.4	2.3	2.1	1.8	2.8	2.3	2.8	2.6	2.4	2.1	2.4	2.6	3.5	2.4	3.5	3.0	4.0	3.1	4.0	2.8	2.5
Aug. 1			2.6	2.1	2.7	2.5		3.0	2.7	2.1	1.0	2.4	1.7	2.7	1.8	2.3	2.8	3.0	2.3	2.3	2.3	2.4	1.6	2.2	3.2	1.9	3.1	3.3	3.5	2.1	5.4	3.9	
2			2.5	2.0	2.3	1.8		2.6	1.5	2.0	2.4	1.9	1.9	2.3	1.9	2.0	3.1	2.0	2.1	2.0	2.6	1.7	2.1	1.9	2.5	2.0	3.0	3.1	2.4	1.5	3.0	3.2	
3			2.8	2.5	2.9	1.9		1.8	1.3	1.6	1.8	1.2	2.1	1.7	1.9	1.9	2.5	1.9	1.4	1.8	1.6	2.0	2.3	2.2	2.6	1.7	2.7	2.6	2.8	1.9	2.3	2.3	
Average	0.0	0.0	2.6	2.2	2.6	2.1	0.0	2.5	1.8	1.9	1.7	1.8	1.9	2.2	1.9	2.1	2.8	2.3	1.9	2.0	2.2	2.0	2.0	2.1	2.8	1.9	2.9	3.0	2.9	1.8	3.6	3.1	2.1
Sep. 1			2.1	2.1	1.6	1.1		1.7	1.3	1.2	1.6	1.5	1.5	1.4	1.8	1.5	2.3	1.6	1.4	1.1	1.6	1.0	2.3	2.0	2.7	2.2	1.9	2.2	2.0	1.5	1.7	2.8	
2			1.2	1.3	1.5	1.5		0.8	1.2	0.8	1.3	1.3	1.1	1.6	1.4	0.9	1.4	1.2	1.0	1.0	1.6	1.3	1.3	1.4	2.3	1.9	2.1	1.8	1.0	1.5	1.9	1.8	
3			1.1	0.9	0.6	1.1		1.1	1.0	0.3	0.8	1.5	0.9	1.4	1.3	0.7	1.7	1.0	1.0	1.0	1.0	0.9	1.1	1.1	1.9	0.7	0.6	1.3	1.3	1.6	1.1	1.5	
Average	0.0	0.0	1.5	1.5	1.2	1.2		1.2	1.2	0.8	1.2	1.4	1.2	1.5	1.5	1.0	1.8	1.3	1.1	1.0	1.4	1.1	1.6	1.5	2.3	1.6	1.5	1.8	1.4	1.5	1.6	2.0	1.3
Oct. 1			0.9	0.7	1.0	0.8		0.5	1.0	0.4	0.8	1.0	1.0	1.0	0.8	1.1	1.0	0.8	1.0	0.6	1.0	0.6	0.8	0.6	1.3	1.2	1.4	1.0	1.1	0.6	0.9	1.3	
2			0.8	0.5	0.5	0.6		0.1	0.9	0.7	0.8	0.9	1.0	0.7	1.0	0.9	0.9	0.4	1.0	1.1	1.7	0.7	0.6	0.3	0.8	0.8		0.7	0.8	1.0	0.7	1.0	
3				0.7	0.8				0.3		0.5	1.5	0.7	0.5	0.6	0.6	0.5		1.0	0.5	0.4	0.0	0.5		0.5	0.5		0.4	0.8	0.6	0.7		
Average	0.0	0.0	0.6	0.6	0.8	0.5	0.0	0.3	0.7	0.6	0.7	1.1	0.9	0.7	0.8	0.9	0.8	0.6	1.0	0.7	1.0	0.4	0.6	0.5	0.9	0.8	1.4	0.7	0.9	0.7	0.8	1.2	0.7
Nov. 1				0.5							0.4			0.1									0.4			0.5			0.6				
2											0.1												0.3										
3																																	
Average	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0			0.3			0.1					0.0				0.4			0.5			0.6				0.2

6) Infiltration

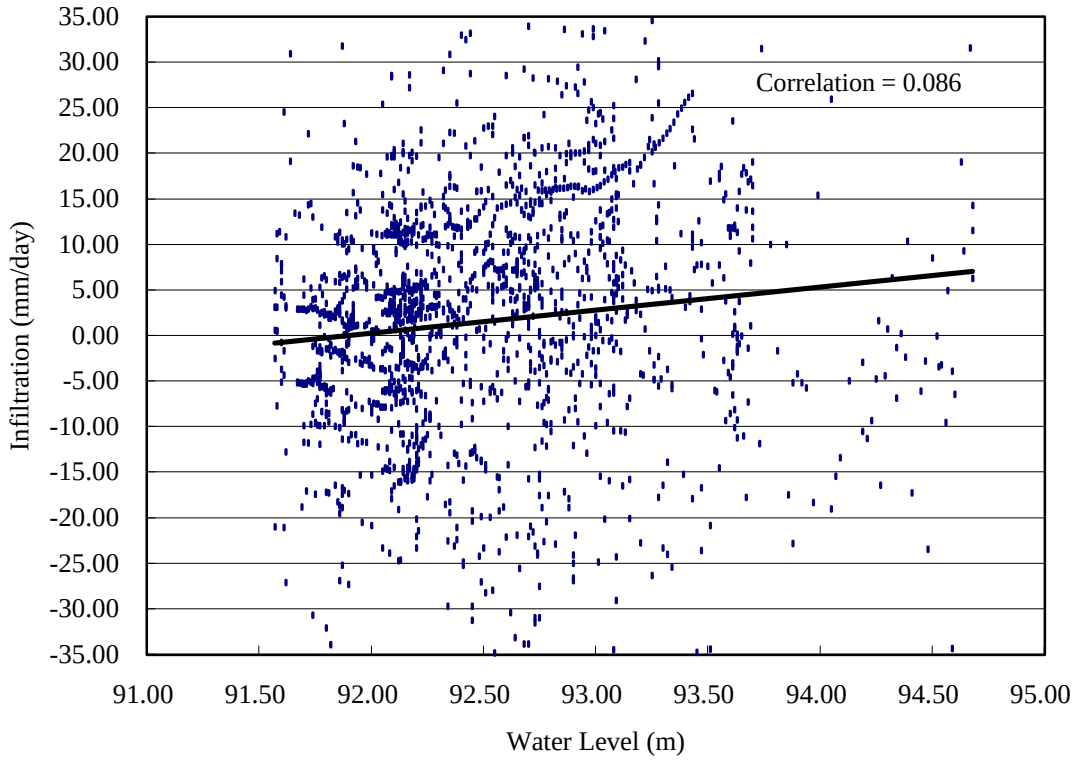
Infiltration Value to be atoppted

Value = 1.5 mm/day

Infiltration on Monthly Basis

(mm/day)

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
2.4	-5.0	####	-0.5	9.6	11.0	8.0	1.6	-0.7	3.5	-0.4	0.5	1.5



7) Sample Calculation of Infiltration by Water Level Simulation Model of Lake Lubana

Date		Precipitation			Evaporation		Water Level	Lake Storage Volume	Inflow			Outflow		Balance	Infiltra-tion	
		Rezekne	Gulbene	Total	(mm)	(m^3)			Rezekne	Malta	(m^3/day)	(m^3/sec)	(m^3/day)		(m^3/day)	(mm/day)
January	1	0.8	1.1	1.0			91.80	93,294,048	18.27	12.65	2,671,488	10.85	937,072	95,028,464	2,775,491	-32.1
	2	3.3	5.8	4.6			91.86	97,803,955	13.86	9.60	2,026,944	11.30	976,143	98,854,756	174,172	-2.0
	3	2.9	1.8	2.4			91.88	99,028,928	10.29	7.13	1,505,088	11.42	987,094	99,546,921	204,153	-2.4
	4			0.0			91.89	99,751,074	8.08	5.60	1,181,952	11.47	991,436	99,941,591	532,792	-6.2
	5			0.0			91.90	100,474,382	7.27	5.03	1,062,720	11.50	993,457	100,543,645	-69,263	0.8
	6			0.0			91.90	100,474,382	6.56	4.54	959,040	11.49	992,344	100,441,078	33,304	-0.4
	7			0.0			91.90	100,474,382	5.87	4.06	857,952	11.47	991,229	100,341,106	-590,031	6.8
	8			0.0			91.89	99,751,074	5.26	3.64	768,960	11.40	984,751	99,535,283	215,791	-2.5
	9	0.2	0.3	0.3			91.89	99,751,074	4.76	3.30	696,384	11.38	983,629	99,463,829	-434,901	5.0
	10	1.3	0.6	1.0			91.88	99,028,928	4.34	3.01	635,040	11.32	978,164	98,685,804	-377,857	4.4
	11	0.6	2.3	1.5			91.87	98,307,946	3.99	2.76	583,200	11.27	973,720	97,917,427	-329,292	3.8
	12	1.1	1.3	1.2			91.86	97,588,135	3.68	2.55	538,272	11.20	968,043	97,158,364	-288,867	3.3
	13	3.6	1.2	2.4			91.85	96,869,496	3.36	2.33	491,616	11.15	963,384	96,397,729	-245,693	2.8
	14	0.4	0	0.2			91.84	96,152,036	3.15	2.18	460,512	11.08	957,484	95,655,063	-934,401	10.8
	15	1.4	1.7	1.6			91.82	94,720,663	2.94	2.04	430,272	10.95	946,464	94,204,471	-197,712	2.3
	16			0.0			91.81	94,006,759	2.78	1.93	406,944	10.88	940,207	93,473,496	533,263	-6.2
	17			0.0			91.81	94,006,759	2.94	2.04	430,272	10.88	940,207	93,496,824	-202,776	2.3
	18			0.0			91.80	93,294,048	3.05	2.11	445,824	10.78	931,419	92,808,453	485,595	-5.6
	19			0.0			91.80	93,294,048	2.88	1.99	420,768	10.77	930,281	92,784,535	-202,000	2.3
	20			0.0			91.79	92,582,535	2.86	1.98	418,176	10.76	929,546	92,071,165	14,026	-0.2
	21			0.0			91.78	92,085,191	2.71	1.88	396,576	10.75	929,031	91,552,736	-389,618	4.5
	22			0.0			91.77	91,163,118	2.92	2.02	426,816	10.72	925,790	90,664,143	-208,922	2.4
	23	10.5	12.7	11.6			91.76	90,455,222	3.13	2.17	457,920	10.69	923,907	89,989,235	-240,696	2.8
	24	5.7	2.3	4.0			91.75	89,748,539	3.28	2.27	479,520	10.68	923,167	89,304,892	-261,818	3.0
	25	1.8	3.1	2.5			91.74	89,043,074	3.53	2.44	515,808	10.66	921,278	88,637,604	405,470	-4.7
	26	0.1	1	0.6			91.74	89,043,074	3.80	2.63	555,552	10.66	921,278	88,677,348	-338,517	3.9
	27	11.9	21.5	16.7			91.73	88,338,830	4.09	2.83	597,888	8.57	740,345	88,196,373	846,700	-9.8
	28	0.5	1	0.8			91.74	89,043,074	4.78	3.31	698,976	8.57	740,716	89,001,333	747,206	-8.6
	29	1.5	2.1	1.8			91.75	89,748,539	5.51	3.82	806,112	8.58	741,087	89,813,564	641,658	-7.4
	30	9.1	15.8	12.5			91.76	90,455,222	7.08	4.90	1,035,072	8.59	742,604	90,747,689	415,428	-4.8
	31	3.2	0.8	2.0			91.77	91,163,118	10.61	7.35	1,551,744	8.63	745,260	91,969,602	-97,378	1.1
February	1	3.7	3.9	3.8			91.78	91,872,224	9.92	6.87	1,450,656	8.67	749,041	92,573,838	720,210	-8.3
	2	0.9	0.5	0.7			91.80	93,294,048	9.88	6.84	1,444,608	8.70	752,040	93,986,616	734,047	-8.5
	3			0.0			91.82	94,720,663	11.46	7.94	1,676,160	8.80	760,684	95,636,139	515,897	-6.0
	4	0.2	1.4	0.8			91.84	96,152,036	10.29	7.13	1,505,088	8.90	768,994	96,888,130	1,419,816	-16.4
	5	2.3	2.2	2.3			91.87	98,307,946	9.86	6.83	1,442,016	9.02	779,330	98,970,633	1,503,750	-17.4
	6	3.4	2.5	3.0			91.90	100,474,382	10.02	6.94	1,465,344	9.13	789,169	101,150,557	1,500,678	-17.4
	7	2.3	7.9	5.1			91.93	102,651,235	15.91	11.02	2,326,752	9.26	799,649	104,178,338	660,057	-7.6
	8	4.6	0.6	2.6			91.96	104,838,395	20.88	14.46	3,053,376	9.38	810,780	107,080,991	689,463	-8.0
	9			0.0			92.00	107,770,454	18.54	12.84	2,711,232	9.52	822,102	109,659,584	1,801,046	-20.8
	10		0.3	0.2			92.05	111,460,630	16.41	11.36	2,399,328	8.26	713,458	113,146,501	1,286,036	-14.9
	11			0.0			92.09	114,432,537	15.03	10.41	2,198,016	13.91	1,201,846	115,428,707	-250,482	2.9
	12	3.9	3.6	3.8			92.10	115,178,225	13.99	9.69	2,045,952	13.95	1,204,928	116,019,249	-94,259	1.1
	13	1.7	1.8	1.8			92.11	115,924,990	14.47	10.02	2,115,936	14.00	1,209,685	116,831,241	590,491	-6.8
	14			0.0			92.13	117,421,732	18.52	12.83	2,708,640	14.07	1,215,700	118,914,672	8,059	-0.1
	15	1.0	0.7	0.9			92.15	118,922,731	24.43	16.92	3,572,640	14.14	1,221,609	121,273,762	-845,807	9.8
	16	7.3	3.3	5.3			92.17	120,427,955	26.10	18.07	3,816,288	14.23	1,229,101	123,015,141	1,194,139	-13.8
	17			0.0			92.22	124,209,281	30.69	21.25	4,487,616	14.41	1,244,879	127,452,018	564,277	-6.5
	18	2.8	5.8	4.3			92.27	128,016,295	36.33	25.16	5,312,736	14.58	1,260,133	132,068,897	1,319,398	-15.3
	19	0.3	2.4	1.4			92.34	133,388,295	37.79	26.17	5,526,144	14.80	1,278,485	137,635,954	1,950,386	-22.6
	20	1.6	0.6	1.1			92.42	139,586,340	35.71	24.73	5,222,016	-8.49	-733,350	145,541,706	303,181	-3.5
	21			0.0			92.50	145,844,887	28.40	19.67	4,153,248	-8.64	-746,254	150,744,389	624,693	-7.2
	22	4.9	8.7	6.8			92.57	151,369,082	21.51	14.90	3,145,824	-8.75	-756,109	155,271,015	1,665,541	-19.3
	23	1.6	0.1	0.9			92.64	156,936,556	24.64	17.06	3,602,880	-21.07	-1,820,791	162,360,227	-618,186	7.2
	24	2.6		1.3			92.70	161,742,041	26.94	18.66	3,939,840	-21.28	-1,838,519	167,520,399	-134,301	1.6
	25	0.0	0.4	0.2			92.77	167,386,098	27.35	18.94	3,999,456	-21.52	-1,859,076	173,244,630	639,720	-7.4
	26	0.8	2.1	1.5			92.85	173,884,350	25.47	17.64	3,724,704	-21.79	-1,882,409	179,491,463	119,154	-1.4
	27			0.0			92.92	179,610,617	22.76	15.76	3,328,128	-22.02	-1,902,688	184,841,433	-293,803	3.4
	28	2.6	5.6	4.1			92.98	184,547,630	18.98	13.14	2,775,168	-22.22	-1,919,969	189,242,767	267,481	-3.1
March	1	2.7	1.4	2.1			93.04	189,510,248	18.96	13.13	2,772,576	4.17	360,039	191,922,785	1,741,878	-20.2
	2		0.7	0.4			93.09	193,664,663	22.34	15.47	3,266,784	8.96	773,783	196,157,664	2,514,182	-29.1
	3	2.0	1.2	1.6			93.15	198,671,846	24.85	17.21	3,633,984	13.67	1,181,180	201,124,650	1,737,462	-20.1
	4	1.9	4.7	3.3			93.20	202,862,112	25.27	17.50	3,695,328	16.88	1,458,539	205,098,901	1,968,919	-22.8
	5	0.0	5	2.5			93.25	207,067,819	24.85	17.21	3,633,984	19.55	1,689,351	209,012,453	2,275,982	-26.3
	6	3.0	5.7	4.4			93.30	211,288,435	26.31	18.22	3,847,392	21.78	1,881,969	213,253,858	1,421,442	-16.5
	7	3.4	9.5	6.5			93.34	214,675,300	27.77	19.23	4,060,800	23.31	2,013,605	216,722,495	2,198,902	-25.5
	8	1.8	6.3	4.1			93.39	218,921,397	29.02	20.10	4,243,968	24.95	2,155,689	221,009,676	1,318,274	-15.3
	9		0.4	0.2			93.43	222,327,950	28.19	19.52	4,122,144	26.10	2,255,086	224,195,008	1,547,798	-17.9
	10	0.7	2.8	1.8			93.47	225,742,806	25.47	17.64	3,724,704	27.14	2,344,710	227,122,799	2,042,888	-23.6
	11	1.0	0.8	0.9			93.51	229,165,687	24.01	16.63	3,511,296	21.78	1,882,095	230,794,888	1,801,429	-20.8
	12			0.0			93.55	232,596,316	22.13	15.33	3,236,544	22.18	1,916,129	233,916,731	1,257,475	-14.6
	13			0.0			93.58	235,174,206	19.63	13.59	2,870,208	22.67	1,958,350	236,086,064	809,012	-9.4
	14			0.0			93.60	236,895,076	16.75	11.60	2,449,440	22.98	1,985,882	237,358,635	397,547	-4.6
	15			0.0			93.61	237,756,181	15.70	10.87	2,295,648	23.14	1,999,513	238,052,316	565,411	-6.5
	16		0	0.0			93.62	238,617,727	14.93	10.34	2,183,328	23.45	2,026,495	238,774,560	705,149	-8.2
	17	1.2	0.2	0.7			93.63	239,479,709	13.78	9.54	2,014,848	23.61	2,040,092	239,454,465	25,244	-0.3
	18	2.4	2.8	2.6			93.63	239,479,709	13.32	9.22	1,947,456	23.77	2,053,602	239,373,563	106,146	-1.2
	19	0.1	0.4	0.3			93.63	239,479,709	13.09	9.06	1,913,760	23.77	2,053,602	239,339,867	139,842	-1.6
	20	2.6	4.6	3.6			93.63	239,479,709	13.07	9.05	1,911,168	23.92	2,067,113	239,323,764	155,945	-1.8
	21	2.9	5.9	4.4			93.63	239,479,709	13.47	9.33	1,969,920	24.08	2,080,624	239,369,006	973,118	-11.3
	22	0.7	1.5	1.1			93.64	240,342,124	13.89	9.62	2,031,264	24.40	2,108,048	240,265,339	76,784	-0.9
	23	0.0	0.4	0.2			93.64	240,342,124	14.09	9.76	2,060,640	24.56	2,121,649	240,281,115	-801,406	9.3
	24	0.4	0.3	0.4			93.63	239,479,709	14.30	9.90	2,090,880	24.39	2,107,645	239,462,945	16,765	-0.2
	25	3.6	3.9	3.8			93.63	239,479,709	14.51	10.05	2,121,984	24.39	2,107,645	239,494,049	-14,339	0.2
	26	0.9	2.5	1.7			93.63	239,479,709	15.22	10.54	2,225,664	24.39	2,107,645	239,597,729	-980,002	11.3
	27	4.2	5.5	4.9			93.62	238,617,727	15.70	10.87	2,295,648	25.78	2,227,803	238,685,572	-67,845	0.8
	28	3.3	1.1	2.2			93.62	238,617,727	16.75	11.60	2,449,440	26.56	2,294,905	238,772,262	-1,016,081	11.8

7) Sample Calculation of Infiltration by Water Level Simulation Model of Lake Lubana

Date		Precipitation			Evaporation		Water Level	Lake Storage Volume	Inflow			Outflow		Balance	Infiltra-tion	
		Rezekne	Gulbene	Total	(mm)	(m^3)			Rezekne	Malta	(m^3/day)	(m^3/sec)	(m^3/day)		(m^3/day)	(mm/day)
	29	0.7	1	0.9			93.61	237,756,181	16.20	11.22	2,369,088	27.31	2,359,425	237,765,844	-9,663	0.1
	30	0.4	0.7	0.6			93.61	237,756,181	14.89	10.31	2,177,280	28.23	2,439,406	237,494,056	262,126	-3.0
	31			0.0			93.61	237,756,181	14.39	9.97	2,104,704	10.76	929,676	238,931,210	-2,036,133	23.6
April	1	0.1	1.2	0.7	1.5	1249.8	93.60	236,895,076	13.68	9.47	2,000,160	11.36	981,203	237,912,783	-1,017,707	11.8
	2	4.8	2.2	3.5	1.5	1249.8	93.60	236,895,076	13.89	9.62	2,031,264	11.92	1,029,906	237,895,185	-1,000,108	11.6
	3	2.3	3.2	2.8	1.5	1249.8	93.60	236,895,076	14.09	9.76	2,060,640	12.46	1,076,820	237,877,646	740,081	-8.6
	4	3.0	5	4.0	1.5	1250.2	93.62	238,617,727	14.32	9.92	2,094,336	13.24	1,144,166	239,566,647	-86,938	1.0
	5		0.4	0.2	1.5	1250.4	93.63	239,479,709	14.53	10.06	2,124,576	13.89	1,200,291	240,402,744	802,222	-9.3
	6	0.9	1.5	1.2	1.5	1250.7	93.65	241,204,966	14.53	10.06	2,124,576	14.64	1,265,073	242,063,218	5,013	-0.1
	7	1.8	0.7	1.3	1.5	1250.9	93.66	242,068,232	14.26	9.88	2,085,696	15.19	1,312,051	242,840,626	955,390	-11.1
	8	5.4	3.5	4.5	1.5	1251.2	93.68	243,796,016	14.49	10.03	2,118,528	15.91	1,374,640	244,538,652	121,873	-1.4
	9	12.2	5.9	9.1	0.7	584.0	93.69	244,660,525	16.29	11.28	2,382,048	16.53	1,427,807	245,614,182	-88,741	1.0
	10	0.3	0	0.2	1.5	1251.6	93.70	245,525,441	19.19	13.29	2,806,272	16.02	1,384,159	246,946,302	-1,420,861	16.4
	11			0.0	1.5	1251.6	93.70	245,525,441	17.67	12.24	2,584,224	16.28	1,406,387	246,702,027	-1,176,586	13.6
	12	5.0	3.7	4.4	1.5	1251.6	93.70	245,525,441	16.79	11.63	2,455,488	16.53	1,428,614	246,551,064	-1,025,623	11.9
	13		0.3	0.2	1.5	1251.6	93.70	245,525,441	16.22	11.23	2,371,680	16.79	1,450,841	246,445,029	-919,588	10.6
	14			0.0	1.5	1251.6	93.70	245,525,441	15.41	10.67	2,253,312	17.05	1,473,068	246,304,434	-1,643,908	19.0
	15			0.0	1.5	1251.4	93.69	244,660,525	14.87	10.30	2,174,688	17.21	1,487,359	245,346,602	-686,077	7.9
	16	5.2	2.1	3.7	1.5	1251.4	93.69	244,660,525	14.35	9.94	2,098,656	17.13	1,479,915	245,278,014	-1,481,999	17.2
	17			0.0	1.5	1251.2	93.68	243,796,016	14.09	9.76	2,060,640	16.95	1,464,405	244,390,999	-1,459,083	16.9
	18	4.2	4	4.1	1.5	1251.1	93.67	242,931,916	14.57	10.09	2,130,624	16.77	1,448,758	243,612,531	-1,544,299	17.9
	19			0.0	1.5	1250.9	93.66	242,068,232	14.80	10.25	2,164,320	16.59	1,432,968	242,798,333	-1,593,367	18.4
	20		0.8	0.4	1.5	1250.7	93.65	241,204,966	14.28	9.89	2,088,288	16.40	1,417,027	241,874,976	-1,532,853	17.7
	21			0.0	1.5	1250.5	93.64	240,342,124	13.09	9.06	1,913,760	16.30	1,408,569	240,846,064	-1,366,355	15.8
	22			0.0	1.5	1250.4	93.63	239,479,709	11.99	8.30	1,753,056	16.29	1,407,717	239,823,798	-1,206,071	14.0
	23			0.0	1.5	1250.2	93.62	238,617,727	11.15	7.72	1,630,368	16.28	1,406,874	238,839,971	-222,244	2.6
	24			0.0	1.5	1250.2	93.62	238,617,727	10.94	7.58	1,600,128	16.37	1,414,601	238,802,004	-1,045,823	12.1
	25		0.3	0.2	1.5	1250.0	93.61	237,756,181	10.75	7.44	1,571,616	16.36	1,413,815	237,912,732	-1,017,656	11.8
	26	2.2	0	1.1	1.5	1249.8	93.60	236,895,076	10.54	7.30	1,541,376	16.86	1,456,910	236,978,292	-943,876	10.9
	27	4.2	3.5	3.9	1.5	1249.7	93.59	236,034,417	11.09	7.68	1,621,728	16.93	1,462,892	236,192,003	-1,017,797	11.8
	28	3.1	0.9	2.0	1.5	1249.5	93.58	235,174,206	12.30	8.52	1,798,848	17.00	1,468,893	235,502,912	-328,705	3.8
	29	2.2	3.5	2.9	1.5	1249.5	93.58	235,174,206	13.43	9.30	1,963,872	17.11	1,478,426	235,658,402	-1,343,953	15.6
	30		0.3	0.2	1.5	1249.3	93.57	234,314,450	13.91	9.63	2,033,856	17.18	1,484,474	234,862,583	-548,133	6.3
May	1		0.5	0.3	2.3	1915.6	93.57	234,314,450	13.15	9.11	1,923,264	17.29	1,494,034	234,741,764	-1,286,612	14.9
	2			0.0	2.3	1915.3	93.56	233,455,152	12.03	8.33	1,759,104	11.75	1,015,548	234,196,793	-1,600,476	18.5
	3		0.5	0.3	2.3	1915.0	93.55	232,596,316	11.80	8.17	1,725,408	12.19	1,053,319	233,266,490	-670,174	7.8
	4	2.6	4.4	3.5	2.3	1915.0	93.55	232,596,316	11.78	8.16	1,722,816	12.60	1,088,916	233,228,301	-1,490,353	17.2
	5	5.0	4.5	4.8	2.3	1914.7	93.54	231,737,948	11.36	7.87	1,661,472	35.34	3,053,691	230,343,815	536,236	-6.2
	6	1.0	1.8	1.4	2.3	1914.4	93.53	230,880,050	11.13	7.71	1,627,776	34.81	3,007,427	229,498,485	524,144	-6.1
	7	4.9	9.5	7.2	1.2	998.7	93.52	230,022,629	11.94	8.27	1,746,144	34.26	2,959,704	228,808,070	-498,840	5.8
	8			0.0	2.3	1913.5	93.50	228,309,229	11.71	8.11	1,712,448	32.01	2,765,734	227,254,030	-656,245	7.6
	9	1.1		0.6	2.3	1912.8	93.48	226,597,785	11.51	7.97	1,683,072	31.43	2,715,877	225,563,066	179,739	-2.1
	10	1.0	0.3	0.7	2.3	1912.5	93.47	225,742,806	11.48	7.95	1,678,752	31.39	2,712,219	224,707,426	-673,069	7.8
	11			0.0	2.3	1911.8	93.45	224,034,358	11.25	7.79	1,645,056	21.17	1,829,412	223,848,090	-667,193	7.7
	12		0.5	0.3	2.3	1911.5	93.44	223,180,897	10.84	7.51	1,585,440	6.59	569,785	224,194,640	-1,866,690	21.6
	13	5.8	7.8	6.8	1.2	997.1	93.43	222,327,950	10.44	7.23	1,526,688	6.57	567,885	223,285,756	-957,805	11.1
	14	10.7	25.6	18.2	1.2	997.1	93.43	222,327,950	11.42	7.91	1,670,112	6.57	567,885	223,429,180	-1,953,657	22.6
	15		0.3	0.2	2.3	1910.8	93.42	221,475,523	12.28	8.50	1,795,392	6.55	565,989	222,703,015	-375,065	4.3
	16	0.9	2	1.5	2.3	1911.1	93.43	222,327,950	9.63	6.67	1,408,320	6.57	567,885	223,166,474	-838,523	9.7
	17			0.0	2.3	1911.1	93.43	222,327,950	10.09	6.99	1,475,712	6.57	567,885	223,233,866	-905,915	10.5
	18		0	0.0	2.3	1911.1	93.43	222,327,950	10.06	6.97	1,471,392	6.57	567,885	223,229,546	-2,296,205	26.6
	19			0.0	2.3	1910.5	93.41	220,933,341	9.86	6.83	1,442,016	6.62	572,124	221,801,322	-2,261,182	26.2
	20			0.0	2.3	1909.9	93.40	219,540,140	9.56	6.62	1,397,952	6.69	578,057	220,358,125	-2,209,759	25.6
	21			0.0	2.3	1909.3	93.38	218,148,366	9.27	6.42	1,355,616	6.78	585,578	218,916,495	-2,158,456	25.0
	22		0	0.0	2.3	1908.6	93.36	216,758,039	8.96	6.20	1,309,824	6.87	593,237	217,472,717	-2,103,541	24.3
	23			0.0	2.3	1908.0	93.35	215,369,176	8.48	5.87	1,239,840	6.96	601,030	216,006,078	-2,024,281	23.4
	24			0.0	2.3	1907.3	93.33	213,981,797	8.10	5.61	1,184,544	7.05	608,954	214,555,480	-1,959,559	22.7
	25	0.8	1.9	1.4	2.3	1906.5	93.32	212,595,921	7.87	5.45	1,150,848	7.14	617,007	213,127,855	-1,916,289	22.2
	26			0.0	2.3	1905.8	93.30	211,211,566	7.64	5.29	1,117,152	7.24	625,186	211,701,626	-1,872,875	21.7
	27			0.0	2.3	1905.0	93.28	209,828,752	7.41	5.13	1,083,456	7.33	633,488	210,276,815	-1,829,319	21.2
	28		2	1.0	2.3	1904.2	93.27	208,447,497	7.18	4.97	1,049,760	7.43	641,909	208,853,444	-1,785,624	20.7
	29	0.5	0	0.3	2.3	1903.4	93.25	207,067,819	6.95	4.81	1,016,064	7.53	650,448	207,431,532	-1,741,794	20.2
	30			0.0	2.3	1902.5	93.23	205,689,739	7.35	5.09	1,074,816	7.63	659,101	206,103,552	-1,790,278	20.7
	31			0.0	2.3	1901.7	93.22	204,313,274	6.72	4.65	982,368	7.73	667,866	204,625,874	-1,687,432	19.5
June	1	0.3	0.3	0.3	2.7	2231.3	93.20	202,938,443	6.33	4.38	925,344	7.83	676,740	203,184,816	-1,619,551	18.7
	2			0.0	2.7	2230.2	93.18	201,565,265	6.12	4.24	895,104	7.94	685,722	201,772,417	-1,578,659	18.3
	3			0.0	2.7	2229.1	93.17	200,193,759	5.24	3.63	766,368	8.04	694,808	200,263,090	-1,439,147	16.7
	4	19.9	28.4	24.2	1.3	1072.7	93.15	198,823,943	6.68	4.63	977,184	8.15	703,997	199,096,057	-1,640,221	19.0
	5	0.3	5.9	3.1	2.7	2226.6	93.14	197,455,836	6.62	4.58	967,680	8.26	713,287	197,708,002	-1,618,545	18.7
	6	7.8	12.4	10.1	1.3	1071.5	93.12	196,089,457	6.56	4.54	959,040	8.36	722,677	196,324,749	-1,599,924	18.5
	7		1.7	0.9	2.7	2224.1	93.10	194,724,825	6.60	4.57	965,088	8.47	732,164	194,955,524	-1,593,567	18.4
	8			0.0	2.7	2222.7	93.09	193,361,957	6.43	4.45	940,032	8.59	741,749	193,558,018	-1,557,144	18.0
	9		3.1	1.6	2.7	2221.3	93.07	192,000,874	6.29	4.36	920,160	8.70	751,429	192,167,383	-1,525,791	17.7
	10		9.7	4.9	2.7	2219.9	93.05	190,641,592	5.99	4.15	876,096	8.71	752,445	190,763,023	-1,478,891	17.1
	11		1.3	0.7	2.7	2218.4	93.04	189,284,132	5.85	4.05	855,360	8.69	750,682	189,386,591	-1,458,080	16.9
	12			0.0	2.7	2216.9	93.02	187,928,511	5.60	3.88	819,072	8.67	748,916	187,996,451	-1,421,702	16.5
	13			0.0	2.7	2215.3	93.00	186,574,749	5.47	3.79	800,064	8.65	747,145	186,625,452	-1,402,589	16.2
	14		0.1	0.1	2.7	2213.7	92.99	185,222,863	5.35	3.70	781,920	8.63	745,371	185,257,199	-1,384,326	16.0
	15	11.9	1.6	6.8	1.3	1065.0	92.97	183,872,873	5.22	3.61	762,912	8.61	743,592	183,891,127	-1,366,331	15.8
	16		0	0.0	2.7	2210.3	92.96	182,524,796	5.39	3.73	787,968	8.59	741,810	182,568,743	-1,390,092	16.1
	17	0.5	3.1	1.8	2.7	2208.5	92.94	181,178,652	5.28	3.66	772,416	8.57	740,024	181,208,835	-1,374,377	15.9
	18	7.4	5.1	6.3	1.3	1062.5	92.92	179,834,458	5.55	3.84	811,296	8.54	738,234	179,906,458	-1,414,223	16.4
	19	3.2	2	2.6	2.7	2204.8	92.91	178,492,235	5.58	3.86	815,616	8.52	736,440	178,569,205	-1,417,207	16.4
	20	7.8	4.3	6.1	1.3	1060.6	92.89	177,151,999	5.55	3.84	811,296	8.50	734,642	177,227,592	-1,413,822	16.4
	21		0.7	0.4	2.7	2200.8	92.87	175,813,769	5.49	3.80	802,656	8.48	732,841	175,881,384	-1,403,819	16.2
	22			0.0	2.7	2198.8	92.86	174,477,564	5.43	3.76	794,016	8.46	731,035	174,538,347	-1,394,944	16.1
	23	6.6	7.2	6.9	1.3	1057.6	92.84	173,143,403	5.43	3.76	794,016	8.44	729,225	173,207,136	-1,395,833	16.2

7) Sample Calculation of Infiltration by Water Level Simulation Model of Lake Lubana

Date		Precipitation			Evaporation		Water Level	Lake Storage Volume	Inflow			Outflow		Balance	Infiltra-tion	
		Rezekne	Gulbene	Total	(mm)	(m^3)			Rezekne	Malta	(m^3/day)	(m^3/sec)	(m^3/day)		(m^3/day)	(mm/day)
	24	6.2	7.8	7.0	1.3	1056.6	92.82	171,811,303	5.39	3.73	787,968	8.42	727,411	171,870,804	-1,389,520	16.1
	25			0.0	2.7	2192.2	92.81	170,481,284	5.35	3.70	781,920	8.40	725,593	170,535,418	-1,382,055	16.0
	26			0.0	2.7	2189.9	92.79	169,153,363	5.32	3.68	777,600	8.38	723,771	169,205,002	-1,377,443	15.9
	27			0.0	2.7	2187.5	92.78	167,827,559	5.32	3.68	777,600	8.35	721,264	167,881,707	-1,377,817	15.9
	28			0.0	2.7	2185.1	92.76	166,503,891	5.30	3.67	775,008	8.32	719,239	166,557,475	-1,375,099	15.9
	29	3.6	7	5.3	1.3	1050.9	92.74	165,182,376	5.30	3.67	775,008	8.31	717,617	165,238,716	-1,375,682	15.9
	30		0.3	0.2	2.7	2180.1	92.73	163,863,033	5.32	3.68	777,600	4.15	358,221	164,280,232	-1,734,351	20.1
July	1	2.7		1.4	2.5	2016.1	92.71	162,545,881	5.20	3.60	760,320	14.45	1,248,230	162,055,955	-1,116,925	12.9
	2		0.5	0.3	2.5	2013.1	92.69	160,939,030	4.99	3.46	730,080	14.40	1,244,428	160,422,669	-285,817	3.3
	3			0.0	2.5	2011.5	92.68	160,136,852	4.87	3.37	711,936	17.39	1,502,349	159,344,428	-809,415	9.4
	4	2.5	1.1	1.8	2.5	2008.3	92.66	158,535,012	4.84	3.35	707,616	17.33	1,497,737	157,742,883	-806,327	9.3
	5	1.4	2	1.7	2.5	2005.0	92.64	156,936,556	4.82	3.34	705,024	17.28	1,493,112	156,146,463	-1,601,175	18.5
	6			0.0	2.5	1999.8	92.61	154,545,288	4.72	3.27	690,336	17.21	1,487,331	153,746,293	-790,858	9.2
	7			0.0	2.5	1996.3	92.59	152,955,435	4.70	3.25	686,880	17.16	1,482,676	152,157,643	-788,561	9.1
	8			0.0	2.5	1992.6	92.57	151,369,082	4.49	3.11	656,640	17.11	1,478,007	150,545,723	-1,549,536	17.9
	9			0.0	2.5	1986.9	92.54	148,996,187	4.36	3.02	637,632	10.40	898,415	148,733,418	-1,314,688	15.2
	10			0.0	2.5	1982.9	92.52	147,418,729	4.26	2.95	622,944	2.44	210,429	147,829,261	-1,984,375	23.0
	11			0.0	2.5	1978.9	92.50	145,844,887	4.16	2.88	608,256	2.43	210,199	146,240,965	-1,966,271	22.8
	12			0.0	2.5	1974.7	92.48	144,274,694	4.05	2.80	591,840	2.43	209,572	144,654,987	-1,164,012	13.5
	13			0.0	2.5	1972.6	92.47	143,490,976	3.65	2.53	533,952	2.42	209,257	143,813,698	-1,105,515	12.8
	14	0.3		0.2	2.5	1970.4	92.46	142,708,183	3.40	2.35	496,800	2.42	208,942	142,994,070	-1,848,683	21.4
	15			0.0	2.5	1966.0	92.44	141,145,387	3.24	2.24	473,472	2.41	208,311	141,408,582	-1,043,189	12.1
	16			0.0	2.5	1963.8	92.43	140,365,393	3.13	2.17	457,920	2.41	207,994	140,613,355	-1,027,015	11.9
	17			0.0	2.5	1961.5	92.42	139,586,340	3.11	2.15	454,464	2.40	207,677	139,831,165	-1,800,091	20.8
	18	0.1		0.1	2.5	1956.9	92.40	138,031,074	3.03	2.10	443,232	2.40	207,243	138,265,106	-1,010,236	11.7
	19	6.0	12.7	9.4	1.2	938.2	92.39	137,254,869	3.09	2.14	451,872	2.39	206,925	137,498,878	-1,019,255	11.8
	20	0.1	0.9	0.5	2.5	1952.1	92.38	136,479,623	3.15	2.18	460,512	2.39	206,607	136,731,576	-1,026,238	11.9
	21	2.2	0.5	1.4	2.5	1949.7	92.37	135,705,338	3.15	2.18	460,512	2.39	206,086	135,957,814	-1,025,796	11.9
	22	3.6	14.7	9.2	1.2	934.7	92.36	134,932,019	3.17	2.20	463,968	2.38	205,766	135,189,286	-1,029,616	11.9
	23	4.4	1.3	2.9	2.5	1944.7	92.35	134,159,670	3.49	2.42	510,624	2.38	205,446	134,462,903	-1,074,608	12.4
	24			0.0	2.5	1942.2	92.34	133,388,295	3.51	2.43	513,216	2.37	204,921	133,694,648	-306,353	3.5
	25	0.8		0.4	2.5	1942.2	92.34	133,388,295	3.32	2.30	485,568	2.37	204,717	133,667,203	-1,049,305	12.1
	26			0.0	2.5	1939.7	92.33	132,617,899	3.22	2.23	470,880	2.37	204,395	132,882,443	-1,033,959	12.0
	27			0.0	2.5	1937.1	92.32	131,848,485	3.13	2.17	457,920	2.36	204,073	132,100,395	-251,910	2.9
	28			0.0	2.5	1937.1	92.32	131,848,485	2.94	2.04	430,272	2.36	203,868	132,072,951	-224,467	2.6
	29			0.0	2.5	1937.1	92.32	131,848,485	2.86	1.98	418,176	2.36	203,663	132,061,061	-2,514,882	29.1
	30		3.1	1.6	2.5	1929.1	92.29	129,546,178	2.78	1.93	406,944	2.35	203,102	129,748,091	-201,913	2.3
	31			0.0	2.5	1929.1	92.29	129,546,178	2.71	1.88	396,576	2.35	202,897	129,737,929	-957,194	11.1
August	1			0.0	2.1	1618.2	92.28	128,780,735	2.74	1.90	400,896	2.34	202,572	128,977,441	-961,146	11.1
	2			0.0	2.1	1615.9	92.27	128,016,295	2.65	1.84	387,936	2.34	202,246	128,200,369	-947,507	11.0
	3	13.7	3	8.4	1.0	768.3	92.26	127,252,861	2.59	1.79	378,432	2.34	201,920	127,428,605	-175,743	2.0
	4	0.0		0.0	2.1	1613.5	92.26	127,252,861	2.71	1.88	396,576	2.33	201,713	127,446,111	-955,672	11.1
	5			0.0	2.1	1611.2	92.25	126,490,439	2.76	1.91	403,488	2.33	201,386	126,690,930	-961,897	11.1
	6			0.0	2.1	1608.8	92.24	125,729,032	2.46	1.70	359,424	2.33	201,059	125,885,789	-917,144	10.6
	7		1.6	0.8	2.1	1606.3	92.23	124,968,645	2.40	1.66	350,784	2.32	200,731	125,117,091	-907,811	10.5
	8	6.2	4.3	5.3	1.0	763.8	92.22	124,209,281	2.34	1.62	342,144	5.90	510,140	124,040,521	-589,577	6.8
	9		0.4	0.2	2.1	1601.4	92.21	123,450,944	2.17	1.50	317,088	5.95	514,455	123,251,976	198,968	-2.3
	10		2.6	1.3	2.1	1601.4	92.21	123,450,944	1.50	1.04	219,456	5.95	514,246	123,154,553	-460,914	5.3
	11	6.4	1.2	3.8	2.1	1598.9	92.20	122,693,639	1.34	0.93	196,128	5.94	513,349	122,374,819	-437,449	5.1
	12			0.0	2.1	1596.4	92.19	121,937,370	1.29	0.89	188,352	5.93	512,662	121,611,464	-429,323	5.0
	13	2.3	0.4	1.4	2.1	1593.8	92.18	121,182,140	1.29	0.89	188,352	5.92	511,763	120,857,135	325,005	-3.8
	14	0.1		0.1	2.1	1593.8	92.18	121,182,140	1.29	0.89	188,352	5.92	511,553	120,857,346	-429,391	5.0
	15			0.0	2.1	1591.2	92.17	120,427,955	1.36	0.94	198,720	5.91	510,863	120,114,220	-439,403	5.1
	16			0.0	2.1	1588.6	92.16	119,674,817	1.38	0.96	202,176	5.90	509,962	119,365,443	-442,712	5.1
	17			0.0	2.1	1585.9	92.15	118,922,731	1.27	0.88	185,760	5.89	508,847	118,598,058	-1,176,326	13.6
	18			0.0	2.1	1580.5	92.13	117,421,732	1.23	0.85	179,712	5.87	507,248	117,092,615	-419,788	4.9
	19			0.0	2.1	1577.7	92.12	116,672,827	1.19	0.82	173,664	5.86	506,341	116,338,572	-413,582	4.8
	20			0.0	2.1	1574.9	92.11	115,924,990	1.21	0.84	177,120	5.85	505,432	115,595,102	-416,877	4.8
	21			0.0	2.1	1572.1	92.10	115,178,225	1.17	0.81	171,072	5.84	504,522	114,843,203	-410,666	4.8
	22			0.0	2.1	1569.3	92.09	114,432,537	1.21	0.84	177,120	5.83	503,610	114,104,478	-416,548	4.8
	23			0.0	2.1	1566.4	92.08	113,687,929	1.17	0.81	171,072	5.82	502,697	113,354,738	-410,332	4.7
	24		4.4	2.2	2.1	1563.5	92.07	112,944,406	1.19	0.82	173,664	5.81	501,782	112,614,725	-412,753	4.8
	25		0.9	0.5	2.1	1560.6	92.06	112,201,972	1.17	0.81	171,072	5.79	500,651	111,870,833	331,139	-3.8
	26	0.7	7.9	4.3	2.1	1560.6	92.06	112,201,972	0.96	0.66	139,968	5.79	500,436	111,839,944	-379,314	4.4
	27	1.7	1.2	1.5	2.1	1557.6	92.05	111,460,630	0.79	0.55	115,776	5.78	499,517	111,075,332	-354,947	4.1
	28			0.0	2.1	1554.6	92.04	110,720,385	0.81	0.56	118,368	5.77	498,597	110,338,602	-357,361	4.1
	29		0.3	0.2	2.1	1551.5	92.03	109,981,241	0.84	0.58	122,688	5.76	497,675	109,604,703	-361,501	4.2
	30	0.8	0.1	0.5	2.1	1548.5	92.02	109,243,202	0.81	0.56	118,368	5.75	496,751	108,863,270	-356,998	4.1
	31	14.0	18.9	16.5	1.0	735.9	92.01	108,506,271	0.79	0.55	115,776	4.92	425,055	108,196,256	310,015	-3.6
September	1		0.4	0.2	1.3	956.7	92.01	108,506,271	0.81	0.56	118,368	4.32	373,433	108,250,250	-479,796	5.6
	2			0.0	1.3	954.7	92.00	107,770,454	0.90	0.62	131,328	3.13	270,799	107,630,029	-7,155,646	82.8
	3	1.5	1.8	1.7	1.3	934.2	91.90	100,474,382	0.94	0.65	137,376	3.02	261,107	100,349,717	5,952,457	-68.9
	4			0.0	1.3	950.8	91.98	106,302,174	0.92	0.64	134,784	4.28	369,724	106,066,283	235,891	-2.7
	5			0.0	1.3	950.8	91.98	106,302,174	0.92	0.64	134,784	4.28	369,637	106,066,370	-496,650	5.7
	6	14.6	3.1	8.9	0.6	437.9	91.97	105,569,720	0.96	0.66	139,968	4.27	368,542	105,340,708	229,012	-2.7
	7		0	0.0	1.3	948.8	91.97	105,569,720	1.06	0.73	154,656	4.26	368,455	105,354,973	-516,578	6.0
	8			0.0	1.3	946.7	91.96	104,838,395	1.21	0.84	177,120	4.25	367,292	104,647,276	191,119	-2.2
	9			0.0	1.3	946.7	91.96	104,838,395	1.42	0.98	207,360	4.25	367,204	104,677,604	-569,401	6.6
	10	0.7		0.4	1.3	944.7	91.95	104,108,203	5.68	3.93	830,304	4.24	366,060	104,571,502	-1,192,354	13.8
	11			0.0	1.3	942.6	91.94	103,379,148	8.46	5.86	1,237,248	4.22	364,932	104,250,522	-1,599,287	18.5
	12	0.3		0.2	1.3	940.5	91.93	102,651,235	10.27	7.11	1,501,632	4.21	363,819	103,788,107	-1,136,872	13.2
	13			0.0	1.3	940.5	91.93	102,651,235	10.11	7.00	1,478,304	4.21	363,819	103,764,779	-1,840,312	21.3
	14			0.0	1.3	938.4	91.92	101,924,467	6.77	4.69	990,144	4.20	362,720	102,550,952	-1,352,104	15.6
	15	5.0	0.7	2.9	1.3	936.3	91.91	101,198,848	3.84	2.66	561,600	4.19	361,722	101,397,789	-923,407	10.7
	16	0.3		0.2	1.3	934.2	91.90	100,474,382	2.34	1.62	342,144	4.17	360,647	100,454,945	19,437	-0.2
	17			0.0	1.3	934.2	91.90	100,474,382	1.52	1.05	222,048	4.17	360,647	100,334,849	-583,775	6.8
	18			0.0	1.3	932.0	91.89	99,751,074	1.21	0.84	177,120	4.16	359,671	99,567,592	-538,664	6.2

7) Sample Calculation of Infiltration by Water Level Simulation Model of Lake Lubana

Date		Precipitation			Evaporation		Water Level	Lake Storage Volume	Inflow			Outflow		Balance	Infiltra-tion	
		Rezekne	Gulbene	Total	(mm)	(m^3)			Rezekne	Malta	(m^3/day)	(m^3/sec)	(m^3/day)		(m^3/day)	(mm/day)
	19			0.0	1.3	929.8	91.88	99,028,928	1.06	0.73	154,656	4.15	358,703	98,823,951	204,977	-2.4
	20			0.0	1.3	929.8	91.88	99,028,928	1.09	0.75	158,976	3.61	312,267	98,874,707	-566,760	6.6
	21	1.9		1.0	1.3	927.6	91.87	98,307,946	1.09	0.75	158,976	3.60	311,308	98,154,687	153,259	-1.8
	22			0.0	1.3	927.6	91.87	98,307,946	1.02	0.71	149,472	3.60	311,308	98,145,183	162,763	-1.9
	23		0	0.0	1.3	927.6	91.87	98,307,946	0.98	0.68	143,424	3.60	311,308	98,139,135	-551,000	6.4
	24		0.5	0.3	1.3	925.3	91.86	97,588,135	1.00	0.69	146,016	3.59	310,355	97,422,870	2,328,204	-26.9
	25			0.0	1.3	932.0	91.89	99,751,074	1.00	0.69	146,016	1.27	109,732	99,786,426	-35,352	0.4
	26		1.2	0.6	1.3	932.0	91.89	99,751,074	1.02	0.71	149,472	1.64	141,759	99,757,855	716,527	-8.3
	27	2.0	4.2	3.1	1.3	934.2	91.90	100,474,382	1.13	0.78	165,024	1.64	141,811	100,496,662	702,186	-8.1
	28	14.1	10.5	12.3	0.6	432.1	91.91	101,198,848	1.55	1.07	226,368	1.64	141,855	101,282,929	-84,081	1.0
	29		1.2	0.6	1.3	936.3	91.91	101,198,848	1.98	1.37	289,440	1.64	141,855	101,345,497	-146,649	1.7
	30	0.7	0.4	0.6	1.3	936.3	91.91	101,198,848	1.84	1.27	268,704	1.64	141,855	101,324,761	-125,913	1.5
October	1	21.5	23.1	22.3	0.3	216.1	91.91	101,198,848	1.86	1.29	272,160	1.64	141,855	101,328,937	595,530	-6.9
	2	12.9	10.9	11.9	0.3	216.6	91.92	101,924,467	2.55	1.77	373,248	1.64	141,891	102,155,607	-231,140	2.7
	3			0.0	0.7	505.3	91.92	101,924,467	2.97	2.06	434,592	1.64	141,891	102,216,662	-292,195	3.4
	4			0.0	0.7	505.3	91.92	101,924,467	2.26	1.57	330,912	1.64	141,891	102,112,982	-188,515	2.2
	5			0.0	0.7	505.3	91.92	101,924,467	2.09	1.45	305,856	1.28	110,300	102,119,517	-195,050	2.3
	6			0.0	0.7	505.3	91.92	101,924,467	1.92	1.33	280,800	1.28	110,300	102,094,461	-169,994	2.0
	7			0.0	0.7	505.3	91.92	101,924,467	1.75	1.21	255,744	1.28	110,300	102,069,405	-144,938	1.7
	8	1.5	5.7	3.6	0.7	505.3	91.92	101,924,467	1.86	1.29	272,160	1.28	110,300	102,085,821	-161,354	1.9
	9			0.0	0.7	505.3	91.92	101,924,467	1.98	1.37	289,440	1.28	110,300	102,103,101	-178,634	2.1
	10			0.0	0.7	505.3	91.92	101,924,467	2.00	1.39	292,896	1.28	110,300	102,106,557	-182,090	2.1
	11			0.0	0.7	505.3	91.92	101,924,467	1.92	1.33	280,800	1.28	110,300	102,094,461	-895,613	10.4
	12			0.0	0.7	504.2	91.91	101,198,848	2.15	1.49	314,496	1.64	141,855	101,370,985	-172,137	2.0
	13	0.0	0	0.0	0.7	504.2	91.91	101,198,848	2.17	1.50	317,088	1.64	141,855	101,373,577	-174,729	2.0
	14			0.0	0.7	504.2	91.91	101,198,848	2.19	1.52	320,544	1.64	141,855	101,377,033	-902,651	10.4
	15			0.0	0.7	503.0	91.90	100,474,382	1.90	1.32	278,208	1.64	141,811	100,610,277	-135,894	1.6
	16		1.2	0.6	0.7	503.0	91.90	100,474,382	1.63	1.13	238,464	1.64	141,811	100,570,533	-819,458	9.5
	17			0.0	0.7	501.8	91.89	99,751,074	1.40	0.97	204,768	1.64	141,759	99,813,581	-62,507	0.7
	18	2.2	3.3	2.8	0.7	501.8	91.89	99,751,074	1.32	0.91	192,672	1.27	109,732	99,833,512	-82,438	1.0
	19	6.3	4.9	5.6	0.3	215.1	91.89	99,751,074	1.25	0.87	183,168	1.27	109,732	99,824,295	-795,367	9.2
	20	4.2	15.3	9.8	0.3	214.6	91.88	99,028,928	1.40	0.97	204,768	1.27	109,542	99,123,939	-95,011	1.1
	21	0.7	2.2	1.5	0.7	500.7	91.88	99,028,928	1.75	1.21	255,744	1.27	109,542	99,174,629	-866,682	10.0
	22	3.2	1.6	2.4	0.7	499.5	91.87	98,307,946	1.75	1.21	255,744	1.27	109,352	98,453,839	-145,893	1.7
	23			0.0	0.7	499.5	91.87	98,307,946	1.67	1.16	244,512	1.27	109,352	98,442,607	-134,661	1.6
	24			0.0	0.7	499.5	91.87	98,307,946	1.77	1.23	259,200	1.27	109,352	98,457,295	-869,160	10.1
	25			0.0	0.7	498.3	91.86	97,588,135	2.11	1.46	308,448	1.26	109,161	97,786,923	-198,788	2.3
	26			0.0	0.7	498.3	91.86	97,588,135	2.38	1.65	348,192	1.26	109,161	97,826,667	-238,532	2.8
	27	0.0		0.0	0.7	498.3	91.86	97,588,135	2.53	1.75	369,792	1.26	109,161	97,848,267	-978,771	11.3
	28	2.0	1.7	1.9	0.7	497.0	91.85	96,869,496	2.53	1.75	369,792	1.26	108,970	97,129,821	-260,325	3.0
	29		0.3	0.2	0.7	497.0	91.85	96,869,496	2.28	1.58	333,504	1.26	108,970	97,093,533	-224,037	2.6
	30			0.0	0.7	497.0	91.85	96,869,496	1.90	1.32	278,208	1.26	108,970	97,038,237	-886,201	10.3
	31	0.6	0.7	0.7	0.7	495.8	91.84	96,152,036	1.90	1.32	278,208	1.26	108,779	96,320,969	-168,933	2.0
November	1	1.8	0.2	1.0	0.2	141.7	91.84	96,152,036	1.34	0.93	196,128	7.91	683,662	95,664,360	-228,603	2.6
	2	7.2	2.8	5.0	0.1	70.7	91.83	95,435,756	1.23	0.85	179,712	7.91	683,470	94,931,927	503,829	-5.8
	3			0.0	0.2	141.3	91.83	95,435,756	1.04	0.72	152,064	7.91	683,470	94,904,209	-183,546	2.1
	4	0.6	0.7	0.7	0.2	140.9	91.82	94,720,663	0.94	0.65	137,376	7.90	682,159	94,175,739	544,924	-6.3
	5	3.6	1.6	2.6	0.2	140.9	91.82	94,720,663	0.92	0.64	134,784	7.90	682,159	94,173,147	-166,388	1.9
	6	0.5	2.6	1.6	0.2	140.6	91.81	94,006,759	0.90	0.62	131,328	7.88	680,845	93,457,101	-163,053	1.9
	7	4.5	1.4	3.0	0.2	140.2	91.80	93,294,048	0.88	0.61	128,736	7.86	679,528	92,743,116	550,932	-6.4
	8	0.0		0.0	0.2	140.2	91.80	93,294,048	1.15	0.80	168,480	7.86	679,528	92,782,860	511,188	-5.9
	9			0.0	0.2	140.2	91.80	93,294,048	1.86	1.29	272,160	7.86	679,528	92,886,540	-304,005	3.5
	10			0.0	0.2	139.9	91.79	92,582,535	1.23	0.85	179,712	7.86	679,335	92,082,772	499,763	-5.8
	11	0.7	1.1	0.9	0.2	139.9	91.79	92,582,535	1.34	0.93	196,128	7.85	678,209	92,100,314	482,221	-5.6
	12			0.0	0.2	139.9	91.79	92,582,535	1.32	0.91	192,672	7.84	677,081	92,097,987	-225,763	2.6
	13			0.0	0.2	139.5	91.78	91,872,224	1.29	0.89	188,352	7.83	676,887	91,383,549	488,675	-5.7
	14			0.0	0.2	139.5	91.78	91,872,224	1.29	0.89	188,352	7.83	676,887	91,383,549	-220,431	2.6
	15			0.0	0.2	139.1	91.77	91,163,118	1.27	0.88	185,760	7.82	675,563	90,673,176	489,942	-5.7
	16	4.4	4.1	4.3	0.2	139.1	91.77	91,163,118	1.38	0.96	202,176	7.82	675,563	90,689,592	473,526	-5.5
	17	5.6	4.8	5.2	0.1	69.6	91.77	91,163,118	2.42	1.68	354,240	7.82	675,563	90,841,725	1,030,498	-11.9
	18	1.3	1.1	1.2	0.2	139.5	91.78	91,872,224	3.51	2.43	513,216	7.82	675,757	91,709,544	162,680	-1.9
	19	0.8	0.7	0.8	0.2	139.5	91.78	91,872,224	3.61	2.50	527,904	7.82	675,757	91,724,232	147,992	-1.7
	20	0.4	0	0.2	0.2	139.5	91.78	91,872,224	3.51	2.43	513,216	7.82	675,757	91,709,544	-546,426	6.3
	21			0.0	0.2	139.1	91.77	91,163,118	3.88	2.69	567,648	7.82	675,563	91,055,064	108,054	-1.3
	22	2.0	1.6	1.8	0.2	139.1	91.77	91,163,118	2.65	1.84	387,936	7.82	675,563	90,875,352	287,766	-3.3
	23			0.0	0.2	139.1	91.77	91,163,118	2.28	1.58	333,504	7.82	675,563	90,820,920	342,198	-4.0
	24	0.8	0.7	0.8	0.2	139.1	91.77	91,163,118	2.11	1.46	308,448	7.82	675,563	90,795,864	367,254	-4.3
	25	0.8	0.1	0.5	0.2	139.1	91.77	91,163,118	2.05	1.42	299,808	7.82	675,563	90,787,224	375,894	-4.4
	26			0.0	0.2	139.1	91.77	91,163,118	2.09	1.45	305,856	7.82	675,563	90,793,272	369,846	-4.3
	27	0.1	0.5	0.3	0.2	139.1	91.77	91,163,118	1.94	1.34	283,392	7.81	674,430	90,771,941	391,177	-4.5
	28	1.4	0.8	1.1	0.2	139.1	91.77	91,163,118	1.82	1.26	266,112	7.81	674,430	90,754,661	408,457	-4.7
	29		0	0.0	0.2	139.1	91.77	91,163,118	2.90	2.01	424,224	7.81	674,430	90,912,773	-457,551	5.3
	30	0.3	0.2	0.3	0.2	138.7	91.76	90,455,222	2.30	1.59	336,096	7.80	674,236	90,116,943	338,279	-3.9
December	1			0.0			91.76	90,455,222	1.69	1.17	247,104	7.79	673,101	90,029,225	425,997	-4.9
	2	1.6	0	0.8			91.76	90,455,222	1.59	1.10	232,416	7.79	673,101	90,014,537	440,685	-5.1
	3	0.3	0	0.2			91.76	90,455,222	1.44	1.00	210,816	7.79	673,101	89,992,937	-244,398	2.8
	4	0.5	0.4	0.5			91.75	89,748,539	1.86	1.29	272,160	7.78	671,769	89,348,930	399,609	-4.6
	5			0.0			91.75	89,748,539	2.15	1.49	314,496	7.78	671,769	89,391,266	-348,192	4.0
	6			0.0			91.74	89,043,074	1.65	1.14	241,056	7.77	671,574	88,612,556	430,518	-5.0
	7			0.0			91.74	89,043,074	1.46	1.01	213,408	7.76	670,434	88,586,047	457,026	-5.3
	8			0.0			91.74	89,043,074	1.52	1.05	222,048	7.76	670,434	88,594,687	-255,857	3.0
	9			0.0			91.73	88,338,830	1.57	1.09	229,824	7.76	670,239	87,898,415	440,415	-5.1
	10	0.6	0.9	0.8			91.73	88,338,830	1.63	1.13	238,464	7.74	669,097	87,908,197	-272,385	3.2
	11	8.2	6.6	7.4			91.72	87,635,813	1.61	1.11	235,008	7.74	668,902	87,201,919	433,894	-5.0
	12			0.0			91.72	87,635,813	1.48	1.02	216,000	7.73	667,757	87,184,055	-250,031	2.9
	13		0.3	0.2			91.71	86,934,024	1.48	1.02	216,000	7.73	667,561	86,482,463	451,561	-5.2
	14	1.5	1	1.3			91.71	86,934,024	1.42	0.98	207,360	7.73	667,561	86,473,823	460,201	-5.3

7) Sample Calculation of Infiltration by Water Level Simulation Model of Lake Lubana

Date		Precipitation			Evaporation		Water Level	Lake Storage Volume	Inflow			Outflow		Balance	Infiltra-tion	
		Rezekne	Gulbene	Total	(mm)	(m^3)			Rezekne	Malta	(m^3/day)	(m^3/sec)	(m^3/day)		(m^3/day)	(mm/day)
	15	0.2	0.7	0.5			91.71	86,934,024	1.38	0.96	202,176	7.71	666,415	86,469,785	-236,316	2.7
	16		0	0.0			91.70	86,233,470	1.38	0.96	202,176	7.71	666,219	85,769,427	464,043	-5.4
	17		0.4	0.2			91.70	86,233,470	1.42	0.98	207,360	7.71	666,219	85,774,611	458,859	-5.3
	18	6.8	5.2	6.0			91.70	86,233,470	1.42	0.98	207,360	7.71	666,219	85,774,611	458,859	-5.3
	19	1.7		0.9			91.70	86,233,470	1.40	0.97	204,768	7.70	665,070	85,773,168	460,302	-5.3
	20	2.2	7.2	4.7			91.70	86,233,470	1.42	0.98	207,360	7.70	665,070	85,775,760	457,710	-5.3
	21	1.3	1.9	1.6			91.70	86,233,470	1.46	1.01	213,408	7.70	665,070	85,781,808	-247,656	2.9
	22		1.1	0.6			91.69	85,534,152	1.44	1.00	210,816	7.70	664,873	85,080,096	454,057	-5.3
	23	2.0	2	2.0			91.69	85,534,152	1.44	1.00	210,816	7.70	664,873	85,080,096	454,057	-5.3
	24	8.6	4.3	6.5			91.69	85,534,152	1.44	1.00	210,816	7.68	663,722	85,081,247	452,906	-5.2
	25		1.7	0.9			91.69	85,534,152	1.46	1.01	213,408	7.68	663,722	85,083,839	-247,762	2.9
	26	1.0	0.6	0.8			91.68	84,836,077	1.48	1.02	216,000	7.68	663,525	84,388,552	447,525	-5.2
	27			0.0			91.68	84,836,077	1.48	1.02	216,000	7.68	663,525	84,388,552	-249,305	2.9
	28		1.3	0.7			91.67	84,139,247	1.46	1.01	213,408	7.68	663,327	83,689,328	449,919	-5.2
	29	1.0	0.3	0.7			91.67	84,139,247	1.48	1.02	216,000	7.66	662,173	83,693,074	446,173	-5.2
	30	0.2	0.4	0.3			91.67	84,139,247	1.48	1.02	216,000	7.65	661,017	83,694,230	-250,563	2.9
	31		0.2	0.1			91.66	83,443,666	1.50	1.04	219,456	7.65	660,820	83,002,303		

IV-4. Wetland Water Level Simulation Model

1) Area in Each Water Level Simulation Block

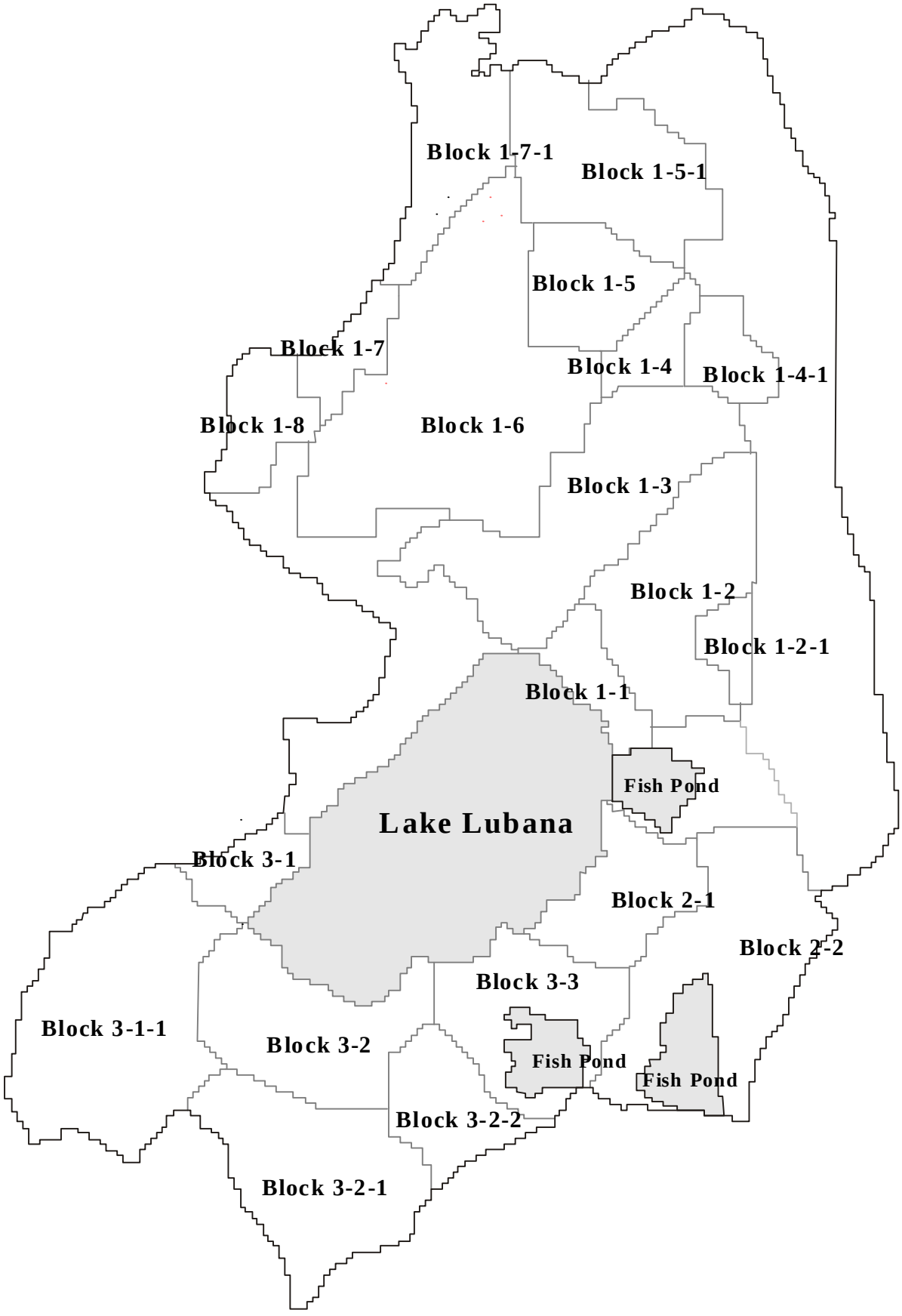
(unit: ha)

	Block No.											
	1-1	1-2	1-2-1	1-3	1-4	1-4-1	1-5	1-5-1	1-6	1-7	1-7-1	1-8
90.5-91.0	92	44	0	0	0	0	0	0	0	0	0	0
91.0-91.5	100	76	16	88	0	0	0	0	0	0	0	0
91.5-92.0	172	400	68	16	36	0	4	0	16	0	0	0
92.0-92.5	56	128	0	304	88	44	188	4	156	32	0	20
92.5-93.0	76	348	28	440	64	48	324	120	348	84	0	56
93.0-93.5	136	512	44	668	68	28	600	244	672	108	32	88
93.5-94.0	316	588	84	964	80	72	312	872	1104	56	284	40
94.0-94.5	44	292	108	788	204	132	204	560	1280	136	924	164
94.5-95.0	0	408	100	436	116	356	76	608	1464	156	816	304
95.0-95.5	0	168	84	400	44	112	68	440	996	64	432	248
95.5-96.0	0	164	16	272	20	72	40	204	736	24	84	116
96.0-96.5	0	140	0	192	20	36	16	192	384	28	68	120
96.5-97.0	0	156	0	132	20	20	20	48	168	28	52	60
97.0-97.5	0	128	0	64	36	20	16	32	80	36	20	36

	Block No.							
	2-1	2-2*	3-1	3-1-1	3-2	3-2-1	3-2-2	3-3
90.5-91.0	0	0	0	0	0	0	0	0
91.0-91.5	0	0	0	0	144	0	0	0
91.5-92.0	60	0	0	12	32	8	0	80
92.0-92.5	60	24	4	168	104	84	8	56
92.5-93.0	80	8	16	120	108	152	4	48
93.0-93.5	320	40	40	220	240	148	20	100
93.5-94.0	288	256	64	412	500	328	92	248
94.0-94.5	204	820	132	664	804	524	176	308
94.5-95.0	156	800	44	540	724	532	368	380
95.0-95.5	176	176	8	772	412	120	172	312
95.5-96.0	212	68	48	624	164	144	164	280
96.0-96.5	72	92	24	472	56	208	112	196
96.5-97.0	52	128	8	332	4	124	88	84
97.0-97.5	68	100	4	212	4	132	64	52

Note: Fishponds and Lake Lubana are excluded from the counting.
2-2*: Protected areas around the fishpond are excluded.

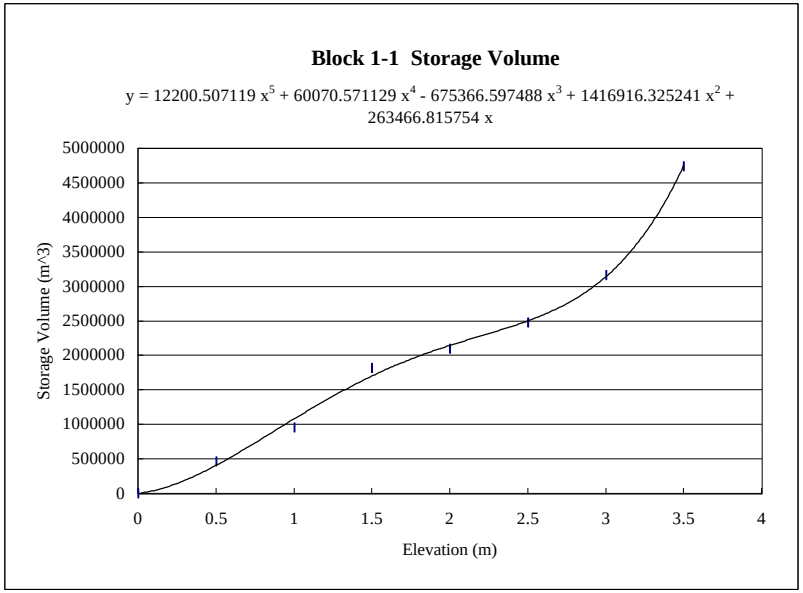
2) Location Map of Water Level Simulation Block



3) Simulation Block Data 1

BLOCK 1-1

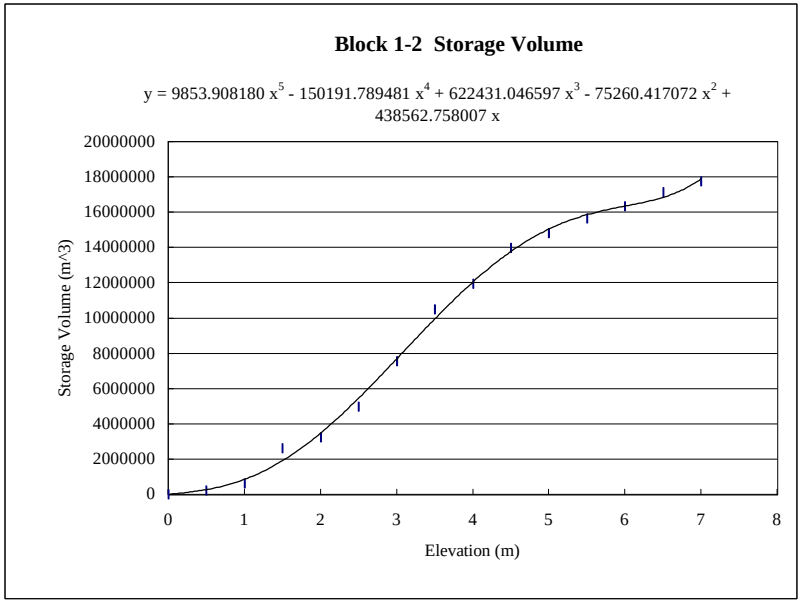
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0	0	0
23	920,000	920000.0	0.5	460,000	460,000.0
25	1,000,000	1920000.0	1	960,000	500,000.0
43	1,720,000	3640000.0	1.5	1,820,000	860,000.0
14	560,000	4200000.0	2	2,100,000	280,000.0
19	760,000	4960000.0	2.5	2,480,000	380,000.0
34	1,360,000	6320000.0	3	3,160,000	680,000.0
79	3,160,000	9480000.0	3.5	4,740,000	1,580,000.0
11	440,000	9920000.0	4	4,960,000	220,000.0
0	0	9920000.0	4.5	4,960,000	0.0
0	0	9920000.0	5	4,960,000	0.0
0	0	9920000.0	5.5	4,960,000	0.0
0	0	9920000.0	6	4,960,000	0.0
0	0	9920000.0	6.5	4,960,000	0.0
0	0	9920000.0	7	4,960,000	0.0
0	0	9920000.0	7.5	4,960,000	0.0



3) Simulation Block Data 2

BLOCK 1-2

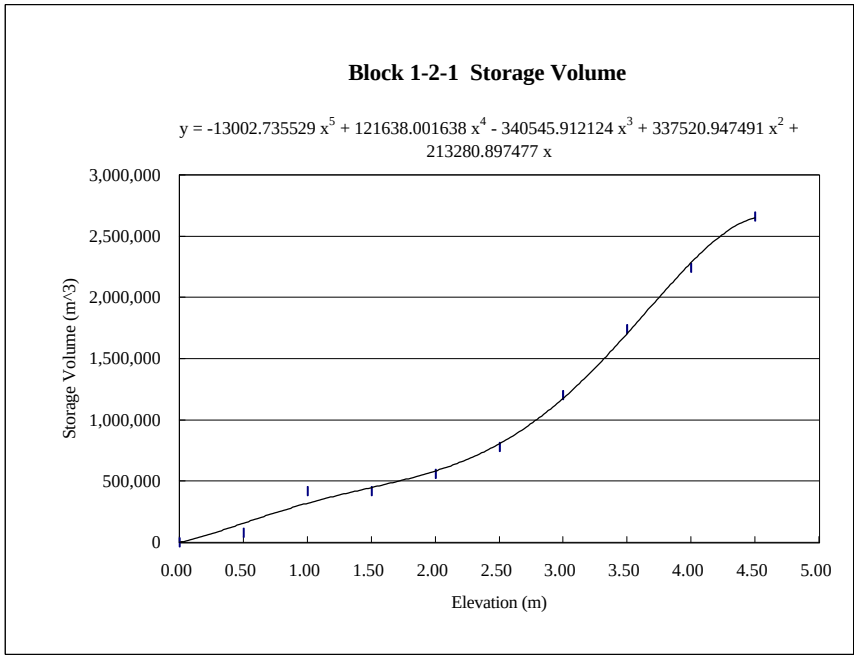
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0	0	0
11	440,000	440,000	0.50	220,000	220,000
19	760,000	1,200,000	1	600,000	380,000
100	4,000,000	5,200,000	1.50	2,600,000	2,000,000
32	1,280,000	6,480,000	2	3,240,000	640,000
87	3,480,000	9,960,000	2.50	4,980,000	1,740,000
128	5,120,000	15,080,000	3	7,540,000	2,560,000
147	5,880,000	20,960,000	3.50	10,480,000	2,940,000
73	2,920,000	23,880,000	4	11,940,000	1,460,000
102	4,080,000	27,960,000	4.50	13,980,000	2,040,000
42	1,680,000	29,640,000	5	14,820,000	840,000
41	1,640,000	31,280,000	5.50	15,640,000	820,000
35	1,400,000	32,680,000	6	16,340,000	700,000
39	1,560,000	34,240,000	6.50	17,120,000	780,000
32	1,280,000	35,520,000	7	17,760,000	640,000



3) Simulation Block Data 3

BLOCK 1-2-1

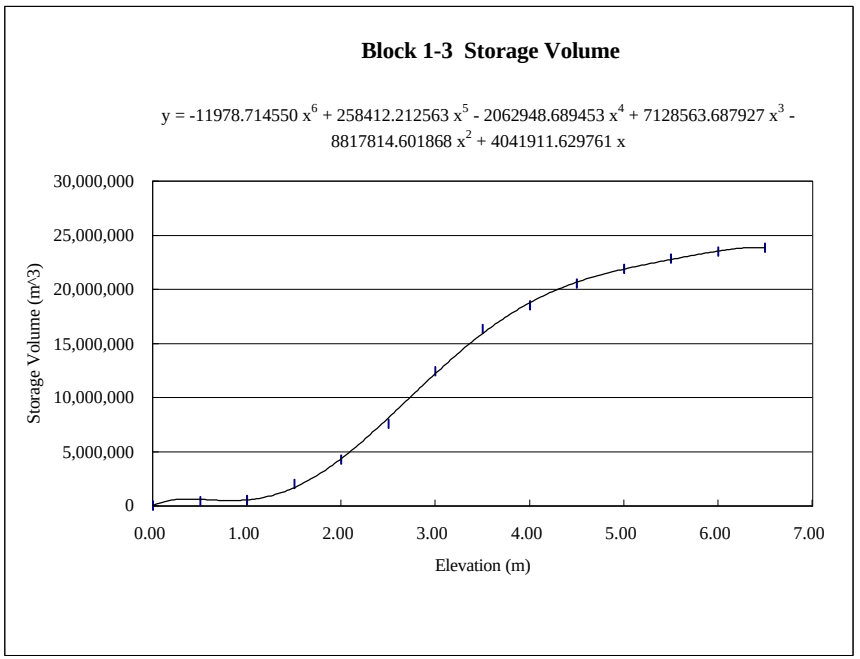
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
4	160,000	160,000	0.50	80,000	80,000
17	680,000	840,000	1.00	420,000	340,000
0	0	840,000	1.50	420,000	0
7	280,000	1,120,000	2.00	560,000	140,000
11	440,000	1,560,000	2.50	780,000	220,000
21	840,000	2,400,000	3.00	1,200,000	420,000
27	1,080,000	3,480,000	3.50	1,740,000	540,000
25	1,000,000	4,480,000	4.00	2,240,000	500,000
21	840,000	5,320,000	4.50	2,660,000	420,000
4	160,000	5,480,000	5.00	2,740,000	80,000
0	0	5,480,000	5.50	2,740,000	0
0	0	5,480,000	6.00	2,740,000	0
0	0	5,480,000	6.50	2,740,000	0



3) Simulation Block Data 4

BLOCK 1-3

No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
22	880,000	880,000	0.50	440,000	440,000
4	160,000	1,040,000	1.00	520,000	80,000
76	3,040,000	4,080,000	1.50	2,040,000	1,520,000
110	4,400,000	8,480,000	2.00	4,240,000	2,200,000
167	6,680,000	15,160,000	2.50	7,580,000	3,340,000
241	9,640,000	24,800,000	3.00	12,400,000	4,820,000
197	7,880,000	32,680,000	3.50	16,340,000	3,940,000
109	4,360,000	37,040,000	4.00	18,520,000	2,180,000
100	4,000,000	41,040,000	4.50	20,520,000	2,000,000
68	2,720,000	43,760,000	5.00	21,880,000	1,360,000
48	1,920,000	45,680,000	5.50	22,840,000	960,000
33	1,320,000	47,000,000	6.00	23,500,000	660,000
16	640,000	47,640,000	6.50	23,820,000	320,000



3) Simulation Block Data 5

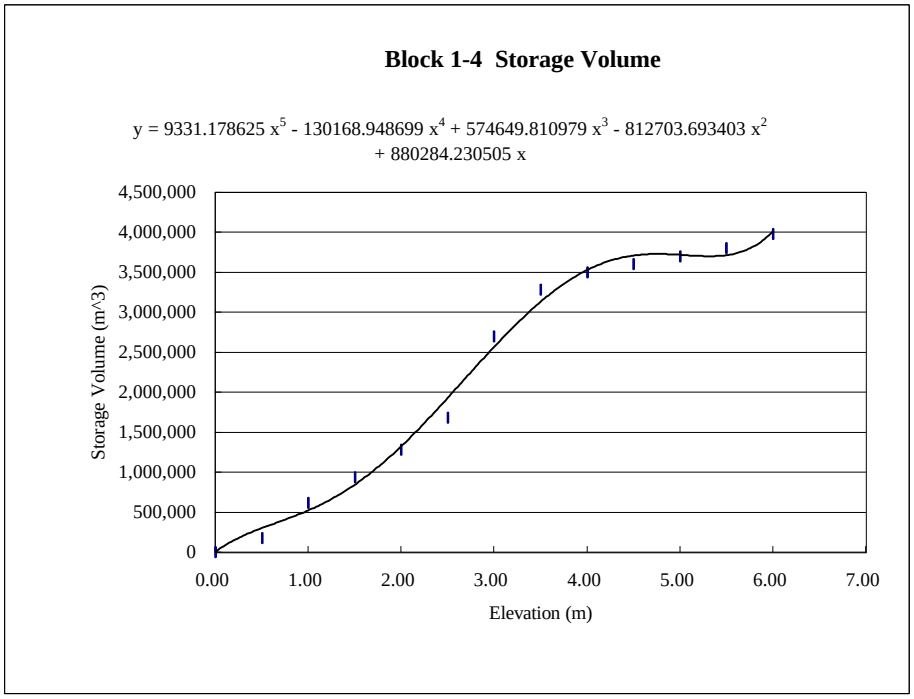
BLOCK 1-4

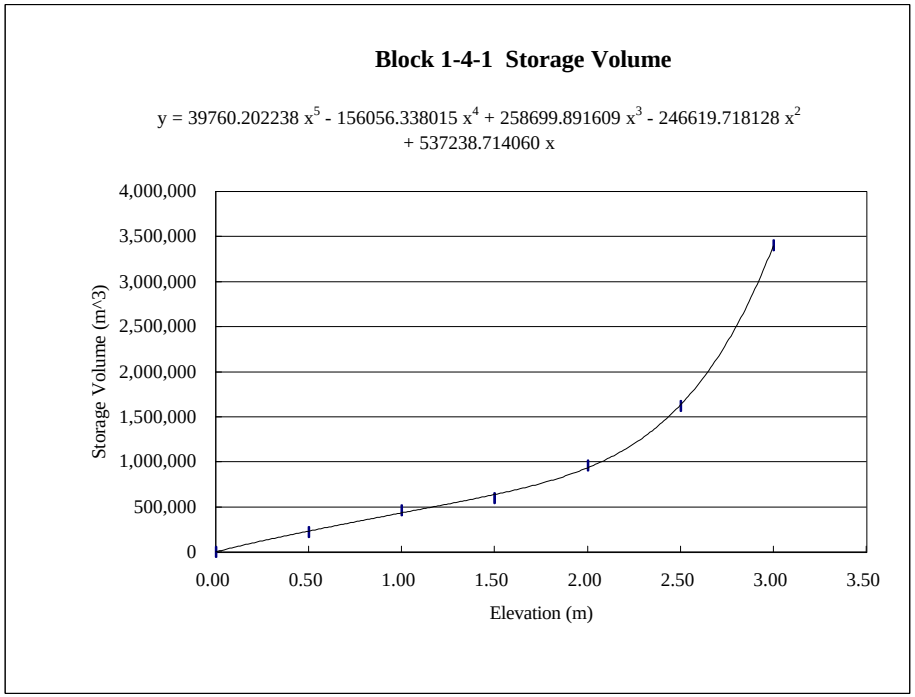
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
9	360,000	360,000	0.50	180,000	180,000
22	880,000	1,240,000	1.00	620,000	440,000
16	640,000	1,880,000	1.50	940,000	320,000
17	680,000	2,560,000	2.00	1,280,000	340,000
20	800,000	3,360,000	2.50	1,680,000	400,000
51	2,040,000	5,400,000	3.00	2,700,000	1,020,000
29	1,160,000	6,560,000	3.50	3,280,000	580,000
11	440,000	7,000,000	4.00	3,500,000	220,000
5	200,000	7,200,000	4.50	3,600,000	100,000
5	200,000	7,400,000	5.00	3,700,000	100,000
5	200,000	7,600,000	5.50	3,800,000	100,000
9	360,000	7,960,000	6.00	3,980,000	180,000

3) Simulation Block Data 6

BLOCK 1-4-1

No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
11	440,000	440,000	0.50	220,000	220,000
12	480,000	920,000	1.00	460,000	240,000
7	280,000	1,200,000	1.50	600,000	140,000
18	720,000	1,920,000	2.00	960,000	360,000
33	1,320,000	3,240,000	2.50	1,620,000	660,000
89	3,560,000	6,800,000	3.00	3,400,000	1,780,000
28	1,120,000	7,920,000	3.50	3,960,000	560,000
18	720,000	8,640,000	4.00	4,320,000	360,000
9	360,000	9,000,000	4.50	4,500,000	180,000
5	200,000	9,200,000	5.00	4,600,000	100,000
5	200,000	9,400,000	5.50	4,700,000	100,000

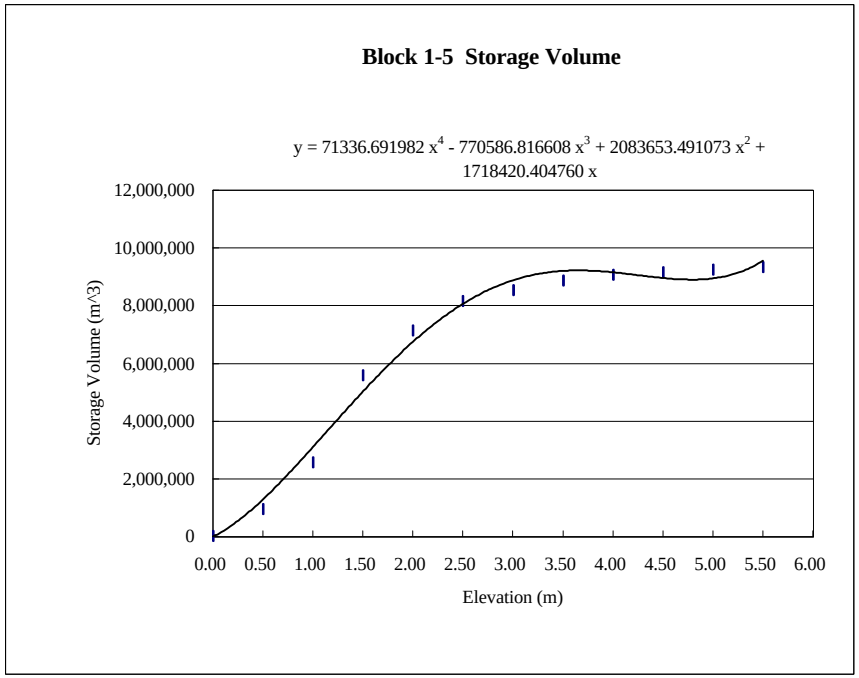




3) Simulation Block Data 7

BLOCK 1-5

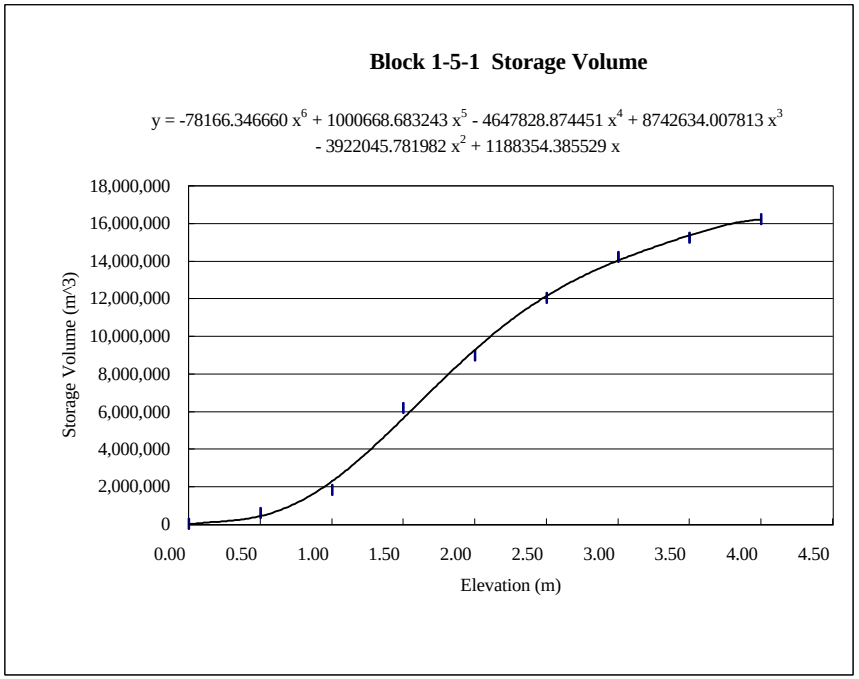
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
1	40,000	40,000	0.00	20,000	20,000
47	1,880,000	1,920,000	0.50	960,000	940,000
81	3,240,000	5,160,000	1.00	2,580,000	1,620,000
150	6,000,000	11,160,000	1.50	5,580,000	3,000,000
78	3,120,000	14,280,000	2.00	7,140,000	1,560,000
51	2,040,000	16,320,000	2.50	8,160,000	1,020,000
19	760,000	17,080,000	3.00	8,540,000	380,000
17	680,000	17,760,000	3.50	8,880,000	340,000
10	400,000	18,160,000	4.00	9,080,000	200,000
4	160,000	18,320,000	4.50	9,160,000	80,000
5	200,000	18,520,000	5.00	9,260,000	100,000
4	160,000	18,680,000	5.50	9,340,000	80,000



3) Simulation Block Data 8

BLOCK 1-5-1

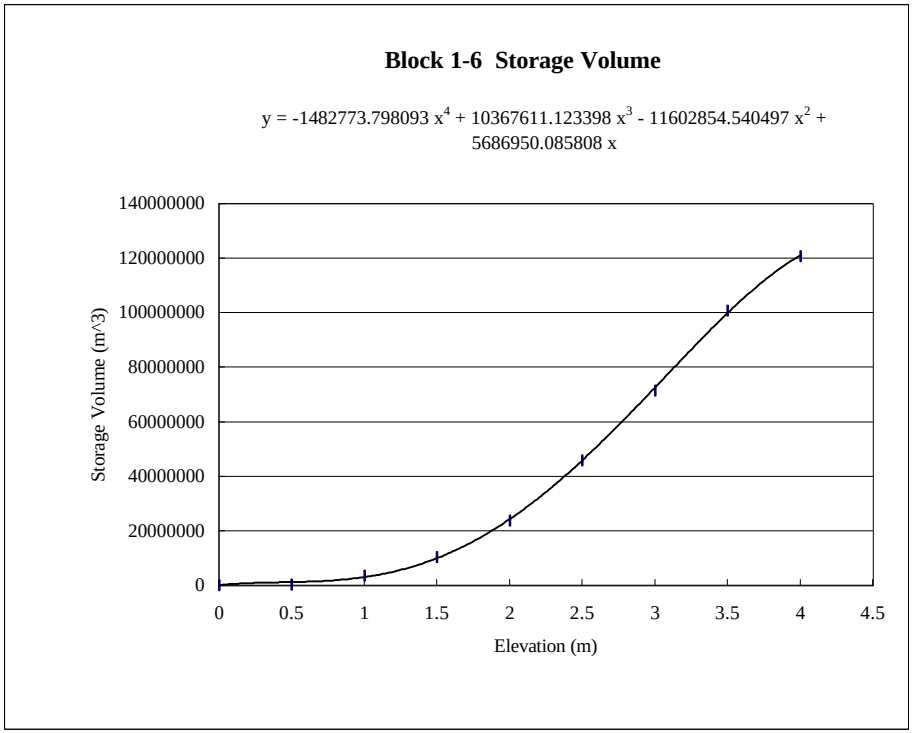
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
1	40,000	40,000	0.00	20,000	20,000
30	1,200,000	1,240,000	0.50	620,000	600,000
61	2,440,000	3,680,000	1.00	1,840,000	1,220,000
218	8,720,000	12,400,000	1.50	6,200,000	4,360,000
140	5,600,000	18,000,000	2.00	9,000,000	2,800,000
152	6,080,000	24,080,000	2.50	12,040,000	3,040,000
110	4,400,000	28,480,000	3.00	14,240,000	2,200,000
51	2,040,000	30,520,000	3.50	15,260,000	1,020,000
48	1,920,000	32,440,000	4.00	16,220,000	960,000
12	480,000	32,920,000	4.50	16,460,000	240,000
8	320,000	33,240,000	5.00	16,620,000	160,000



3) Simulation Block Data 9

BLOCK 1-6

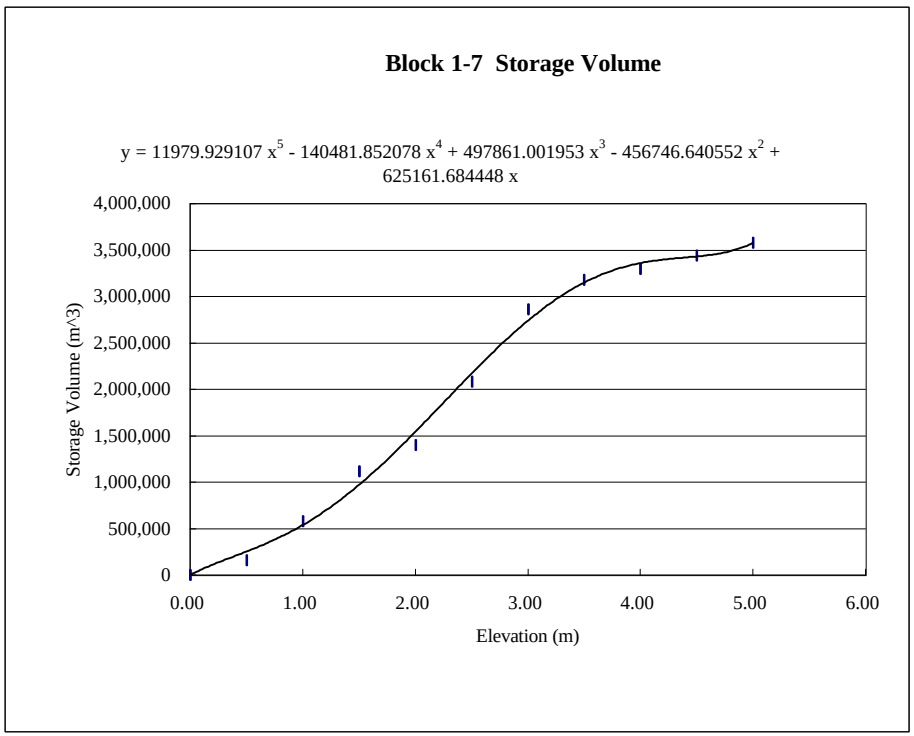
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0	0	0
16	640,000	640,000	0.50	320,000	320,000
156	6,240,000	6,880,000	1	3,440,000	3,120,000
348	13,920,000	20,800,000	1.50	10,400,000	6,960,000
672	26,880,000	47,680,000	2	23,840,000	13,440,000
1104	44,160,000	91,840,000	2.50	45,920,000	22,080,000
1280	51,200,000	143,040,000	3	71,520,000	25,600,000
1464	58,560,000	201,600,000	3.50	100,800,000	29,280,000
996	39,840,000	241,440,000	4	120,720,000	19,920,000
736	29,440,000	270,880,000	4.50	135,440,000	14,720,000
384	15,360,000	286,240,000	5	143,120,000	7,680,000
168	6,720,000	292,960,000	5.50	146,480,000	3,360,000



3) Simulation Block Data 10

BLOCK 1-7

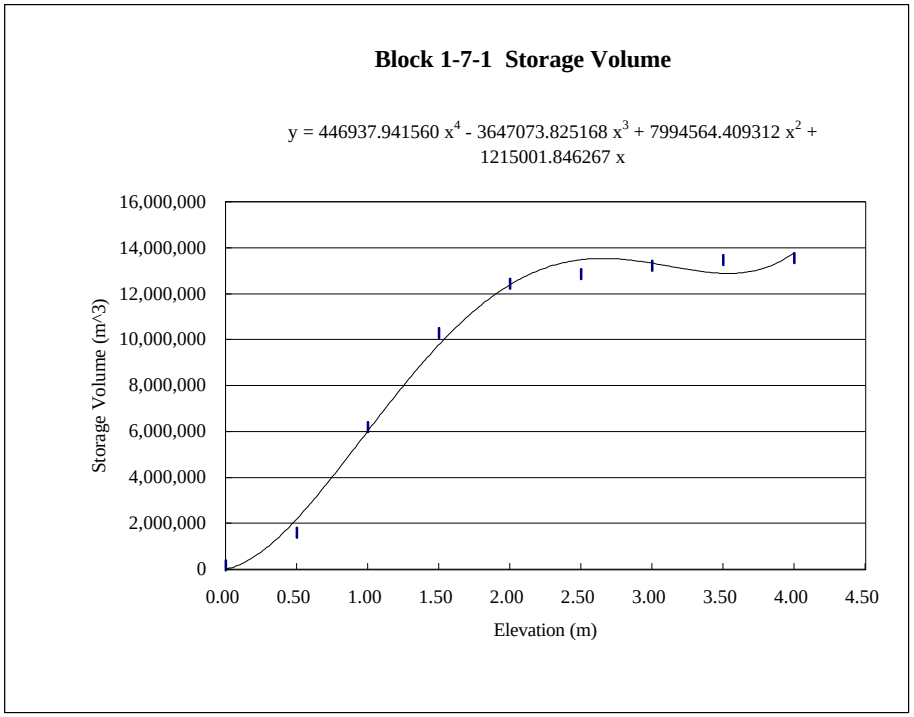
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
8	320,000	320,000	0.50	160,000	160,000
21	840,000	1,160,000	1.00	580,000	420,000
27	1,080,000	2,240,000	1.50	1,120,000	540,000
14	560,000	2,800,000	2.00	1,400,000	280,000
34	1,360,000	4,160,000	2.50	2,080,000	680,000
39	1,560,000	5,720,000	3.00	2,860,000	780,000
16	640,000	6,360,000	3.50	3,180,000	320,000
6	240,000	6,600,000	4.00	3,300,000	120,000
7	280,000	6,880,000	4.50	3,440,000	140,000
7	280,000	7,160,000	5.00	3,580,000	140,000



3) Simulation Block Data 11

BLOCK 1-7-1

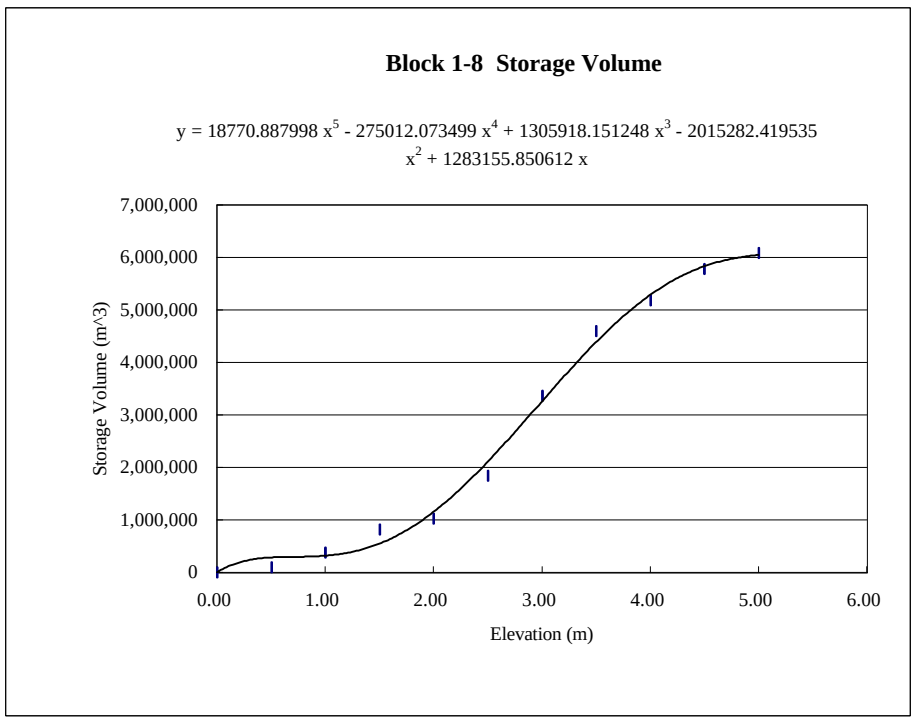
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
8	320,000	320,000	0.00	160,000	160,000
71	2,840,000	3,160,000	0.50	1,580,000	1,420,000
231	9,240,000	12,400,000	1.00	6,200,000	4,620,000
204	8,160,000	20,560,000	1.50	10,280,000	4,080,000
108	4,320,000	24,880,000	2.00	12,440,000	2,160,000
21	840,000	25,720,000	2.50	12,860,000	420,000
17	680,000	26,400,000	3.00	13,200,000	340,000
13	520,000	26,920,000	3.50	13,460,000	260,000
5	200,000	27,120,000	4.00	13,560,000	100,000



3) Simulation Block Data 12

BLOCK 1-8

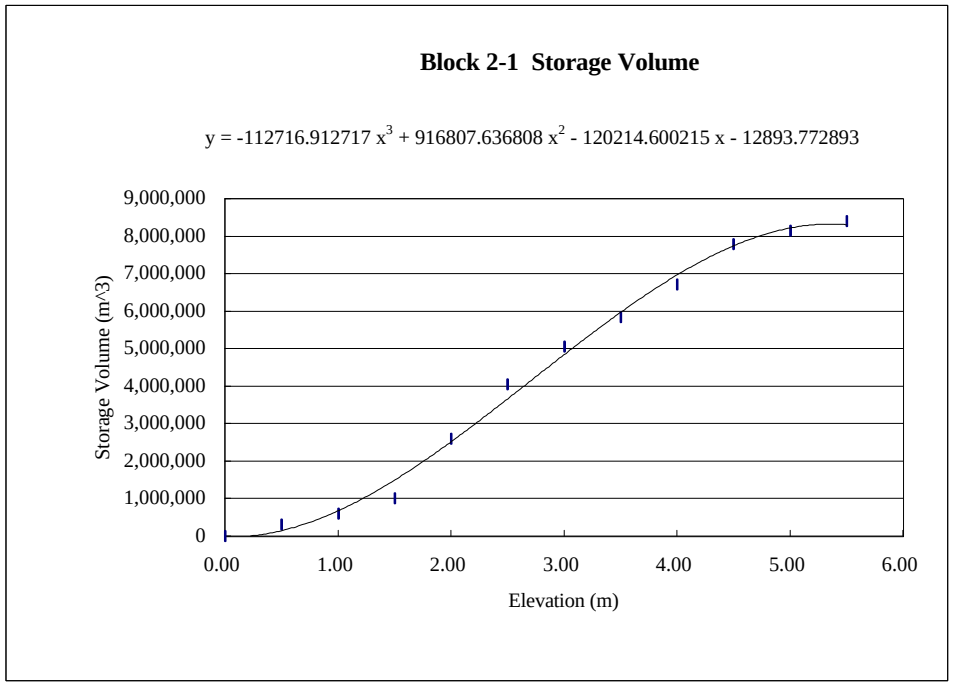
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
5	200,000	200,000	0.50	100,000	100,000
14	560,000	760,000	1.00	380,000	280,000
22	880,000	1,640,000	1.50	820,000	440,000
10	400,000	2,040,000	2.00	1,020,000	200,000
41	1,640,000	3,680,000	2.50	1,840,000	820,000
76	3,040,000	6,720,000	3.00	3,360,000	1,520,000
62	2,480,000	9,200,000	3.50	4,600,000	1,240,000
29	1,160,000	10,360,000	4.00	5,180,000	580,000
30	1,200,000	11,560,000	4.50	5,780,000	600,000
15	600,000	12,160,000	5.00	6,080,000	300,000



3) Simulation Block Data 13

BLOCK 2-1

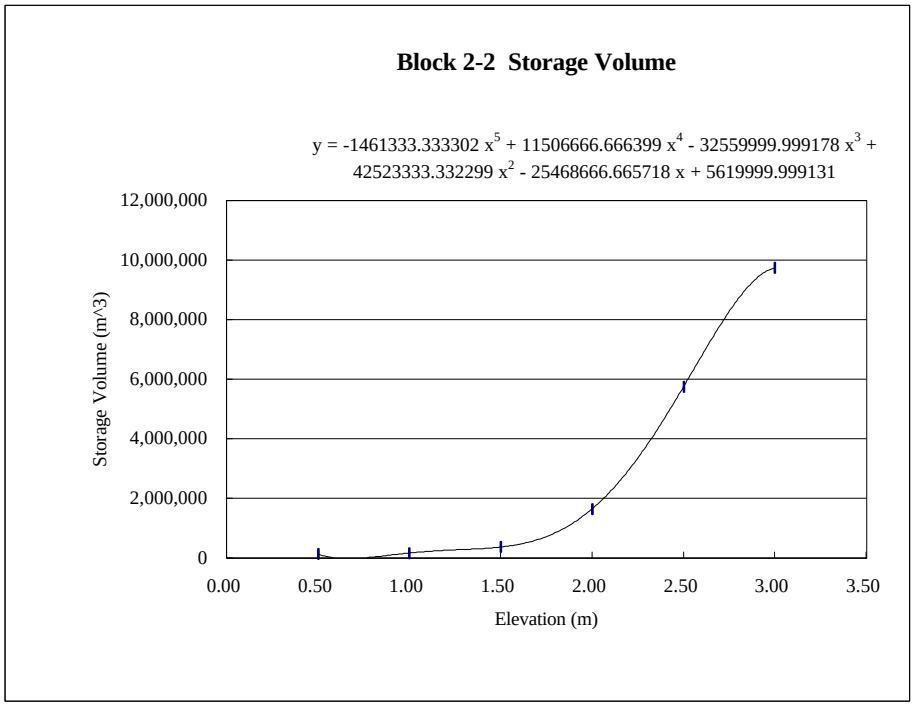
No. of Block	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0.00	0	0
15	0.50	300,000	300,000
15	1.00	600,000	300,000
20	1.50	1,000,000	400,000
80	2.00	2,600,000	1,600,000
72	2.50	4,040,000	1,440,000
51	3.00	5,060,000	1,020,000
39	3.50	5,840,000	780,000
44	4.00	6,720,000	880,000
53	4.50	7,780,000	1,060,000
18	5.00	8,140,000	360,000
13	5.50	8,400,000	260,000



3) Simulation Block Data 14

BLOCK 2-2

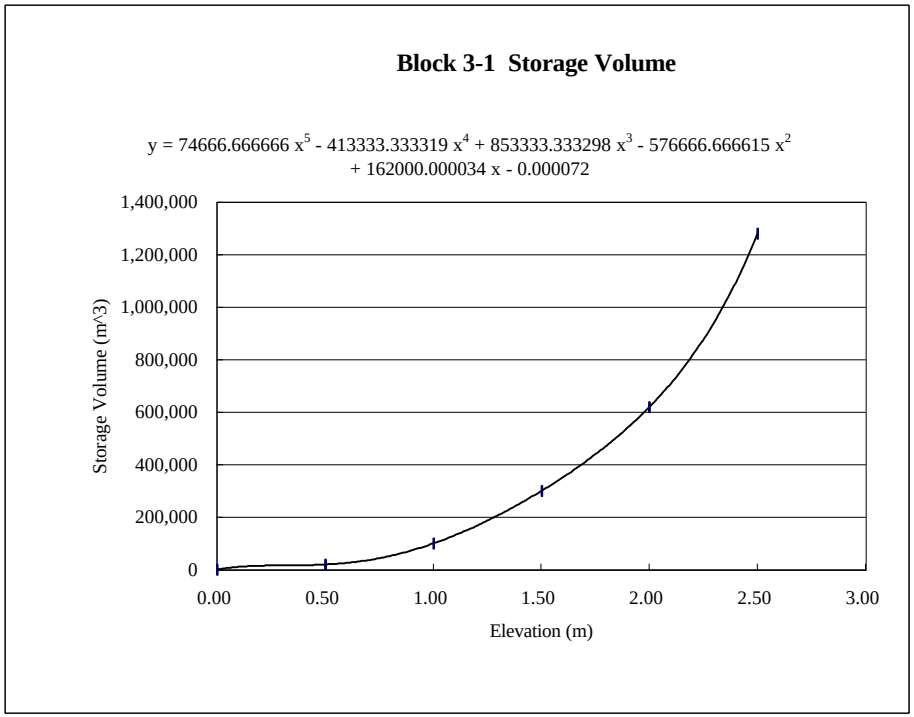
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
6	240,000	240,000	0.50	120,000	120,000
2	80,000	320,000	1.00	160,000	40,000
10	400,000	720,000	1.50	360,000	200,000
64	2,560,000	3,280,000	2.00	1,640,000	1,280,000
205	8,200,000	11,480,000	2.50	5,740,000	4,100,000
200	8,000,000	19,480,000	3.00	9,740,000	4,000,000
44	1,760,000	21,240,000	3.50	10,620,000	880,000
17	680,000	21,920,000	4.00	10,960,000	340,000
23	920,000	22,840,000	4.50	11,420,000	460,000
32	1,280,000	24,120,000	5.00	12,060,000	640,000



3) Simulation Block Data 15

BLOCK 3-1

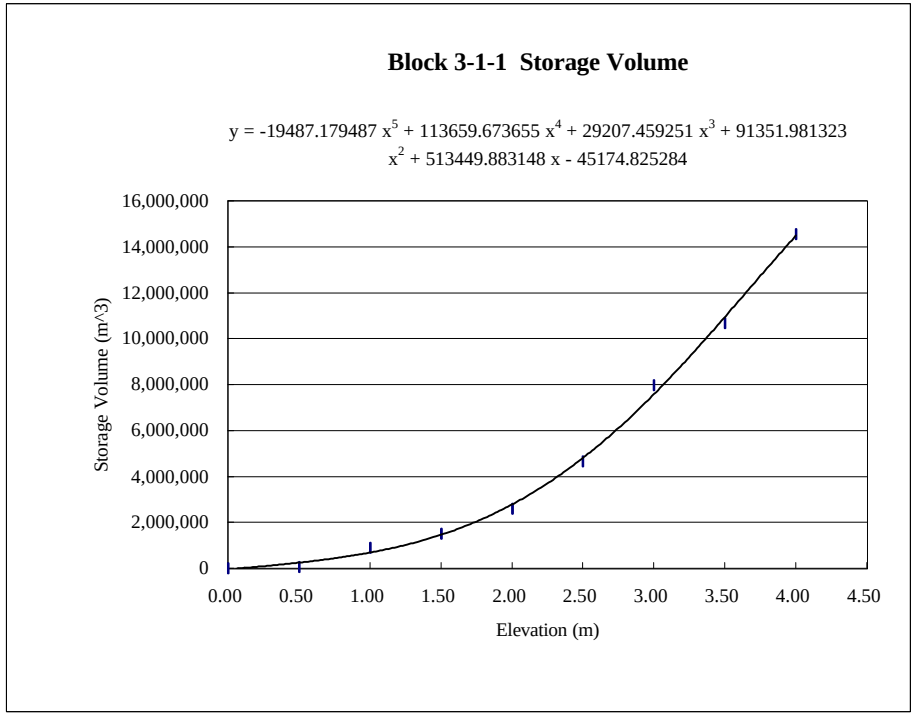
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
1	40,000	40,000	0.50	20,000	20,000
4	160,000	200,000	1.00	100,000	80,000
10	400,000	600,000	1.50	300,000	200,000
16	640,000	1,240,000	2.00	620,000	320,000
33	1,320,000	2,560,000	2.50	1,280,000	660,000
11	440,000	3,000,000	3.00	1,500,000	220,000
2	80,000	3,080,000	3.50	1,540,000	40,000
12	480,000	3,560,000	4.00	1,780,000	240,000
6	240,000	3,800,000	4.50	1,900,000	120,000
2	80,000	3,880,000	5.00	1,940,000	40,000



3) Simulation Block Data 16

BLOCK 3-1-1

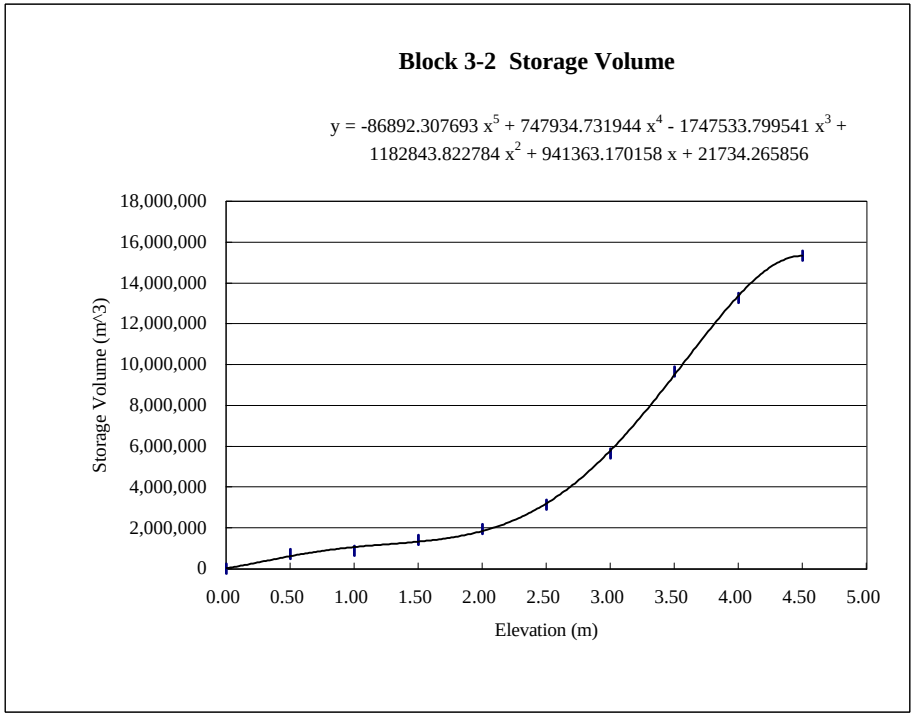
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
3	120,000	120,000	0.50	60,000	60,000
42	1,680,000	1,800,000	1.00	900,000	840,000
30	1,200,000	3,000,000	1.50	1,500,000	600,000
55	2,200,000	5,200,000	2.00	2,600,000	1,100,000
103	4,120,000	9,320,000	2.50	4,660,000	2,060,000
166	6,640,000	15,960,000	3.00	7,980,000	3,320,000
135	5,400,000	21,360,000	3.50	10,680,000	2,700,000
193	7,720,000	29,080,000	4.00	14,540,000	3,860,000
156	6,240,000	35,320,000	4.50	17,660,000	3,120,000
118	4,720,000	40,040,000	5.00	20,020,000	2,360,000
83	3,320,000	43,360,000	5.50	21,680,000	1,660,000



3) Simulation Block Data 17

BLOCK 3-2

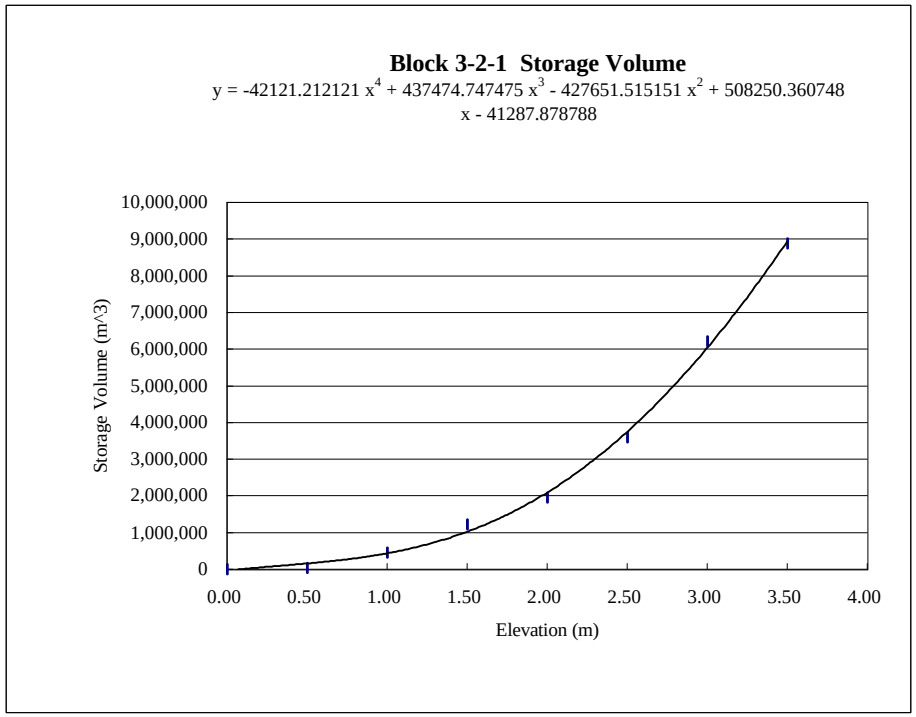
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
36	1,440,000	1,440,000	0.50	720,000	720,000
8	320,000	1,760,000	1.00	880,000	160,000
26	1,040,000	2,800,000	1.50	1,400,000	520,000
27	1,080,000	3,880,000	2.00	1,940,000	540,000
60	2,400,000	6,280,000	2.50	3,140,000	1,200,000
125	5,000,000	11,280,000	3.00	5,640,000	2,500,000
201	8,040,000	19,320,000	3.50	9,660,000	4,020,000
181	7,240,000	26,560,000	4.00	13,280,000	3,620,000
103	4,120,000	30,680,000	4.50	15,340,000	2,060,000
41	1,640,000	32,320,000	5.00	16,160,000	820,000
14	560,000	32,880,000	5.50	16,440,000	280,000
1	40,000	32,920,000	6.00	16,460,000	20,000



3) Simulation Block Data 18

BLOCK 3-2-1

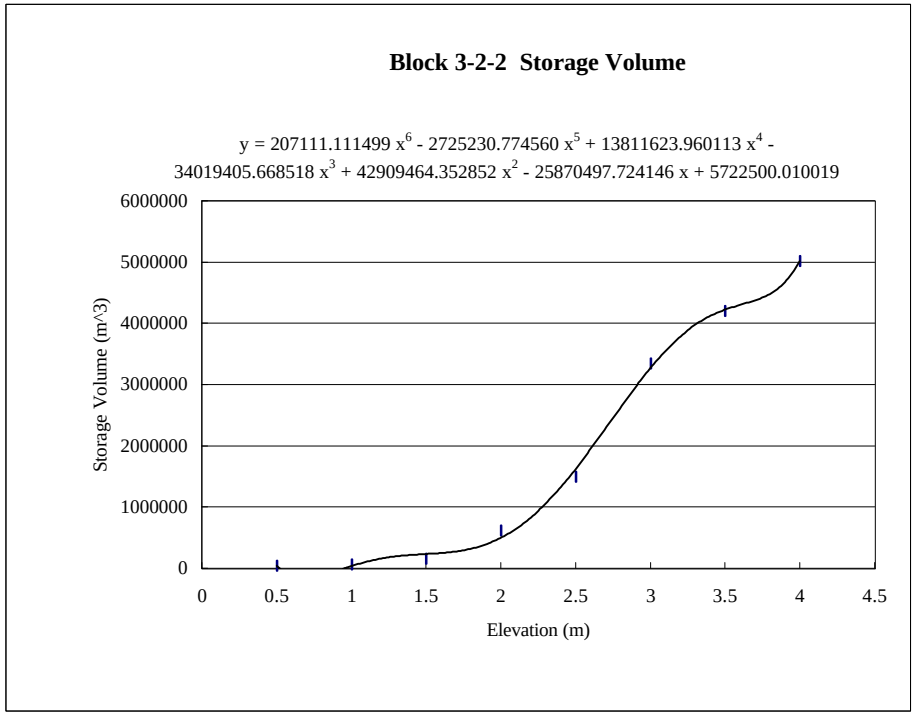
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
2	80,000	80,000	0.50	40,000	40,000
21	840,000	920,000	1.00	460,000	420,000
38	1,520,000	2,440,000	1.50	1,220,000	760,000
37	1,480,000	3,920,000	2.00	1,960,000	740,000
82	3,280,000	7,200,000	2.50	3,600,000	1,640,000
131	5,240,000	12,440,000	3.00	6,220,000	2,620,000
133	5,320,000	17,760,000	3.50	8,880,000	2,660,000
30	1,200,000	18,960,000	4.00	9,480,000	600,000
36	1,440,000	20,400,000	4.50	10,200,000	720,000
52	2,080,000	22,480,000	5.00	11,240,000	1,040,000
31	1,240,000	23,720,000	5.50	11,860,000	620,000



3) Simulation Block Data 19

BLOCK 3-2-2

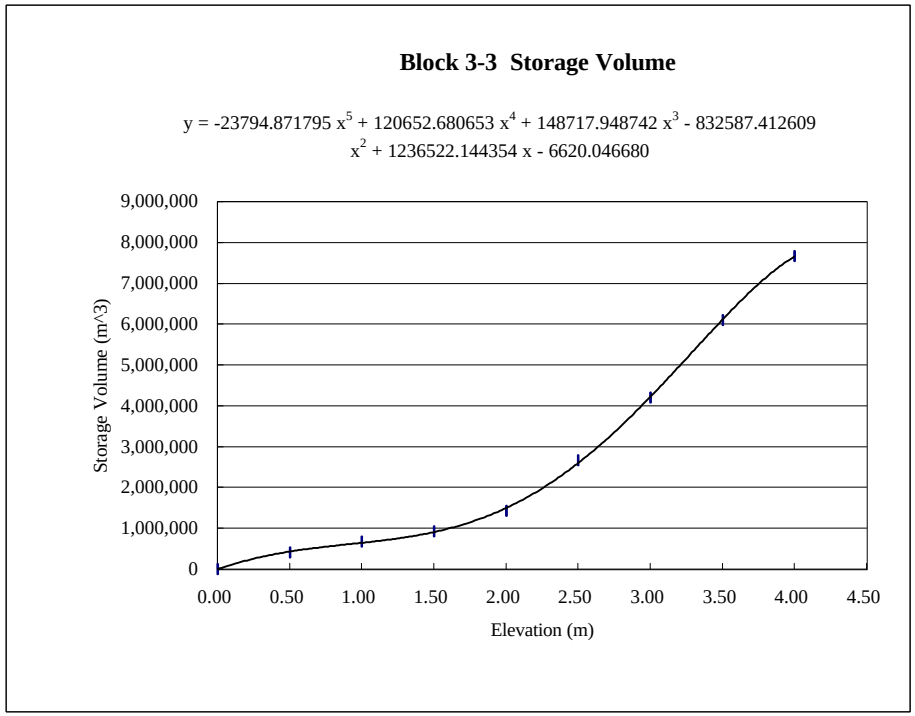
No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
2	80,000	80,000	0.50	40,000	40,000
1	40,000	120,000	1.00	60,000	20,000
5	200,000	320,000	1.50	160,000	100,000
23	920,000	1,240,000	2.00	620,000	460,000
44	1,760,000	3,000,000	2.50	1,500,000	880,000
92	3,680,000	6,680,000	3.00	3,340,000	1,840,000
43	1,720,000	8,400,000	3.50	4,200,000	860,000
41	1,640,000	10,040,000	4.00	5,020,000	820,000
28	1,120,000	11,160,000	4.50	5,580,000	560,000
22	880,000	12,040,000	5.00	6,020,000	440,000
16	640,000	12,680,000	5.50	6,340,000	320,000



3) Simulation Block Data 20

BLOCK 3-3

No. of Block	Area (m^2)	Accumulated Area (m^2)	Elevation (m)	Accumulated Volume (m^3)	Volume (m^3)
0	0	0	0.00	0	0
20	800,000	800,000	0.50	400,000	400,000
14	560,000	1,360,000	1.00	680,000	280,000
12	480,000	1,840,000	1.50	920,000	240,000
25	1,000,000	2,840,000	2.00	1,420,000	500,000
62	2,480,000	5,320,000	2.50	2,660,000	1,240,000
77	3,080,000	8,400,000	3.00	4,200,000	1,540,000
95	3,800,000	12,200,000	3.50	6,100,000	1,900,000
78	3,120,000	15,320,000	4.00	7,660,000	1,560,000
70	2,800,000	18,120,000	4.50	9,060,000	1,400,000
49	1,960,000	20,080,000	5.00	10,040,000	980,000
21	840,000	20,920,000	5.50	10,460,000	420,000



PART V

Photos

PHOTOS

Table of Contents

1st Steering Committee
at MEPRD on Inception Report
(Aug. 1999)

2nd Steering Committee
at MEPRD on P/R (1)
(Nov. 1999)

3rd Steering Committee
at MEPRD on Interim Report
(May 2000)

Meeting
on water level management
(May 2000)

4th Steering Committee
at MEPRD on P/R (2)
(Jul. 2000)

4th Steering Committee
at MEPRD on P/R (2)
(Jul. 2000)

Steering Committees

1st Workshop on P/R (1)
(Nov. 1999)

1st Workshop on P/R (1)
(Nov. 1999)

2nd Workshop on P/R (2)
(Jul. 2000)

Workshops

1st Informal Meeting
on fishery (Aug. 1999)

1st Informal Meeting
on fishery (Aug. 1999)

2nd Informal Meeting
on agriculture and forestry
(Sep. 1999)

2nd Informal Meeting
on agriculture and forestry
(Sep. 1999)

3rd Informal Meeting
on eco-tourism (Jul. 2000)

3rd Informal Meeting
on eco-tourism (Jul. 2000)

Informal Meetings

Beaver dam 1

Beaver dam 2

Close-up of Bog

Teirumniku bog

Lake in the middle of
the Teirumniku bog

Scenery along the Idena canal

Aquatic plant typical for wetlands

Water bird in Kvapani fishpond

Water bird in Nagli fishpond

Flower in the Orenisu fishpond

Scenery from the east shore
of Lake Lubana

Scenery in the Orenisu fishpond

Typical Sceneries in the Study Area (LWC)

Departure from the Rezekne Airport

Lake Lubana
near the Aiviekste sluice

Grassland in Grivu,
a suitable feeding place for raptors

Idena fishpond

Gomelis marshy grassland
and Lake Lubana

Drainage in Grivu

Forest in Gaigalava

Kvapani fishpond

Drainage in Parabaine

Reconnaissance by Airplane over the Study Area (LWC) in June 2000

Floodplain in Indrani

Fllodplain in the western part
of Lake Lubana

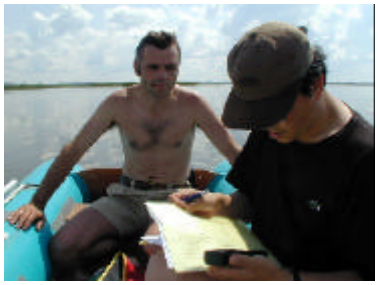
Flood plain along the Aiviekste

Floodplain in the Study Area (LWC)

Peat bog adjacent to Lake Lubana

Aiviekste sluice and
Lake Lubana in winter

Field reconnaissance in LWC



Measuring the depth of
Lake Lubana
in fish wintering places

Setting of water gauge
in a well of LWC

Local industry

Field reconnaissance
in Lake Engre

Bird watching tower
in Lake Engre

Field reconnaissance
in the state Nagli fish firm

Fish catching in Nagli

Fish incubators

Local horses

Field reconnaissance with
Chairman of Rezekne
District Council

Meeting on eco-tourism

Log house made of
local material

Field Reconnaissances

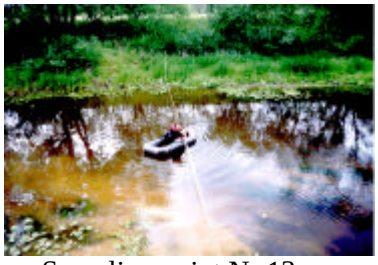
Sampling point Nr.2 – Oreniešu pond (1999)

Sampling point Nr.9 – Malta river Nagli lockage (1999)

Sampling point Nr.14 – Vecpededze river near village "Mierini" (2000)

Sampling point Nr.6 – Lubana lake opposite Malta crease (1999)

Sampling point Nr.11 – Ica river (2000)



Sampling point Nr.13 – Bolupe river (2000)

Water Quality Survey in 1999 and 2000

Swans in the Kvapani fishpond

Black headed gull and lapwings on the meadow in front of Orenisu fishpond

Reeds in the Orenisu fishpond

Swans on the Lodani fishpond

Dactylorhiza maculata (left)
Dactylorhiza incarnata (right)

Meadow - Drained Idena fishpond

Regional Ecosystem Survey in Spring 2000

PART VI

Terms of Reference for the Entrusted Surveys

TERMS OF REFERENCE
FOR
FOUR ENTRUSTED SURVEYS

Table of Contents

TERMS OF REFERENCE
FOR
WATER QUALITY SURVEY (1999)

1. Objective

The objective of the water quality survey is to collect precise and current data of water quality in and around the Lubana lake.

2. Items of Water Quality Survey

The 24 items to be measured and analyzed are shown as follows:

- pH	- SS	-Hardness	
- DO	- COD_{Mn}	- COD_{Cr}	
- BOD	- NH_4-N	- NO_2-N	
- NO_3-N	-T-P	- T-N	
-PO_4-P	- Phenol	- CN	- As
- Hg	- Cr^{6+}	- Pb	
- Cd	- Oil	- Coliform number	
- EC	- Pesticide		

3. Survey Points

Survey points are in accordance with the attached survey points map. The survey shall be implemented at fifteen (18) points as follows:

- Seven (7) points on the surface of Lubana Lake and of the culture ponds near the lake
- Eleven (11) points on the surface of the rivers or drainage canals, including 1 point at the outskirts of Rezekne city

4. Frequency

The survey frequency is one (1) time (late in August or in September, 1999).

5. Survey Methods

1) Weather, air temperature and water temperature shall be measured and/or recorded at the sampling time at each survey point.
2) Transparency, depth of water and floating matters at seven (7) points of the lake or ponds shall be measured and/or recorded at the sampling time.
3) The flow rate at eleven (11) points of the rivers or canals should be measured at the sampling time.

6. Data arrangement

1) Results of the survey shall be arranged into the tables with date and time of the survey and location map.
2) Methodology of field measurement and laboratory analysis shall be identified and described in the report.

7. Reports

1) The report, five (5) copies in English and three (3) copies in Latvian, must be submitted.
2) All data shall be submitted on diskettes in DOS text format.
3) Photograph showing the sampling points and field measurement scene shall be taken and be attached in the reports.

TERMS OF REFERENCE
FOR
QUESTIONNAIRE SURVEY TO LOCAL PEOPLE (1999)

1. Objective of Survey

To collect information about the public opinions on the environmental conservation and development issues, values, and willingness-to-pay for environmental conservation/services.

2. Area Subject to Survey and Number of Sampling

One % of the households in Rezeknes、Madonas、Balvu and Gulbenes districts

3. Method of Survey

- Random sampling design of target households, and
- Data collection with questionnaire, by means of direct interview by visit or indirect inquiry by mailing to sample households

4. Main Items Included in Questionnaire

Subject	Questions
Socio-economic Condition	Number of household members, Income, Occupation, Educational level, Satisfactory level to living condition, etc.
Intention on Development	Issues on present local economy, Desirable direction of development, Expectation to eco-tourism, etc.
Intention on Environment	Satisfactory level to surrounding environment, Recreational activities in Lubanas Wetland area, Other activities in the wetland, Environmental issues in and around the wetlands, etc.
Value of Lubanas Wetlands	Significance of the wetland's existence, Necessity of the wetland conservation, Preference between development and conservation, Satisfactory level to the wetland landscape, WTP to conserve the wetland, WTAC (willingness to accept compensation) for environmental degradation of the wetland, Intention to voluntarily join environmental activities, etc.

5. Analysis and Data Processing

Being based on the results of the answered questionnaires:

- To analyze local people's intention and preference on environmental protection and development
- To clarify issues related to local people's living and environmental conditions
- To statistically edit the survey data, especially for WTP, including average, % and so on.

6. Survey Duration: 1.5 months (the last ten days of August ~ October, 1999)

7. Output

- Draft Final Reports and Final Reports (each 5 copies in English and Latvian)
- Filled questionnaires
- Floppy disks including the report contents prepared by Office 97 for Windows 95/98

Date: _____

QUESTIONNAIRE TO LOCAL RESIDENTS

1. Address: _____
2. Number of total household members: _____ (persons)
3. Main occupations household members live on:
   - 3.1 Farmer 3.2 Tourism industry
   - 3.3 Private services (restaurant, drivers, retailer, trader, etc.)
   - 3.4 Public civil servant (official, policeman, etc.) 3.5 Fisheries
   - 3.6 Professional (doctor, lawyer, etc.)
   - 3.7 Other ( )
4. Amount of household's monthly total income (before tax payment) on average during the last 12 months: _____ Ls/month
5. The household members have visited the Lubana lake for recreational purpose, not for working : (Put circle only one item.)
   - 5.1 never 5.2 less than one time a year 5.3 2 ~ 5 times a year
   - 5.4 6 ~ 10 times a year 5.5 more than 10 times a year
   - 5.6 much more frequently for recreational purpose such as fishing, jogging, walking, etc.
6. How do you usually come to the Lubana lake ?
   (Put circle only one item, unless you circled Item "5.1".)
   - 6.1 Private car 6.2 Hired car (e.g. chartered bus, taxi, etc.)
   - 6.3 Private motorbike 6.4 Boat/ship 6.5 Bicycle
   - 6.6 Local line-bus 6.7 On foot 6.8 Other (_____)
7. Do you hope for future tourism development in Lubana area?
   - 7.1 Yes 7.2 No 7.3Neither (no idea)
8. For those who answered "Yes", what you hope for?
   - 8.1 Increase of job opportunity
   - 8.2 Upgrade of infrastructure
   - 8.3 Improve of natural environment
   - 8.4 Others: _____
9. For those who answered "No", what you anticipate?
   - 9.1 Many people come from outside and their attitude
   - 9.2 Encroachment of natural environment
   - 9.3 Deterioration of landscape by tourism facilities such as hotels
   - 9.4 Increase of accident by increased cars
   - 9.5 Others: _____

10. Do you want to make Lubana area whether international or domestic tourism area?

10.1 International tourism area

10.2 Domestic tourism area

10.3 Both

10.4 Neither

11. Do you want to preserve Lubana area as it is ?

11.1 Yes, never change by any development

11.2 Yes, but some developments to improve residents' life are acceptable.

11.3 No, I do not mind any development is done.

11.4 No, but if living and natural environment can be kept as it is or better, some developments are acceptable.

11.5 No idea

11.6 Other opinion: _____

12. How can you cooperate the tourism development in Lubana area?

12.1 I really want to cooperate, if there is chance.

12.2 I can cooperate, If needed.

12.3 I can work as tourist guide in volunteer base (without wage).

12.4 I can cooperate, but other way:_____

12.5 I do not like to cooperate the development at all.

13. What kinds of facilities and/or plan will attract tourists to Lubana area?

Please describe:_____

14. What kinds of effect will be expected by the tourism development in Lubana area?

14.1 Positive effects:_____

14.2 Negative effects:_____

15. What kind of activities do you do in your holiday mainly?

Please describe:_____

16. What kind of recreations are popular in Lubana area?

Please describe:_____

In accompany with future economic activities and development, environment of the Lubana area will be degraded, conserved or improved with proper environmental protection measures. Please envisage the following three future images in your mind, and continue to answer the questions below :

Image A : Very polluted

Lubana area with Lubana lake will be very much polluted by water contamination, air pollution, unmanaged solid waste, etc. so that environment in Lubana area becomes as bad as being improper for recreation at all.

Image B : No change - conserved as now

Essential anti-pollution measures will be carried out to let present environmental conditions remain at the same level as now.

Image C : Slightly cleaner water

Full-scale anti-pollution and conservation measures will be implemented, and environmental quality o the Lubana area could be a little bit more improved.

17. Referring to your answer to the Question 4 above, in order to prevent severely degraded environmental situation of Lubana area like Image A, how many percentage to your household's monthly income will you donate every year ? (Please circle a percentage level !)

    17.1 0 % (no interest in donation)
    17.2 Less than 0.1 % (=Monthly Income x 0.001)
    17.3 0.1 ~ 0.5 % (=Monthly Income x 0.005)
    17.4 0.5 ~ 1.0 % (=Monthly Income x 0.01)
    17.5 1.0 ~ 1.5 % (=Monthly Income x 0.015)
    17.6 1.5 ~ 2.0 % (=Monthly Income x 0.02)
    17.7 2.0 ~ 2.5 % (=Monthly Income x 0.025)
    17.8 more than 2.5 % (_____ % of your monthly income)

18. Referring again to your answer to the Question 4 above, in order to conserve the present environmental situation of Lubana area like Image B, how many percentage to your household's monthly income will you donate every year ? (Please circle a percentage level !)

    18.1 0 % (no interest in donation)
    18.2 Less than 0.1 % (=Monthly Income x 0.001)
    18.3 0.1 ~ 0.5 % (=Monthly Income x 0.005)
    18.4 0.5 ~ 1.0 % (=Monthly Income x 0.01)
    18.5 1.0 ~ 1.5 % (=Monthly Income x 0.015)
    18.6 1.5 ~ 2.0 % (=Monthly Income x 0.02)
    18.7 2.0 ~ 2.5 % (=Monthly Income x 0.025)
    18.8 More than 2.5 % (_____ % of your monthly income)

19. Referring again to your answer to the Question 4 above, in order to realize slightly better environmental situation of Lubana area like Image C, how many percentage to your household's monthly income will you donate every year ? (Please circle a percentage level !)

    19.1 0 % (no interest in donation)
    19.2 Less than 0.1 % (=Monthly Income x 0.001)
    19.3 0.1 ~ 0.5 % (=Monthly Income x 0.005)
    19.4 0.5 ~ 1.0 % (=Monthly Income x 0.01)
    19.5 1.0 ~ 1.5 % (=Monthly Income x 0.015)
    19.6 1.5 ~ 2.0 % (=Monthly Income x 0.02)
    19.7 2.0 ~ 2.5 % (=Monthly Income x 0.025)
    19.8 more than 2.5 % (_____ % of your monthly income)

20. Is there any good landscape that you willingly watch near your residence?

	- Name of the place -	- Location of the place -
(A)		
(B)		
(C)		
(D)		
(E)		

21. What is your favorite point about above-mentioned places?

(Please put a tick on any favorite points !)

(Your favorite point)	(A)	(B)	(C)	(D)	(E)
- Mountain	☐	☐	☐	☐	☐
- Trees and woods	☐	☐	☐	☐	☐
- Grassy plain	☐	☐	☐	☐	☐
- Flower	☐	☐	☐	☐	☐
- Lake and pond	☐	☐	☐	☐	☐
- Birds and animals	☐	☐	☐	☐	☐
- Farm	☐	☐	☐	☐	☐
- Orchard	☐	☐	☐	☐	☐
- Row of trees	☐	☐	☐	☐	☐
- Row of houses and streets	☐	☐	☐	☐	☐
- Night scene	☐	☐	☐	☐	☐
- Sky and clouds	☐	☐	☐	☐	☐
- Spacious view	☐	☐	☐	☐	☐
- Composition of view	☐	☐	☐	☐	☐

- Other favorite points (Please specify below !)

(A) _____

(B) _____

(C) _____

(D) _____

(E) _____

TERMS OF REFERENCE
FOR
PREPARATION OF PAST AND PRESENT LAND USE MAPS (1999)

1. Objective

The objective is to prepare land use maps of the Study area, covering the Lubana wetland complex for 2 periods (the latest and the past), based on the Satellite data of these periods such as “SPOT” and “LANDSAT”. These maps will be a base to develop an environmental management plan for sustainable use of the wetland area.

2. Target Area

The area for which land use maps shall be prepared is approximately 78,000ha covering the whole study area.

3. Duration for Preparation

About 1.5 months (the last ten days of August ~ October, 1999)

4. Used Data

The data to be used for the map preparation should be the multiple spectrum data for the newest and the past. These data should be provided free from the Latvian counterpart agencies through Nippon Koei. Otherwise, the contracted local consultant must procure the data by themselves.

5. Methods

Required digital data for preparation of land use map shall be collected. Analog data shall be collected if necessary, and be converted to digital data. All collected/converted digital data should be saved by each element so that the data can be used for GIS. The followings are work flows of the preparation :

(1) Geometric correction
Using the existing topographic maps and so on, geometric correction is carried out to

unify coordinate system between these maps and the Satellite data.

(2) Preparation of false color image
The false color images (scale 1:50,000) are prepared for the 2 different periods, based on the Satellite data modified as above.

(3) Preparation of hypsographic data
Based on the existing topographic maps as well as the prepared false color images, data on major water bodies, roads, villages, location names, etc. are prepared.

(4) Land cover classification and image analysis
The requested land use maps (scale 1:50,000) are prepared by means of maximum likelihood method with the modified Satellite data and of analysis of the false color images. The land use maps will be prepared by either modifying the classified images on display or digitizing the analyzed data.

6. Land Use Classification

Classification of land use pattern shall be divided as much as possible, including forests, grassland (dry and wet), cultivated area, orchards, wetlands, residences, roads, railways, water bodies, peat mining area and so on. In principle, the least size is to be about 3 mm on map.

7. Requested Outputs

(1) False color images (scale 1:50,000, for the latest period) :
2 copies in English and 1 copy in Latvian
(2) False color images (scale 1:50,000, for the past period) :
2 copies in English and 1 copy in Latvian
(3) Land use maps output with color plotter (scale 1:50,000, for the latest period) :
2 copies in English and 1 copy in Latvian
(4) Land use maps output with color plotter (scale 1:50,000, for the past period) :
2 copies in English and 1 copy in Latvian
(5) Modified Satellite data (for the above 2 periods) : CD-ROM
(6) Land use data (for the above 2 periods) : CD-ROM (English and Latvian)

TERMS OF REFERENCE
FOR
REGIONAL ECOSYSTEM SURVEY (1999)

1. Survey Area : Lubana wetland area of approximately 78,000ha

2. Purpose:

To clarify the representative ecosystems with detailed ecological features in the light of the requirements by the Ramsar Convention, referring to :

- Information Sheet on Ramsar Wetlands (RIS), and
- Criteria for Identifying Wetlands of International Importance of the Ramsar Convention

3. Survey Duration : 1.5 months (the last ten days of August ~ October, 1999)

4. Survey Methods

The ecological survey is to be carried out primarily by using the existing data including the followings, with supplementary field surveys which will be implemented for typical wetland spots in the northern part of the study area :

(1) Database of the Institute of Forest Inventory,
(2) Research documents at University, and
(3) Publication by the Royal Society of the Protection on Birds.

5. Survey Items

(1) Characteristics of representative biogeographic regions (particular forests and wetlands) in the area
(2) List of fauna (other than fishes and birds) and flora with attention to rare vulnerable or endangered species
(3) List of avi fauna and distribution (including nesting sites) with priority to migrating waterfowl

(4) Migrating pattern of waterfowl

(5) List of fish species and basic ecological features (endemic or introduced, population trends, spawning grounds, nursery sites and others)

(6) Brief description of fauna and flora in neighboring districts and other protected areas in Latvia. (reference work only)

6. Requested Outputs

The products required for the regional ecological survey are as follows :

(1) Survey Reports including the contents below (5 copies in English and 3 copies in Latvian) :
- survey methodology,
- ecological characteristics of the survey area,
- characteristics of each fauna and vegetation type,
- distribution of endangered/rare/vulnerable species or such plant communities,
- distribution of essential vegetation for endangered animal species,
- actual threat on the regional ecosystem by human activities,
- important and/or unique natural locations or landscapes for eco-tourism and recreation from the view point of fauna/flora and ecosystem,
- component tables of typical plant and fauna communities for each biotope with the emphasis on swampy areas,
- list of flora and fauna in the survey area,
- list of endangered /rare/vulnerable species in the survey area at the national and local level
- bibliography

(2) Vegitation map output with color plotter (scale 1:50,000) :
2 copies in English and 1 copy in Latvian

(3) Animal species list : 2 copies in English and 1 copy in Latvian

(4) A set of floppy disks including the report contents and maps, readable with Windows

(All data should be compiled in a format that is transferable with GIS and computers under local application.)

TERMS OF REFERENCE
FOR
WATER QUALITY SURVEY (2000)

1. Survey Objectives

To understand water quality during the freshet period caused by the snow melting in and around Lake Lubana and to compare to the results of the previous water quality survey.

2. Items of Water Quality Survey

The following 24 water quality items shall be measured and analyzed as shown below:

- pH	- SS	-Hardness	
- DO	- COD_{Mn}	- COD_{Cr}	
- BOD_7	- N/NH_4	- N/NO_2	
- N/NO_3	-T-N	-T-P	-P/PO_4
- Phenol	- CN	- As	
- Hg	- Cr^{6+}	- Pb	
- Cd	- Oil	- Coliform group number	
-Pesticides	-Electric conductivity		

3. Survey Points

The 18 survey points are presented in the attached figure.

- Four (4) points on the surface of Lake Lubana and 3 points in the fishponds.
- Eleven (11) points on the surface of the rivers or drainage canals.

Points 5 and 18 are excluded this time because the water quality data exist. Points 19 and 20 are newly added this time since identification of their water qualities is important for conservation of biotopes near the Kvapani and Idena fishponds.

4. Frequency and Timing

The survey shall be conducted once in May 2000 when a spring flood happens in LWC.

5. Survey Methods

1) In addition to the survey items specified above, weather, air and water temperatures shall be recorded at each survey point.

2) Turbidity and water depths shall be measured at 8 points of the lake and fishponds.

3) Flow rates shall be measured at 11 points of the rivers or canals.

6. Data Arrangements

1) The results and data shall be arranged in the tables with time of the sampling.
2) The methodologies of the laboratory analyses shall be identified and detailed.
3) Distribution of aquatic plants and their relation with water quality are to be analyzed, especially, in Lake Lubana and the fishponds.

7. Outputs

1) Five (5) copies of the report shall be submitted in English, and 3 copies in Latvian.
2) All the data and the report shall be submitted in a Microsoft Word or Excel format.
3) Field sampling shall be photographed and attached in the reports.

TERMS OF REFERENCE
FOR
REGIONAL ECOSYSTEM SURVEY ON BIRDS (2000)

1. Survey Area

- A selected model area to prepare the detailed biotope map (about 25 km^2), and
- Other biotopes important for breeding, nesting and feeding of birds within Lubana Wetland Complex (LWC)

2. Purpose:

a) To examine numbers and species of the migrating birds,
b) To clarify the migrating patterns of the birds,
c) To identify breeding, nesting and feeding places of birds, and
d) To analyze influence of the spring flood conditions on birds' habitats

3. Survey Duration : 1.5 months (May ~ June 2000)

4. Survey Methods

1) The ecological survey is to be carried out mainly by field surveys.
2) The field surveys should include a) line census for birds on 3 lines in the selected model area and on 5 lines of the other biotopes, and b) point observation for birds at 10 points in the selected model area and at 20 points of the other biotopes.
3) The contractor should make use of the past research results on birds including those conducted by the Daugavpils Pedagogical University and Teici nature reserve.
4) The results of field surveys should be digitized by the GIS software.

5. Survey Items

(1) Numbers, species and migrating patterns of birds,
(2) Breeding, nesting and feeding places for birds,
(3) Influence of spring flood and water level change on birds' habitats,
(4) Other existing and potential threats on birds' habitats, and

(5) Bird watching potential for eco-tourism

6. Requested Outputs

The outputs required for the regional ecological survey for birds are:

(1) Survey Reports including the contents below (5 copies in English and 3 copies in Latvian):
- survey methodology,
- migrating patterns of birds,
- breeding, feeding and nesting places for birds,
- table of bird counting,
- essential vegetation for birds,
- distribution of endangered/vulnerable/rare bird species,
- water level influence and other potential threats on birds' habitats,
- bird watching potential, and
- bibliography

(2) Spatial information and data should be digitized by the GIS software ArcView or Arc/Info using the LKS-92 coordinate system.

(3) The outputs of this ecological survey for birds should be saved in CD-RW readable and writable by Windows O.S.

PART VII

Major Environment-related Legislation in Latvia

Major Environment-related Legislation in Latvia Referred to or Based on in the Study

1. Basic Environmental Legislation

1.1 Environmental Protection Law (1991)
1.2 Law on State Ecological Expertise (1990)
1.3 Draft Law on Environmental Impact Assessments
1.4 Natural Resources Tax Law (1995)
1.5 Ministers'Regulations on Latvia's Environmental Protection Fund (1996)
1.6 Administrative Breaches Code (Part 7) on Violation of Environmental Legal Requirements

2. Nature Conservancy Legislation

2.1 Law on Specially Protected Nature Territories (1993)
2.2 Resolution on Particularly Protected Nature Objects in the Territory of the Latvian SSR (1987)
2.3 Law on the Use and Protection of Animals (1981)
2.4 Hunting Law and Hunting Regulations (1995)
2.5 Draft law on Species and Biotopes

3. Legislation on the Use and Extraction of Natural Resources

3.1 Civil Law on Property Rights and Environmental Restrictions (1937, restored in 1992)
3.2 Water Law (1973)
3.3 Water Use Permit Regulations (1997)
3.4 Law on Subsoil (1996)
3.5 Water Use Permit Regulations (1997)
3.6 Fishing Law (1995)
3.7 Law on Forests Use and Management (1994)
3.8 Law on Agriculture (1996)
3.9 Law on Plant Protection (1994)

4. Land and Planning Legislation

4.1 Regulations on Territorial Planning (1994)
4.2 Law on Protected Belts (1997)
4.3 Law on Land Use and Survey (1991)
4.4 Land Tax Law (1990)

5. Legislation on Pollution

5.1 Air Protection Law (1981)
5.2 Water Law (1973)
5.3 Water Use Permit Regulations (1997)

6. Legislation on the Control of Chemicals

6.1 Draft Law on Chemical Substances
6.2 Plant Protection Law (1994)
6.3 Regulations on the Use of Sewage Sludge in Soil Fertilising and Development of Territories (1997)

7. Legislation on Waste Management

7.1 Law on Hazardous Waste (1993)
7.2 Draft Law on Municipal Waste