CHAPTER - 4

ANALYTICAL STUDY OF THE LOSSES

4.1 INTRODUCTION

Daily discharge data has been compiled for a considerable period at least for the last four crop seasons; starting right from Tajewala Head Works which feeds the Western Jamuna Main Line upper. Even though Hathnikund Barrage had been completed as per schedule in 1999; the regulation of supplies into W.J.C. were not done through new system then & even now due to delay firstly & largely due to request of State Electricity Board through Secretary, Irrigation & Power that they were far behind in taking up of the construction works of power channel & that irrigation department may accordingly co-operate by running the old Tajewala head works. The running of supplies from old Tajewala were thus compelled to continue even after HKB was completed. The W.J.C. link canal which too was thus delayed due to some mistake in alignment; had though been completed, the old Tajweala Headworks is being operated even today. Accordingly the transitional recurring yearly & sometimes bi-annual construction of forcing bund to feed Eastern Yamuna Canal continues as a costly and erratic feature. Additional avoidable cost of maintenance of Tajewala headworks; appurtenant works, river protection works, upstream upto HKB etc; coupled with risk of old structure & non-utilisation despite extra O&M cost of HKB & heavy water transit losses are thus the outcome. Loss of additional power proposed generation as such is additional feature. This discussion with Engineer-in-Chief, Haryana Irrigation Department in June 2001 & subsequent recent deliberations revealed that HKB Barrage constructed in 1999 is as yet not operative mainly due to delay by power wing of Haryana to complete its channel. The alertness & round the clock vigil of the old Tajewala headworks by

extra avoidable maintenance costs, repairs and manual regulation continues.

Losses have been worked out on the system in three stages of canal network.

4.2 SELECTION OF CONTROL POINTS

1. D/s Cross-regulator of old canal & Augmentation Head to Munak : - The first major & important control point for distribution of supplies into various groups of rotation.
2. The groups of rotation keeping in view availability specially during lean period have been divided into,

Through Hansi Branch	Through Parallel Delhi Branch
• Anta group • Butana group • Sunder group	• JLN group • Bhalaut group

i) Losses from Head Parallel Delhi Branch RD 0 to RD 145,000(0-44.2 Km) at Khubru another Cardinal regulation point from where JLN feeder, Bhalaut sub-branch & Delhi branch trifurcate as also Bhainswal Disty and Sardhana Disty. take off.

ii) Losses from Head Delhi Branch at RD 145000 to RD 282000 (44.2 to 86 km) & inclusive of losses from RD 0 of Delhi S/ Branch to RD 73 (22.3 km) crossing, Najafgarh Drain.

iii) Losses on Bhalaut S/Branch from Khubru Head to (i.e. Kanheli head) tail BSB from where Jhajjar S/Branch and Dulehra S/Branch take off.

iv) Losses on Dulehra S/Branch System

v) Losses on a number of distributary and Minors, both lined & unlined

vi) Losses on water courses / field application losses are to be repeated for working out average (as also losses on lined & unlined water courses separately).

The review of analysis show that over the period of four crop seasons (Annex 4.1 - 4.8) Kharif 99; Rabi 99-2000; Kharif 2000 & Rabi 2000 - 2001 ; the daily discharge figures as released at head and that reaching various control point show enormous variations in the quantum of transit losses. The field visits shows that transit losses are constituted of ,

i) Seepage or absorption
ii) Evaporation loss
iii) Evapotranspiration loss also where there is profusion of vegetal growth on berms; inside slopes etc.
iv) Leakages from head-regulators of offtakes even when they are closed or supposed to be closed & not entitled to release
    a) This is occurring mainly due to defective regulating arrangement with worn-out wooden needles.
    b) Gates & gearing have not been installed on all the regulators even on important control points like Khubru at RD 145,000 (44.2 km) Parallel DB & Delhi Branch as also at many other important regulation points.

4.3 DETAILS OF STUDY, BASIS AND OUTCOME

The study of losses on the W.J.C. system; right from the headworks at Tajewala to head of outlet & field application losses; have been carried out to assess water-use efficiency i.e. percentage of releases from head gainfully utilised for production of crop.

A comparative study of water released in particular regions and the area irrigated has also been done to compare water actually released with the

figures theoretically needed to raise the cropping pattern. Please refer Annexure 4.11.

Study has also been carried out to compare the pattern of monthly releases or monthly percentage to the total to ascertain excess release or shortfall to corrective measures.

Apart from the computation of percentage of loss in various stages of distribution; dissertation has been done on the behavior of canal network, headworks; headregulator; or cross regulators regime of canal; lift channels and above all the regulation & communication system.

Study has also been done to derive actual irrigation figures achieved on the ground during Rabi & Kharif on various outlets of the same channel to mark the trend of percentage intensity in head reach, middle reach and tail reach (Annex 4.15) Inspite of channel having been modernised & full supply discharge at head inequity in distribution persist, reasons being delayed maintenance, overdrawl by headreach outlets; obstructions in bed deliberate or otherwise causing heading up. Studies (results drawn at annexure 4.10, 4.11& 4.17) show even in the same overall W.J.C. command and continuos areas of similar soil characteristics & even cropping patterns; delta is different; so also are widely variant the percentage monthly releases in each crop.

Study was also conducted to evaluate how far objectives envisaged in the modernisation of W.J.C. system (Lining of canals) as well as lining of water courses under Command Area Development was achieved.

Annexure 4.12 depicts percentage increase in irrigation post lining over irrigation figures prior to lining. The fact that increase is not uniform as also there is decrease in some cases show that a large number of other factors predominate & continue to interface with equity inspite of the fact that even travel time from head of disty. to its tail has considerably

reduced after lining. The travel time has reduced by as much as 30%. See Annexure 4.14.

The variation in increase in irrigation post lining or even decrease has been attributed to following reasons.

1. Some of the channels are located near head of the canal distribution system; others at tail; the fluctuation in supply; affecting head reach channels less.

2. The supply during rotational turn is not uniform; on various disty system.

3. The supply during various stages of growth of crop & specially during period of critical growth is variable for different channels

4. Cropping pattern differ.

5. Soil characteristics vary.

6. Sub-soil water level conditions vary.

7. Condition of channel i.e.silting, berming, vegetal growth trend to affect the hydraulics & thus performance of channel & results of irrigation.

8. Incidence of unauthorized acts and tendency of over-drawal by head reach farmers etc. differ.

9. Attitudinal change, as usage by farmers & control by personnel of Department is not uniform.

10. Supplementing of Irrigation by flow with ground water too affect the performance parameters.

11. Quality of lining not uniform.

Considering integration of irrigation practices to get maximisation of benefits conjunctive use of surface and ground waters, motivation and switch-over to cropping pattern conducive to soil and water table characteristics; adoption of versatile freed application practices to minimise loss of water & integration of drip & sprinkler irrigation with flow are bound to pay dividends experiments in lift areas of WJC by use of sprinkler showed 29 percent to 56 percent and saving in water over flow irrigation.

Result of irrigation by sprinkler gravity flow on Kherakheri, Disty of W.J.C. lift areas.

Crop	Delta by sprinkler irrigation (cm)	Delta by gravity (cm irrigation)	Saving in water (percentage)
Cotton	28.60	40	29 %
Wheat	14.3	32.5	56%
Barley	7.70	17.5	56 %
Gram	7.70	17.5	56 %

Losses from headworks to Dadupur have been discounted. Silt ejector is also located in the same reach & data on discharge released as such is not available. There is level crossing of Somb river with main line upper u/s Dadupur and there is huge variation & unaccountability in figures supplied as such

Since transit loss or percentage loss would not be reliable based on such data; this reach has been discounted for the purpose.

4.4 ESTIMATION OF LOSSES

4.4.1 Losses on WJC main line upper

Typical Analysis of loss between Dadupur Regulator & Cross Regulater on WJC & head Augmentation Canal.

Oct 99 (On monthly water account Basis)

Releases into Main Line Lower 7119 cumecs days

Releases into Augmentation canal 1172 cumecs days

Releases into Main W.J.C. (unlined) = 5737 cumecs days

Supply reaching bifurcation of Augmentation canal

= 5737 + 1172 = 6909 cumecs days

Loss = 7119 - 6909 = 210 cumecs days

Percentage loss = 210 / 7110 = 2.94

(On daily water account basis)

Typical 6/1/2002

Releases main line at Dadupur = 57.8 cumecs

Supply into head Augmentation canal = 36.4 cumecs

Supply d/s cross regulator = 19.8

Loss = 57.8 - (36.4 + 19.8)

= 57.8 - 56.2 = 1.6

percentage loss = 1.6 / 57.8 = 2.7 %

4.4.2 Loss Between Main Line Lower, Head Augmentation Canal & Munak

	Cumecs
(A) Supply released in Augmentation Canal (Lined)	2514
(B) Supply released d/s cross regulator into WJC (unlined)	1828
(C) Supply drawn from old WJC (direct offtakes)	22.5
(D) Supply augmented from NBK link	1449
(E) Supply drawn by offtakes of NBK	68.0
(F) Supply drawn at Munak by Parallel Delhi Branch	2247
(G) Supply drawn at Munak by Hansi Branch	2324

(H) Supply drawn at Munak by Munak escape	663
(X) Supply released (A+B+D) Minus - (C+E) = for distribution at Munak	5700.5
(Y) Supplies drawn (F+G+H)	5234
Loss X - Y	466.5
Percentage loss	8.1 %

ABSTRACT OF LOSS BETWEEN HEAD MAIN LINE LOWER & HEAD AUGMENTATION CANAL AND LOSS BETWEEN HEAD AUGMENTATION AND CROSS REGULATOR TO MUNAK

Loss Between Main line lower to head Augmentation canal		Bet. Augmentation canal HD/X-regulater to Munak	Remarks
Oct' 99	2.94%	10.38 %	Discounted as supplies received & distributed d/s more
Nov' 99	7 %	Supply more than releases	
Dec' 99	6 %	Supply more than releases	
Jan '2000	4.64 %	Supply more than releases	
Feb '2000	5.4 %	Supply more than releases	
March ' 2000	6 %	1.87%	
April			Not Co-relative
May			
June	4.22 %	8 %	
July	3.64 %	Figures of releases into Aug. canal appear wrong	
August	2.3 %	Figures of releases into Aug. canal appear wrong	
Sept	3.45 %	Figures of releases into Aug. canal appear wrong	
Jan' 2001	6.42 %	5.2 %	
March' 2001	8 %	Not co-relative	
April			
Oct		7 %	
Nov		Discounted	
Dec			
Jan' 2002			
Feb		6 %	
March		9 %	

INPUT DETAILS

1. Discharge for various crop seasons released from Tajewala Head works shown at Annexure 4.1
2. Releases between Dadupur; Augmentation canal & Munak Releases into NBK Link shown at Annex 4.2.

Releases into Hansi Branch, Parallel Delhi branch, Munak Escape, shown at 4.1.1. offtakes of Parallel Delhi Branch shown at Annexure 4.2

3. Withdrawal by offtakes of NBK; & WJC (Unlined) shown at Annex 4.3
4. Withdrawal by direct offtakes of Delhi Branch shown at Annex 4.4
5. Withdrawal by offtakes of Bhalaut Sub Branch, shown at Annex 4.5
6. Withdrawal by offtakes of Jhajjar Sub Branch, shown at Annex 4.6
7. Withdrawal by offtakes of Dulehra Sub Branch, shown at Annex 4.7
8. Releases into Jua Disty & supply at tail and its offtakes, shown at Annex 4.8
9. Discharge tables of various channels of WJC, shown at Annex 4.9

4.4.3 Losses on Parallel Delhi Branch (PDB) Between Head at Munak and Khubru (Tail PDB) RD O - 146000 (49 Km Length)

Study on releases at head PDB, the total of withdrawls by direct offtakes and channels taking off at tail i.e. JLN; Bhalaut, Delhi Branch, Bhaniswal disty, Sardhana Disty etc. show very huge variation; most of the time supplies being delivered as totalled up for discharges of offtakes is more than that released from head. Taking random example from other samples for various months when the release at head is marginally or otherwise more; losses work out to between 4 to 8 %. Exercise to depict daily losses or monthly loss has been considered futile.

Monthly data studies taken up reveal receipt for distribution exceed release at head for the month of Oct 99, Nov 99, Dec 99, Jan 2000, March 2000, June, July, Aug, September 2000 by 28.5 to 285 cumecs days.

Losses work out to 10.1 percent in March 2001, 4.5 percent in June 2001 & 12 percent in April 2000, 6.87 percent in Feb. 2000.

4.4.4 Losses between Tail Parallel Delhi Branch R.D. 145000 (44.2 km) (Khubru) i.e. Head Delhi Branch and Tail Delhi S.Branch 73000 (22.3 km) crossing Najafgarh Drain

(Distance Head Delhi Branch to Tail DB - 46 Km

Head Delhi S/Brach to Crossing Drain - 22.3 km

Total = 68.3 km

Taking into consideration the releases at head Delhi Branch as per discharge table checked on 11/9/2000 and discharge run in offtakes & direct outlets the percentage losses in the 68.3 km; work out to.

Month	Percentage losses	
10/99	10.8	
11/99	10.1	
12/99	8.6	
1/2000	7.3	
2/2000	10.5	
3/2000	11	
4/2000	11.2	
5/2000	10.0	
6/2000	11.9	
7/2000		Discounted
8/2000		
9/2000		
10/2000	Not reconciled	
11/2000		
3/2000	11.5	

Longitudinal section of Delhi Branch is enclosed as Drg. 4.1

4.4.5 Losses on Dulehra Disty System (Reach head to Tail)

Rabi 2000-2001 as per available data

		Releases at head (Average of Morning & Evening)	Offtakes plus Direct outlets	Loss (%)
Losses	Oct 2K	95	83.5	12.2
	Nov 2K	94.2	83.0	11.9
	Dec 2K	73.1	65.1	11.0
	Jan 2K	43.8	39.3	10.4
	Feb 2K	28.4	25.2	11.3

4.4.6 Losses on Bhalaut Sub Branch Reach head at Khubru in Tail (RD 146000 PDB to Tail BSB) (Km 44.2 to Tail BSB)

Releases at Head		Total offtakes + Direct outlets	Loss (%)
Oct 2000	412	363	12
Nov 2000	308	272	11.5
Dec 2000	282	251.4	10.8
Jan 2001	186.4	-	Not reconciled
Feb 2001	95.6	-	Water Distributed more than released
March 2001	21.1	Data incomplete	

4.4.7 Losses On Distributary And Minor System Of WJC

		% loss
Jua Disty.	Reach 0-12	1.5
Hulambi Minor	0-3	1
Daboda Minor	Reach 0-6	1.5
Lampur Disty	0-Tail	6.3
Pai Disty	RD 42-69	2.5
Bhainswal Disty	0-10	1

Photographs of discharge sites are enclosed as Fig. 2 & 7.

4.5 LOSSES BELOW THE OUTLET IN FIELD WATER COURSE

Representative chaks of the command area of WJC fed by minors; distributaries and sub-branch were selected over a scattered area to assess losses below the outlet in the field water course.

For this purpose both lined & unlined water courses were selected.

1. CHAK OF OUTLET RD 10180/R LAMPUR DISTY.

The channel takes off from Delhi Sub branch CCA of the outlet is 251 hectares acres with split up as under. Village Ghoga 206; Lampur 32 & Bankner 12.5. Annex 4.16 shows the actual Irrigation achieved & crops raised in various crops seasons.

Discharge of the outlet running at head of the water course was 1.48 cusecs (0.042 cumecs); the quantum reaching shareholder No.

116,106,107 as per warabandi in force was observed. The water course was found to be in average unlined condition; loss observed was 12.8%-16% and in the months of Dec. & May. The entire supply in water course was flowing down as per warabandi & this was in the condition when watercourse had been continuously running for a few days & the reach length was wet. Losses in the initial running of water course; when supply released after a closure of a fortnight; were also measured; these were significantly higher for a very short period; but stabilised; but since the fields made observation for the purpose were also nearer to source; the reach of measurement was merely 150 meters and loss in the initial running; of as high as 8-9 and stabilized to 4%. Intensity of irrigation in Kharif 99; Rabi 99-2000; Kharif 2000 & Rabi 2000-2001 as actually achieved has been 58.3%; 59.1%, 58.1andand 57.0 and respectively. Major crop during Kharif being Rice & vegetables and in Rabi; Wheat /Sarson.

Total cusec days run on the Lampur distributary during Rabi 99-2000; Kharif 2000 & Rabi 2000-2001 have been 2.56; 5.20 and 2.65 cumecs days respectively; whereas area irrigated in hectare during these crops respectively has been 148, 146 & 143 hectare. Average Delta of multi crops consisting of Jawar, Rice, Vegetables & garden flowers during Kharif and wheat, sarson; Barseem etc. in Rabi works out to 0.487'; 1.14'; 0.52' i.e. almost double in Kharif.

Outlet chak 14660 R Jaunti Minor (0.043 cumecs)
Authorised discharge 1.49 Cusecs
CCA (234 hectare)
System PA1 Disty taking off at RD 228 (69.5 km) of Delhi Branch

Losses observed on the water course were 14.8 and & 20.5 and during December & June for the watercourse of chak for above outlet. Warabandi is being implemented satisfactorily.

The delta respectively for Rabi 99-2000 Kharif 2000 & Rabi 2000-2001 works out to 0.18, 0.28; 0.26. The variation in supplies received for Irrigation on Lampur disty & Jaunti Minor would clearly show the disparity and obvious reasons. Lampur Disty draws supply directly from Delhi S. Branch whereas Jaunti Minor is at the tail end of Pai Disty; it off takes at RD 69310 of Pai Disty; which takes off from Delhi Branch RD. 228 i.e. the travel of Lampur outlet RD 10880 is mere 3.3 KM from S/Branch where as that of outlet 14660 Jaunti Minor is 28 km. from the system offtaking from Delhi Branch. Delta variation for Rabi 99-2000 & Rabi 2000 –2001 is due to total days run from Oct. 99 to March 2000 being 29 against 46 days in the period from Oct 2000 to March 2001.

Losses on Lined & Unlined Watercourses

Lining of water courses in the WJC command was taken up under CAD programme. On the basis of experiments carried out in the state to determine optimum length to derive maximum saving in transit loss consistent with reasonable cost it was determined that optimum length works out to 10,000 (3000 metres) feet beyond which the efficiency or savings were not proportionate to higher additional cost.

The result of lining of water course in Gurgaon canal command of WJC as well as Rewari lift irrigation area where soils are sandy loam showed a (1.96 to 2.61 cumecs) marked saving in the transit loss. This corresponded to 6 to 8 cusecs against 3.26 to 3.92 cumecs per million sq.m of wetted perimeter) after lining but soon after even after two years of lining & lapse of two monsoons vegetal growth in joints; vegetation on

slopes & lack of good upkeep has brought down the efficiency & losses have gone up.

Losses on an average on water course lined but after 13-14 years of lining as observed now on Ferozepur Jhirka Disty. Sikri Disty, Kheri Disty; Nuh Disty showed losses remain substantial & from outlet head to last chak of shareholders; these range between 10.5 to 16 and on unlined water course in the command of WJC on Hulambi Minor, Sultanpur Minor; losses were of the order of 12 to 16%. Percent losses under different Irrigation condition is given at Table 4.1

Chak plan of outlet 10180 lampur; 274 Delhi S/Branch and Jaunti Minor are enclosed as Drg. 4.2, 4.3 & 4.4.
Pre lining & Post lining Irrigation figures depicted on Annexure 4.12

Seepage loss Annexure 4.13
Efficiency in saving in Time of water
delivery after lining. Annexure 4.14

4.6 LOSSES ON FIELD

TABLE - 4.1

Percent Losses under different Irrigation Condition

(Haryana Agricultural University (HAU) Studies Publication 1983)

System Characteristics	Canals	Distributaries	Field Water-courses	Field Loss	Total Loss	Net Utilisation
1. Entire System Unlined	15	7	22	27	71	29
2. Only canals lined	4	7	25	30	66	34
3. Canals & Disty. Lined	4	2	26	32	64	36
4. Whole System Lined	4	2	6	42	54	46
5. Whole system lined & Sprinkler irrigation	4	2	6	6	18	82

LOSSES IN THE FIELD

Apart from transit losses in the conveyance system & the distribution network accompanied with avoidable leakages & losses due to structural inadequacies; regulation failure or non-automation etc.; studies conducted on the overall deliveries of canal water released from the headworks & that deliverd below the outlet to the turn-out of field through a water course indicate that major & maximum component of loss generally occurs in the field itself.

Studies had been conducted by HAU for areas under Western Jamuna Canal as well as Bhakra command & it was observed that very high losses occur in the field as well as unlined watercourse. Table 4.1 refers the present study to establish high losses in the field below the water course.

Prevailing Conditions

Water is supplied as per existing water allowance of 0.18 cumecs/1000 hectare of CCA on W.J.C. and the Warabandi in operation entitles a farmer to receive a quantum of canal supplies proportionate to his area irrespective of the type of crop grown; the type of soil characteristics; ground water condition; slope of soil; climate , method of application and (generally check method is resorted to); though boulder strip is also applied.

Water Applied to The Plant Proper & its Consumptive Use

The Water Use Efficiency has been worked out on the conveyance and distribution system right upto delivery in the command Chak of the outlet under cultivation & application by different methods.

Net Water Use Efficiency is the efficiency after application of water in the root zone of crop & avoidable wastage by evaporation over crop canopy & in filtration below the root zone. These have to be assessed to work out actual gainfull utilisation of water released.

In-filtration & Redistribution

Infiltration of Irrigation in the soil profile is modelled by employing empirically and physically based concepts. In the empirical approach; the infiltration process is not given any time distribution and soil profile is treated as a tipping bucket. Each layer is assumed to fill to its field capacity wetness instantaneously and remaining water is cascaded to lower layers. Any water passing beyond the bottom layer is lost to deep drainage.

As with in-filtration, the movement of water in rootzone has been estimated in a simplified way by transferring water from one layer to another. Transpiration (T) is the most important component of water balance from standpoint of bio-mass production. The first step in simulating T is the estimation of evaporative demand E_o which is satisfied by interception and soil evaporation and transpiration. Estimation of E_o with Penman (48); Priestley & Tayler (72); and Monteiths (65) method makes use of daily meteorology variables and the diffusive resistance of canopy. Because of the assumptions & approximation, daily pan evaporative values have been used for computing E_o.

The Pan-evaporative value are available for WJC Command in Haryana & UGC in (UP). These; for various crops are depicted at Annexure 4.14.1

With these values taken in the command which are quite representative keeping in view agro-climatic; cropping pattern, irrigation scheduling

prevalence and growing stages of crop and with; delta available & annexed for both the system it has been possible to work out percentage gainful utilisation in the root zone: remaining having been considered to be lost in deep drainage by infiltration & avoidable extra evaporation.

The statistics of delta worked out on Western Yamuna Canal as appended with the report shows its variation for Kharif between 1.43 to 2.92 feet & for Rabi between 0.66 to 2.04 feet for the channel system on WJC fed Gurgaon Canal; Hansi Branch etc. The effective moisture storage varies from 45 mm to 128 mm whereas effective rainfall is limited to 300 mm. Taking ET_0 for the zone Rabi 604 mm, Kharif 1165 mm for the type of popular crop & evaporation from the root zone soil; the water actually utilized for maturity of crop is vastly variant. Rational data has thus been taken both for the delta; ET_0 etc. and average avoidable loss keeping in view of various crop values, has been taken as 25% & overall Water Use Efficiency works out to very between 36 to 43%.

Recommendations for Improving Water Use Efficiency by minimising loss below the watercourse on field itself

Land Levelling

Proper grading of land to be irrigated is essential for efficient application of irrigation water ; disposal of excess rain water in humid & sub-humid areas conserving rain water in arid and semi-arid areas. Unevenness & undulating terrain & fields contribute to low efficiency. However, criteria & extent of land levelling for water use efficiency is guided by soil profile, land slopes; source of irrigation water; method of irrigation, climatic condition & type of crop to be grown.

Studies conducted in Haryana Agriculture University in plots of 35 x 7.5 m size by establishing five different levelling indices i.e. 1.2, 2.0, 2.5, 3.0 3.7 and under each levelling index; two irrigation treatments i.e. applying only a fixed 6 cm depth & applying enough water to irrigate the plot adequately such as none of it was left unirrigated. Table 4.2,4.3 and 4.4 show results. The application and distribution efficiencies are much higher with 6 cm fixed depth of irrigation water applied than when plots are completely covered (Table 4.2) However, storage efficiency is lower in fixed depth treatment. In both the treatments however, three efficiencies decreased as the levelling index increased. The application & distribution efficiency in the best levelled treatment 1.2 cm were 15 to 20 and higher as compared to 3.7 cm levelling index.

Grain yield & water use efficiency versus levelling index

The three-year average data of Wheat and Bajra grain yield & water use efficiency showed that yields reduced considerably under both the irrigation treatments as the levelling index increased. However if irrigation water is not a constraint & farmer tends to overuse it (thus able to waste it); then by applying complete irrigation or excess water; loss of yield due to poor levelling can be minimized. The amount of total water used in Wheat crop showed that about 50 and more irrigation water had been applied in 3.7 cm levelling index under complete irrigation treatment as compared to only 30.6 cm in 1.2 cm levelling index and fixed 6 cm irrigation treatment (Table 4.3). It was observed that considering yield; cost of levelling, amount of irrigation water applied & water use efficiency/ the optimum value of levelling index should be 2.5 cm where irrigation water is limited.

TABLE - 4.2

Irrigation Application, Storage and Distribution Efficiency under different levelling Index

Levelling Index(cm)	Application Efficiencies (%)	Storage Efficiencies (%)	Distribution Efficiency (%)
6 cm depth Irrigation Treatment			
1.2*	78.5	62.0	93.3
2.0	73.0	71.2	90.7
2.5	69.8	65.9	86.2
3.0	67.0	64.4	82.5
3.7	65.7	62.8	72.3
Complete or adequate Irrigation Treatment			
2.0	67.6	68.0	88.7
2.5	63.6	67.5	80.6
3.0	60.0	68.1	77.3
3.7	52.6	72.2	67.9

* In 1.2 cm (levelling Index), the actual depth of Irrigation was 5.2 cm.

Wheat & Bajra grain yields (q/ha) and Water Use Efficiency (WUE) (Kg/ha-cm) in different levelling index under 6 cm and complete irrigation (3 years average)

TABLE - 4.3

Levelling Index	Yield & WUE in 6 cm & complete Irrigation							
	Wheat				Bajra			
	Yield		WUE		Yield		WUE	
	6 cm	Complete Irrigation	6 cm	Complete Irrigation	6 cm	Complete Irrigation	6 cm	Complete Irrigation
1.2	46.6	-	166	-	37.3	-	120	-
2.0	42.2	44.2	138	136	34.2	36.6	106	117
2.5	39.3	41.9	128	120	32.9	34.1	99	99
3.0	36.5	40.2	116	108	31.4	29.6	92	82
3.7	34.9	37.3	110	92	27.9	29.7	84	83

TABLE - 4.4

Total Water Use (cm) in different levelling Indices under 6 cm & complete irrigation

Levelling Index	Water Use (CM)*	
	6 CM	Complete Irrigation
1.2	30.6	-
2.0	34.0	38.3
2.5	34.4	40.8
3.0	34.9	42.8
3.7	35.4	47.0

* Total water use is inclusive of irrigation water, rainfall & profile water

4.6.1 Field Loss Observation on Selected Chaks of W.J.C.

After canal water was released in the Naka of the individual field; loss depends on the type of preparation of field; soil characteristics; type of crop; slope; weather conditions; stage of watering; sub-soil water level etc. Study on field loss i.e. water delivered to the field & needed for evapotranspiration or consumptive use to raise the crop would determine efficiency. The parameters are complex so also conditions from place to place. The Delta figures actually worked out & appended show these figures vary during Kharif and Rabi as also for the same crop from channel to channel as discussed in field watercourses loss on Lampur Disty. and Jaunti minor comparing the volume of water released during turn of a shareholder as per his warabandi on Lampur. Disty. and Jaunti this too again based on releases as per discharge run in the disty and minor during the crop season; converting it into depth of water and the average of delta actually worked out on the channel for cropping pattern shows lot

of variation. Such estimation has also been done for Jaunti Minor and a number of other channels. It is difficult to assign percentage for wasteful use when water was run but not needed & study being carried out only during day time the minimum of loss on the field application can be taken as 18 and to 22%. This however; loses significance in view of observation as below; as discharge of outlets very from chak to chak.

Another study in a field chak on a freshly ploughed up area was taken up for the field measuring 50 x 50 approximately. 0.6 cusec of Canal supply was released. Time taken to water the field was observed then discharge increased. The measured discharge was 1.05 cusecs. It was noticed that 0.6 cs release of water requires, 1.40 times the volume of water to cover the same area as when discharge of 1.05 cs was released. This experiment was conducted on sandy. loamy soil; on loamy soil this figure would be different. A similar study on comparatively sandy soil resulted in manifold volume of water with 0.5 to 0.6 cusecs than with a discharge of about 1.0 cs.

4.7 ABSTRACT OF AVERAGE OF TRANSIT LOSS (percentage)

(Based on Gauge/Discharge maintained at Control Points of W.J.C. System)

S.No.	Losses in Main Line Upper bet Dadupur & head Augmentative canal	Losses between Head Augmentation canal (including release in unlined W.J.C. below cross regulator) and Munak i.e. RDO of Parallel Delhi Branch (PDB)	Losses between Munak i.e. R.D.O. of PDB & R.D. 145,000 (i.e. offteake of JLN, BSB,DB)
1	**2**	**3**	**4**
1	4.6	8.5	8.3

Losses between RD 145,000 at Khubru to RD 73 of Delhi S. Branch (i.e. RD 145-282 DB and 0-73 DSB)	Losses between Head & Tail Bhalaot Sub-Branch	Losses between Head & Tail Dulehra Sub-Branch
5	**6**	**7**
10.4	11.4	10.2

Losses on Distributory / Mr. System	Loss on unlined field water course	Loss on field water course lined 10 years or more back
8	**9**	**10**
12	16	13

Loss on lined water course	Farm / Field Application loss	Average of column (4+5)	Average of coloumn (6,7,8)
11	**12**	**13**	**14**
7	20	9.35	11.2

Water use efficiency (with lined distribution system; unlined water course) =48%
Water use efficiency (with lined water course) = 51.7%

Accordingly recommendations are being made to adopt field application methods under different conditions to optimize water-use efficiency. Water use efficiency can also be increased by improving upon crop and soil management practices.

Since max^{m} losses occur below the outlet and on field or farm itself two chapters have been added to adopt field application practices in accordance with area-specific conditions and improving upon crop and soil management practices.

4.8 RECOMMENDED METHODS FOR FIELD APPLICATION UNDER DIFFERENT CONDITION FOR OPTIMISING WATER USE EFFICIENCIES

Improper methods of water application does not result merely in water loss due to percolation beyond the reach of crop root zone but also a loss of nutrients due to leaching. This also results in non-uniform distribution & reduced crop yields. Efficient water application is one that enables uniform application of water according to the need of the crop with its minimum loss and at rate and frequency consistent with intake water retention characteristics of the soil. Important factors for choice of method are : -

i) Crop Species	Rooting depth; consumptive use and peak daily water use; critical stages for watering criteria
ii) Climate	Temperature; relative humidity wind velocity; rainfall
iii) Land topography	Depth of soil; land preparation cost
iv) Soil Characteristics	Water intake & retention properties
v) Irrigation Water Supply	Canal supply : - Adequacy of water, size of stream, Delivery schedules, water quality
vi) Any problem	Salinity / alkalinity' high Sub-soil water level; Drainage

Irrigation Efficiency: Entire water applied for irrigation can never be stored in the root zone; even in the most versatile of application techniques; losses do occur due to non-uniform distribution over the field; waste at the end of borders and furrows ; some percolation below the root zone depth & in case of sprinkler irrigation; evaporation from the spray and retention on the foliage.

For selecting and evaluating performance of any Irrigation method; the three irrigation efficiencies i.e. application; storage & distribution have been kept in view.

Border Irrigation

Field experiments in sandy loam soils were conducted to select optimum length, width & slopes of border strips. It was observed that grain yield & WUE of wheat was 8.3 & 8.4 and respectively higher in 70 M long borders as compared to 50 M but with regard to slope, the level border gave higher yields than steeper slopes. The WUE decreased with increasing width & decreasing slope (Refer Table 4.5). In respect of width of borders,

higher wheat yield was obtained in 8 M wide borders than in 10 to 12 M wide borders. Thus where water is scarce & considering WUE surface drainage needs in Kharif season & also keeping in view the land grading cost, border strips of 70 M long; 7.5 M width & 0.1 and slope were found to be most suitable. However, where water availability is not a constraint level borders of same width & length result in better performance.

Border method is more suitable to soils having moderately low to moderately high infiltration rate; not used in coarse sandy soils with high infiltration rates because of stringent limitation in design; also not suited to soils with low infiltration rate; since to provide adequate infiltration opportunity time without surface runoff at the lowest end; the irrigation stream may be too small to completely cover the border strip.

The border strip is suitable to irrigate all close-growing crops like Wheat; Barley, Fodder crop and legumes however, not suitable for crops like rice which requires standing water.

TABLE - 4.5

Wheat yield (q/ha) & water use efficiency (q/ha-cm) in border strip with different slopes & length.

Slope	Yield		WUE	
	70 m	50 m	70 m	50 m
0.2	30.5	30.3	1.28	1.11
0.1	32.3	28.3	1.07	0.93
Level (0)	34.2	30.2	1.00	0.86
Mean	32.3	29.6	1.08	0.97

TABLE - 4.6

Yield of Wheat (q/ha) in border strips of different border widths

Border Width (m)

Years	8	10	12
I	40.3	35.5	32.8
II	37.8	31.0	33.1
Mean	39.0	33.2	32.9
Irrigation Water Application (cm)	23.0	23.6	24.4

TABLE - 4.7

Recommended slopes, stream size & width of border strip for different soils

Soil Type	Infiltration (cm/hr)	Slope (%)	Width (m)	Discharge (Litre/Sec)	Irrigation depth (cm)	Irrigation Time (Minutes)
Heavy	< 0.5	0.05	7-8	10-12	7	50-55
Medium	0.5-1.0	0.05-0.10	6-7	12-15	6	30-35
Light	> 1.0	0.2-0.5	5-6	15-20	5	15-20

i) Border strip is more suitable for medium textured soils.

ii) Length may be 60-70 m.

iii) Inflow is to be stopped when water has advanced to 80andlength of the border.

iv) When available discharge is much more than required two or more strips may be watered simultaneously.

v) When land slope is more than recommended & obtaining design slope is difficult either reduce the discharge or increase the width.

Check Method of Application

Water is applied individually to small & relatively level plots sorrounded by ridges so that required depth is impounded rapidly in the field. In rolling topography, plots follow contour & application called contour checks. Deep percolation is directly proportional to the water spread in the plot. Thus largest available non-erosive stream be adopted for irrigation so that spread time is shortest. In this method deep percolation losses can be estimated by an equation & also with help of monograph.

Rough rule being that water spread in the entire plot should be covered in one fourth of the time required so as to infiltrate the net depth of irrigation.

TABLE - 4.8

Recommended Check Sizes for different soils & size of stream

Soil Type	Stream size (litres/ Sec)	
	14.0	28.0
Heavy	200-240	350-400
Medium	100-125	150-180
Light	16-20	20-25

Plot size may be rect / square but ratio of length / width not more than 4:1.

Furrow Irrigation

This is used to irrigate row crops with furrows developed between the rows in the planting and cultivation process. Water in the furrow contacts only 1/2 to 1/5 of land surface thus reducing puddling and crusting of soils & renders early cultivation. It is more suitable to crops sensitive to ponded water. When salinity is a problem; double row beds alternate

furrows avoiding salt accumulation near the young seedling. Furrows are most commonly made down the slope but when land slope exceed the safe limit of soil erosion they are made on contour. These are effective in area needing surface drainage. These also are effective when rain water is to be conserved. In scarcity areas of water; system of alternate/skip furrow burrow irrigation results in considerable saving of water.

Furrow stream : - Maximum non-erosive stream size is estimated by

Qm = 0.6 litres / sec

Qm = max^m non-erosive stream size in litres / sec

S = furrow slope

Sprinkler Irrigation

i) It is suitable for almost all crops except rice & Jute. One or more of following make it a better choice than surface irrigation

ii) Sandy soils or soils with very high infiltration rate (more than 7.5 cm / hr)

iii) Shallow soils; the topography of which prevents desired levelling

iv) Small stream & scarce water

v) Undulating topography, sand dunes, too steep to level

vi) Labour scarce & costly

In Western Yamuna Canal command areas in districts of Bhiwani, Mohindergarh, parts of Rohtak, Jhajjar, Hissar : Sprinkler Irrigation would be appropriate. This would add to savings in Water.

4.8.1 Increasing Water Use Efficiency by Improving Upon Crop & Soil Management Practices

Water Use Efficiency (WUE) Crop yield/Evapotranspiration of crop area is influenced by crop and soil management practices. The numerator i.e. yield can be changed by management practice whereas denominator is

more difficult to control. WUE is not closely dependent on the water available if the supply is within the evapotranspiration limit; even though the crop yields depend on the adequacy of water supply. Storage of more water in the soil profile increase greatly the WUE of grain crops grown under conditions of limited water. Allowing an irrigated grain crop like wheat or maize run out of water at the critical phases of its growing may reduce yield & WUE drastically without lowering appreciably the total seasonal evapotranspiration.

Selection of species

One of the basic approach of increasing crop yield & WUE in a particular growing environment can be selection of plant species adopted to the total amount and distribution pattern of water. Plants vary greatly in requirement of water.

Productivity of Cereal per unit of water (An experiment)

Crop Species	**Water Requirement cm**	**Yield (Kg/ha)**	**Productivity of water kg/ha/cm**
Rice	120	4500	3.7
Pearlmillet (Bajra)	50	4000	8.0
Maize	62.5	5000	8.0
Wheat	40.0	5000	12.5

The plant characteristics which influence water requirement are leaf area; extent of root system; length of growing season; number, distribution and size of stomata, inclination of leaves specis ; selection, Plant choice & breeding can enhance the WUE. Predictions on moisture availability, rainfall, ground water aid improving WUE.

Planting pattern i.e. density and row spacing; enabling the plant canopy more effective in intercepting radiant energy and shading weeds; reduction in rain drop impact on soil structures aid the process. Dwarf variety of row crops benefit more from narrow rows than tall late maturing varieties.

Planting dates are extremely important cultural practices in efficient use of irrigation water. Criteria being to choose date of sowing to ensure good germination by placing seed in the optimum moisture zone. This is so very true & essential in semi-arid / arid zones of Western Jamuna Canal .

WEED ELIMINATION

Weeds compete with crops for soil nutrients, water as well as light. Water requirement of weeds is greater than that of crop. Competition begins when root system of weed & crop overlap. Eradication & Control of weed is necessary to increase WUE of crop.

Efficient crop & Water management to increase WUE includes judicious use of Chemical pesticides in producing healthy crop plant.

Tillage - Principal effect of tillage are the preparation of seed bed conducive to the germination of seed and growth of seedling; conservation of soil moisture & providing adequate soil depth for optimum root growth.

Response of fertilizer to Irrigation : Soil moisture and nutrient availability have a close relationship. Maximum benefit from fertilizer application can be obtained under Irrigated agriculture. With adequate nutrient supply; plants which are limited in growth due to moisture stress would have a higher content of mineral nutrients than plant under comparable fertility but not limited in growth by moisture supply.

A detailed module of fertilizer application; after evaluating nutrient deficiency; calibration of dose; interval; control & variation should be available to the training & visit Staff to educate the farmer in enhancing overall WUE.

Categorization of Command Area for Irrigation

For assessment of its capacity to withstand intensive Irrigation without deterioration ; its continued productivity per unit of water; soils are grouped on physical, chemical & climatological groups such as,

Physical

i) Texture ii) Permeability iii) Non-capillary porosity iv) Water table v) Soil depth vi) Topography vii) Water holding capacity

Chemical

i) Soluble salt content ii) Exchangeable Sodium iii) P^H

Climatological : i) Aridity ii) Cropability

Loamy soil texture is ideal for irrigation; clayey hinders leaching & results in poor aeration while sandy results in waterloss. High values of water holding capacity, depth of soil & non-capillary porosity are desirable characteristics for irrigation as well as drainage. The deeper the water table; better the land as waterlogging, salinity & alkali hazards are avoided.

However, there is hardly any choice over the existing project area already catered in the command. But above criteria & considerations help in extending irrigation as well as reclamation of degraded lands.

4.9 DELTA STATISTICS ON VARIOUS SUB-SYSTEM OF W.J.C. AND W.J.C. AS A WHOLE

The statistics of actual amount of volume of water delivered during a crop season in feet or meter per unit of area irrigated has been depicted in Annex 4.10. The variable figures during Kharif and Rabi shows large variation in supply due to more availability in monsoon & different delta reflects variable availability on different sub-system of W.J.C. as well as variable soil character etc. Percentage intensity of irrigation on W.J.C. system & actual irrigation achieved vis-à-vis other systems has also been shown in Annexure 4.17 from 1966 to 1949 for group of years. Delta statistics indirectly shows account of the losses; when compared to ideal data theoretically required as indicated in the report. The delta also reflects wastage or avoidable loss of water or excessive infiltration rate given the parameters of soil characteristics, subsoil water level, type of crop sown, slope of land, rainfall incidence & weather condition; the reason for excessive delta can be pinpointed. Delta has been depicted for W.J.C. as a whole, for Gurgaon canal command, for lift area command for Hansi Branch, for Hisar major Disty. System, for Hulambi Minor; Lampur Mr. Sardhana Mr,. Turkpur Mr. Sonepat Disty; Kakroi Disty of Delhi Branch system.

DELTA OF CROPS

Value of Δ (Delta includes evap. & percolation loss)

Sugar Cane	120 cm (48")
Rice	120 cm (48")
Tobacco	75 cm (30")
Cotton	50 cm (20")
Vegetables	45 cm (18")
Wheat	30 cm (12")
Maize	25 cm (10")
Fodder	22.5 cm (9")

Delta Statement on various sub-system of WJC & overall shown in Annexure 4.10 & 4.11.

4.9.1 Observation for Improving Periodic Deliveries

Pattern of releases on a sub-system has been described to eschew wastage of water when not needed & to release adequate supply at time of need for qualitative production.

percentage of increase in Irrigation achieved as much as 18.52 on a sub-system of W.J.C. by Water Management drive in 1996-1997 shows scope of Improvement. These projections are attached at Annex 4.17

Pattern of Releases on a WJC Sub System

Existing availability of Canal Water in Command of Sewani Canal (Typical Study)

Region	Gross Irrigated area (ha)	Canal Water Released during year (ha cm)	Hectares Cms of Canal Water / ha of Irrigated Area
I	5128 (29.50)	149913 (35.4)	29.0
II	2411 (13.90)	518680 (12.3)	22.0
III	3775 (21.70)	86859 (20.3)	23.0
IV	3166 (18.25)	71099 (16.8)	22.0
V	2890 (16.65)	64485 (15.2)	22.0
Total	17390 (100)	424221 (100)	24.0

Figure in parenthesis show percentage of the gross Irrigated Area & Water released.

Monthly existing Canal Water Supplies in the Sewani Canal System (Haryana) (Ha. Cm.)

Month	I	II	II	IV	V	Total	Percent
May	6255	1357	1347	1187	1799	11945	2.8
June	8021	660	650	650	2998	12979	3.0
July	11120	523	9246	7146	11720	39755	9.4
Aug.	1755	2861	2257	1957	5894	14724	3.5
Sept.	20940	5076	15551	11551	8028	61146	14.4
Oct.	20104	6086	16969	12969	8422	64550	15.2
Nov.	11088	5648	3181	4081	3504	27502	6.5
Dec.	20829	6148	9800	8800	3001	48578	11.5
Jan.	11675	2557	6206	5806	6032	32276	7.6
Feb.	14071	13154	2576	2076	650	32527	7.7
March	16051	5700	14506	11506	11375	59138	13.9
April	8004	2095	4570	3370	1062	19101	4.5
Total	149913	51865	86859	71099	64485	424221	100.0
% Age	35.4	12.3	20.3	16.8	15.2	100.0	

The pattern of periodic and regional supplies shown in above table : reveals that quantity of water released during Kharif was 37.6 of total supply & was max^{m} in the month of Sept. The quantity of water released during Rabi was 62.4 and being in the month of October. This shows delivery was not in accordance with water requirement by crops & water distribution was highly uneven.

For example during April to June only 10.3 of total annual water supply was released & was low in the month of May when cotton is sown. Again regional variation (Region I to V) was also high.

Annexure 4.17 shows percentage increase of irrigation over the preceding year by special water-management drive in 1996-97. Increase is as much as plus 18.52%.

Annex. 4.1

WJC AT HEAD TAJEWALA (Cusecs)

	OCT-01	NOV-01	DEC-01	JAN-02	FEB-02	MAR-02
1	5594	3037	2146	2095	2303	3888
2	3673	3037	2095	2095	2236	4230
3	3989	3037	2146	2095	2202	6206
4	5308	3037	2095	2095	2131	7224
5	5308	2708	2095	2095	2202	8520
6	5308	3163	2146	1890	2131	7574
7	2449	3163	2146	2095	2269	6581
8	2449	3163	2033	2095	2236	5467
9	2804	2708	2146	2095	2807	6193
10	3428	2708	2146	2095	3888	5512
11	3428	2708	2095	2095	2971	6031
12	2549	2708	2095	1890	3176	6031
13	2549	2247	2146	1890	4486	5958
14	2549	2708	2095	1890	3175	5958
15	2549	3163	2095	2095	4121	5958
16	3989	1947	2095	2095	3295	5719
17	3517	2577	2095	2269	3096	5719
18	3517	2218	2146	2269	3175	5958
19	2549	2429	2095	2429	2748	
20	2549	2429	2095	2269	2841	
21	1623	2146	2095	2269	2748	
22	3037	2146	2146	2269	3536	
23	2549	2549	2095	2269	3888	
24	2549	3016	2095	2269	3175	
25	3037	2095	2095	2095	2971	
26	3037	2146	2095	2095	4230	
27	5308	2095	2095	2269	3536	
28	2605	2095	2095	2335	3536	
29	3037	2549	2095	2367		
30	3037	2095	2095	2335		
31	3037		2095	2269		

ANNEX - 4.1.1

DISCHARGE IN RIVER YAMUNA & RELEASES D/S TAJEWALA HEADWORKS
INTO VARIOUS CANAL NETWORK OF WESTERN YAMUNA CANAL SYSTEM

RABI : 1999 - 2000 (In Cusecs)

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
OCT' 99																									
1		L				1700	3400	4815	-	366	40	20	25	188	125	42	10	54	11.5	40	170	1300	825	767	
2		L				1386	3400	5202	-	432	60	20	25	188	125	42	-	54	26.5	40	170	1300	825	767	
3		L				1625	3400	5010	-	295	60	20	25	188	125	42	11	54	26.5	40	170	1300	825	767	
4		L				1600	3400	4718	-	276	60	20	25	188	125	42	11	54	26.5	40	170	1300	700	920	
5		L				1500	3400	4679	-	425	60	18	25	188	125	42	11	54	26.5	40	170	1300	568	1157	
6		L				1500	3189	4597	-	400	60	18	25	188	125	42	11	54	26.5	40	170	1300	L	1157	
7		L				1512	3189	5200	-	300	60	18	25	188	125	42	11	54	26.5	40	170	1300	-	1157	
8		L				1550	3189	5200	-	350	60	18	25	188	125	42	-	54	26.5	40	170	1300	-	1157	
9		-				1831	3189	5200	-	350	60	18	25	188	125	42	10	54	26.5	40	170	1300	-	1157	
10		-				1500	3189	5113	-	350	60	15	25	188	125	42	10	54	26.5	40	170	1300	-	1157	
11		-				1500	3189	4680	-	350	60	15	25	188	125	42	10	54	26.5	40	170	1300	-	1157	
12		-				1500	3189	4597	-	350	60	15	25	188	125	42	10	54	26.5	40	80	1300	-	1157	
13		-				1500	3400	3941	-	350	40	15	25	110	80	42	10	45	26.5	40	80	650	1340	1061	
14		-				1450	2998	4090	-	350	40	15	25	110	80	42	10	45	-	40	80	565	850	1157	
15		-				1450	2749	4597	-	350	40	15	25	188	60	42	10	54	-	40	150	-	850	1157	
16		-				1900	2270	4291	-	350	20	15	25	110	60	42	10	40	26.5	40	135	-	850	1007	
17		-				1900	2649	4513	-	350	40	18	25	171	125	42	10	54	26.5	40	150	-	850	1157	
18		-				1552	2649	4415	-	350	40	18	25	171	125	42	10	54	26.5	40	150	-	850	1157	
19		-				1600	2972	4291	-	-	40	18	20	135	125	42	10	54	26.5	40	150	-	1200	1157	
20		-				1600	2822	4442	-	350	-	18	20	135	125	42	10	54	26.5	-	-	-	1200	1157	
21		-				1600	2072	4550	200	228	-	18	20	-	-	-	10	-	-	-	-	-	1400	606	
22		-				1600	2419	4480	-	-	-	18	30	135	-	42	10	-	-	-	-	-	1500	750	
23		-				1600	2384	4430	-	252	-	18	30	-	-	42	10	-	-	-	-	-	1500	750	
24		-				1500	2384	4180	-	250	-	18	30	-	-	42	10	-	-	-	-	-	1500	750	
25		-				1457	2384	3985	-	250	-	18	30	-	-	42	10	-	-	-	-	-	1500	750	
26		-				1400	2185	3400	300	200	-	18	30	-	-	-	10	-	-	-	-	-	1500	706	
27		-				1400	2357	3200	675	-	-	18	30	-	-	-	10	-	-	-	-	-	1500	800	
28		-				1400	2356	1450	675	-	-	18	30	-	-	-	10	-	-	-	-	-	1500	800	
29		-				1500	3400	1400	1224	-	40	18	30	110	100	30	10	32	22	40	100	950	1197	800	
	236310 CS		250580	201923	41265																				

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
30		-				1725	3400	1400	1008	-	40	18	30	110	100	30	10	32	22	40	100	950	1097	800	
31		-				1500	3400	1400	1224	-	40	18	30	110	100	30	10	32	22	40	-	1425	710	800	
Total						**48338**	**90573**	**1E+05**	**5306**	**7874**	**1080**	**545**	**810**	**3851**	**2580**	**1098**	**295**	**1144**	**528**	**880**	**3045**	**####**	**26637**	**29799**	
NOV.99																									
1						1500	3400	1385	1008	-	40	18	25	110	100	30	10	32	14	40	-	1425	725	800	
2						1500	3400	1385	1008	-	40	18	25	150	100	30	10	32	14	40	-	1425	858	800	
3						1500	2702	1650	726	-	40	18	25	150	100	-	10	32	14	40	-	1425	900	800	
4						1500	2552	1650	1008	-	40	18	25	150	70	-	10	32	14	40	-	1425	L	700	
5						1500	2731	1650	1170	-	40	18	25	150	70	-	10	32	14	40	-	1425	-	700	
6						1500	3181	2673	L	200	-	18	25	150	70	-	10	32	14	-	-	1425	-	1000	
7						1500	2631	2423	-	200	-	18	25	150	70	-	10	32	14	-	-	1425	284	1000	
8						1500	2581	2423	150	100	-	18	25	150	70	-	10	32	14	-	-	1325	-	1000	
9						1500	2184	2430	300	100	-	18	25	150	40	-	10	-	-	-	-	1325	-	1000	
10						1500	2599	2423	300	150	-	18	25	150	-	-	10	-	-	-	-	1325	-	1000	
11						1410	2287	2423	300	150	-	18	25	150	-	-	10	-	-	-	-	1060	-	1100	
12						1410	2287	2423	300	175	-	18	25	150	-	-	10	-	-	-	-	800	-	1100	
13						1500	2210	2423	400	175	-	18	25	150	-	-	10	-	-	-	-	800	-	1100	
14						1500	2193	2399	300	-	-	18	25	-	-	-	10	-	-	-	-	-	1220	1040	
15						1500	2445	2307	300	-	-	18	25	-	-	-	10	-	-	-	-	-	1220	1100	
16						1500	2366	2579	300	100	-	18	20	-	-	-	10	-	-	-	-	-	1400	871	
17						1500	2251	2334	300	60	-	18	20	-	-	-	10	-	-	-	-	-	1500	850	
18						1500	2245	2334	300	50	-	18	20	-	-	-	10	-	-	-	-	-	1400	800	
19						1500	2232	2252	300	50	-	18	20	-	-	-	10	-	-	-	-	-	1400	800	
20						1500	2106	2088	300	-	-	18	20	-	-	-	10	-	-	-	-	-	1342	771	
21						1500	2497	1898	300	-	-	18	20	-	-	-	10	-	-	-	-	-	1220	771	
22						1500	2642	1367	300	-	-	18	20	-	-	-	10	-	-	-	-	-	1650	771	
23						1500	2596	1926	300	-	-	18	20	-	-	-	10	-	-	-	-	-	1800	771	
24						1550	2596	1926	300	-	-	18	20	-	-	-	10	-	-	-	-	-	1800	725	
25						1550	2626	2107	300	-	-	18	20	-	-	-	10	-	-	-	-	-	1800	725	
26						1550	2626	1926	350	-	-	18	25	-	-	-	10	-	-	-	-	-	1800	750	
27						1550	2626	1867	350	-	-	18	25	-	-	-	10	-	-	-	-	-	1800	750	
28						1550	2626	1867	350	-	-	18	25	-	-	-	10	-	-	-	-	-	1800	750	
29						1550	2626	1867	350	-	-	18	25	-	-	-	10	-	-	-	-	-	1800	750	
30						1600	2608	1802	350	-	-	NIL	25	-	60	30	10	-	-	-	-	1425	1800	750	
Total						**45220**	**76652**	**62207**	**####**	**1510**	**200**	**522**	**700**	**1910**	**750**	**90**	**300**	**256**	**112**	**200**	**0**	**####**	**29519**	**25845**	
	114237 CS		112551	104652	-																				

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
DEC.,99																									
1						1600	3400	1552	350	-	40	18	25	150	100	30	10	49	18	30	-	1425	550	800	
2						1600	2806	1369	350	-	40	-	25	120	100	30	10	49	18	30	100	1425	L	800	
3						1600	2806	1422	350	-	40	-	25	120	100	30	10	49	18	30	100	1425	L	800	
4						1600	2806	1475	350	-	40	18	25	120	100	30	10	49	18	35	100	1425	L	800	
5						1600	2806	1552	350	-	40	18	25	120	100	30	10	49	18	35	100	1425	L	800	
6						1600	2806	1552	350	-	40	18	25	120	110	30	10	49	18	35	100	1425	L	800	
7						1600	2806	1318	350	-	40	18	25	135	110	30	10	49	18	35	100	1425	-	800	
8						1700	1236	2203	350	270	40	18	30	-	-	-	15	-	-	-	-	-	-	1050	
9						1700	1236	2203	350	321	-	18	30	-	-	-	10	-	-	-	-	-	-	1150	
10						1700	1236	2423	350	321	-	18	30	-	-	-	10	-	-	-	-	-	-	1150	
11						1700	1236	2423	350	321	-	15	30	-	-	-	10	-	-	-	-	-	-	1150	
12						1700	1236	2423	350	321	-	15	30	-	-	-	10	-	-	-	-	-	-	1150	
13						1700	1241	2423	300	321	-	15	30	-	-	-	15	-	-	-	-	-	-	1150	
14						1700	1241	2430	300	321	-	12	30	-	-	-	15	-	-	-	-	-	-	1150	
15						1700	1241	2430	300	321	-	12	30	-	-	-	15	-	-	-	-	-	-	1150	
16						1700	2247	2088	300	-	-	12	30	-	-	-	15	-	-	-	-	-	1340	771	
17						1700	2247	2081	400	-	-	12	30	-	-	-	15	-	-	-	-	-	1340	771	
18						1700	1701	2488	400	-	-	12	30	-	-	-	15	-	-	-	-	-	795	771	
19						1700	1388	2488	400	-	-	15	30	-	-	-	15	-	-	-	-	-	350	771	
20						1700	1651	2488	400	-	-	15	30	-	-	-	15	-	-	-	-	-	800	771	
21						1700	2247	2488	400	-	-	15	30	-	-	-	15	-	-	-	-	-	1340	771	
22						1700	2008	2488	400	-	-	15	25	-	-	-	15	-	-	-	-	-	1200	771	
23						1700	2008	2488	400	-	-	15	25	-	-	-	10	-	-	-	-	-	1190	821	
24						1700	2692	1707	400	-	-	15	20	-	-	-	10	-	-	-	-	-	1753	821	
25						1700	2692	1707	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1753	821	
26						1700	2692	1707	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1753	821	
27						1700	2592	1818	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1753	821	
28						1700	2592	1818	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1640	821	
29						1700	2592	1818	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1653	821	
30						1700	2592	1818	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1640	821	
31						1700	2592	1818	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1640	821	
	112892 CS		87191	81383	-																				
Total						**52000**	**66672**	**62506**	**####**	**2517**	**320**	**465**	**805**	**885**	**720**	**210**	**365**	**343**	**126**	**230**	**600**	**9975**	**22490**	**27486**	

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
JAN,2K																									
1						1700	3081	776	400	-	40	18	20	171	100	42	10	41	17	30	100	1425	L	850	
2						1700	3033	466	400	-	40	18	20	171	100	42	10	41	17	30	100	1425	100	850	
3						1700	2876	250	400	-	40	18	20	170	90	42	10	35	17	-	100	1425	-	850	
4						1700	2876	200	400	-	40	18	25	170	100	42	10	35	17	25	100	1425	-	850	
5						1700	2396	200	400	-	40	18	25	170	100	42	10	35	17	25	100	1425	-	850	
6						1700	2958	200	400	-	40	18	25	171	100	30	10	35	12.5	25	100	1425	-	850	
7						1700	2958	200	400	-	40	18	25	170	100	30	10	35	12.5	25	100	1425	-	890	
8						1700	2958	200	400	-	40	18	25	170	100	30	10	35	12.5	25	100	1425	-	890	
9						1700	1261	2430	400	-	40	18	25	-	-	-	10	-	-	-	-	-	-	911	
10						1700	1261	2430	400	321	-	18	25	-	-	-	10	-	-	-	-	-	-	1040	
11						1700	1261	2423	400	321	-	18	25	-	-	-	10	-	-	-	-	-	-	1058	
12						1700	1261	2423	400	321	-	18	25	-	-	-	10	-	-	-	-	-	-	1180	
13						1700	1261	2500	400	321	-	18	25	-	-	-	10	-	-	-	-	-	-	1180	
14						1700	1473	2533	400	223	-	18	25	-	-	-	10	-	-	30	-	-	-	1180	
15						1700	1473	2850	400	236	-	18	25	170	-	-	10	-	-	30	-	-	-	1180	
16						1700	1473	2750	400	223	-	18	25	170	-	-	10	-	-	30	-	-	-	1180	
17						1700	2335	2415	400	236	-	-	25	170	-	-	10	-	-	-	-	-	1340	900	
18						1700	2335	2415	400	-	-	-	25	-	-	-	10	-	-	-	-	-	1340	1007	
19						1700	2378	2661	400	-	-	-	25	-	-	-	10	-	-	-	-	-	1340	1007	
20						1700	2277	2088	400	-	-	18	25	-	-	-	10	-	-	-	-	-	1340	811	
21						1700	2306	2252	400	-	-	18	25	-	-	-	10	-	-	-	-	-	1340	811	
22						1700	2349	2497	400	-	-	18	25	-	-	-	10	-	-	-	-	-	1340	912	
23						1700	2349	2497	400	-	-	18	25	-	-	-	10	-	-	-	-	-	1340	851	
24						1700	2349	2497	400	-	-	-	25	-	-	-	10	-	-	-	-	-	1340	851	
25						1700	2687	1937	400	-	-	-	25	-	-	-	10	-	-	-	-	-	1752	811	
26						1700	2687	1707	400	-	-	-	25	-	-	-	10	-	-	-	-	-	1752	811	
27						1700	2668	2337	400	-	-	-	20	-	-	-	10	-	-	30	-	-	1800	750	
28						1700	2621	1937	400	-	-	15	20	-	-	-	15	-	-	-	-	-	1752	750	
29						1700	2682	1907	400	-	-	15	20	-	-	-	15	-	-	-	-	-	1752	811	
30						1700	2682	1907	400	-	-	15	20	-	-	-	15	-	-	-	-	-	1752	811	
31						1700	2451	1907	400	-	-	15	20	-	-	-	15	-	-	-	-	-	1482	811	
Total						**52700**	**71016**	**55792**	**####**	**2202**	**360**	**420**	**735**	**1873**	**790**	**300**	**330**	**292**	**123**	**305**	**800**	**####**	**22862**		

96286 CS

80284

76558

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DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
FEB. 2K																									
1						1700	2451	1707	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1385	811	
2						1700	3400	-	400	-	30	18	25	170	100	42	10	25	8.5	30	80	1475	460	850	
3						1700	3178	-	400	-	30	18	25	170	100	42	10	25	8.5	30	80	1409	300	850	
4						1700	2940	300	400	-	30	18	25	170	100	42	10	25	8.5	30	80	1475	200	850	
5						1700	2618	427	400	-	-	18	25	100	50	20	10	25	-	30	-	1409	200	750	
6						1700	2927	1552	400	-	-	18	25	100	50	-	10	-	-	-	-	1409	375	750	
7						1700	3043	1600	400	-	-	18	25	-	-	-	10	-	-	-	-	1250	850	750	
8						1700	2293	2000	897	-	-	18	25	-	-	-	10	-	-	-	-	1350	-	750	
9						1700	2198	2100	549	-	-	-	25	-	-	-	10	-	-	-	-	1350	-	550	
10						1700	736	3707	400	150	-	-	25	-	-	-	10	-	-	-	-	-	-	650	
11						1700	736	3666	400	-	-	18	25	-	-	-	-	-	-	-	-	-	-	650	
12						1700	2198	3200	400	-	-	18	25	-	-	-	15	-	-	-	-	-	-	650	
13						1700	1366	3900	400	-	-	18	25	-	-	-	15	-	-	-	-	1100	-	650	
14						1700	1146	3975	400	-	-	-	25	-	-	-	15	-	-	-	-	458	-	650	
15						1700	942	3975	400	-	-	-	25	-	-	-	10	-	-	-	-	382	-	650	
16						1700	937	3975	400	-	-	-	25	-	-	-	10	-	-	-	-	150	-	650	
17						1700	2231	3079	400	-	-	-	25	-	-	-	10	-	-	-	-	150	1350	650	
18						1700	2032	3078	400	-	-	18	20	-	-	-	10	-	-	-	-	-	1350	571	
19						1700	2032	3488	-	-	-	18	20	-	-	-	10	-	-	-	-	-	1342	571	
20						1700	2032	3640	-	-	-	18	20	-	-	-	10	-	-	-	-	-	1342	571	
21						1700	2032	3348	-	-	-	18	20	-	-	-	10	-	-	-	-	-	1342	571	
22						1700	2032	3200	-	-	-	18	20	-	-	-	15	-	-	-	-	-	1342	571	
23						1700	1944	3200	-	-	-	18	20	-	-	-	15	-	-	-	-	-	1342	571	
24						1700	2037	3200	-	-	-	18	20	-	-	-	15	-	-	-	-	-	724	571	
25						1700	2037	3200	-	-	-	18	20	-	-	-	15	-	-	-	-	-	1342	571	
26						1700	2618	2100	250	-	-	-	20	-	-	-	15	-	-	-	-	-	1342	725	
27						1700	2618	2100	250	-	-	-	20	-	-	-	15	-	-	-	-	-	1342	725	
28						1700	2618	2100	250	-	-	-	20	-	-	-	15	-	-	-	-	-	1753	725	
29						1700	2618	2100	250	-	-	18	20	-	-	-	15	-	-	-	-	-	1753	725	
Total						**49300**	**61990**	**73917**	**8846**	**150**	**90**	**360**	**660**	**710**	**400**	**146**	**335**	**100**	**25.5**	**120**	**240**	**####**	**21436**	**19579**	

9 4 9 2 3 CS

8 2 4 9 9 CS

7 2 4 9 8 CS

5 5 0 7 CS

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
MAR,2K																									
1						1700	2618	2350	250	-	-	18	30	-	-	-	15	-	-	-	-	-	1753	725	
2						1700	2618	2203	250	-	-	18	30	-	-	-	15	-	-	-	-	-	1753	725	
3						1700	2618	2350	250	-	-	18	30	-	-	-	15	-	-	-	-	-	1753	725	
4						1700	2618	2203	250	-	-	18	30	-	-	-	15	-	-	-	-	-	1753	725	
5						1700	3400	-	726	-	30	18	20	171	138	40	10	41	11	40	135	1409	400	769	
6						1700	3400	-	432	-	30	18	20	171	138	40	10	41	11	40	135	1409	200	769	
7						1700	3400	-	609	-	30	18	25	171	138	40	10	41	11	40	135	1409	-	1007	
8						1700	3400	-	726	-	30	-	25	171	138	40	10	41	20	40	135	1409	-	1007	
9						1700	3400	-	250	-	30	-	25	171	138	40	10	41	20	40	135	1409	-	1007	
10						1700	3400	-	250	100	30	-	25	171	138	40	10	49	20	40	135	1409	-	1007	
11						1700	3176	-	250	-	30	18	25	171	138	40	10	49	22	40	135	1409	-	1007	
12						1700	1231	-	250	275	30	18	25	171	138	40	10	49	20	40	135	1409	-	1007	
13						1700	1751	2423	250	321	-	18	25	-	-	-	10	-	-	-	-	-	-	1150	
14						1700	1231	2970	400	321	-	18	25	-	-	-	10	-	-	-	-	250	-	1150	
15						1700	1231	2423	400	321	-	18	25	-	-	-	10	-	-	-	-	-	-	1150	
16						1700	1231	2710	400	321	-	-	25	-	-	-	10	-	-	-	-	-	-	1150	
17						1700	1226	2824	450	321	-	-	25	-	-	-	10	-	-	-	-	-	-	1150	
18						1700	1226	2824	450	321	-	-	20	-	-	-	10	-	-	-	-	-	-	1007	
19						1700	1226	2824	450	321	-	20	20	-	-	-	10	-	-	-	-	-	-	1007	
20						1700	2146	2824	450	321	-	20	20	-	-	-	10	-	-	-	-	-	-	1041	
21						1700	2146	2270	450	-	-	20	20	-	-	-	10	-	-	-	-	-	-	811	
22						1700	2083	2327	450	-	-	-	20	-	-	-	10	-	-	-	-	-	1025	811	
23						1700	2146	2111	450	-	-	-	20	-	-	-	10	-	-	-	-	-	1230	811	
24						1700	2156	2327	450	-	-	-	20	-	-	-	10	-	-	-	-	-	2240	811	
25						1700	2156	2654	600	-	-	-	20	-	-	-	20	-	-	-	-	-	1230	811	
26						1700	2156	2767	600	-	-	20	20	-	-	-	20	-	-	-	-	-	1220	811	
27						1700	2156	2710	600	-	-	20	20	-	-	-	20	-	-	-	-	-	1220	811	
28						1700	2672	2710	600	-	-	20	20	-	-	-	-	-	-	-	-	-	1220	811	
29						1700	3011	2274	600	-	-	20	20	-	-	-	-	-	-	-	-	-	1753	811	
30						1700	3239	2152	600	-	-	18	20	-	-	-	-	-	-	-	-	153	1000	1150	
31						1700	-	2100	600	-	30	18	20	-	-	-	-	-	-	-	-	-	1800	1150	
Total						**52700**	**70468**	**57330**	**####**	**2943**	**270**	**392**	**715**	**1368**	**1104**	**320**	**320**	**352**	**135**	**320**	**1080**	**####**	**21550**	**28884**	

13073CS

10696CS

14557CS

81070

DISCHARGE IN RIVER YAMUNA & RELEASES D/S TAJEWALA HEADWORKS INTO VARIOUS CANAL NETWORK OF WESTERN YAMUNA CANAL SYSTEM

KHARIF : 2000 (In Cusecs)

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
APR 2K																									
1	160959cs		139158	27873	88490	1700	3200	2050	600	-	30	-	25	-	-	40	-	-	-	-		-	1800	1150	
2						1700	3036	2150	600	-	-	20	25	-	-	-	-	-	-	-		-	1753	1073	
3						1700	3041	2150	600	-	-	20	25	-	-	-	30	-	-	-		-	1753	1150	
4						1700	2097	2500	600	-	-	20	25	-	-	-	-	-	-	-		-	1753	811	
5						1700	2707	2380	600	-	-	20	25	-	-	-	-	-	-	-		-	1753	811	
6						1700	3400	1318	600	-	20	-	25	125	120	38	20	32	12.5	30	100	1409	200	1009	
7						1700	3400	1552	600	-	20	20	25	171	120	38	20	32	12.5	30	100	1409	450	1009	
8						1700	3146	528	600	-	20	20	20	171	80	38	20	32	10	30	100	1409	-	1009	
9						1700	3146	890	600	-	20	20	20	171	80	38	20	32	10	30	100	1409	-	1009	
10						1700	3146	1198	600	-	20	20	20	171	80	38	20	32	10	30	100	1409	-	1009	
11						1700	3146	1117	600	-	20	20	20	171	80	38	10	32	10	30	100	1409	-	1009	
12						1700	3146	528	600	-	20	20	20	171	80	38	10	32	10	30	100	1409	-	1009	
13						1700	3146	684	600	-	20	-	20	100	50	-	10	32	10	30	100	1409	-	1009	
14						1700	9827	2798	600	250	-	-	20	171	80	-	10	15	10	-	70	382	-	1150	
15						1700	2166	2798	600	250	-	-	20	60	-	-	10	15	10	-	-	680	-	1100	
16						1700	1974	3918	600	250	-	-	20	-	-	-	10	-	-	-	-	770	-	1050	
17						1700	2069	3100	600	250	-	20	20	-	-	-	10	-	-	-	-	863	-	1050	
18						1700	1745	3450	600	250	-	20	20	-	-	-	10	-	-	-	-	538	-	1050	
19						1700	1402	3450	600	250	-	20	20	-	-	-	10	-	-	-	-	202	-	1050	
20						1700	1361	3450	600	250	-	20	20	-	-	-	10	-	-	-	-	100	-	1050	
21						1700	1126	3450	750	250	-	-	20	-	-	-	10	-	-	-	-	-	-	1050	
22						1700	2332	2619	750	125	-	-	30	-	-	-	10	-	-	-	-	-	-	811	
23						1700	2142	7850	990	250	-	-	30	-	-	-	10	-	-	-	-	-	1342	671	
24						1700	2142	3237	990	250	-	-	30	-	-	-	10	-	-	-	-	-	1342	671	
25						1700	2365	3237	750	250	-	20	20	-	-	-	10	-	-	-	-	-	1342	911	
26						1700	2512	2850	750	-	-	20	20	-	-	-	-	-	-	-	-	-	1342	911	
27						1700	2462	2850	750	-	-	20	20	-	-	-	-	-	-	-	-	-	1510	851	
28						1700	2457	2616	750	-	-	20	20	-	-	-	-	-	-	-	-	-	1510	851	
29						1700	2432	2570	750	-	-	20	20	-	-	-	-	-	-	-	-	-	1510	851	
30						1700	2712	2162	750	-	-	-	20	-	-	-	-	-	-	-	-	-	1510	851	

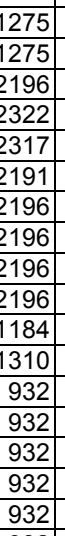
DISCHARGE IN RIVER YAMUNA & RELEASES D/S TAJEWALA HEADWORKS
INTO VARIOUS CANAL NETWORK OF WESTERN YAMUNA CANAL SYSTEM (IN CUSECS)

RABI : 2

DATE	TAJEWAL A H / W		Western Yamuna Canal MLL	Western Yamuna Canal (Unlined)	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
OCT.2000																									
1	6862					1200	2404	3229	-	322	-	20	30	-	-	-	10	-	-	-	-	-	1342		
2	6862					1200	2523	3820	-	460	-	20	30	-	-	-	10	-	-	-	-	-	1590		
3	6862					1200	2523	3820	-	460	-	20	30	-	-	-	10	-	-	-	-	-	1590		
4	6862					1400	2512	3820	-	460	-	-	30	-	-	-	10	-	-	-	-	-	1342		
5	6383					1400	2513	3820	-	460	-	-	30	-	-	-	10	-	-	-	-	-	1342		
6	6903					1400	2518	3820	-	460	-	-	30	-	-	-	10	-	-	-	-	-	1342		
7	6862					1400	2750	4536	-	253	-	20	25	-	-	-	10	-	-	-	-	-	1752		
8	6518					1400	2730	4458	-	-	-	20	25	-	-	-	10	-	-	-	-	-	1752		
9	6518					1400	2532	4458	-	-	-	20	25	-	-	-	10	-	-	-	-	-	1752		
10	6518					1400	2532	4458	-	-	-	20	25	-	-	-	10	-	-	-	-	-	1752		
11	6178					1400	2532	4048	-	-	-	20	25	-	-	-	10	-	-	-	-	-	1752		
12	6035					1400	2532	4536	-	-	-	20	25	-	-	-	10	-	-	-	-	-	1752		
13	6178					1400	2532	3683	-	-	-	20	25	-	-	-	10	-	-	-	-	-	1752		
14	6178					1400	2532	3900	-	-	-	-	25	-	-	-	10	-	-	-	-	-	652		
15	6178					1700	3400	2792	-	-	30	-	25	-	-	-	10	-	-	-	-	-	652		
16	6178					1700	3400	2252	500	-	30	-	25	171	35	140	15	49	23	40	145	1300	627		
17	5963					1700	3400	2252	500	-	30	20	25	171	35	140	15	49	23	40	145	1300	637		
18	5111					1700	3400	2228	500	-	30	20	25	171	35	140	15	49	23	40	145	1350	536		
19	5963					1700	3400	1050	500	-	30	20	25	171	35	140	15	49	23	40	145	1290	536		
20	5817					1700	3400	1750	726	-	30	20	25	171	35	140	15	49	23	40	145	1290	536		
21	5817					1700	3400	2500	400	-	30	20	25	171	35	140	15	49	23	40	145	1290	605		
22	5963					1700	3400	2390	400	257	30	20	25	171	35	140	15	49	23	40	145	1290	650		
23	5383					1700	2922	2473	400	321	30	20	25	171	35	140	15	49	23	40	145	1220	650		
24	5383					1700	3325	2533	400	275	30	20	30	171	35	140	15	49	23	40	145	1220	650		

DATE	TAJEWAL A H / W		Western Yamuna Canal MLL	Western Yamuna Canal (Unlined)	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
25	5034					1700	2889	2533	400	290	30	20	30	171	35	140	15	49	23	40	-	1260	-		
26	5650					1700	2480	2533	400	321	30	20	30	171	35	140	10	49	23	40	-	300	300		
27	5477					1500	2336	2533	400	321	30	-	30	171	35	140	10	49	23	40	-	300	300		
28	5019					1500	2336	2533	400	321	30	-	30	171	35	140	10	49	23	40	-	300	300		
29	5019					1500	2336	2533	400	321	30	-	30	171	35	140	10	49	23	40	-	300	300		
30	4255					1500	2336	2533	400	321	30	20	30	171	35	140	10	49	23	40	-	300	1332		
31	4617					1500	3412	2623	400	-	-	20	30	-	-	-	10	-	-	-	-	-	-		
Total	**184546**	**0**	**0**	**0**	**0**	**####**	**87237**	**96447**	**7126**	**###**	**480**	**440**	**845**	**2565**	**525**	**###**	**360**	**735**	**338**	**600**	**1305**	**14310**	**####**		
NOV., 2000																									
1	4051					1500	2506	3063	400	-	-	20	30	-	-	-	10			-	-	-	1342		
2	4617					1500	2571	3210	400	-	-	20	30	-	-	-	10			-	-	-	1342		
3	4913					1500	2566	3210	400	-	-	20	25	-	-	-	15			-	-	-	1342		
4	4185					1500	2531	3063	400	-	-	-	25	-	-	-	15			-	-	-	1342		
5	4494					1500	2462	2770	400	-	-	-	25	-	-	-	15			-	-	-	1342		
6	4185					1500	2444	3696	400	-	-	-	25	-	-	-	15			-	-	-	1342		
7	3826					1500	2482	2916	200	-	-	-	25	-	-	-	-			-	-	-	1342		
8	3826					1500	2717	2664	200	-	-	20	25	-	-	-	-			-	-	-	1752		
9	4176					1500	2717	2538	200	-	-	20	25	-	-	-	-			-	-	-	1752		
10	4273					1500	2727	2415	200	-	-	20	25	-	-	-	-10			-	-	-	1752		
11	3933					1500	2732	2235	200	-	-	20	25	-	-	-	-10			-	-	-	1752		
12	3418					1500	2737	1947	350	-	-	20	30	-	-	-	-15			-	-	-	1752		
13	3077					1500	2737	1785	350	-	-	-	30	-	-	-	15			-	-	-	1668		
14	3303					1500	2737	1785	350	-	-	-	30	-	-	-	15			-	-	-	1752		
15	2754					754	2574	1552	350	-	-	-	30	-	-	-	15			-	-	-	1668		
16	2381					920	3010	6200	350	-	30	-	30	171	110	30	10	35	13	45	135	1350	150		
17	2381					1500	2884	200	350	-	30	-	30	171	110	30	10	35	13	45	135	1350	-		
18	3256					1500	2520	1250	350	-	30	-	25	171	110	30	15	25	13	45	76	1050	-		
19	3841					1300	2620	1600	495	-	30	20	25	171	110	30	15	25	13	45	76	1150	-		
20	2400					1350	2620	1450	726	-	30	20	25	171	110	30	15	25	13	45	76	1150	-		
21	2967					1300	2576	1480	350	-	30	20	25	150	95	22	15	25	13	45	76	1150	-		
22	3523					1200	2576	1350	350	-	-	20	25	150	95	22	15	25	13	45	76	1150	-		
23	2967					1200	2576	1400	490	-	-	-	25	150	95	22	15	25	8.5	45	76	1150	-		
24	3523					950	2000	2533	350	150	-	-	25	150	-	22	10			-	-	550	-		
25	2967					1100	1703	2533	350	150	-	-	25	-	-	-	10			-	-	407	-		
26	2731					700	1703	2533	350	150	-	-	25	-	-	-	10			-	-	452	-		

DATE	TAJEWAL A H / W		Western Yamuna Canal MLL	Western Yamuna Canal (Unlined)	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
27	2967					700	1460	2533	350	178	-	20	25	-	-	-	10			-	-	221	-		
28	2760					620	1282	2533	300	178	-	20	20	-	-	-	10			-	-	-	-		
29	3026					600	1282	2533	250	178	-	20	20	-	-	-	10			-	-	-	-		
30	4651					300	1282	2533	250	178	-	20	20	-	-	-	10			-	-	-	-		
Total	**105372**	**0**	**0**	**0**	**0**	**####**	**71334**	**71510**	**####**	**###**	**180**	**320**	**775**	**1455**	**835**	**238**	**270**	**220**	**96**	**360**	**726**	**11130**	**####**		
JAN., 01																									
1	2697					100	1275	2203	400	289	-	20	25	-	-	-	15	-	-	-	-		-	1223	
2	6203					50	1275	2203	400	-	-	20	25	-	-	-	15	-	-	-	-		-	1223	
3	3489					-	2196	1781	400	-	-	-	25	-	-	-	15	-	-	-	-		1220	851	
4	4275					100	2322	1959	400	-	-	-	25	-	-	-	15	-	-	-	-		1220	851	
5	2815					100	2317	1959	400	-	-	-	25	-	-	-	15	-	-	-	-		1342	851	
6	2815					-	2191	1781	400	-	-	-	25	-	-	-	15	-	-	-	-		1220	851	
7	3079					-	2196	1781	350	-	-	20	25	-	-	-	15	-	-	-	-		1220	851	
8	2841					-	2196	1781	350	-	-	20	25	-	-	-	15	-	-	-	-		1220	851	
9	2841					-	2196	1781	350	-	-	20	25	-	-	-	15	-	-	-	-		1125	851	
10	2841					-	2196	1781	350	-	-	-	25	-	-	-	15	-	-	-	-		1220	851	
11	2872					-	1184	2404	300	-	20	-	25	-	-	-	10	-	-	-	-		-	851	
12	2872					-	1310	2547	300	-	20	-	25	-	-	-	10	-	-	-	-		450	851	
13	2841					100	932	2600	350	-	20	-	25	-	-	-	10	-	-	-	-		-	851	
14	2660					100	932	2690	350	-	20	20	25	-	-	-	10	-	-	-	-		-	851	
15	2990					100	932	2727	350	-	-	20	25	-	-	-	10	-	-	-	-		-	851	
16	2622					-	932	2832	350	-	-	20	25	-	-	-	10	-	-	-	-		-	851	
17	2499					-	932	2727	350	-	-	20	25	-	-	-	10	-	-	-	-		-	851	
18	2499					-	932	2727	350	-	-	-	25	-	-	-	10	-	-	-	-		-	851	
19	1415					500	2786	500	350	-	-	-	25	-	-	-	10	-	-	-	-		1750	851	
20	2399					500	2289	-	350	-	-	-	25	-	-	-	10	-	-	-	-		1100	851	
21	2241					500	2622	-	350	-	-	-	25	-	-	-	10	-	-	-	-		1593	851	
22	2158					500	2782	200	350	-	-	20	25	-	-	-	10	-	-	-	-		1750	851	
23	2524					500	2882	-	400	-	-	20	25	-	-	-	10	-	-	-	-		1850	851	
24	2474					500	2882	-	400	-	-	20	25	-	-	-	10	-	-	-	-		1850	851	
25	2143					500	2782	-	400	-	-	20	25	-	-	-	10	-	-	-	-		1750	851	
26	2420					500	2782	200	400	-	-	-	25	-	-	-	10	-	-	-	-		1750	851	
27	2311					50	3400	200	400	-	-	-	25	171	115	-	10	41	10	40	135	1400	-	1200	
28	2130					50	3400	-	400	-	-	-	25	171	115	-	10	41	10	40	135	1409	-	1223	
29	2524					-	3202	-	400	-	-	-	25	171	115	15	10	41	10	40	135	1409	-	1223	
30	2482					-	3400	-	400	-	-	20	25	171	115	15	10	41	10	40	135	1409	-	1223	
31	2362					-	3056	-	450	-	-	20	25	171	115	15	15	41	10	35	120	1100	-	1174	
Total	**85334**	**0**	**0**	**0**	**0**	**4750**	**66711**	**41364**	**####**	**289**	**80**	**300**	**775**	**855**	**575**	**45**	**365**	**205**	**50**	**195**	**660**	**6727**	**####**	**####**	



DATE	TAJEWAL A H / W		Western Yamuna Canal MLL	Western Yamuna Canal (Unlined)	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
MAR., 01																									
1	2230					800	2627	-	600	-	-	20	25	-	-	-	15	-	-	-	-	-	200	851	
2	1914					800	2360	-	600	-	-	20	25	-	-	-	15	-	-	-	-	-	1240	851	
3	1914					800	1777	-	600	-	-	-	25	-	-	-	10	-	-	-	-	-	650	851	
4	2062					900	1996	-	600	-	-	-	25	-	-	-	10	-	-	-	-	-	900	851	
5	2062					900	2622	-	600	-	-	-	25	-	-	-	10	-	-	-	-	-	1612	851	
6	2062					900	2622	-	600	-	-	-	25	-	-	-	10	-	-	-	-	-	1650	851	
7	2159					900	2453	-	600	-	-	-	25	-	-	-	10	-	-	-	-	-	1280	851	
8	2062						2867	-	600	-	-	20	25	150	115	34	10	35	6.5	21	76	-	-	1007	
9	2012						2867	-	600	-	-	20	25	140	110	30	10	35	11	29	110	800	-	1140	
10	2012						2761	-	600	-	-	20	25	140	110	30	10	40	14	29	103	992	-	1023	
11	2012						2761	-	600	-	-	20	25	140	110	30	10	40	14	29	103	913	-	1056	
12	2012						2867	-	600	-	-	-	25	140	110	30	10	40	11	29	103	944	-	1106	
13	2012						2404	-	600	-	-	-	25	125	95	27	10	35	10	29	81	992	-	1060	
14	2012						2567	-	600	-	-	-	25	140	110	30	10	35	11	21	103	750	-	1106	
15	2062						2750	-	600	-	-	-	25	160	115	32	10	44	10	21	81	959	-	1060	
16	2099						932	1521	700	-	-	20	25	-	-	-	10	-	-	-	-	800	-	851	
17	2099						932	1521	700	-	-	20	25	-	-	-	10	-	-	-	-	-	-	851	
18	2099						932	1521	700	-	-	20	25	-	-	-	10	-	-	-	-	-	-	851	
19	2099						932	1686	700	-	-	20	25	-	-	-	10	-	-	-	-	-	-	851	
20	2099						932	1572	700	-	-	20	25	-	-	-	10	-	-	-	-	-	-	851	
21	2099						932	1572	700	-	-	-	20	-	-	-	15	-	-	-	-	-	-	851	
22	2099						932	1572	700	-	-	-	20	-	-	-	15	-	-	-	-	-	-	851	
23	2099						1813	1445	700	-	-	-	20	-	-	-	15	-	-	-	-	-	724	851	
24	2099						1881	1011	700	-	-	20	20	-	-	-	15	-	-	-	-	-	905	851	
25	2196	-					1881	1083	700	-	-	20	25	-	-	-	15	-	-	-	-	-	1050	851	
26	2099	-					1781	1083	700	-	-	20	25	-	-	-	15	-	-	-	-	-	-	851	
27	2099	-					1781	967	700	-	-	20	25	-	-	-	15	-	-	-	-	-	905	851	
28	2099	-					1818	967	700	-	-	20	25	-	-	-	15	-	-	-	-	-	905	851	
29	2196	-					1893	1011	700	-	-	20	25	-	-	-	15	-	-	-	-	-	905	851	
30	10658	1031					1893	1090	700	-	-	20	25	-	-	-	15	-	-	-	-	-	975	851	
31	2099	-					2133	1372	700	-	-	-	25	-	-	-	15	-	-	-	-	-	1220	851	
Total	**72936**	**1031**	**67255**	**705**	**60598**	**6000**	**61699**	**20994**	**####**	**0**	**0**	**360**	**755**	**1135**	**875**	**243**	**375**	**304**	**88**	**208**	**760**	**7150**	**####**	**####**	

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Total						**51000**	**82983**	**75450**	**19980**	**2875**	**190**	**380**	**665**	**1482**	**770**	**306**	**280**	**286**	**105**	**240**	**870**	**14807**	**20870**	**28996**	
MAY 2K																									
1						1700	2712	2980	750	-	-	-	20	-	-	-	-	-	-	-	-		1752		
2						1700	2712	2162	750	-	-	-	20	-	-	-	-	-	-	-	-		1651		
3						1700	2712	2162	750	-	-	20	20	-	-	-	-	-	-	-	-		1752		
4						1700	2722	2434	750	-	-	20	20	-	-	-	10	-	-	-	-		1752		
5						1700	2702	2434	750	-	-	20	-	-	-	-	10	-	-	-	-		1752		
6						1700	2802	2988	750	-	-	20	-	-	-	-	10	-	-	-	-		1752		
7						1700	2822	2710	750	-	-	20	-	-	-	-	10	-	-	-	-		1895		
8						1700	3400	1900	750	-	30	-	20	171	138	40	10	43	18.50	35	100	1409	303		
9						1700	3400	1322	750	-	30	-	20	171	138	40	10	43	18.50	35	100	1409	200		
10						1700	3400	1322	1100	-	30	-	20	171	138	40	-	43	18.50	35	100	1409	600		
11						1700	3400	1001	1050	-	30	20	20	171	138	-	-	43	18.50	35	100	1409	650		
12						1700	3400	1157	1050	-	30	20	20	171	138	30	-	43	21.50	35	100	1409	586		
13						1700	3400	1700	1050	-	30	20	20	171	138	39	-	43	21.50	35	100	1409	805		
14						1700	3400	1725	1050	-	30	20	20	171	138	39	-	49	21.50	35	100	750	1000		
15						1200	1612	2302	1150	-	30	20	20	171	138	39	-	49	21.50	35	100	-	300		
16						1700	1117	2833	700	320	-	-	20	-	-	-	-	-	-	-	-	-	-		
17						1700	2057	2833	700	320	30	-	20	-	100	30	10	40	-	35	100	500	-		
18						1700	1841	3100	700	320	15	-	20		70	18	10	25	-	25	75	500	-		
19						1700	1841	3100	700	320	-	20	20		70	18	10	25	-	25	100	537	-		
20						1700	1790	3100	700	320	-	20	-		70	18	10	25	-	20	-	550	-		
21						1700	1790	3100	700	320	-	20	20		70	-	10	25	-	20	-	484	-		
22						1700	1927	2900	700	320	-	20	20		70	-	10	25	14	20	-	650	-		
23						1700	1974	2900	700	-	-	-	20		-	-	10	25	12.50	-	-	700	-		
24						1700	2475	2083	600	100	-	-	20		-	-	10	-	-	-	-	-	1402		
25						1700	2507	3081	600	-	-	-	20		-	-	10	-	-	-	-	-	1402		
26						1700	2525	3297	600	-	-	20	20		-	-	10	-	-	-	-	-	1402		
27						1700	2435	3170	600	-	-	20	20		-	-	10	-	-	-	-	-	1402		
28						1700	2295	2926	600	-	-	20	20		-	-	10	-	-	-	-	-	1402		
29						1700	2420	2383	700	-	-	20	20		-	-	10	-	-	-	-	-	1402		
30						1700	2420	2434	700	-	-	-	20		-	-	10	-	-	-	-	-	1402		
31						1700	2460	3110	700	-	-	-	20		-	-	10	-	-	-	-	-	1402		
Total						**52200**	**78470**	**76649**	**23900**	**2340**	**285**	**360**	**540**	**1368**	**1554**	**351**	**210**	**546**	**186.5**	**425**	**1075**	**13125**	**27966**		

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
JUNE, 2K																									
1		-				1700	2747	2654	700	-	-	-	-	-	-	-	10	-	-	-	-		1752	896	
2		-				1700	2747	2824	700	-	-	-	-	-	-	-	10	-	-	-	-		1752	896	
3		-				1700	2767	2285	700	-	-	20	20	-	-	-	10	-	-	-	-		1752	896	
4		-				1700	2727	2295	700	-	-	20	20	-	-	-	15	-	-	-	-		1752	896	
5		-				1700	2772	5585	700	-	-	20	20	-	-	-	15	-	-	-	-		1752	896	
6		-				1700	2177	2710	700	-	-	20	20	-	-	-	15	-	-	-	-		1200	896	
7		-				1700	2577	2170	700	-	-	20	20	-	-	-	15	-	-	-	-		1600	896	
8		-				1700	2577	2380	700	-	-	20	20	-	-	-	15	-	-	-	-		1600	896	
9		202883				1700	3391	2450	700	-	20	20	20	171	60	25	15	-	-	40	135	1400	882	896	
10		40688				1700	3245	2150	1008	-	20	-	20	171	130	25	10	43	18.5	40	135	1400	568	896	
11		12098				1700	3145	1650	609	-	20	20	20	171	130	20	10	43.50	18.5	45	156	1400	700	756	
12		3177				1700	3095	1750	1224	-	20	20	20	171	110	20	10	43	18.5	40	135	1360	700	656	
13		-				1700	3095	1450	897	-	20	20	20	171	110	20	10	43	18.5	40	135	1232	500	656	
14		L				1700	3095	1450	1600	-	20	20	20	171	110	20	10	43.5	18.50	40	135	1252	500	656	
15		L				1700	2595	1450	1898	-	20	-	20	171	11	20	10	43.50	18.50	40	135	1250	500	656	
16		L				1700	2600	1550	1170	-	30	-	25	171	110	20	10	43.50	18.50	40	135	1250	500	656	
17		6018				1700	2694	2533	-	321	20	20	25	-	-	-	10	-	-	-	-	1200	-	956	
18		3522				1700	2299	2733	-	321	20	20	25	-	-	-	10	-	-	-	-	1252	-	956	
19		L				1700	2299	2500	1008	321	-	20	25	-	-	-	10	-	-	-	-	1250	-	956	
20		L				1700	2299	3000	609	321	-	-	25	-	-	-	10	-	-	-	-	1250	-	956	
21		L				1700	2299	3000	897	321	-	-	25	-	-	-	10	-	-	-	-	1250	-	956	
22		L				1700	2299	3000	1170	-	-	-	25	-	-	-	10	-	-	-	-	1250	-	956	
23		L				1700	2393	3000	1008	321	-	-	25	-	-	-	10	-	-	-	-	1250	-	1050	
24		L				1700	2393	3000	897	321	-	20	25	-	-	-	10	-	-	-	-	1250	-	1050	
25		-				1700	2363	3700	609	321	-	20	25	-	-	-	15	-	-	-	-	-	1420	850	
26		-				1700	2368	3800	-	321	-	20	25	-	-	-	15	-	-	-	-	-	1420	850	
27		-				1700	2368	3700	-	-	-	-	25	-	-	-	15	-	-	-	-	-	1420	850	
28		-				1700	2218	3700	-	-	-	-	25	-	-	-	15	-	-	-	-	-	1420	900	
29		-				1700	2218	3700	1224	-	-	-	25	-	-	-	15	-	-	-	-	-	1420	900	
30		-				1700	2223	3700	1224	-	-	-	25	-	-	-	20	-	-	-	-	-	1420	900	
Total		**268386**				**51000**	**78085**	**81869**	**23352**	**2889**	**210**	**340**	**635**	**1368**	**771**	**170**	**365**	**303**	**129.5**	**325**	**1101**	**20496**	**26530**	**26082**	

4 4 8 6 0 5 cs

1 5 9 6 1 0

6 4 3 2 4

8 8 5 0 7

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
JULY, 2K																									
1		9874				600	2223	3700	1170	-	-	-	25	-	-		15	-	-	-	-	-	1420	700	
2		-				600	2223	3700	897	-	-	-	25	-	-		20	-	-	-	-	-	1420	700	
3		731				800	2553	4000	1008	-	-	20	25	-	-		20	-	-	-	-	-	1750	700	
4		-				800	2543	4000	609	-	-	20	25	-	-		20	-	-	-	-	-	1750	700	
5		-				1500	2543	4230	309	-	-	20	25	-	-		10	-	-	-	-	-	1750	700	
6		-				1500	2543	4230	-	-	-	20	25	-	-		10	-	-	-	-	-	1750	700	
7		-				1550	2543	4230	-	-	40	-	25	-	-		10	-	-	-	-	-	1750	700	
8		-				1450	2487	3683	-	-	40	-	25	-	-		10	-	-	-	-	-	1750	656	
9		731				1450	2543	4230	-	-	-	20	25	-	-		10	-	-	-	-	-	1750	700	
10		1441				1500	2543	4230	-	-	40	20	25	-	-		10	-	-	-	-	-	1750	700	
11		731				1200	3300	3007	309	321	40	20	25	100	136	-	10	47	17	-	-	1450	600	750	
12		-				1500	3900	3007	309	321	40	-	20	171	136	-	10	47	17	44	145	1450	504	750	
13		5206				1500	3396	3103	L	370	40	-	20	171	130	-	20	54	26	44	145	1352	568	750	
14		-				1500	3400	3107	-	425	40	-	20	171	136	-	20	54	26	44	145	1352	568	750	
15		-				1500	3400	3107	L	425	40	-	20	-	136	-	20	54	20	44	100	1310	600	850	
16		13364				1500	2856	2907	609	425	60	-	20	-	136	-	20	54	20	44	100	1310	L	850	
17		46066				1300	2856	2907	1008	425	60	20	20	171	152	39	10	54	20	44	166	1170	-	850	
18		206477				1500	2856	3675	1800	444	60	20	20	171	152	39	10	54	20	44	166	1170	-	850	
19		77484				1831	3028	3117	897	444	40	-	20	171	152	39	10	54	20	56	172	1344	L	1150	
20		71939				1500	3028	2533	-	444	40	-	20	182	152	39	10	54	20	56	172	1100	-	1150	
21		45072				1500	1872	3057	-	444	16	-	20	135	152	25	10	35	15	21	70	200	-	1150	
22		53589				1500	3028	3117	-	444	40	20	20	190	152	39	10	54	20	56	172	1100	-	1150	
23		71939				1100	3028	2533	-	460	40	20	20	190	152	39	10	54	20	56	172	1100	-	1200	
24		41069				700	1101	3117	-	460	40	20	20	-	-	-	10	-	-	-	L	L	-	1150	
25		30520				700	3078	3420	-	460	40	-	20	190	152	39	10	54	21	56	52	1140	-	1200	
26		55387				800	3187	3819	-	480	40	-	20	190	160	42.5	10	54	20	56	172	1200	-	1200	
27		26075				800	3184	3819	-	470	48	-	20	170	140	39	10	48	14	40	160	400	1220	1200	
28		22387				650	2756	3819	-	470	24	-	20	125	70	15	10	20	14	-	166	L	1220	1225	
29		46514				650	2863	3819	-	470	20	-	25	125	70	15	10	20	14	-	L	L	1220	1025	
30		34198				800	2863	3819	-	470	30	20	25	125	70	15	10	20	14	30	L	L	1220	1100	
		22594				800	2863	3819	-	470	30	20	25	170	140	35	10	48	14	36	L	L	1220	1130	
Total		**883388**				**36581**	**86587**	**108861**	**8925**	**9142**	**948**	**280**	**690**	**2918**	**2676**	**459.5**	**385**	**933**	**372**	**771**	**2275**	**18148**	**25780**	**28386**	

1169387 cs

277161

178158

88900

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
AUG. 2K																									
1		18800				900	2932	3819	-	470	36	20	25	170	140	35	10	35	14	30	-	-	1340	1073	
2		23219				750	2932	3819	-	470	30	-	25	170	140	35	10	35	14	35	100	-	1340	1106	
3		16716				700	2785	3819	-	470	24	-	25	170	140	35	10	42	13	40	80	-	1340	1076	
4		7111				900	2827	4230	-	470	-	-	25	-	-	-	10	-	-	-	-	-	1700	943	
5		1487				800	3056	4230	-	481	60	-	25	-	-	-	10	-	-	-	-	-	1700	1046	
6		-				800	3056	4230	-	481	60	20	25	110	103	32	10	28	-	-	172	-	1700	975	
7		-				1400	3400	4230	-	481	60	20	25	190	164	42	15	54	20	56	172	-	1700	1200	
8		-				1400	3400	4230	-	481	60	20	25	190	164	42	15	54	20	56	172	-	1700	1200	
9		1487				1500	3400	4930	-	481	60	-	25	190	164	42	20	54	20	56	172	-	1700	1200	
10		-				1700	3400	4930	-	481	60	-	25	190	164	42	20	54	20	56	172	-	1800	1200	
11		2925				1700	3400	4930	-	481	60	-	25	190	164	42	20	54	20	56	172	-	1800	1200	
12		-				1700	3400	4930	-	481	60	20	25	190	164	42	20	54	20	56	172	1300	419	854	
13		6929				1700	3400	4930	-	481	60	20	25	190	164	42	20	54	20	56	172	1300	419	854	
14	584874 cs	13364	385503 cs	280208cs	96314 cs	1700	3400	4730	-	481	60	-	25	190	164	42	20	54	20	56	172	1250	474	854	
15		26194				1700	3400	4946	-	481	60	-	25	190	164	42	20	54	26	56	172	1250	474	854	
16		1487				1700	3400	4966		481	60	-	25	190	164	42	20	54	26	56	172	1350	374	854	
17		-				1500	2962	4100	1008	481	60	-	20	190	164	42	10	54	26	56	172	1250	-	900	
18		-				1500	3062	4500	L	481	60	-	20	190	164	42	10	54	26	56	172	1250	-	1000	
19		-				1500	2962	4550	309	481	60	-	20	190	164	42	10	54	26	56	172	1150	-	1000	
20		-				1500	2912	4900	432	375	60	20	20	190	164	42	10	54	26	56	172	1100	-	1000	
21		-				1500	2812	5133	-	400	60	-	20	190	164	42	10	54	26	56	172	1020	-	1000	
22		-				1500	2974	4700	432	414	60	-	20	190	164	42	10	54	26	56	172	1000	-	1162	
23		-				1700	2974	4700	432	414	60	-	20	190	164	42	10	54	26	56	172	350	650	1162	
24		-				1500	2974	4700	432	440	60	-	20	190	164	42	10	54	26	56	172	1000	-	1162	
25		-				1500	2974	4700	206	440	60	20	20	190	164	42	10	54	26	56	172	1000	-	1162	
26		-				1500	2974	4700	-	440	60	20	20	190	164	42	10	54	26	56	172	1000	-	1162	
27		-				1500	2974	4700	206	440	60	-	20	190	164	42	10	54	26	56	172	950	-	1162	
28		-				1500	3080	4906	-	440	60	-	20	190	164	42	10	54	26	56	172	350	900	1162	
29		-				1500	2780	5193	309	440	60	-	20	190	164	42	10	54	26	56	172	-	900	1162	
30		-				1500	2180	5193	432	460	60	-	20	190	164	42	10	54	26	56	172	-	900	1162	
31		-				1500	2735	5193	203	370	60	20	20	190	164	42	10	54	26	56	172	-	900	1162	
Total		**119719**				**43750**	**94917**	**143767**	**4401**	**14168**	**1710**	**200**	**700**	**5370**	**4623**	**1187**	**400**	**1490**	**643**	**1505**	**4652**	**17870**	**24230**	**33009**	

DATE	TAJEWALA H / W		Western Yamuna Canal MLL	D/S Cross Regulator	Augmentation Canal	NBK Link	Parallel Delhi Branch	Hansi Branch	Munak Escape	Gohana Disty	Goli Disty	Panipat Refinery Channel	Panipat Thermal Power Plant	Israna Disty	Hulana Disty	Naraina Disty	National Fertilizer Ltd.	Samalkha Disty	Ganaur Disty	Sardhana Disty	Rajpura Disty.	Bhalaut Sub-Branch	Jawaharlal Nehru Canal Feeder	Delhi Branch D/s Khubru	REMARKS
	Above works	Below works																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SEP. 2K																									
1		-				1500	2740	5193	203	465	60	20	25	190	164	42	15	54	26	56	172	-	900	1162	
2		-				1500	3240	5193	-	444	60	20	25	190	164	42	15	54	26	56	172	-	1400	1162	
3		1462				1500	3247	5193	-	444	60	20	25	190	164	42	22	54	26	56	172	-	1400	1162	
4		-				1500	3247	5193	-	444	60	-	25	190	164	42	22	54	26	56	172	-	1400	1162	
5		-				1500	3400	5234	-	460	60	-	25	190	164	42	20	54	26	56	172	-	1600	1162	
6		-				1500	3284	5234	-	460	42	-	25	95	82	21	20	27	20	-	-	-	1600	1054	
7		-				1500	3400	5234	-	460	60	-	25	100	90	30	20	12	20	30	70	-	1750	1154	
8		-				1600	3349	5234	-	460	54	20	25	100	90	30	20	50	26	20	70	-	1750	1100	
9		-				1600	3400	5234	-	460	60	20	25	170	150	38	20	54	26	56	172	-	1500	1162	
10		-				1600	3400	5234	-	460	60	20	25	190	164	42	20	48	20	56	172	-	1500	1162	
11		-				1500	3400	5234	-	460	60	20	25	170	150	38	20	40	20	40	150	-	1500	1142	
12		-				1400	3025	5234	-	460	30	20	30	140	100	30	20	54	26	30	90	-	1500	1108	
13		-				1200	3400	4699	-	322	60	-	30	190	164	42	20	54	26	56	172	1200	514	854	
14	337468 cs	-	317723	204679	102062	850	3400	4520	-	276	60	-	30	190	164	42	20	54	26	56	172	1200	494	854	
15		-				1200	3400	4610	-	299	60	-	30	190	164	42	20	54	26	56	172	1200	494	854	
16		-				1200	3400	3985	-	138	60	20	30	190	164	42	20	54	26	56	172	1200	499	854	
17		-				1200	3400	4520	-	276	60	20	30	190	164	42	15	54	26	56	172	1200	499	854	
18		-				1200	3400	4520	-	276	60	20	30	190	164	42	15	54	26	56	172	1200	504	854	
19		-				1200	3400	3753	-	-	60	20	30	190	164	42	10	54	26	56	172	1200	484	854	
20		-				1200	3400	3686	-	-	60	20	30	190	164	42	10	54	26	56	172	1240	138	854	
21		-				1200	3400	4085	-	460	60	-	30	190	164	42	10	54	26	56	172	1210	138	1200	
22		-				1200	3400	4825	-	460	60	-	30	190	164	42	10	54	26	56	172	1290	-	1200	
23		-				1200	3274	4586	-	460	60	-	30	190	164	42	10	54	26	56	172	1252	-	1200	
24		-				1200	3274	4508	-	460	60	20	30	190	164	42	10	54	26	56	172	1252	-	1200	
25		-				1200	3274	3826	-	460	60	20	30	190	164	42	10	54	26	56	172	1300	-	1100	
26		-				1200	3274	2856	-	460	60	20	30	185	160	40	10	50	26	54	168	1270	-	1200	
27		-				1200	3274	2623	-	460	60	20	30	185	160	40	10	50	26	54	168	1270	-	1200	
28		-				1200	3274	2664	-	460	60	-	30	185	160	42	10	50	26	54	168	1270	-	1200	
29		-				1200	2578	3820	-	460	-	-	25	-	-	-	10	-	-	-	-	-	7342	1052	
30		-				1200	2578	3820	-	460	-	-	25	-	-	-	10	-	-	-	-	-	1342	1052	
Total		**1462**				**39450**	**97932**	**134550**	**203**	**11664**	**1626**	**340**	**835**	**4940**	**4258**	**1107**	**464**	**1407**	**704**	**1402**	**4324**	**19754**	**30248**	**32128**	

Annex. 4.2

DISCHARGE D/S DADUPUR (Cusecs)

	OCT-01	NOV-01	DEC-01	JAN-02	FEB-02	MAR-02
1	5832	3635	2085	2085	2668	3578
2	5565	3136	2085	2154	2582	3885
3	6413	3136	2085	2532	2204	6007
4	6413	3387	1722	2402	2204	6007
5	6804	3136	2701	2276	2085	8209
6	6163	3136	2495	2035	2085	8092
7	6804	3387	2085	2037	2325	7080
8	6153	3635	2311	2154	2452	5811
9	6471	3635	2085	2402	3288	6423
10	5832	3136	2495	2276	4215	6109
11	5832	2701	1900	2276	2864	6423
12	6804	2701	2085	2035	2085	6109
13	5565	2495	2311	2154	4214	6109
14	4699	2928	2085	2035	4050	5811
15	4699	3136	2311	1918	4050	6109
16	4156	2495	2085	2154	3144	5811
17	4699	2311	1900	2149	3144	6109
18	4150	1722	2495	2276	3144	6109
19	4699	1900	1900	2668	2999	
20	4431	1722	2311	2814	2582	
21	4431	1722	1900	2154	3578	
22	4150	2085	2495	2402	3730	
23	4150	2495	2495	2276	3730	
24	4150	2701	2311	2402	3730	
25	4431	1900	2311	2154	4215	
26	3895	2085	1900	2276	3730	
27	3387	2085	2311	2402	4215	
28	3635	2495	1900	2668	3885	
29	3635	2311	1900	2559		
30	3635	2495	2085	2402		
31	3387		2085	2532		

ANNEX - 4.2.1

DISCHARGE D/S CROSS REGULATOR (Cusecs)

	OCT-01	NOV-01	DEC-01	JAN-02	FEB-02	MAR-02
1	5218	4468	-	-	-	-
2	5818	4468	-	-	-	-
3	6175	4168	-	-	-	1297
4	5218	3793	-	-	-	2793
5	5368	3918	-	-	-	4618
6	4768	3418	-	700	-	3918
7	5668	3668	-	700	-	3043
8	5668	4043	-	700	-	1893
9	5818	3168	-	700	-	2293
10	6000	2918	-	700	1008	2293
11	5518	2418	-	196	-	2793
12	5668	2668	-	202	-	2419
13	5218	1993	-	202	1120	2793
14	4318	2193	-	-	-	2668
15	4768	1993	-	-	784	2793
16	5068	-	-	-	168	2093
17	4668	-	-	-	168	2193
18	4918	-	-	-	-	2193
19	4918	-	-	-	-	-
20	4468	-	-	-	-	-
21	4768	-	-	-	336	-
22	4918	-	-	-	-	-
23	4768	-	-	-	-	-
24	4468	-	-	-	-	-
25	4768	-	-	-	-	-
26	4168	-	-	-	-	-
27	3918	-	-	-	616	-
28	4043	-	-	-	-	-
29	4468	-	-	-	-	-
30	4468	-	-	-	-	-
31	4768	-	-	-	-	-

ANNEX 4.2.2

RELEASES INTO AUGMENTATION CANAL (Cusecs)

	OCT-01	NOV-01	DEC-01	JAN-02	FEB-02	MAR-02
1	200	-	2657	2228	2228	2929
2	200	-	2657	2168	2289	2929
3	200	-	2525	2351	2351	3104
4	200	-	2332	2108	2168	3104
5	200	-	2396	1989	2048	3104
6	200	-	3232	1280	2048	3151
7	200	-	2396	1180	2228	3151
8	200	-	2396	1487	2289	3151
9	200	-	2591	1131	3003	3151
10	200	-	2332	1136	3104	3151
11	200	-	2388	1649	2996	3151
12	200	-	2396	1704	3206	3151
13	154	-	2460	1704	3206	3151
14	154	-	2460	1931	3268	3151
15	154	-	2396	2108	3003	3151
16	154	1842	2396	2228	3003	3151
17	154	2021	2460	2413	3003	3151
18	154	2322	2771	2862	3104	3151
19	154	2591	2460	2413	3063	-
20	154	2144	2591	2351	2797	-
21	154	2591	2657	2289	3104	-
22	-	2657	2724	2168	2413	-
23	-	2724	2460	2289	2351	-
24	-	2724	2460	2289	2413	-
25	-	2332	2396	2351	2475	-
26	100	2525	2460	2228	2797	-
27	-	2396	2591	2108	3104	-
28	-	2525	2322	2413	2996	-
29	-	2724	2021	2289	-	-
30	-	2724	2048	2413	-	-
31	-	-	2228	2413	-	-

Annex 4.3

ABSTACT OF TOTAL RELEASES (Cusec Days)

Direct offtakes of WJC (unlined) between Indri and Munak as well as Direct offtakes of NBK link

Month	**Releases between Indri & Munak**	**Direct offtake of NBK**
Oct. 99	25681	10331
Nov. 99	1174	1325
Dec. 99	294	785
Jan. 2k	1504	2045
Feb. 2k	450	725
Mar. 2k	1512	2422
Apr. 2k	1118	1198
May 2k	1264	2465
Jun. 2k	792	2395
Jul. 2k	45296	10698
Aug. 2k	89240	7150
Sep. 2k	27157	7845
Oct. 2k	3990	4705
Nov. 2k	356	1070
Dec. 2k	550	2615
Jan. 2k1	754	1495
Feb. 2k1	308	401
Mar. 2k1	350	2127
Apr. 2k1	130	1150
May. 2k1	1180	2795
Jun. 2k1	8	5
Jul. 2k1	24056	11275
Aug. 2k1	46008	8109
Sep. 2k1	15342	5610
Oct. 2k1	1819	415
Nov. 2k1	200	720
Dec. 2k1	420	3073
Jan. 2k2	1410	3865
Feb. 2k2	-	1505
Mar. 2k2	72956	685

ANNEX - 4.4

RELEASES IN DELHI BRANCH / SUB-BRANCH/DISTY SYSTEM OF WESTERN YAMUNA CANAL

RABI : 1999 - 2000 (In Cusecs)

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI S/BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
OCT' 99																
1	-	-	-	4	-	-		2	22	5	12	70	5.8	425	-	767
2	-	-	-	4	-	-		2	22	5	12	70	5.8	425	-	767
3	-	-	-	4	-	-		2	22	5	12	70	5.8	425	-	767
4	-	-	142	4	-	-		2	22	5	12	20	5.8	425	-	920
5	126	32	205	4	40	28		2	22	5	12	-	-	425	-	1157
6	126	32	205	4	40	10		-	-	-	-	-	-	425	-	1157
7	126	32	205	4	40	10		2	22	5	8	-	-	425	-	1157
8	126	32	205	4	40	28		2	22	5	12	30	-	425	-	1157
9	126	32	179	4	40	20		2	22	5	12	40	5.80	425	-	1157
10	126	32	179	4	40	28		2	22	5	12	40	5.80	425	-	1157
11	126	32	179	4	-	28		2	22	5	12	30	5.80	425	-	1157
12	117	32	179	4	-	28		2	22	5	12	30	5.80	425	-	1157
13	126	32	179	4	-	20		-	L	-	-	20	-	425	-	1161
14	126	32	179	4	40	20		-	-	-	-	eg..	-	425	-	1157
15	126	32	179		40	22		-	-	-	-	20	-	425	-	1157
16	126	32	179		40	28		-	15	5	-	20	-	425	-	1007
17	126	32	179		40	20		-	-	-	-	20	-	425	-	1157
18	126	32	179		40	20		-	15	5	-	25	-	425	-	1157
19	126	32	179		40	28		-	15	5	-	20	-	425	-	1157
20	126	32	179		-	-		-	15	5	-	20	-	425	-	1157
21	-	-	-		-	-		-	-	-	-	-	-	425	60	606
22	-	-	-		-	-		-	-	-	-	-	-	425	122	750
23	-	-	-		-	-		-	-	-	-	-	-	425	170	750
24	-	-	-		40	-		-	22	5	-	-	-	425	224	750
25	-	-	-		40	-		-	22	5	-	-	-	425	158	750

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI S/BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
26	-	-	-		40	-		-	22	5	-	-	-	425	133	706
27	-	-	-		40	-		-	22	5	-	-	-	425	111	800
28	-	-	-		40	-		-	22	5	-	-	-	425	100	800
29	-	-	-		40	-		-	22	5	-	-	-	425	210	800
30	-	-	-		40	-		-	22	5	-	-	-	425	210	800
31	-	-	-		40	-		-	22	5	-	-	-	425	210	800
Total	**2007**	**512**	**3110**	**56**	**800**	**338**	**0**	**22**	**478**	**115**	**128**	**545**	**46.4**	**13175**	**1708**	**27499**
NOV., 99																
1	-	-		-		-		-	-	-			-	425	224	800
2	-	-		-		-		-	-	-			-	425	224	800
3	-	-		-		-		-	-	-			-	425	210	800
4	-	-		-		-		-	-	-			-	425	224	700
5	-	-		-		-		-	-	-			-	425	224	700
6	126	24	101	4		-		-	-	-			-	425	145	1000
7	126	24	101	4		-		-	-	-			-	425	145	1000
8	126	24	101	4		28		-	-	-			-	425	145	1000
9	126	24	101	4		28		-	-	-			-	425	158	1000
10	126	24	101	4		28		-	-	-			-	425	133	1000
11	126	24	78	4		28		2	-	-			-	425	133	1100
12	126	24	101	4		28		2	-	-			-	425	133	1100
13	126	24	101	4		28		2	-	-			-	425	158	1100
14	126	30	101	4		28		2	-	-			-	425	196	1040
15	126	30	101	4		28		2	-	-			-	425	224	1100
16	126	30	101	4		-		2	-	-			-	425	224	871
17	126	30	-			-		2	-	-			-	425	224	850
18	126	30	-			-		2	-	-			-	425	224	800
19	126	30	-			-		2	-	-			-	425	158	800
20	126	30	-			-		2	-	-			-	425	196	771
21	126	19	-			-		2	-	-			-	425	170	771
22	-	19	-			-		2	-	-			-	425	170	771

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI S/BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
23	-	-	-			-		2	-	-			-	425	252	771
24	-	-	-			-		2	-	-			-	425	252	725
25	-	-	-			-		2	-	-			-	425	196	725
26	-	-	-			-		2	-	-			-	425	170	750
27	-	-	-			-		2	-	-			-	425	196	750
28	-	-	-			-		2	-	-			-	425	170	750
29	-	-	-			-		2	-	-			-	425	196	750
30	-	-	-			-		2					-	425	196	
Total	**2016**	**440**	**1088**	**44**	**0**	**224**	**0**	**40**	**0**	**0**	**0**	**0**	**0**	**12750**	**5670**	**25095**
DEC., 99																
1	-	-	-	-	40	-		2	-	-	6	100	5.80	425	196	800
2	-	-	-	-	40	-		2	-	-	6	100	5.80	425	196	800
3	-	-	-	-	40	-		2	-	-	6	80	5.80	425	196	800
4	-	-	-	-	40	-		2	-	-	6	80	5.80	425	196	800
5	-	-	-	-	40	-		2	-	-	6	80	5.80	425	196	800
6	-	-	-	-	40	-		2	22	5	6	80	5.80	425	196	800
7	-	-	-	-	40	-		2	22	5	6	50	5.80	425	196	800
8	-	-	189	4	40	-		2	22	5	-	50	5.80	425	196	1050
9	126	-	189	-	40	28		2	22	5	-	L	5.80	425	158	1150
10	126	-	151	-	40	28		2	22	5	-	50	5.80	425	158	1150
11	126	-	160	-	40	15		2	22	5	-	50	5.80	425	158	1150
12	126	-	160	-	40	15		2	15	5	-	50	5.80	425	170	1150
13	126	-	160	-	40	15		2	15	5	L	70	5.80	425	170	1150
14	126	24	160	-	40	15		2	15	5	L	70	5.80	425	170	1150
15	126	28	160	-	40	15		2	15	5	L	30	5.80	425	158	1150
16	126	28	160	-	40	15		2	15	5	L	-		425	196	771
17	-	28	160	-	40	-		2	-	-	-	-		425	196	771
18	-	28	160	-	40	-		-	-	-	-	-		425	196	771
19	-	28	101	-	40	-		-	-	-	-	-		425	196	771
20	-	28	101	-	40	-		-	-	-	-	-		425	158	771
21	-	24	101	-	40	-		-	-	-	-	-		425	158	771

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI S/BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
22	-	24	101	-	40	-		-	-	-	-	-		425	158	771
23	-	19	-	-	40	-		-	-	-	-	-		425	145	821
24	-	19	-	-	40	-		-	-	-	-	-		425	145	821
25	-	-	-	-	40	-		-	-	-	-	-		425	196	821
26	-	-	-	-	40	-		-	-	-	-	-		425	196	821
27	-	-	-	-	-	-		-	-	-	-	-		425	196	821
28	-	-	-	-	-	-		-	-	-	-	-		425	196	821
29	-	-	-	-	-	-		-	-	-	-	-		425	196	821
30	-	-	-	-	-	-		-	-	-	-	-		425	196	821
31	-	-	-	-	-	-		-	-	-	-	-		425	196	821
Total	**1008**	**278**	**2213**	**4**	**1040**	**146**	**0**	**34**	**207**	**55**	**42**	**940**	**87**	**13175**	**5630**	**27486**
JAN, 2K																
1	-	-	-	-		-		2	15	5	8	60	5.80	425	196	850
2	-	-	-	-		-		2	15	5	8	80	5.80	425	183	850
3	-	-	-	-		-		2	15	5	8	80	5.80	425	183	850
4	-	-	-	-		-		2	15	5	8	80	5.80	425	183	850
5	-	-	40	-	40	-		2	15	5	8	80	5.80	425	183	850
6	-	-	40	-	40	-		2	15	5	8	80	5.80	425	170	850
7	109	-	-	-	40	-		2	15	5	8	80	5.80	425	170	890
8	126	-	-	-	40	-		2	15	5	8	L	5.80	425	170	890
9	67	6	40	-	40	-		-	-	-	-	-	-	425	170	911
10	126	24	151	-	-	28		-	-	-	-	-	-	425	170	1040
11	126	28	169	4	40	28		-	-	-	-	-	-	425	170	1058
12	126	24	189	4	40	28		-	-	-	-	-	-	425	170	1180
13	126	15	189	4	40	28		-	-	-	-	-	-	425	183	1180
14	126	24	189	4	40	28		-	-	-	-	-	-	425	183	1180
15	126	12	189	4	30	28		-	-	-	-	-	-	425	183	1180
16	126	9	189	4	30	28		-	-	-	-	-	-	425	183	1180
17	126	-	189	4	30	28		-	-	-	-	-	-	425	183	900
18	126	-	189	4	30	28		-	-	-	-	-	-	425	196	1007
19	126	-	189	4	-	28		2	15	5	8	50	-	425	196	1007

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI S/BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
20	126	-	189	4	-	28		2	15	5	8	-	-	425	196	811
21	126	-	160	4	-	28		2	L	L	8	-	-	425	196	811
22	126	-	160	4	30	28		-	-	-	-	-	-	425	196	912
23	126	-	179	4	30	28		-	-	-	-	-	-	425	170	851
24	126	-	179	4	30	28		2	-	-	-	-	-	425	170	851
25	-	-	-	-	50	-		-	-	-	-	-	-	425	170	811
26	-	-	142	-	50	-		-	-	-	-	-	-	425	170	811
27	-	-	-	-	50	-		-	-	-	-	-	-	425	170	750
28	-	-	-	-	-	-		-	-	-	-	-	-	425	183	750
29	-	-	-	-	-	-		-	-	-	-	30	-	425	183	811
30	-	-	-	-	-	-		-	-	-	-	30	-	425	183	811
31	-	-	-	-	-	-		-	-	-	-	40	-	425	183	811
Total	**2192**	**142**	**2961**	**56**	**720**	**420**	**0**	**24**	**150**	**50**	**88**	**690**	**46.4**	**13175**	**5595**	**28494**
FEB., 2K																
1	-	-	-	-	-	-	-	-	-	-	-	40	-	425	224	811
2	-	-	-	-	-	-	-	2	22	5	12	80	5.80	425	224	850
3	-	-	-	-	40	-	-	2	22	5	12	80	5.80	425	224	850
4	-	-	-	-	40	-	-	2	22	5	12	80	5.80	425	224	850
5	-	-	-	-	40	-	-	-	-	-	-	40	-	425	224	750
6	-	-	-	-	40	-	-	-	-	-	-	40	-	425	224	750
7	-	-	-	-	-	-	-	-	-	-	-	40	-	425	224	750
8	-	-	-	-	-	-	160	-	-	-	-	40	-	425	224	750
9	-	-	125	-	-	-	-	-	-	-	-	40	-	425	50	550
10	-	-	-	-	-	-	-	-	-	-	-	40	-	425	50	650
11	-	-	-	-	-	-	-	-	-	-	-	40	-	425	50	650
12	32	6	-	-	40	-	-	-	-	-	-	-	-	425	50	650
13	21	6	-	-	40	-	-	-	-	-	-	-	-	425	50	650
14	21	6	-	-	40	-	-	-	-	-	-	-	-	425	60	650
15	26	6	-	-	-	-	-	-	-	-	-	-	-	425	35	650
16	26	6	-	-	-	-	-	-	-	-	-	-	-	425	35	650

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI S/BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
17	26	6	-	-	-	-	-	-	-	-	-	-	-	425	50	650
18	18	-	-	-	-	-	-	-	-	-	-	-	-	425	50	571
19	-	-	-	-	-	-	-	-	-	-	-	-	-	425	50	571
20	-	-	-	-	40	-	-	-	-	-	-	-	-	425	50	571
21	-	-	-	-	40	-	-	-	-	-	-	-	-	425	28	571
22	-	-	-	-	40	-	-	-	-	-	-	-	-	425	51	571
23	-	-	-	-	40	-	-	-	-	-	-	-	-	425	51	571
24	-	-	-	-	-	-	-	-	-	-	-	-	-	425	-	571
25	-	-	-	-	-	-	-	-	-	-	-	-	-	425	-	571
26	-	-	-	-	-	-	-	-	-	-	-	-	-	425	51	725
27	-	-	-	-	-	-	-	-	-	-	-	-	-	425	51	725
28	-	-	-	-	-	-	-	-	-	-	-	-	-	425	196	725
29	-	-	-	-	40	-	-	2	-	-	12	-	-	425	111	725
Total	**170**	**36**	**125**	**0**	**480**	**0**	**160**	**8**	**66**	**15**	**48**	**560**	**17.4**	**12325**	**2911**	**19579**
MARCH, 2K																
1	-	-	-		40	-	-	2	L	L	12	20	-	425	60	725
2	-	-	-		40	-	-	-	-	-	-	-	-	425	170	725
3	-	-	-		40	-	-	2	15	5	12	L	-	425	111	725
4	-	-	-		40	-	-	2	15	5	12	L	-	425	111	725
5	79	-	-		40	-	-	2	15	5	12	-	-	425	111	767
6	79	-	-		40	-	-	-	-	-	-	-	-	425	111	767
7	126	-	-		40	-	-	2	15	5	12	60	5.80	425	111	1007
8	126	-	-		40	-	-	2	22	5	12	70	5.80	425	196	1007
9	126	-	-		40	-	-	2	22	5	12	70	5.80	425	196	1007
10	126	-	-		-	-	-	2	22	5	12	80	5.80	425	111	1007
11	126	-	-		-	-	-	2	22	5	12	80	5.80	425	196	1007
12	126	-	-		-	-	-	2	22	5	12	60	5.80	425	196	1007
13	126	28	189	4	-	-	-	2	-	-	-	-	-	425	196	1150
14	126	28	189	4	40	28	-	-	-	-	-	-	-	425	111	1150
15	126	28	189	4	40	28	-	-	-	-	-	-	-	425	21	1150
16	126	28	189	4	40	28	-	-	-	-	-	-	-	425	111	1150

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI S/BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
17	126	28	189	4	40	28	-	-	-	-	-	-	-	425	145	1150
18	126	28	189	4	50	15	-	-	-	-	-	-	-	425	100	1007
19	126	28	189	L	50	L	-	-	-	-	-	-	-	425	111	1007
20	126	28	189	4	50	28	-	-	-	-	-	-	-	425	111	1041
21	-	-	-		50	-	-	-	-	-	-	-	-	425	21	811
22	-	-	-		50	-	-	-	-	-	-	-	-	425	79	811
23	-	-	-		50	-	-	-	-	-	-	-	-	425	196	811
24	-	-	-		-	-	-	-	-	-	-	-	-	425	170	811
25	-	-	-		-	-	-	-	-	-	-	-	-	425	196	811
26	-	-	-		30	-	-	-	-	-	-	-	-	425	196	811
27	-	-	-		30	-	-	-	-	-	-	-	-	425	196	811
28	-	-	-		50	-	-	-	-	-	-	-	-	425	210	811
29	-	-	-		50	-	-	-	-	-	-	-	-	425	110	811
30	-	-	189		70	-	-	-	-	-	-	-	-	425	210	1150
31	-	-	160		-	-	-	-	-	-	-	-	-	425	224	1150
Total	**1922**	**224**	**1861**	**28**	**1050**	**155**	**0**	**22**	**170**	**45**	**120**	**440**	**34.8**	**13175**	**4394**	**28880**

RELEASES IN DELHI BRANCH / SUB-BRANCH/DISTY SYSTEM OF WESTERN YAMUNA CANAL

KHARIF: 2000 (In Cusecs)

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI BRANCH
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
APRL 2K																
1	126	24	133	-	-	-	-	-				50		425	238	1150
2	126	24	-	-	50	-	-	-						425	238	1073
3	126	24	-	-	50	-	-	-						425	238	1150
4	126	24	-	-	50	-	-	-						425	238	811
5	126	24	-	-	50	-	-	-						425	238	811
6	-	-	-	-	50	-	-	-						425	224	1009
7	-	-	-	-	50	-	-	-						425	224	1009
8	-	-	-	-	50	-	-	-	22	5	12	L	-	425	224	1009
9	-	-	-	-	50	-	-	-	22	5	12	70	5.80	425	224	1009
10	-	-	50	-	50	-	-	-	L	L	12	40	5.80	425	224	1009
11	-	-	50	-	50	-	-	-						425	224	1009
12	-	-	50	-	50	-	-	-						425	224	1009
13	-	-	101	-	-	-	-	-						425	224	1009
14	126	24	150	4	-	-	-	-						425	224	1150
15	83	24	150	4	-	-	-	-						425	224	1100
16	-	-	117	4	50	20	-	-						425	224	1050
17	-	-	117	4	50	28	-	2						425	238	1050
18	-	-	117	4	50	20	-	2						425	238	1050
19	-	-	101	4	50	20	-	2						425	238	1050
20	-	-	117	4	50	20	-	2						425	238	1050

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	16
21	-	-	-	-	50	20	-	2						425	238	1050
22	-	-	101	-	50	20	-	2						425	297	811
23	-	-	-	-	50	20	-	2						425	297	671
24	-	-	-	-	50	-	-	2						425	-	671
25	-	-	-	-	50	-	-	2						425	-	911
26	-	-	-	-	50	-	-	2						425	224	911
27	-	-	-	-	50	-	-	2						425	224	851
28	-	-	-	-	50	-	32	2						425	224	851
29	-	-	-	-	50	-	-	2						425	238	851
30	-	-	-	-	50	-	-	2						425	224	851
Total	**839**	**168**	**1354**	**28**	**1300**	**168**	**32**	**28**	**44**	**10**	**36**	**160**	**11.6**	**12750**	**6572**	**28996**
MAY, 2K																
1	-	-	-	-	50	-	-							425	267	N.A.
2	-	-	78	-	50	-	-							425	224	N.A.
3	-	-	101	-	50	-	-							425	224	N.A.
4	-	-	101	-	50	-	-							425	224	N.A.
5	-	-	101	-	50	-	-							425	170	N.A.
6	-	-	101	-	50	-	-							425	196	N.A.
7	-	-	101	-	50	-	-							425	196	N.A.
8	-	-	101	-	-	-	-		22	5	12	L	-	425	196	N.A.
9	-	-	117	-	-	-	-		22	5	12	70	5.80	425	210	N.A.
10	-	-	101	-	-	-	-		2	L	12	40	5.80	425	210	N.A.
11	-	-	-	-	50	-	-		15	5	12	40	5.80	425	158	N.A.
12	-	-	-	-	50	-	-		L	L	12	40	5.80	425	210	N.A.
13	-	-	-	-	50	-	-		L	L	12	40	5.80	425	50	N.A.

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	16
14	-	-	-	-	50	-	-		L	L	12	30	5.80	425	50	N.A.
15	90	15	-	-	50	-	-		L	L	12	50	5.80	425	145	N.A.
16	109	24	-	4	50	20	-		15	5	12	50	5.80	425	145	N.A.
17	109	24	151	4	-	28	-		15	3	12	40	5.80	425	210	N.A.
18	109	5	151	4	-	28	-	2	L	-	12	50	5.80	425	170	N.A.
19	117	-	151	4	40	20	-	2	-	L	12	30	5.80	425	170	N.A.
20	117	12	151	4	40	20	-	L	L	L	12	20	5.80	425	170	N.A.
21	117	24	151	4	50	20	-	2	L	L	12	30	5.80	425	170	N.A.
22	117	24	101	4	50	20	-	-	-	-	-	-	-	425	145	N.A.
23	117	24	125	4	50	20	-	2	L	L	L	30	-	425	145	N.A.
24	-	-	-	-	50	-	-	2	L	L	L	30	-	425	145	N.A.
25	-	-	-	-	50	-	-	2	15	3	12	40	-	425	170	N.A.
26	-	-	-	-	-	-	-	2	15	3	12	40	-	425	170	N.A.
27	-	-	-	-	50	-	-	2	22	5	12	40	-	425	170	N.A.
28	-	-	-	-	50	-	32	2	15	3	12	30	-	425	270	N.A.
29	-	-	-	-	50	-	-	2	22	5	12	25	-	425	224	N.A.
30	-	-	-	-	50	-	-	2	22	5	12	-	-	425	224	N.A.
31	-	-	-	-	50	-	-	2	22	5	12	-	-	425	224	N.A.
Total	**1002**	**152**	**1883**	**32**	**1230**	**176**	**32**	**24**	**224**	**52**	**252**	**765**	**75.4**	**13175**	**5652**	
JUNE, 2K																
1	-	-	-	-	50	-	-	2	22	5	12	-	-	425	224	896
2	-	-	-	-	50	-	-	2	22	5	12	L	-	425	252	896
3	-	-	-	-	50	-	-	2	22	5	12	40	-	425	238	896
4	-	-	-	-	50	-	-	2	22	5	12	40	-	425	238	896
5	-	-	-	-	50	-	-	2	22	5	12	40	-	425	238	896

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	16
6	-	-	-	-	-	-	-	2	22	5	12	50	-	425	238	896
7	-	-	-	-	-	-	50	2	22	5	12	50	-	425	238	896
8	-	-	-	-	-	-	32	2	22	5	12	50	-	425	238	896
9	-	-	-	-	50	-	-	2	22	5	12	-	-	425	224	896
10	-	-	-	-	50	-	32	2	22	5	12	-	-	425	224	896
11	-	-	-	-	50	-	-	2	22	5	12	-	-	425	224	756
12	-	-	-	-	50	-	-	2	22	5	12	-	-	425	60	656
13	-	-	-	-	50	-		2	22	5	12	-	-	425	60	656
14	-	-	-	-	-	-	32	2	-	-	-	-	-	425	60	656
15	-	-	-	-	-	-	-	2	-	-	-	-	-	425	60	656
16	-	-	-	-	-	-	-	2	-	-	-	-	-	425	60	656
17	117	24	101	4	50	28	-	-	-	-	-	-	-	425	60	956
18	126	24	151	-	50	28	-	-	-	-	-	-	-	425	-	956
19	L	24	169	-	50	28	-	-	-	-	-	-	-	425	-	956
20	79	24	189	-	50	28	-	-	-	-	-	-	-	425	35	956
21	117	24	189	-	50	28	-	-	-	-	-	-	-	425	-	956
22	117	24	151	-	50	28	-	-	-	-	-	-	-	425	-	956
23	79	24	189	-	50	28	-	-	-	-	-	-	-	425	-	1050
24	113	12	151	-	-	28	48	-	-	-	-	-	-	425	170	1050
25	113	-	-	-	-	-	-	-	-	-	-	-	-	425	170	850
26	113	-	-	-	-	-	-	-	-	-	-	-	-	425	196	850
27	-	-	-	-	50	-	-	-	-	-	-	-	-	425	196	850
28	-	-	-	-	50	-	-	-	-	-	-	-	-	425	111	700
29	-	-	-	-	50	-	-	-	-	-	-	-	-	425	-	700
30	-	-	-	-	50	-	-	-	-	-	-	-	-	425	111	700
Total	**974**	**180**	**1290**	**4**	**1050**	**224**	**194**	**32**	**286**	**65**	**156**	**270**	**0**	**12750**	**3925**	**25482**

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI BRANCH
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
JULY, 2K																
1	-	-	-	-	50	-		2				-	-	425	-	700
2	-	-	-	-	50	-		2				-	-	425	60	700
3	-	-	-	-	50	-		2				-	-	425	60	700
4	-	-	-	-	50	-		2				-	-	425	60	700
5	-	-	-	-	50	-		2				-	-	425	60	700
6	-	-	-	-	50	-		2				-	-	425	60	700
7	-	-	-	-	50	-		2				-	-	425	-	700
8	-	-	-	-	50	-		-				-	-	425	-	700
9	-	-	-	-	50	-		-				-	-	425	-	700
10	-	-	-	-	50	-		-				-	-	425	-	700
11	-	-	-	-	50	-		2				-	-	425	-	750
12	-	-	-	-	50	-		2				-	-	425	-	750
13	101	-	-	-	-	-		2				-	5.80	425	111	750
14	92	-	-	-	-	-		2				-	5.80	425	111	750
15	-	-	-	-	50	-		2				-	5.80	425	-	850
16	117	-	-	-	50	-		-				-	5.80	425	-	850
17	121	-	-	-	-	-		-				-	5.80	425	-	850
18	-	NIL	-	-	50	L		2	15	-	12	-	5.80	425	-	1150
19	113	24	189	4	50	28		2	15	-	12	-	5.80	425	-	1150
20	126	28	189	4	50	28		2	15	-	12	-	5.80	425	-	1150
21	126	28	189	4	50	28		-	-	-	-	-	5.80	425	-	1150
22	126	28	189	4	-	28		-	-	-	-	-	5.80	425	-	1200
23	126	28	189	4	-	28		2	15	-	12	-	5.80	425	-	1150
24	126	28	189	4	50	28		-	-	-	-	-	5.80	425	-	1200
25	126	28	189	4	50	28		2	22	-	12	70	5.80	425	-	1200

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	16
26	126	28	189	4	50	28		2	22	5	12	70	5.80	425	-	1200
27	126	28	189	4	50	28		2	22	5	12	50	5.80	425	-	1225
28	126	28	151	4	50	20		2	22	5	12	L	5.80	425	-	1025
29	126	28	179	4	50	20		-	22	5	12	L	5.80	425	-	1100
30	126	28	169	4	50	20		2	22	5	12	40	5.80	425	-	1130
31	126	28	169	4	50	20		2	22	5	12	60	5.80	425	-	
Total	**2056**	**360**	**2369**	**52**	**1300**	**332**	**0**	**44**	**214**	**30**	**132**	**290**	**110.2**	**13175**	**522**	**26880**
AUG., 2K																
1	129	32	169	4	50	20	-	2	22	55	12	-	1.8	425	-	1073
2	129	32	160	4	50	20	-	2	22	55	6	-	-	425	-	1106
3	129	32	189	4	50	20	-	2	22	55	12	20	-	425	-	1076
4	113	28	101	4	50	15	-	-	-	-	-	-	-	425	-	943
5	131	32	-	4	70	20	-	2	22	5	12	30	-	425	-	1046
6	131	32	-	4	70	15	-	2	22	5	12	30	-	425	-	975
7	131	32	117	4	70	20	-	2	22	5	12	30	-	425	-	1200
8	131	32	189	4	50	15	-	2	22	5	12	30	-	425	-	1200
9	131	32	189	4	50	15	-	2	15	5	8	-	-	425	-	1200
10	131	32	101	4	50	20	-	2	-	-	-	-	-	425	-	1200
11	126	28	189	4	50	20	-	2	22	5	12	-	-	425	-	1200
12	126	28	160	4	50	20	-	2	22	5	12	-	-	425	-	854
13	-	-	169	4	-	-	-	2	22	5	12	-	-	425	-	854
14	-	-	189	4	-	-	-	-	-	-	-	-	-	425	-	854
15	-	-	189	4	-	-	-	2	22	5	12	-	-	425	-	854
16	-	-	-	4	50	20	-	2	22	5	12	70	-	425	-	854
17	121	-	-	4	50	28	-	2	22	5	12	30	-	425	-	900

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	16
18	126	28	-	4	50	28	-	2	22	5	12	70	-	425	-	1000
19	126	28	-	4	40	28	-	2	22	5	12	70	-	425	-	1000
20	126	28	-	4	40	28	32	2	22	5	12	70	-	425	-	1000
21	101	24	-	4	40	28	-	2	22	5	12	70	-	425	-	1000
22	101	24	151	4	40	28	-	2	22	5	12	70	-	425	-	1162
23	113	24	189	4	40	28	-	2	22	5	12	-	1.8	425	-	1162
24	113	24	189	4	40	28	-	2	22	5	12	-	1.8	425	-	1162
25	101	24	189	4	-	28	-	2	22	5	12	-	1.8	425	-	1162
26	101	24	189	4	-	28	-	2	22	5	12	40	1.8	425	-	1162
27	101	24	189	4	-	28	-	2	22	5	12	60	1.8	425	-	1162
28	101	24	189	4	40	28	-	2	22	5	12	60	1.8	425	-	1162
29	109	19	189	4	70	28	-	2	22	5	12	30	1.8	425	-	1162
30	109	19	189	4	70	28	-	2	22	5	8	-	1.8	425	-	1162
31	109	19	189	4	70	28	-	2	22	5	8	-	1.8	425	-	1162
Total	**3196**	**705**	**3963**	**124**	**1300**	**660**	**32**	**58**	**609**	**290**	**318**	**780**	**18**	**13175**	**0**	**31936**
SEP. 2K																
1	109	15	189	4	70	28		2	22	5	12	30	5.80	425	63	1162
2	109	15	189	4	70	28		2	22	5	12	30	-	425	47	1162
3	109	15	189	4	70	28		2	22	5	12	30	5.80	425	51	1162
4	109	15	189	4	70	28		2	22	5	12	30	5.80	425	60	1162
5	109	15	189	4	70	28		2	22	5	12	30	5.80	425	60	1162
6	109	15	169	4	-	28		-	-	-	-	-	5.80	425	61	1054
7	109	15	151	4	70	28		2	22	5	12	40	5.80	425	63	1154
8	109	15	189	4	70	28		2	22	5	12	30	5.80	425	65	1100
9	109	24	189	4	70	28		-	22	5	12	30	5.80	425	45	1162

DATE	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN NO. 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	DELHI BRANCH
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	16
10	113	24	189	4	70	28		-	22	5	12	30	-	425	62	1162
11	113	24	189	4	70	28		-	22	5	12	-	-	425	60	1142
12	113	24	189	4	70	28		-	22	5	12	-	-	425	48	1108
13	-	24	-	-	50	-		-	-	-	-	-	-	425	60	854
14	-	24	-	-	50	-		-	22	5	12	70	-	425	40	854
15	-	-	-	-	50	-		-	22	5	12	80	-	425	56	854
16	-	-	-	-	50	-		-	22	5	12	70	-	425	63	854
17	-	-	-	-	50	-		-	22	5	12	60	5.80	425	40	854
18	-	-	-	-	50	-		2	22	5	12	60	5.80	425	45	854
19	-	-	-	-	50	-		2	22	5	12	60	5.80	425	63	854
20	-	24	-	-	50	-		2	22	5	12	60	5.80	425	40	854
21	109	28	189	4	50	28		2	22	5	12	50	5.80	425	40	1200
22	126	28	189	4	50	28		-	-	-	-	-	5.80	425	56	1200
23	126	28	189	4	60	28		-	-	-	-	-	5.80	425	40	1200
24	126	28	189	4	60	28		-	-	-	-	-	5.80	425	40	1200
25	-	28	189	4	60	28		-	22	5	12	30	5.80	425	40	1100
26	71	28	189	4	60	28		-	22	5	12	30	-	425	40	1200
27	117	28	189	4	60	28		-	22	5	12	-	-	425	40	1200
28	117	28	189	4	60	28		-	22	5	12	-	-	425	40	1200
29	126	28	189	4	60	28		-	-	-	-	-	-	425	40	1052
30	126	-	189	4	60	28		-	-	-	-	-	-	425	40	1052
Total	**2364**	**540**	**4100**	**88**	**1750**	**616**	**0**	**22**	**506**	**115**	**276**	**850**	**98.6**	**12750**	**1508**	**32128**

RELEASES IN DELHI BRANCH / SUB-BRANCH/DISTY SYSTEM OF WESTERN YAMUNA CANAL SYSTEM

RABI: 2000 - 2001 (IN CUSECS)

DATE	DELHI S/BRANCH	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN No : 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	NTP
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
OCT., 2K																	
1		126	-	189	-	-		-	-	-	-	-	-		425		40
2		126	-	189	-	-		-	2	22	5	12	-		425		40
3		126	-	189	-	-		-	2	22	5	12	-		425		40
4		126	-	189	-	-		-	2	22	5	12	-		425		40
5		126	-	189	-	-		-	2	-	-	-	-		425		40
6		126	-	189	-	-		-	2	-	-	-	-		425		40
7		-	-	-	-	-		-	-	22	5	12	-		425		40
8		-	-	125	-	4		28	2	22	5	12	60		425		40
9		-	15	125	-	4		28	2	22	5	12	50		425		40
10		-	15	-	-	-		28	-	22	5	12	-		425		40
11		-	15	-	-	-		28	-	22	5	12	-		425		40
12		-	15	-	-	-		28	-	22	5	12	-		425		40
13		-	15	-	-	-		28	-	22	5	12	-		425		40
14		-	15	-	-	-		28	-	22	5	12	-		425		40
15		-	-	-	-	-		-	-	22	5	12	-		425		40
16		-	-	-	-	-		-	-	-	-	-	-		425		40
17		-	-	-	-	-		-	-	-	-	-	-		425	100	40
18		-	-	-	-	-		-	-	-	-	-	-		425	100	40
19		-	-	-	-	-		-	-	22	5	12	-		425	145	40
20		-	-	-	-	-		-	-	22	5	12	-		425	145	40
21		-	-	-	-	-		-	-	22	5	12	-		425	145	40
22		-	-	-	-	-		-	-	22	5	12	-		425	145	40
23		126	24	133	-	4		-	-	-	-	-	-		425	145	40
24		126	24	-	-	-		-	-	-	-	-	-		425	-	40
25		126	24	-	-	-		-	-	-	-	-	-		425	-	40

DATE	DELHI S/BRANCH	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN No : 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	NTP
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
26		126	24	179	-	4		-	-	-	-	-	-		425	-	40
27		126	24	189	-	4		28	-	-	-	-	-		425	-	40
28		126	24	189	-	4		20	-	15	5	12	-		425	-	40
29		126	24	189	-	4		20	-	15	5	12	-		425	-	40
30		126	24	189	-	4		20	-	-	-	-	-		425	-	40
31		126	24	189	-	4		20	-	-	-	-	1		425	-	40
Total		1890	306	2641	0	36	0	304	14	382	90	216	111	0	13175	925	1240
NOV., 2K																	
1		126	24	189	-	70	28	-	-	-	-	-	-	-	425	-	40
2		126	24	189	-	70	28	-	-	-	-	-	-	-	425	60	40
3		126	24	189	-	70	28	-	-	15	5	-	-	-	425	60	40
4		126	24	189	-	70	28	-	-	15	5	-	-	-	425	60	40
5		126	24	189	-	70	28	-	-	-	-	-	-	-	425	80	40
6		126	24	189	-	70	28	-	-	15	5	-	-	-	425	145	40
7		126	24	-	-	70	28	-	-	15	5	-	-	-	425	145	40
8		117	24	169	4	70	-	-	-	15	5	12	-	-	425	145	40
9		-	-	-	-	70	-	-	-	15	5	12	50	-	425	145	40
10		-	-	-	-	70	-	-	-	15	5	12	50	-	425	170	40
11		-	-	-	-	70	-	-	-	15	5	12	50	-	425	210	40
12		-	-	-	-	70	-	-	-	15	5	12	50	-	425	210	40
13		-	-	-	-	70	-	-	-	15	5	12	50	-	425	210	40
14		-	-	-	-	60	-	-	-	15	5	12	50	-	425	196	40
15		-	-	-	-	60	-	-	-	15	5	12	50	-	425	196	40
16		-	-	-	-	60	-	-	-	15	5	12	50	-	425	196	40
17		-	-	-	-	60	-	-	-	15	5	12	50	-	425	196	40
18		-	-	-	-	60	-	-	-	15	5	12	50	-	425	196	40
19		-	-	-	-	60	-	-	-	15	5	12	50	-	425	196	40
20		-	-	-	-	60	-	-	-	-	-	-	50	-	425	196	40

DATE	DELHI S/BRANCH	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN No : 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	NTP
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
21		-	-	-	-	60	-	-	-	-	-	-	50	-	425	196	40
22		-	-	-	-	60	-	-	-	-	-	-	40	-	425	196	40
23		-	-	-	-	60	-	-	-	-	-	-	40	-	425	111	40
24		67	24	189	4	60	-	-	-	-	-	-	40	-	425	111	40
25		126	24	189	4	60	-	-	-	-	-	-	-	-	425	60	40
26		126	24	179	4	60	-	-	-	-	-	-	-	-	425	60	40
27		126	24	189	4	60	-	-	-	-	-	-	-	-	425	170	40
28		126	24	189	4	60	-	-	-	-	-	12	-	-	425	196	40
29		126	24	189	4	60	-	-	-	-	-	12	-	-	425	196	40
30		126	12	189	4	60	-	-	-	-	-	-	-	-	425	196	40
Total		**1822**	**348**	**2616**	**32**	**1930**	**196**	**0**	**0**	**240**	**80**	**168**	**770**	**0**	**12750**	**4504**	**1200**
DEC., 2K																	
1		-	-	169	4	60	-	32	-	-	-	-	-	-	425	196	40
2		113	12	169	4	60	-	-	-	-	-	-	-	-	425	196	40
3		113	19	117	4	50	-	-	-	-	-	-	-	-	425	196	40
4		113	19	-	4	50	-	-	-	-	-	-	-	-	425	196	40
5		113	19	-	-	50	-	-	-	-	-	-	-	-	425	196	40
6		113	19	-	-	-	-	-	-	-	-	-	-	-	425	196	40
7		113	19	-	-	-	-	-	2	-	-	-	-	-	425	145	40
8		113	19	-		-	-	-	2	-	-	-	-	-	425	145	40
9		113	19	-		60	-	-	2	-	-	-	-	-	425	145	40
10		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
11		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
12		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
13		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
14		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
15		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
16		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40

DATE	DELHI S/BRANCH	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN No : 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	NTP
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
17		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
18		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
19		-	-	-		60	-	-	2	-	-	-	-	-	425	145	40
20		-	-	-		60	-	-	2	22	5	-	70	-	425	196	40
21		-	-	-		60	-	-	2	22	5	12	80	-	425	196	40
22		-	-	-		60	-	-	2	22	5	12	70	-	425	196	40
23		-	-	-		60	-	64	2	-	-	-	-	-	425	145	40
24		-	-	-		60	-	-	2	22	5	12	80	5.8	425	145	40
25		-	-	-		60	-	-	2	22	5	12	90	5.8	425	196	40
26		117	24	189	4	60	28	-	2	22	5	12	80	5.8	425	170	40
27		117	24	189	4	60	28	-	-	-	-	-	-	-	425	170	40
28		117	24	189	4	60	28	-	-	-	-	-	-	-	425	170	40
29		117	24	189	4	-	28	-	-	-	-	-	-	-	425	145	40
30		-	-	189	4	60	28	-	-	-	-	-	-	-	425	145	40
31		-	-	189	4	60	28	-	-	-	-	-	-	-	425	145	40
Total	**0**	**1372**	**241**	**1589**	**40**	**1590**	**168**	**96**	**40**	**132**	**30**	**60**	**470**	**17.4**	**13175**	**5080**	**1240**
FEB., 01																	
1		121	28	189	4	60	28		-	-	-	-	-	-	425	170	40
2		121	28	169	4	60	20		-	-	-	-	-	-	425	145	40
3		121	28	189	4	60	28		-	-	-	-	-	-	425	145	40
4		109	24	-	-	60	-		-	-	-	-	-	-	425	89	40
5		-	-	-	-	60	-		-	-	-	-	-	-	425	111	40
6		-	-	-	-	60	-		-	-	-	-	-	-	425	145	40
7		-	-	-	-	60	-		2	-	-	-	-	-	425	170	40
8		-	-	-	-	60	-		2	-	-	-	-	-	425	145	40
9		-	-	-	-	60	-		-	-	-	-	-	-	425	170	40
10		-	-	-	-	60	-		2	22	5	12	-	-	425	196	40
11		-	-	-	-	60	-		2	-	-	-	-	-	425	196	40

DATE	DELHI S/BRANCH	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN No : 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	NTP
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
12		-	-	-	-	60	-		2	-	-	-	-	-	425	196	40
13		-	-	-	-	60	-		2	-	-	-	-	-	425	145	40
14		-	-	-	-	-	-		2	-	-	-	-	-	425	145	40
15		-	-	-	-	-	-		2	-	-	-	-	-	425	170	40
16		-	-	-	-	70	-		2	-	-	-	-	-	425	196	40
17		-	-	-	-	70	-		2	-	-	-	-	-	425	196	40
18		-	-	-	-	70	-		2	-	-	-	-	-	425	196	40
19		-	-	-	-	70	-		2	-	-	-	-	-	425	170	40
20		-	-	-	-	70	-		2	22	5	12	40	-	425	145	40
21		-	-	-	-	70	-		2	22	5	12	80	5.8	425	170	40
22		-	-	-	-	70	-		2	22	5	12	80	5.8	425	145	40
23		-	-	-	-	70	-		2	22	5	12	70	5.8	425	196	40
24		-	-	-	-	-	-		2	22	5	12	70	5.8	425	196	40
25		-	-	-	-	-	-		2	22	5	12	80	5.8	425	196	40
26		-	-	-	-	-	-		2	22	5	12	80	5.8	425	196	40
27		-	-	-	-	70	-		2	22	5	12	80	5.8	425	196	40
28		-	-	-	-	70	-		2	22	5	12	80	5.8	425	196	40
TOTAL		**472**	**108**	**547**	**12**	**1480**	**76**	**0**	**42**	**220**	**50**	**120**	**660**	**46.4**	**11900**	**4732**	**1120**
MAR., 01																	
1		-	-	-	-	70	-		2	-	-	-	-	-	425	196	
2		-	-	-	-	70	-		2	-	-	-	30	-	425	196	
3		-	-	-	-	70	-		-	-	-	-	-	-	425	170	
4		-	-	-	-	70	-		2	-	-	-	-	-	425	145	
5		-	-	-	-	70	-		-	-	-	-	-	-	425	196	
6		-	-	-	-	70	-		-	-	-	-	-	-	425	196	
7		-	-	-	-	70	-		-	-	-	-	-	-	425	170	
8		126	24	117	4	70	28		-	-	-	-	-	-	425	170	
9		126	28	189	4	70	28		-	-	-	-	-	-	425	43	

DATE	DELHI S/BRANCH	JUA - DISTY	SONEPAT DISTY	PAI DISTY	KAKROI DISTY	GURGAON WATER SUPPLY CHANNEL	HARSANA DISTY	DIVERSION DRAIN No : 8	TURKPUR MINOR	NAHRI MAJOR DISTY	NAHRI DISTY	LAMPUR DISTY	BOWANA DISTY	HULAMBI MINOR	HAIDARPUR TREATMENT PLANT	NAJAFGARH DRAIN RELEASES INTO	NTP
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
10		126	28	189	4	70	28		-	-	-	-	-	-	425	43	
11		97	21	151	4	70	28		-	-	-	-	-	-	425	-	
12		79	15	125	4	70	28		-	-	-	-	-	-	425	-	
13		109	24	169	4	70	28		-	-	-	-	-	-	425	60	
14		109	24	169	4	70	28		-	-	-	-	-	-	425	60	
15		109	24	169	4	70	28		-	-	-	-	-	-	425	111	
16						70	-		-	-	-	-	-	-	425	43	
17						70	-		-	-	-	-	-	-	425	145	
18						70	-		2	-	-	-	-	-	425	196	
19						70	-		2	-	-	-	-	-	425	196	
20						70	-		2	-	-	-	-	-	425	196	
21						70	-		2	-	-	-	-	-	425	196	
22						70	-		2	-	-	-	-	-	425	224	
23						70	-		2	-	-	-	-	-	425	224	
24						70	-		2	-	-	-	-	-	425	224	
25						70	-		2	-	-	-	-	-	425	196	
26						70	-		-	-	-	-	-	-	425	210	
27						70	-		-	-	-	-	-	-	425	224	
28						-	-		-	-	-	-	-	-	425	224	
29						70	-		-	15	-	-	-	-	425	210	
30						70	-		2	15	-	-	-	-	425	210	
31						70	-		2	15	-	-	-	-	425	196	
Total		**881**	**188**	**1278**	**32**	**2100**	**224**	**0**	**26**	**45**	**0**	**0**	**30**	**0**	**13175**	**4870**	

RELEASES IN BHALUAT SUB-BRANCH/DISTY SYSTEM OF

Annex. - 4.5

(In Cusecs) **Rabi : 200(**

DATE	Bhaluat Sub-Branch	Jassia Mr.	Jasrana Mr.	Dhamar Mr.	Makrauli Mr.	New Kiloi Mr.	New Roorkee Mr.	Assan Mr.	Bhaluat Disty	Kheri Sadh Mr.	Bohar Disty	Pehrawar Mr.	Tail BSB (DLA + JSB)
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Oct., 2000													
15	1300	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	313
16	1325	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	691
17	1290	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	737
18	1290	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	721
19	1290	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	660
20	1290	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	660
21	1220	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	540
22	1220	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	541
23	1270	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	640
24	1210	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	640
25	300	11	93.55	-	24.5	12	4	21.8	79.25	1	35	7.8	399
26	300	-	-	-	24.5	12	4	21.8	79.25	1	35	7.8	180
27	300	-	-	-	24.5	12	4	21.8	79.25	1	35	7.8	212
28	300	-	-	-	24.5	12	4	21.8	79.25	1	35	7.8	212
29	300	-	-	-	24.5	12	4	21.8	79.25	1	35	7.8	220
30	300	-	-	-	24.5	12	4	21.8	79.25	1	35	7.8	194
31													
Total	**14505**	**121**	**1029.1**	**0**	**392**	**192**	**64**	**348.8**	**1268**	**16**	**560**	**124.8**	**7560**
Nov., 2k													
15	1350	11	93.5	-	24.5	12	4	21.8	79.25	1	35	7.8	

DATE	Bhaluat Sub-Branch	Jassia Mr.	Jasrana Mr.	Dhamar Mr.	Makrauli Mr.	New Kiloi Mr.	New Roorkee Mr.	Assan Mr.	Bhaluat Disty	Kheri Sadh Mr.	Bohar Disty	Pehrawar Mr.	Tail BSB (DLA + JSB)
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
16	1200	11	93.5	-	24.5	12	4	21.8	79.25	1	35	7.8	
17	1100	11	93.5	-	24.5	12	4	21.8	79.25	1	35	7.8	
18	1150	11	93.5	-	24.5	12	4	21.8	79.25	1	35	7.8	
19	1150	11	93.5	-	24.5	12	4	21.8	79.25	1	35	7.8	
20	1150	11	93.5	-	24.5	12	4	21.8	79.25	1	35	7.8	
21	1150	11	93.5	-	24.5	12	4	21.8	79.25	1	35	7.8	
22	1150	11	93.5	-	24.5	12	4	21.8	79.25	1	35	7.8	
23	478	NIL	-	-	-	-	-	-	-	-	-	-	
24	459	NIL	-	-	-	-	-	-	-	-	-	-	
25	383	NIL	-	-	-	-	-	-	-	-	-	-	
26	110	NIL	-	-	-	-	-	-	-	-	-	-	
27	-	-	-	-	-	-	-	-	-	-	-	-	
28	-	-	-	-	-	-	-	-	-	-	-	-	
29	-	-	-	-	-	-	-	-	-	-	-	-	
30	-	-	-	-	-	-	-	-	-	-	-	-	
Total	**10830**	**88**	**748**	**0**	**196**	**96**	**32**	**174.4**	**634**	**8**	**280**	**62.4**	**0**
Dec., 2000													
1	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	

DATE	Bhaluat Sub-Branch	Jassia Mr.	Jasrana Mr.	Dhamar Mr.	Makrauli Mr.	New Kiloi Mr.	New Roorkee Mr.	Assan Mr.	Bhaluat Disty	Kheri Sadh Mr.	Bohar Disty	Pehrawar Mr.	Tail BSB (DLA + JSB)
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
9	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	
18	1300	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
19	1285	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
20	1250	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
21	1222	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
22	1142	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
23	1129	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
24	1312	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
25	1280	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
26	L	11.0	93.55	-	24.50	12	4	21.80	99.25	1.0	35	7.80	
27	-	-	-	-	-	-	-	-	-	-	-	-	
28	-	-	-	-	-	-	-	-	-	-	-	-	
29	-	-	-	-	-	-	-	-	-	-	-	-	
30	-	-	-	-	-	-	-	-	-	-	-	-	
31	-	-	-	-	-	-	-	-	-	-	-	-	
Total	**9920**	**99**	**841.95**	**0**	**220.5**	**108**	**36**	**196.2**	**893.25**	**9**	**315**	**70.2**	
Jan, 2001													

DATE	Bhaluat Sub-Branch	Jassia Mr.	Jasrana Mr.	Dhamar Mr.	Makrauli Mr.	New Kiloi Mr.	New Roorkee Mr.	Assan Mr.	Bhaluat Disty	Kheri Sadh Mr.	Bohar Disty	Pehrawar Mr.	Tail BSB (DLA + JSB)
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	
18	-	-	-	-	-	-	-	-	-	-	-	-	
19	-	-	-	-	-	-	-	-	-	-	-	-	
20	-	-	-	-	-	-	-	-	-	-	-	-	
21	-	-	-	-	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	-	-	-	-	-	-	
24	-	-	-	-	-	-	-	-	-	-	-	-	
25	-	-	-	-	-	-	-	-	-	-	-	-	
26	-	-	-	-	-	-	-	-	-	-	-	-	

DATE	Bhaluat Sub-Branch	Jassia Mr.	Jasrana Mr.	Dhamar Mr.	Makrauli Mr.	New Kiloi Mr.	New Roorkee Mr.	Assan Mr.	Bhaluat Disty	Kheri Sadh Mr.	Bohar Disty	Pehrawar Mr.	Tail BSB (DLA + JSB)
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
27	1404	11.0	43.55	-	24.50	12	4	21.80	79.25	1.0	35	7.80	
28	1409	11.0	43.55	-	24.50	12	4	21.80	79.25	1.0	35	7.80	
29	1346	11.0	43.55	-	24.50	12	4	21.80	79.25	1.0	35	7.80	
30	1322	11.0	43.55	-	24.50	12	4	21.80	79.25	1.0	35	7.80	
31	1080	11.0	43.55	-	24.50	12	4	21.80	79.25	1.0	35	7.80	
Total	**6561**	**55**	**217.75**	**0**	**122.5**	**60**	**20**	**109**	**396.25**	**5**	**175**	**39**	**0**
Feb., 2001													
1	1108	11	93.51	-	24.50	12	4	21.80	99.25	1.0	35	9.80	
2	1094	11	93.5	-	24.50	12	4	21.80	99.25	1.0	35	9.80	
3	1164	11	93.55	-	24.50	12	4	21.80	99.25	1.0	35	9.80	
4	-	-	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	
18	-	-	-	-	-	-	-	-	-	-	-	-	

DATE	Bhaluat Sub-Branch	Jassia Mr.	Jasrana Mr.	Dhamar Mr.	Makrauli Mr.	New Kiloi Mr.	New Roorkee Mr.	Assan Mr.	Bhaluat Disty	Kheri Sadh Mr.	Bohar Disty	Pehrawar Mr.	Tail BSB (DLA + JSB)
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
19	-	-	-	-	-	-	-	-	-	-	-	-	
20	-	-	-	-	-	-	-	-	-	-	-	-	
21	-	-	-	-	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	-	-	-	-	-	-	
24	-	-	-	-	-	-	-	-	-	-	-	-	
25	-	-	-	-	-	-	-	-	-	-	-	-	
26	-	-	-	-	-	-	-	-	-	-	-	-	
27	-	-	-	-	-	-	-	-	-	-	-	-	
28	-	-	-	-	-	-	-	-	-	-	-	-	
29	-	-	-	-	-	-	-	-	-	-	-	-	
Total	**3366**	**33**	**280.56**	**0**	**73.5**	**36**	**12**	**65.4**	**297.75**	**3**	**105**	**29.4**	**0**

March, 2001													
1	-												
2	-												
3	-												
4	-												
5	-												
6	-												
7	-												
8	910	11.0	93.5	-	24.5	12	4	21.80	79.25	1.0	35	7.80	
9	959	11	93.5	-	24.5	12	4	21.80	79.25	1.0	35	7.80	
10	920	11	93.5	-	24.5	12	4	21.80	79.25	1.0	35	7.80	

DATE	Bhaluat Sub-Branch	Jassia Mr.	Jasrana Mr.	Dhamar Mr.	Makrauli Mr.	New Kiloi Mr.	New Roorkee Mr.	Assan Mr.	Bhaluat Disty	Kheri Sadh Mr.	Bohar Disty	Pehrawar Mr.	Tail BSB (DLA + JSB)
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
11	911	11	93.5	-	24.5	12	4	21.80	79.25	1.0	35	7.80	
12	943	11	93.5	-	24.5	12	4	21.80	79.25	1.0	35	7.80	
13	939	11	93.5	-	24.5	12	4	21.80	79.25	1.0	35	7.80	
14	959	11	93.5	-	24.5	12	4	21.80	79.25	1.0	35	7.80	
15	896	11	93.5	-	24.5	12	4	21.80	79.25	1.0	35	7.80	
16	-												
17	-												
18	-												
19	-												
20	-												
21	-												
22	-												
23	-												
24	-												
25	-												
26	-												
27	-												
28	-												
29	-												
30	-												
31	-												
Total	**7437**	**88**	**748**	**0**	**196**	**96**	**32**	**174.4**	**634**	**8**	**280**	**62.4**	**0**

Annex. 4.6

RELEASES ON JHAJJAR SUB-BRANCH; DISTY AND MINOR SYSTEM OF WESTERN YAMUNA CANAL SYSTEM

RABI : 2000-2001(IN CUSES)

	Jhajjar Sub-Branch		Sunari Mr.	Bhutian Mr.	Brahana Hr.	Chhara Mr.	Jhajjar Disty.	Rampur Mr.	Baghpur Mr.	Karauda Mr.	Rajya Mr.	Sikandarpur Mr.	REMARKS
OCT2k	Morning	Evening	1	2	3	4	5	6	7	8	9	10	11
15		313	32.5				187	-	-	-	-		
16	393	405	32.5	46	34	84	273	75	3	10	12	57	
17	381	381	32.5	46	34	84	273	82	3.75	10	12	75	
18	381	381	32.5	46	36	84	250	80	3.75	10	12	72	
19	381	360	32.5	46	36		273	82	3.75	10	12	73.5	
20	360	360	32.5	46	36		273	75	3.75	-	12	70	
21	360	240	32.5	46	36		245	77	2	-	10	70	
22	241	241	32.5	46	22		130	61	2	5	10	51	
23	241	340	32.5	46	36		242	41	2	5	5	30	
24	340	340	32.5	46	36		220	55	2	10	5	45	
25	340	340	32.5	46	36		22	45	1.5	-	12	35	
26	340	241	32.5	46	36		200	30	2	-	12	20	
27	180	180	32.5	30	30		204	32	3	-	12	28	
28	203	212	32.5	30	-		250	52	3	-	12	42	
29	185	212	32.5	-	-		235	45	2.5	-	12	35	
30	220	220	32.5	-	-		245	48	2.5	-	12	38	
31	251		32.5	-	-		245	65	2.5	-	12	55	
TOTAL	**4797**	**4766**	**552.5**	**566**	**408**	**252**	**3767**	**945**	**43**	**60**	**174**	**796.5**	
Dec., 2K													
1	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	

	Jhajjar Sub-Branch		Sunari Mr.	Bhutian Mr.	Brahana Hr.	Chhara Mr.	Jhajjar Disty.	Rampur Mr.	Baghpur Mr.	Karauda Mr.	Rajya Mr.	Sikandarpur Mr.	REMARKS
OCT2k	Morning	Evening	1	2	3	4	5	6	7	8	9	10	11
3	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	
18	-	28.1	32.5	-	-	-	-	-	-	-	-	-	
19	393	38.1	32.5	43	36	####	170	57	3.75	12	15	49	
20	347	335	32.5	43	36	####	123	50	3.75	12	15	42	
21	330	370	32.5	43	36	####	112	42	3.75	12	13	34	
22	335	324	32.5	35	30	-	152	56	3.75	-	10	48	
23	324	324	32.5	35	28	-	121	48	3.75	-	10	40	
24	324	335	32.5	35	30	-	114	45	3.75	-	10	37	
25	393	381	32.5	35	30	-	144	56	3.75	-	-	48	
26	313	203	32.5	35	30	-	130	48	3.75	10	-	40	
27	143	135	-	L	L	-	-						

	Jhajjar Sub-Branch		Sunari Mr.	Bhutian Mr.	Brahana Hr.	Chhara Mr.	Jhajjar Disty.	Rampur Mr.	Baghpur Mr.	Karauda Mr.	Rajya Mr.	Sikandarpur Mr.	REMARKS
OCT2k	**Morning**	**Evening**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
28	135	127	-	L	-	-	-						
29	105	85	-	-	-	-	-						
30	L	L	-	-	-	-	-						
31	L	L	-	-	-	-	-						
TOTAL	**3142**	**2685.2**	**292.5**	**304**	**256**	**233**	**1066**	**402**	**30**	**46**	**73**	**338**	
Jan., 2K													
1	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	
18	-	-	-	-	-	-	-	-	-	-	-	-	
19	-	-	-	-	-	-	-	-	-	-	-	-	

	Jhajjar Sub-Branch		Sunari Mr.	Bhutian Mr.	Brahana Hr.	Chhara Mr.	Jhajjar Disty.	Rampur Mr.	Baghpur Mr.	Karauda Mr.	Rajya Mr.	Sikandarpur Mr.	REMARKS
OCT2k	**Morning**	**Evening**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
20	-	-	-	-	-	-	-	-	-	-	-	-	
21	-	-	-	-	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	-	-	-	-	-	-	
24	-	-	-	-	-	-	-	-	-	-	-	-	
25	-	-	-	-	-	-	-	-	-	-	-	-	
26	-	-	-	-	-	-	-	-	-	-	-	-	
27	-	-	32.5	-	-	-	83	-	3.0	7	10	-	
28	420	442	32.5	46	36	-	197	57	3.75	10	13	49	
29	442	430	32.5	46	36	-	210	57	3.75	10	13	49	
30	358	393	32.5	46	36	71	180	56	3.75	10	13	48	
31	261	393	32.5	46	36	68	130	56	3.75	10	13	48	
TOTAL	**1481**	**1658**	**162.5**	**184**	**144**	**139**	**800**	**226**	**18**	**47**	**62**	**194**	
Feb., 2K													
1													
2	370	370	32.5	46	36	68	186	58	3.5	10	10	-	
3	324	335	32.5	41	34	68	144	63	3.5	10	10	-	
4	335	335	32.5	41	28		124	57	3.5	10	10	-	
5	347	251	32.5	39	28		115	58	3.5	5	8	-	
6	105	-	7.05	L	-	-	-	-	1.5	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	

	Jhajjar Sub-Branch		Sunari Mr.	Bhutian Mr.	Brahana Hr.	Chhara Mr.	Jhajjar Disty.	Rampur Mr.	Baghpur Mr.	Karauda Mr.	Rajya Mr.	Sikandarpur Mr.	REMARKS
OCT2k	**Morning**	**Evening**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
12	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	
18	-	-	-	-	-	-	-	-	-	-	-	-	
19	-	-	-	-	-	-	-	-	-	-	-	-	
20	-	-	-	-	-	-	-	-	-	-	-	-	
21	-	-	-	-	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	-	-	-	-	-	-	
24	-	-	-	-	-	-	-	-	-	-	-	-	
25	-	-	-	-	-	-	-	-	-	-	-	-	
26	-	-	-	-	-	-	-	-	-	-	-	-	
27	-	-	-	-	-	-	-	-	-	-	-	-	
28	-	-	-	-	-	-	-	-	-	-	-	-	
29	-	-	-	-	-	-	-	-	-	-	-	-	
30	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	**1481**	**1291**	**137.1**	**167**	**126**	**136**	**569**	**236**	**15.5**	**35**	**38**	**0**	

Annex - 4.7

RELEASES ON DULEHRA DISTY & MINOR SYSTEMS OF WESTERN YAMUNA CANAL

RABI : 2000-2001(In Cusecs)

DATE	Dulehra Disty		Ismaila Disty	Asauda Hr.	Rewari-Khera Mr.	Rohad M2	Bahaburgarh Mr.	Assauda Mr.	Dabodha Mr.	Noona majra Mr.	Surkhpur Mr.	BPA Mr.	Chhudani Mr.	Jahangirpur Hr.	Gobana Mr.	Dhansa Mr.	REMARKS
	Morning	Evening	1	2	3	4	5	6	7	8	9	10	11	12	13	14	24
Oct., 2000																	
15	-	286		-													
16	336	346	45	-	-	6.17		-									
17	181	340	45	-	11.1		103	6.5	28	15		2.08	-				
18	340	300	45	-	6.84	6.77	73	1	23	16		2.08	-		2	6	
19	300	300	45	-	6.84	5	119	1	34	17		4.55	0.5	20	2	6	
20	300	300	45	-	8.43	5	113	6.5	34	17	2	4.55	0.5	30	2	4	
21	300	300	45	-	8.43	5.86	108	6.5	34	17	3	4.55	0.5	30	2	2	
22	300	300	45	-	8.43	5.86	108	7.62	34	17	0	3.64	0.79	30	2	2	
23	300	300	45	-	8.43	5	108	7.62	34	17	2	3.64	0.79	30	2	2	
24	300	300	45	-	8.43	5.86	108	7.62	34	17	2	3.64	0.79	30	2	2	
25	300	300	45	-	8.43	5.86	103	7.62	34	17	2	4.55	0.4		4	8	
26	206	158	45	-	8.43	1.09	103	-	-	-	-	4.55	0.6		4	8	
27	-	-	16		7.62	-	15	-	-	-	-	-	0.5		4	8	
28	-	-															
29	-	-															
30	-	-															
Total	**3163**	**3530**	**511**	**0**	**91.4**	**52.47**	**###**	**52**	**289**	**150**	**11**	**37.8**	**5.37**	**170**	**26**	**48**	
Nov., 2000																	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

DATE	Dulehra Disty		Ismaila Disty	Asauda Hr.	Rewari-Khera Mr.	Rohad M2	Bahaburgarh Mr.	Assauda Mr.	Dabodha Mr.	Noona majra Mr.	Surkhpur Mr.	BPA Mr.	Chhudani Mr.	Jahangirpur Hr.	Gobana Mr.	Dhansa Mr.	REMARKS
	Morning	Evening	1	2	3	4	5	6	7	8	9	10	11	12	13	14	24
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	360	306	45	-	11.1	6.78	103	4.48	34	17	8	6.60	3.65	30	4	8	
18	249	300	45	-	9.27	3.44	100	6.50	34	17	8	8.94	2.51	-	1	4	
19	300	320	-	-	11.1	5.86	97	6.50	34	17	8	8.94	3.65	30	4	8	
20	320	320	45	-	11.1	6.78	97	6.50	34	17	7	8.94	3.65	40	4	8	
21	320	320	45	-	10.1	7.75	97	6.50	34	17	4	8.94	3.65	40	4	8	
22	340	326	45	-	11.1	5.86	103	7.62	34	17	5	8.94	3.65	40	4	8	
23	326	326	45	-	10.1	5.86	103	7.62	34	17	4	6.60	3.65	30	4	8	
24	320	122	45	-	10.1		97	7.62	34	17	4	4.55	3.65	30	4	8	
25	L	L	L	-	-		17	-	-	-		1.43	-	20	3	5	
26	L	L	L	-	-		-	-	-	-		-	-	-	-	L	
27	240	258	24	-	L		20	-	-	-		-	-	-	-	-	
28	204	173	40	-	L		39		23	13		2.82	1.15	30	3	8	
29	181	158	24	-	L		36		23	13		2.08	0.50	30	3	6	
30	143	122	12	-	L		15		8	4		0.88	-	20	-	-	
Total	**3303**	**3328**	**415**	**0**	**83.9**	**42.33**	**924**	**53.3**	**326**	**166**	**48**	**69.7**	**29.7**	**340**	**38**	**79**	
Dec., 2000																	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

DATE	Dulehra Disty		Ismaila Disty	Asauda Hr.	Rewari-Khera Mr.	Rohad M2	Bahaburgarh Mr.	Assauda Mr.	Dabodha Mr.	Noona majra Mr.	Surkhpur Mr.	BPA Mr.	Chhudani Mr.	Jahangirpur Hr.	Gobana Mr.	Dhansa Mr.	REMARKS
	Morning	Evening	1	2	3	4	5	6	7	8	9	10	11	12	13	14	24
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	-	258	45	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	340	340	45	-	8.35	4.27	68	7.62	28	14	-	6.60	2.52	20	2	5	
20	316	316	45	-	9.29	3.65	77	7.62	30	15	4	6.60	3.65	30	3	5	
21	300	300	45	-	8.43	3.65	77	6.50	30	15	3	6.60	3.52	30	3	5	
22	286	286	45	-	7.23	2.01	68	3.58	26	14	3	4.55	1.99	30	2	4	
23	286	286	45	-	7.23	2.01	68	6.50	26	15	L	2.82	1.15	30	3	5	
24	286	306	45	-	6.68	1.15	68	6.50	26	14	L	4.55	1.15	30	3	5	
25	340	340	45	-	8.02	1.56	77	6.50	28	15	L	6.60	2.52	30	3	6	
26	277	181	40	-	8.06	0.79	68	6.50	26	15	L	4.55	2.52	20	3	5	
27	102	L		-	-	-	-	-	-	L	L	1.00	-	-	1	5	
28	L	L		-	-	-	-	-	-	-	-	-	-	-	-	-	
29	L	L		-	-	-	-	-	-	-	-	-	-	-	-	-	
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	**2533**	**2613**	**400**	**0**	**63.3**	**19.09**	**571**	**51.3**	**220**	**117**	**10**	**43.9**	**19**	**220**	**23**	**45**	
Jan., 2001																	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

DATE	Dulehra Disty		Ismaila Disty	Asauda Hr.	Rewari-Khera Mr.	Rohad M2	Bahaburgarh Mr.	Assauda Mr.	Dabodha Mr.	Noona majra Mr.	Surkhpur Mr.	BPA Mr.	Chhudani Mr.	Jahangirpur Hr.	Gobana Mr.	Dhansa Mr.	REMARKS
	Morning	Evening	1	2	3	4	5	6	7	8	9	10	11	12	13	14	24
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	-	269	45	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	326	346	45	-	8.43	5.86	64	6.50	23	14	-	6.60	2.52	20	3	6	
29	356	346	45	-	11.1	6.78	87	6.50	30	16	6	8.94	3.65	40	4	8	
30	**356**	**356**	45	-	10.1	6.78	82	6.50	30	16	7	8.93	3.65	30	4	8	
31	356	367	45	-	11.1	5.86	27	6.50	26	16	7	8.94	3.65	40	4	8	
Total	**1394**	**1684**	**225**	**0**	**40.7**	**25.28**	**260**	**26**	**109**	**62**	**20**	**33.4**	**13.5**	**130**	**15**	**30**	
Feb., 2001																	
1	267	267	45	-	6.10	-	47	2.05	8	4	-	6.60	2.52	20	2	5	
2	258	258	45	-	5.39	-	47	1.41	8	4	-	2.08	1.15	20	2	5	
3	258	240	45	-	5.39	-	51	2.05	8	4	-	2.08	0.50	10	3	6	

DATE	Dulehra Disty		Ismaila Disty	Asauda Hr.	Rewari-Khera Mr.	Rohad M2	Bahaburgarh Mr.	Assauda Mr.	Dabodha Mr.	Noona majra Mr.	Surkhpur Mr.	BPA Mr.	Chhudani Mr.	Jahangirpur Hr.	Gobana Mr.	Dhansa Mr.	REMARKS
	Morning	Evening	1	2	3	4	5	6	7	8	9	10	11	12	13	14	24
4	258	197	45	-	6.10	-	51	2.05	8	4	-	-	-	-	-	-	
5	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	**1041**	**962**	**180**	**0**	**23**	**0**	**196**	**7.56**	**32**	**16**	**0**	**10.8**	**4.17**	**50**	**7**	**16**	

Annex. 4.8

TAIL GAUGE OBSERVED DAILY (IN FT)

JUA DISTY & DELIVERY AT TAIL & ITS OFFTAKES

KHARIF (APRIL 99 - SEPT. 99)

Date	Discharge at Head (In Cusecs)	Bandhana Minor	Baghru Minor	Sehri Sub- Minor	Silana Sub Minor	Garhi Sissana Minor	Garur Minor	Sissana Minor
1	2	3	4	5	6	7	8	9
Apr.-99								
1	101	NR	NR	1.3	1.3	1	1.1	1.1
2	101	NR	NR	NR	NR	NR	NR	NR
3	101	NR	NR	NR	NR	NR	NR	NR
4	101	NR	NR	NR	NR	NR	NR	NR
5	101	NR	NR	NR	NR	NR	NR	NR
6	NIL							
7	-							
8	-							
9	-							
10	-							
11	-							
12	-							
13	-							
14	-							
15	-							
16	-							
17	-							
18	-							
19	-							
20	-							
21	-							
22	-							
23	-							
24	-							
25	-							
26	-							
27	-							
28	79							
29	92	0.85		1.0	1.0	0.8	NIL	0.5
30	92	0.85		1.0	1.0	0.8	-	0.6
Total	**768**	**1.7**	**0**	**3.3**	**3.3**	**2.6**	**1.1**	**2.2**

TAIL GAUGE OBSERVED DAILY (IN FT)

JUA DISTY & DELIVERY AT TAIL & ITS OFFTAKES

KHARIF (APRIL 99 - SEPT. 99)

Date	Discharge at Head (In Cusecs)	Bandhana Minor	Baghru Minor	Sehri Sub- Minor	Silana Sub Minor	Garhi Sissana Minor	Garur Minor	Sissana Minor
1	2	3	4	5	6	7	8	9
May-99								
1	92	0.85	NIL	1.1	1.1	0.8	0.6	0.6
2	92	0.85	-	1.1	1.1	0.8	0.6	0.6
3	92	0.85	-	1.1	1.1	0.9	0.6	0.6
4	92	0.85	-	NR	NR	NR	NR	NR
5	92	0.85		NR	NR	NR	NR	NR
6	101	0.85		NR	NR	NR	NR	NR
7	52	0.4		NR	NR	NR	NR	NR
8	52	0.4		1.0	1.1	0.8	LKg	0.5
9	52	0.5		1.0	1.0	0.7	NIL	0.5
10	52	0.5		1.0	1.0	0.8	NIL	0.5
11	87	0.5		NR	NR	NR	NIL	
12	90	NR		NR	NR	NR	NIL	
13	NIL	NIL						
14	-	-						
15	-	-						
16	-	-						
17	-	-						
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28	-	-						
29	-	-						
30	101	0.8	-	NR	NR	NR	NR	NR
31	101	0.8	-	NR	NR	NR	NR	NR
Total	**1056**	**8.15**	**0**	**5.2**	**5.3**	**4**	**1.2**	**2.7**

TAIL GAUGE OBSERVED DAILY (IN FT)

JUA DISTY & DELIVERY AT TAIL & ITS OFFTAKES

KHARIF (APRIL 99 - SEPT. 99)

Date	Discharge at Head (In Cusecs)	Bandhana Minor	Baghru Minor	Sehri Sub- Minor	Silana Sub Minor	Garhi Sissana Minor	Garur Minor	Sissana Minor
1	2	3	4	5	6	7	8	9
Jun-99								
1	109	0.85	NIL	NR	NR	NR	NR	NR
2	126	0.9	-	NR	NR	NR	NR	NR
3	126	0.4	-	NR	NR	NR	NR	NR
4	126	0.85	-	NR	NR	NR	NR	NR
5	126	0.8	-					
6	101	NR	-					
7	-	NR	NR					
8	-	NR	NR					
9	-	NR	NR					
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25	-							
26	-							
27	-							
28	NR	NR	NR	NR	NR	NR	NR	NR
29	NR	NR	NR	NR	NR	NR	NR	NR
30	NR	NR	NR	NR	NR	NR	NR	NR
Total	**714**	**3.8**	**0**	**0**	**0**	**0**	**0**	**0**

TAIL GAUGE OBSERVED DAILY (IN FT)

JUA DISTY & DELIVERY AT TAIL & ITS OFFTAKES

KHARIF (APRIL 99 - SEPT. 99)

Date	Discharge at Head (In Cusecs)	Bandhana Minor	Baghru Minor	Sehri Sub- Minor	Silana Sub Minor	Garhi Sissana Minor	Garur Minor	Sissana Minor
1	2	3	4	5	6	7	8	9
Jul-99								
1	126	1.0	1.1	NR	NR	NR	NR	NR
2	126	1.0	1.1	-	-	-	-	-
3	126	-	-	-	-	-	-	-
4	126	-	1.0					
5	126	-	1.0					
6	126	-	1.0					
7	126	NR	-					
8	126	-	-					
9	NIL	-	-					
10	-							
11	-							
12	-							
13	-							
14	-							
15	-							
16	-							
17	-							
18	-	-	-					
19	-	-	-					
20	79	0.4	0.5	-	-	-	-	-
21	83	0.4	0.5	-	-	-	-	-
22	83	0.4	0.5	-	-	-	-	-
23	126	0.5	0.6	NR	NR	NR	NR	NR
24	126	1.1	1.2	0.6	0.7	0.7	0.5	NIL
25	126	1.0	1.2	0.6	0.7	0.7	0.6	-
26	126	1.0	1.2	0.7	0.7	0.7	0.6	-
27	126	1.0	1.2	0.7	0.7	0.7	0.6	-
28	NIL	NIL	NR	NR	NR	NR	NR	NR
29	NIL	NIL	-	-	NR	NR	-	-
30	NIL	NIL	-	-	NR	NR	-	-
31	NIL	1.0	0.7	0.7	0.7	0.6	0.5	NIL
Total	**1757**	**7.8**	**11.7**	**3.3**	**3.5**	**3.4**	**2.8**	**0**

TAIL GAUGE OBSERVED DAILY (IN FT)

JUA DISTY & DELIVERY AT TAIL & ITS OFFTAKES

KHARIF (APRIL 99 - SEPT. 99)

Date	Discharge at Head (In Cusecs)	Bandhana Minor	Baghru Minor	Sehri Sub- Minor	Silana Sub Minor	Garhi Sissana Minor	Garur Minor	Sissana Minor
1	2	3	4	5	6	7	8	9
Aug-99								
1	126	1.2	1.1	0.8	0.9	0.8	0.6	-
2	NIL	0.5	0.6	0.9	1.0	0.9	0.7	-
3	126	0.5	0.6	0.9	1.0	0.9	0.7	-
4	126	0.8	1.0	0.9	1.0	0.9	0.7	LKG
5	126	0.8	1.0	0.9	1.0	0.9	0.7	LKG
6	126	0.8	1.0	0.9	1.0	0.9	0.7	0.4
7	126	0.8	1.0	1.0	1.1	1.0	0.8	0.4
8	126	0.9	1.0	1.0	1.1	0.8	0.8	-
9	NIL	NIL	1.0	1.0	1.1	0.8	0.8	LKG
10	126	0.9	1.0	1.0	1.1	1.0	0.8	LKG
11	126	1.0	1.1	1.0	1.1	1.0	0.8	LKG
12	126	1.0	1.1	1.0	1.1	1.0	NIL	NIL
13	126	NIL	1.1	NR	NR	NR	NR	NR
14	NIL	-	1.1	-	-	-	-	-
15	126	-	1.1	-	-	-	-	-
16	126	0.6	0.5	-	-	-	-	-
17	NIL	-	0.5					
18	126	0.9	1.0					
19	126	1.0	1.2					
20	126	1.0	1.2					
21	126	1.0	1.2					
22	126	1.0	1.2					
23	29	1.0	1.2					
24	NIL	NR	NR					
25	NIL	-	-					
26	71	-	-					
27	-	-	-					
28	-	-	-					
29	-	-	-					
30	-	-	-					
31	-	-	-					
Total	**2242**	**14.5**	**21.7**	**10.5**	**11.6**	**10.1**	**7.5**	**0.8**

TAIL GAUGE OBSERVED DAILY (IN FT)

JUA DISTY & DELIVERY AT TAIL & ITS OFFTAKES

KHARIF (APRIL 99 - SEPT. 99)

Date	Discharge at Head (In Cusecs)	Bandhana Minor	Baghru Minor	Sehri Sub- Minor	Silana Sub Minor	Garhi Sissana Minor	Garur Minor	Sissana Minor
1	2	3	4	5	6	7	8	9
Sep-99								
1	126	0.5	0.6	NR	NR	NR	NR	NR
2	-	0.5	0.6	-	-	-	-	-
3	-	1.0	1.2	-	-	-	-	-
4	-	1.0	1.2	-	-	-	-	-
5	-	1.0	1.2	-	-	-	-	-
6	-	0.8	0.6	-	-	-	-	-
7	-	0.8	0.6					
8	-	0.8	0.6					
9	-	0.8	1.0					
10	-	0.8	1.0					
11	-	0.8	1.0					
12	-	0.8	1.0					
13	-	0.8	1.0					
14	-	0.8	1.0					
15	-	NIL	NIL					
16	NIL	NIL	NIL					
17	126	0.7	0.8					
18	-	0.7	0.8					
19	-	0.7	0.8					
20	-	0.7	0.8					
21	-	0.7	0.8					
22	-	0.5	0.6					
23	-	0.5	0.6					
24	-	NR	NR					
25	-	-	-					
26	NIL	-	-					
27	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-
Total	**252**	**15.7**	**17.8**	**0**	**0**	**0**	**0**	**0**

Annex. 4.10

DELTA ON HISSAR MAJOR DISTY
OF
HANSI BRANCH (W.J.C.)

Hissar Major Disty	Water Account Cusec Days	Irrigation (Ha)	Delta
Kharif 1999	29340	16413	1.43
Rabi 1999-2000	19512	16851	0.93
Kharif 2000	30420	16804	1.45
Rabi 2000-01	13994	16886	0.66

Delta of Distributaries & Minors on W.J.C. System
(Offtakes of Delhi Branch)

S. No	Name of Channel	GA	CCA	CROP RABI 99-2000		KHARIF 2000		RABI 2000-2001	
				Water in cusec days	Irrigation in Ha	W/A	Irri.	W/A	Irri.
1.	Holmbi	1090	891	1632	112	2105	135	1358	107
2.	Lampur	5461	4383	426	614	1170	603	1358	638
3.	Sardhana	3904	3303	2055	1487	4668	1438	1690	1378
4.	Turkpur	298	254	150	101	208	47	130	80
5.	Sonipat	3971	3287	1632	726	2105	707	1358	690
6.	Haryana	4774	4090	903	786	2176	818	655	855
7.	Kakroi	1268	1090	188	347	328	340	115	339

ANNEX - 4.10

DELTA STATEMENT
(FT.)
WESTERN JAMUNA CANAL AND GURGAON CANAL

Crop Year		WJC including Delhi State & Lift Schemes (IN ACRES)	Gurgaon	WJC	Gurgaon Canal
1		2	3	4	5
Kharif	1976	814711	23972	2.52	5.03
Rabi	1976 - 77	648091	33672	1.28	2.82
Total	76 -77	1462802	57844	1.77	3.45
Kharif	1977	701753	17458	2.24	4.08
Rabi	1977 - 78	832091	24552	1.63	2.94
Total	77 - 78	1533844	42010	1.87	3.33
Kharif	1978	968214	17208	2.78	5.22
Rabi	1978 - 79	900472	29893	1.63	2.76
Total	78 - 79	1868686	47101	2.08	3.33
Kharif	1979	1192220	30054	2.65	8.76
Rabi	1979 - 80	607089	46697	1.24	3.24
Total	79 - 80	1799309	76751	1.91	4.3
Kharif	1980	974372	26176	2.43	6.22
Rabi	1980 - 81	757805	62121	1.37	4.05
Total	80 - 81	1732177	88297	1.81	4.52
Kharif	1981	1073920	38584	2.68	9.52
Rabi	1981 - 82	819411	46213	1.38	3.25
Total	81 - 82	1893331	84797	1.91	4.64
Kharif	1982	1184142	25574	2.92	6.09
Rabi	1982 - 83	857053	58499	1.59	3.53
Total	82 - 83	2041195	84073	2.16	4.04
Kharif	1983	905373	28298	2.43	7.29
Rabi	1983 - 84	760990	43795	1.52	2.99
Total	83 - 84	1666363	72093	1.91	3.89
Kharif	1984	879510	29009	2.6	7.59
Rabi	1984 - 85	588887	39404	1.27	2.73
Total	84 - 85	1468397	68413	1.81	3.75
					Contd …

Crop Year		WJC including Delhi State & Lift Schemes (IN ACRES)	Gurgaon	WJC	Gurgaon Canal
1		2	3	4	5
Kharif	1985	880501	26128	2.5	6.16
Rabi	1985 - 86	892409	36780	2.04	3.07
Total	85 - 86	1772910	62908	2.14	3.88
Kharif	1986	1188253	46816	2.63	7.62
Rabi	1986 - 87	757434	37247	1.27	2.46
Total	86 - 87	1945687	84063	1.86	3.91
Kharif	1987	1105026	50258	2.68	6.11
Rabi	1987 - 88	617836	45865	1.2	2.34
Total	87 - 88	1722862	96150	1.93	3.46
Kharif	1988	952137	31945	2.3	3.49
Rabi	1988 - 89	778579	48748	1.27	2.38
Total	88 - 89	1730716	80693	1.69	2.73
Kharif	1989	1155317	60950	2.67	6.36
Rabi	1989 - 90	804501	53513	1.29	2.6
Total	89 - 90	1959818	114463	1.86	3.79
Kharif	1990	1170109	52707	2.66	6.05
Rabi	1990 - 91	922234	48121	1.63	2.45
Total	90 - 91	2092343	100828	2.08	3.56
Kharif	1991	1180118	42798	2.68	4.08
Rabi	1991 - 92	652041	37799	1.16	1.86
Total	91 - 92	1832159	80597	1.82	2.62
Kharif	1992	1108431	44808	2.52	4.51
Rabi	1992 - 93	710227	46212	1.25	2.43
Total	92 - 93	1818658	91020	1.31	3.15
Kharif	1993	877393	40321	1.97	4.23
Rabi	1993 - 94	622810	38415	1.13	1.92
Total	93 - 94	1500204	78736	1.5	2.67

ANNEX - 4.11

IRRIGATION IN HECT. HISSAR MAJOR DISTY.

S.No.	Name of Channel	Kharif 1999	Rabi 1999-2000	Kharif 2000	Rabi 2000-2001
1	Hisar Major Disty.	4801	4878	4945	4881
2	Moth Minor	2323	2381	2419	2403
3	Sisai Minor	3041	2978	3031	2973
4	Bhatla Minor	2658	2892	2763	2901
5	Chanaut Sub Mr.	645	684	628	670
6	Bir Minor	2366	2472	2538	2556
7	Hansi Sub Minor	555	542	456	458
8	Goshala Minor	24	24	24	24
	Total of Hisar Major Dy. System	**16413**	**16851**	**16804**	**16866**

Annex 4.12

COMPARISON OF PRE LINING IRRIGATION & POST LINING IRRIGATION (WESTERN JAMUNA CANAL SYSTEM)

S. No.	Name of Channel	Irrigation before lining Average of 4 yrs. (in acres)	Irrigation after lining Average of 3 yrs. (in acres)	%age increase in irrigation
1.	Sardana Disty	7279	9333	28.2%
2.	Kakroi Disty	865	1180	36.4%
3.	1-R Rajpura Minor	1369	1402	13.1%
4.	2-R Rajpura Minor	587	635	8.1%
5.	Kowali Minor	1788	1746	(-) 2.3%
6.	Jatuala Minor	4427	4491	1.4%
7.	Bayanpur Minor	1076	1284	19.3%
8.	Munshi Ram Minor	1238	1350	9.2%
9.	Jua Disty Minor	4766	5457`	14.5%
10.	Sehri Sub Minor	2275	2355	3.5%
11.	Sonepat Disty	4753	4904	3.1%
12.	Kalupur Minor	657	772	17%
13.	Khanda Minor	1032	1027	-
14.	Bagru Minor	3101	4916	58.5%
15.	Badhana Minor	4388	4746	8.1%
16.	Thirana Minor	1708	1869	9.4%
17.	Untla Minor	2543	3046	19.8%
18.	Naultha Minor	3735	3929	5.2%
19.	Juara Minor	4944	5675	14.8%
20.	Mundlana Minor	382	379	-
21.	Bhalsi sub Minor	262	506	93.9%
22.	Idhyana sub Minor	684	812	18.7%
23.	Siwanka Minor	3709	3903	5.2%
24.	Chamrara Minor	1678	1982	18.1%
25.	Bichpari Disty	654	1992	204.6%
26.	Baroda Disty	2943	2971	-
27.	Chhara Minor	3620	5585	54.3%

28.	Lakaria Minor	275	427	55.3%
29.	Chhochi Minor	495	574	16.0%
30.	Birdhana Disty	514	569	10.7%
31.	Raya Minor	574	742	29.3%
32.	Karodha Minor	438	638	45.7%
33.	Bhutian Minor	1511	1516	0 .3%
34.	Dagarpur Minor	267	368	37.8%
35.	Bhiwani Disty	8647	9489	9.7%
36.	Bamla Minor	2490	4285	72%
37.	Balmba Minor	2683	2855	5.3%
38.	Badesra Minor	1297	1419	9.4%
39.	Chang Minor	1011	978	(-) 3.3%
40.	Naurangabad Minor	448	406	(-) 9.4%
41.	Paluwan Minor	643	678	5.4%
42.	Kharak Kalan Minor	1093	1519	39%
43.	Bond Disty	3419	5510	61.2%
44.	Rankoli Minor	380	630	65.8%
45.	Bhagwi Minor	91	214	168.1%

ANNEX - 4.13

FIELD STUDY OF SEEPAGE LOSSES BY INFLOW & OUTFLOW METHOD

S.No.	Name of Channel	Reach of Observation (ft.)	Authorised Full Supply Discharge (cs)	Type of Lining	Soil Characteristics	Losses in Earthen Section		Losses after lining cs/msq ft.	Total losses in unlined section	Total losses in lined section	Net Saving
						Losses as per empirical assumption cs/msq ft. As per Phasell project	Losses as per field observation cs/msq ft.				
1	2	3	4	5	6	7	8	9	10	11	12
1	I-L Samalkha	RD 3955-9000	39/43	Single layer brick lining laid in CM 1:3; 1/2" thick over 3/8" CP	Loamy	8.0	7.05	1.95	6.73	1.35	5.38
2	Bhainsiwal Disty (Lined)	RD 17500-20700	100	Single layer brick lining laid in CM 1:3; 1/2" thick over 3/8" CP	Loamy	8.0	-	2.142	11.51	2.77	8.74
3	Bhainsiwal Disty (Un Lined)	RD 35300-39500	-	Single layer brick lining laid in CM 1:3; 1/2" thick over 3/8" CP	Loamy	8.0	8.597	-	-	-	-
4	Banyani Mr (Lined)	RD 1000-5000	13.25	Single layer brick lining laid in CM 1:3; 1/2" thick over 3/8" CP	Loamy	8.0	-	2.315	0.81	0.24	0.57
5	Banyani Mr (Un Lined)	RD 7200-9600	-	Single layer brick lining laid in CM 1:3; 1/2" thick over 3/8" CP	Sandy Loam	8.0	7.83	-	-	-	-
6	Jakhaulic Disty (fed sirsa br) (Lined)	RD 33000-48000	148/163	Single layer brick lining laid in CM 1:3; 1/2" thick over 3/8" CP	Loamy	8.0	-	1.93	19.52	3.45	16.07
7	Jakhaulic Disty (fed sirsa br) (Un Lined)	RD 100-1100	-	Single layer brick lining laid in CM 1:3; 1/2" thick over 3/8" CP	Loamy	8.0	7.68	-	-	-	-
8	Sehiri S.Mr	RD 0 - 12000	7.63	Single layer brick lining laid in CM 1:3; 1/2" thick over 3/8" CP	Sandy	8.0	-	2.35	0.85	0.23	0.62

ANNEXURE - 4.14

STATEMENT SHOWING IMPROVEMENT IN WATER CONVEYANCE EFFICIENCY AFTER LINING OF CANAL

S. No	Name of Canal	WJC SYSTEM						
		Travel Time before Lining		Time taken after Lining		Saving in Time		Percentage Saving in Conveyance Time
		Hour	Minutes	Hour	Minutes	Hour	Minutes	
1.	Pai Disty (Head to Tail)	12	00	9	30	2	30	20.83
2.	Rajpura Disty (0 - Tail)	19	00	16	50	2	10	11.05
3.	Ganaur Disty (0 - Tail)	11	30	10	30	1	00	8.70
4.	Jua Disty (0 - Tail)	4	30	3	10	1	20	53.00
5.	Gurana Mr (0 - Tail)	10	00	6	45	3	15	35.50
6.	Siswal Pitch Disty (0 - Tail)	8	00	4	30	3	30	43.75

Annex - 4.15

STUDY OF IRRIGATION STATISTICS ON DABODA MINOR (RD O - 30389) IN VARIOUS REACHES

S.No.	Reach	Outlet	Authorised Discharge (Cusec)	Village	GA (Acres)	CCA	Irrigation Kharif 1999	Irrigation Rabi 1999-2000	Irrigation Kharif 2000	Irrigation Rabi 2000-2001	Total	Average	%
1	2	3	4	5	6	7	8		9	11	10	11	12
1	Head Reach	2500 R	0.52		457	216	156	111	128	101	496	248	115
		4950 R	0.76		327	318	102	93	88	93	376	188	59
		9800R	2.37		1063	984	318	298	341	312	1272	636	64
						4	0	3	0	0			
		9800 L	1.14		375	313	99	147	135	120	1006	503	106
					192	163	0	13	6	10			
2	Middle Reach	15745 L	1.04		202	169	33	27	14	38	473	236.5	55
					288	264	49	104	66	172			
		21200 R	0.81		40	35	3	13	1	17	291	145.5	43
					318	302	10	86	81	80			
		23085 R	1.09		195	176	7	43	0	0	201	100.5	17
					496	418	0	0	5	146			
3	Tail Reach	28240 R	0.67		288	278	7	5	10	28	50	25	9
		30389 / TR	3.25		1139	937	0	5	0	0	5	2.5	0.37
					481	418	0	0	0	0	0	0	0
		30389/TL	1.48		695	618	0	28	0	2	30	15	2.5

STATISTICS OF IRRIGATION FOR VARIOUS CROPS

Annex 4.16

CHANNEL WISE IRRIGATION FIGURES (IN HECT)

S.NO.	NAME OF CHANNEL	KHARIF 1998	RABI 98-99	TOTAL	KHARIF 1999	RABI 99-2K	TOTAL	KHARIF 2000	RABI 2000-2001	TOTAL	G.A.	C.C.A.
1	2	3	4	5	6	7	8	9	10	11	12	13
(DELHI WATER SERVICES DIVISION, DELHI)												
1	Delhi branch	2752	2841	6043	3349	2837	6186	2755	2801	5556	5302	4087
2	Delhi sub br.	1165	1217	2382	1496	1308	2748	1365	1314	2679	3597	2851
3	Holambi Mr.	124	112	236	117	112	229	135	107	242	1090	891
4	Nahri Major	283	311	594	274	334	608	260	200	460	2666	2298
5	Nahri Dy.	315	331	646	394	371	765	350	449	799	1944	1697
6	Turkpur Mr.	-	79	79	27	101	128	47	80	127	298	254
7	Lampur Mr.	619	568	1187	618	614	1232	603	638	1241	5461	4383
8	Mandori Mr.	107	136	243	131	148	279	120	154	274	387	373
9	Bawana Mr.	580	610	1190	603	612	1215	588	621	1209	1810	1437
10	Ochandi Mr.	385	633	1018	393	668	1061	333	584	917	2353	2044
11	Budhan Pur Mr.	166	414	580	200	433	633	164	437	601	1566	1323
12	Mundka Mr.	86	190	276	90	182	272	87	127	214	1839	1563
13	Sultanpur Mr.	137	407	544	166	654	820	183	555	738	5046	4097
14	Pai Dy.	2818	2152	4970	2677	2783	5460	2370	2738	5108	6862	5929
15	Jaunti Mr.	1047	1092	2139	1080	1341	2421	843	1159	2002	5461	4383
16	Bhari sub Mr.	296	481	771	323	702	1025	237	577	814	3902	3469
17	Nilothi Mr.	521	591	112	642	678	1220	523	776	1299	2547	2062
18	Sardana Sub Mr.	240	357	597	226	359	585	104	340	444	870	845

Annex 4.16

CHANNEL WISE IRRIGATION FIGURES (IN HECT)

S.NO.	NAME OF CHANNEL	KHARIF 1998	RABI 98-99	TOTAL	KHARIF 1999	RABI 99-2K	TOTAL	KHARIF 2000	RABI 2000-2001	TOTAL	G.A.	C.C.A.
1	2	3	4	5	6	7	8	9	10	11	12	13
(DELHI WATER SERVICES DIVISION, DELHI)												
19	Qutabgarh sub Mr.	76	85	161	81	132	213	53	134	187	610	540
20	Mohamadabad Mr.	246	204	450	209	257	466	188	268	456	1151	1061
21	Sonepat Dy.	838	793	1631	811	726	1537	707	690	1397	3971	3287
22	Kalu Pur Mr.	20	20	40	6	14	20	4	4	8	662	581
23	Juan Dy.	1292	939	2231	1193	1231	2424	1165	1224	2389	2665	2280
24	Bagru Mr.	819	497	1316	864	857	1721	524	694	1218	1875	1522
25	Bhadana Mr.	1175	1063	2238	827	1145	1972	852	1135	1987	2667	2246
26	Sisana Mr.	3653	3444	7097	3130	3732	6862	2680	3717	6397	9583	8488
27	Gorar Sub Mr.	240	361	601	185	322	507	105	471	576	393	360
28	Sehri sub Mr.	484	483	967	383	603	986	383	646	1029	1075	914
29	Salana sub Mr.	141	285	426	114	287	401	110	273	383	558	524
30	Gari Sisana Mr.	423	547	970	368	619	987	349	674	1023	1750	1502
31	Tihara Kalan Mr.	-	-	-	29	193	122	243	332	575	950	820
32	Sardana Dy.	1589	1538	3127	1481	1487	2968	1438	1378	2816	3904	3303
33	Seikhupura Mr.	421	399	820	366	364	730	358	368	725	1920	1715
34	Rajpura Disty.	1198	1052	2250	1198	1011	2209	1228	1016	2244	8653	7145
35	1-R, Rajpura Mr.	94	181	275	190	184	374	205	171	376	2488	2106
36	1-L, Rajpura Mr.	630	631	1261	565	537	1102	548	522	1070	9478	7958
37	2-R, Rajpura Mr.	114	89	230	110	107	217	99	94	193	1756	1401
38	Harsana Dy.	661	668	1329	788	786	1494	818	858	1676	4774	4090

Annex 4.16

CHANNEL WISE IRRIGATION FIGURES (IN HECT)

S.NO.	NAME OF CHANNEL	KHARIF 1998	RABI 98-99	TOTAL	KHARIF 1999	RABI 99-2K	TOTAL	KHARIF 2000	RABI 2000-2001	TOTAL	G.A.	C.C.A.
1	2	3	4	5	6	7	8	9	10	11	12	13
(DELHI WATER SERVICES DIVISION, DELHI)												
39	Kakroi Dy.	376	327	703	367	347	714	340	339	679	1268	1090
40	Bayanpur Minor	409	233	642	310	423	733	374	405	779	448	453
41	Munshi Ram Mr.	535	303	838	503	485	988	493	455	948	950	857
42	Ladpur Minor	217	186	403	229	215	444	190	202	392	781	663
43	Bindhnoli Mr.	262	230	492	269	225	494	222	227	449	436	406
44	Khanda Mr.	95	147	242	153	164	317	130	162	292	681	668
45	Kawali Mr.	218	185	403	206	227	433	192	194	386	1483	1303
46	Rohna Mr.	1528	1754	3282	1567	1911	3478	1415	1934	3349	4237	3860
47	Jatola Mr.	1169	1142	2311	1154	1240	2394	272	1092	2064	3423	2964
48	Sehoti Mr.	327	420	747	363	439	802	279	373	652	1602	1501
49	Ganaur Dy.	-	415	415	479	435	914	487	433	920	9164	7174
50	Smalkha Dy.	-	154	154	209	171	380	219	169	388	5229	4056
51	1-L, Smalkha Mr.	-	438	438	486	463	949	512	494	1006	18457	15614
52	Chulkana Mr.	-	234	234	285	249	534	265	213	478	3340	3001
53	G.W.S. Channel	-	-	-	-	-	-	-	487	487	-	-

Annex. 4.17

PERCENTAGE INCREASE IN INTENSITY OF IRRIGATION RESULTANT 1996-97 WATER MANAGEMENT DRIVE

RABI 1995-96 / RABI 1996 - 97 (Comparison)

S. No	Name of Circle / DVN	Rabi 1995-96		Rabi 1996-97		% age increase (+) or decrease (-)
		CCA (Ha)	Irri. (Ha)	CCA (Ha)	Irr. (Ha)	
1.	**YWS circle Y/nagar**					
	1. WS Division Dadupur	5449	2424	5449	3779	+29.12 %
2.	**YWS Circle Karnal**					
	1. Nardak W/s Karnal	103222	31284	103222	32692	+4.50 %
	2. Indri W/s Karnal	18589	2641	18589	2880	+ 9.04 %
	3. Panipat W/s Panipat	57052	20253	57052	21758	+ 7.43 %
	4. Samalkha W/s Panipat	27220	2683	27220	3180	+ 18.52 %
	TOTAL	**206083**	**56861**	**206083**	**63353**	**+ 6.41 %**
3.	**YWS Circle Jind**					
	1. WS DVN Jind	84404	48395	84404	48688	+ 0.60 %
	2. WS DVN Safidas	32266	11448	32266	11976	+ 4.61 %
	3. WS DVN Gohana	49645	20471	49645	20746	+1.34 %
	TOTAL	**166315**	**80314**	**166315**	**87002**	**+ 1.30 %**
4.	**YWS Circle Delhi**					
	1. WS DVN Delhi	47942	10178	47942	11886	+16.78 %
	2. Rani WS DVN Son	45327	10556	45327	12199	+ 15.56 %
	3. Sonepat WS DVN	23607	9991	23607	10503	+ 5.12 %
	4. Sonepat WS DVN S	**116876**	**80314**	**116876**	**39814**	**+1.36 %**
	TOTAL					
5.	**YWS Circle Faridabad**					
	WS DVN Faridabad	51617	4563	51617		
	WS DVN Palwal	24281	3314	24281	Total	+ 16.30 %
	WS DVN N	40721	7472	40721		
	TOTAL	**116619**	**15346**	**116619**		

Annex. 4.17A

CCA/AREA IRRIGATED AND INTENSITY OF IRRIGATION

(Figures in Hectares)

ON WESTERN JAMUNA CANAL SYSTEM & COMPARISION WITH OTHER SYSTEM

Name of Crop	Bhakra Canals	W.J.C.	Gurgaon Canal	Jul Canal	Loharu Canal	Sewani Canal	JLN. Incl. Jhajjar Lift Scheme	Naggal Lift Scheme	Total
C.C.A.	**1,166,398**	**1,084,028**	**130,588**	**30,160**	**106,715**	**73,563**	**249,901**	**23,200**	**2,864,553**
Kharif 1966	348,078	227,982							576,060
Rabi 1966-67	443,406	273,677							717,083
Total	**791,484**	**501,659**	**-**	**-**	**-**	**-**	**-**	**-**	**1,293,143**
Intensity	68%	46%							45%
Kharif 1985	472,762	294,042	3,434	3,191	930	4,475	1,317	4,427	784,578
Rabi 1985-86	634,629	464,601	9,684	10,489	5,671	13,196	6,412	4,322	1,149,364
Total	**1,107,391**	**758,643**	**13,118**	**13,680**	**6,601**	**17,671**	**7,729**	**8,749**	**1,933,942**
Intensity	95%	70%	10%	46%	6%	24%	3%	38%	67%
Kharif 1986	519,575	342,916	4,972	3,427	2,641	5,750	5,434	4,475	889,190
Rabi 1986-87	622,600	432,204	12,410	10,853	7,228	13,224	12,096	3,965	1,114,580
Total	**1,142,175**	**775,120**	**17,382**	**14,280**	**9,869**	**18,974**	**17,530**	**8,440**	**2,003,770**
Intensity	98%	72%	13%	47%	9%	26%	7%	36%	70%
Kharif 1987	499,079	328,997	6,654	4,140	3,499	6,918	5,655	5,318	860,260
Rabi 1987-88	572,709	382,588	15,815	6,748	7,059	8,817	17,974	6,906	1,020,616
Total	**1,071,788**	**711,585**	**22,469**	**10,888**	**10,558**	**15,735**	**23,629**	**12,224**	**1,880,876**
Intensity	92%	66%	17%	36%	12%	21%	9%	53%	66%
Kharif 1988	495,882	314,180	7,399	3,986	2,495	6,458	2,963	6,064	839,427
Rabi 1988-89	610,157	436,357	16,521	9,929	12,893	12,138	14,382	6,552	1,118,929
Total	**1,106,039**	**750,537**	**23,920**	**13,915**	**15,388**	**18,596**	**17,345**	**12,616**	**1,958,356**
Intensity	95%	61%	18%	46%	14%	25%	7%	54%	68%
Kharif 1989	514,495	327,238	7,752	3,728	3,877	5,087	4,829	6,570	873,576
Rabi 1989-90	627,671	445,070	16,679	8,971	11,389	11,115	22,267	6,279	1,149,441
Total	**1,142,166**	**772,308**	**24,431**	**12,699**	**15,266**	**16,202**	**27,096**	**12,849**	**2,023,017**
Intensity	98%	71%	19%	42%	14%	22%	11%	55%	71%
Kharif 1990	517,135	339,445	7,053	3,293	1,813	4,702	2,329	6,790	882,560
Rabi 1990-91	615,250	417,534	15,877	6,727	6,111	10,921	10,969	6,246	1,089,635
Total	**1,132,385**	**756,979**	**22,930**	**10,020**	**7,924**	**15,623**	**13,298**	**13,036**	**1,972,195**
Intensity	97%	70%	17%	33%	7%	21%	5%	56%	69%
Kharif 1991	525,390	337,491	8,499	3,344	3,073	4,944	4,253	6,849	893,843
Rabi 1991-92	643,595	406,713	16,426	6,873	10,547	8,649	18,393	6,397	1,117,593
Total	**1,168,985**	**744,204**	**24,925**	**10,217**	**13,620**	**13,593**	**22,646**	**13,246**	**2,011,436**
Intensity	100%	68%	19%	34%	13%	18%	9%	57%	70%
Kharif 1992	550,379	345,637	8,037	1,993	2,748	3,323	3,028	7,003	922,148
Rabi 1992-93	636,849	424,687	15,382	5,749	7,613	9,004	11,956	6,506	1,117,746
Total	**1,187,228**	**770,324**	**23,419**	**7,742**	**10,361**	**12,327**	**14,984**	**13,509**	**2,039,894**
Intensity	102%	71%	18%	26%	1%	17%	6%	58%	71%
Kharif 1993	550,823	339,416	7,721	2,667	2,851	4,276	3,481	7,003	918,238
Rabi 1993-94	628,898	399,458	16,176	9,712	4,638	10,643	12,261	6,861	1,088,647
Total	**1,179,721**	**738,874**	**23,897**	**12,379**	**7,489**	**14,919**	**15,742**	**13,864**	**2,006,885**
Intensity	101%	68%	18%	41%	7%	20%	6%	6%	70%

Annex. 4.18

PROGRESSIVE INCREASE IN IRRIGATION

WESTERN JAMUNA CANAL - HARYANA & LIFT CANAL SYSTEM

CULTIVABLE COMMANDED AREA / IRRIGATION ACHIEVED (Ha)

CCA	WJC 10,84,028	Gurgaon Canal 13,05,88	JUI 30160	Loharu 106715	Sewani 73563	JLN Project 249901
IRRIGATION						
Kharif 66	227982	-	-	-	-	-
Rabi 66-67	273677					
Total	501659					
Intensity	46 %	-	-	-	-	-
Kharif 85	294042	3434	3191	930	4475	1317
Rabi 85-86	464601	9684	10849	5671	13196	6412
Total	745643	13118	14040	6601	17671	7729
Intensity	70%	10%	46%	6%	24%	3%
Kharif 89	327638	7752	3728	3877	5078	4829
Rabi 89-90	445270	16679	8971	11389	11115	22267
Total	772908	24431	24431	15266	1620	27096
Intensity	71%	19%	12699	14%	22%	11%
Kharif 91	337491	8489	3344	3073	4944	4253
Rabi 91-92	406713	16244	6873	10547	8649	18393
Total	744204	24925	10297	13620	13593	22646
Intensity	71%	19%	34%	13%	18%	9%
Kharif 93	339416	7721	2667	2851	4276	3481
Rabi 93-94	399458	16176	9712	4638	10643	12261
Total	738874	23897	12379	7489	14919	15742
Rabi 93-94	68%	18%	41%	7%	20%	6%

Annex. 4.19

LAKES / STORAGE TANKS IN WESTERN JAMUNA CANAL COMMAND

LOCATION OF LAKE/STORAGE TANK	STORAGE CAPACITY Million Cubic M (Acre-ft)	FULL LAKE / POND LEVEL (M)
Bibipur Lake	85.66(35041)	198.12
Raoli Kameda Bund	97.78(40000)	215.55
Kotla Bund	195.56 (80000)	211.13
Bhindawas Lake	52.55 (21500)	189.02
Masani Barrage	376.44 (154000)	216.77

Annex. 4.20

MAIN DRAINS DISCHARGING INTO RIVER YAMUNA
WESTERN JAMUNA CANAL TRACT

DRAIN	CAPACITY CUMECS (CUSECS)	LENGTH IN K.M.	OUTFALL
Main Drain No.2	110.04 (3930)	31.46	Yamuna
Drain No. 8	43.04 (1537)	83.80	Outfall Drain Bhindawas Take
Outfall Drain 8	112.00 (4000)	42.60	Dhasa/Najafgarh Jheel
Diversion Drain No. 8	204.96(7320)	70.10	Yamuna
KCB Drain	19.376(792)	42.38	Mangeshpur Drain
Nai Nallah Drain	62.748(2241)	40.55	Drain No. 8
West Jua Drain	14.00 (500)	6.25	Margeshpur Drain
Ujina Diversion Drain	50.40/78.40 (1900/2800)	39.03	Gaunchi Drain
Ujina Drain	61.60 (2200)	35.36	Out of 2200 Cs 1800 Cs diverted to UDD & 400 Cs to Khaluka Regulator (as per inter-state agreement)
Nuh Drain	38.136 (1362)	31.85	UDD
Chandeni Drain	11.90(425)	19.26	Nuh Drain
Gaunchi Main Drain	186.34(6655)	73.45	River Yamuna