

REPUBLIC OF THE PHILIPPINES

THE FEASIBILITY STUDY
ON
THE IMPROVEMENT OF OPERATION AND MAINTENANCE
IN
PUMPING IRRIGATION SYSTEMS

ANNEXES

VOLUME II

ANNEX-I OPERATION AND MAINTENANCE MANUAL FOR
THE LIBMANAN-CABUSAO PUMP IRRIGATION SYSTEM

JANUARY, 1989

JAPAN INTERNATIONAL COOPERATION AGENCY

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LIST OF REPORTS

Main Text

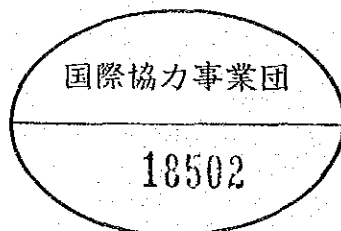
Annexes

Volume I

- A : Selection of the High Priority Projects**
- B : Meteorology and Hydrology**
- C : Irrigation and Drainage**
- D : Agriculture and Agro-Economy**
- E : System Management**
- F : Project Cost and Implementation Schedule for
the Pump Systems**
- G : Project Evaluation**
- H : Mini-Hydropower Development**

Volume II

- I : Operation and Maintenance Manual for the
Libmanan-Cabusao Pump Irrigation System**



ANNEX-I

**OPERATION AND MAINTENANCE MANUAL FOR
THE LIBMANAN-CABUSAO PUMP IRRIGATION SYSTEM**

PREFACE

This paper is prepared for practical approach on the operation and maintenance of irrigation and drainage facilities in the firmied-up service area (1,838 ha) of the Libmanan-Cabusao Pump Irrigation System as an interim measure for a more sophisticated operation and maintenance in future. The O&M procedures provided herein should be revised periodically on the basis of accumulated experience.










The operation rules are established for a rotational irrigation at system level with the specially introduced method which is proposed in the feasibility study on the improvement of operation and maintenance in pumping irrigation systems by JICA.

The O&M manual consists of two parts. The Part-I describes rules for all the irrigation systems covering from the pump to terminal irrigation facilities as well as the drainage system. The Part-II states especially about rules for on-farm irrigation and drainage systems in a rotation area.






Appendix-1 is a guideline on technical practices needed for proper distribution of irrigation water. Appendix-2 describes modified articles to be applied in case the maximum service area (3,085 ha) will be used instead of the firmied-up service area (1,838 ha).

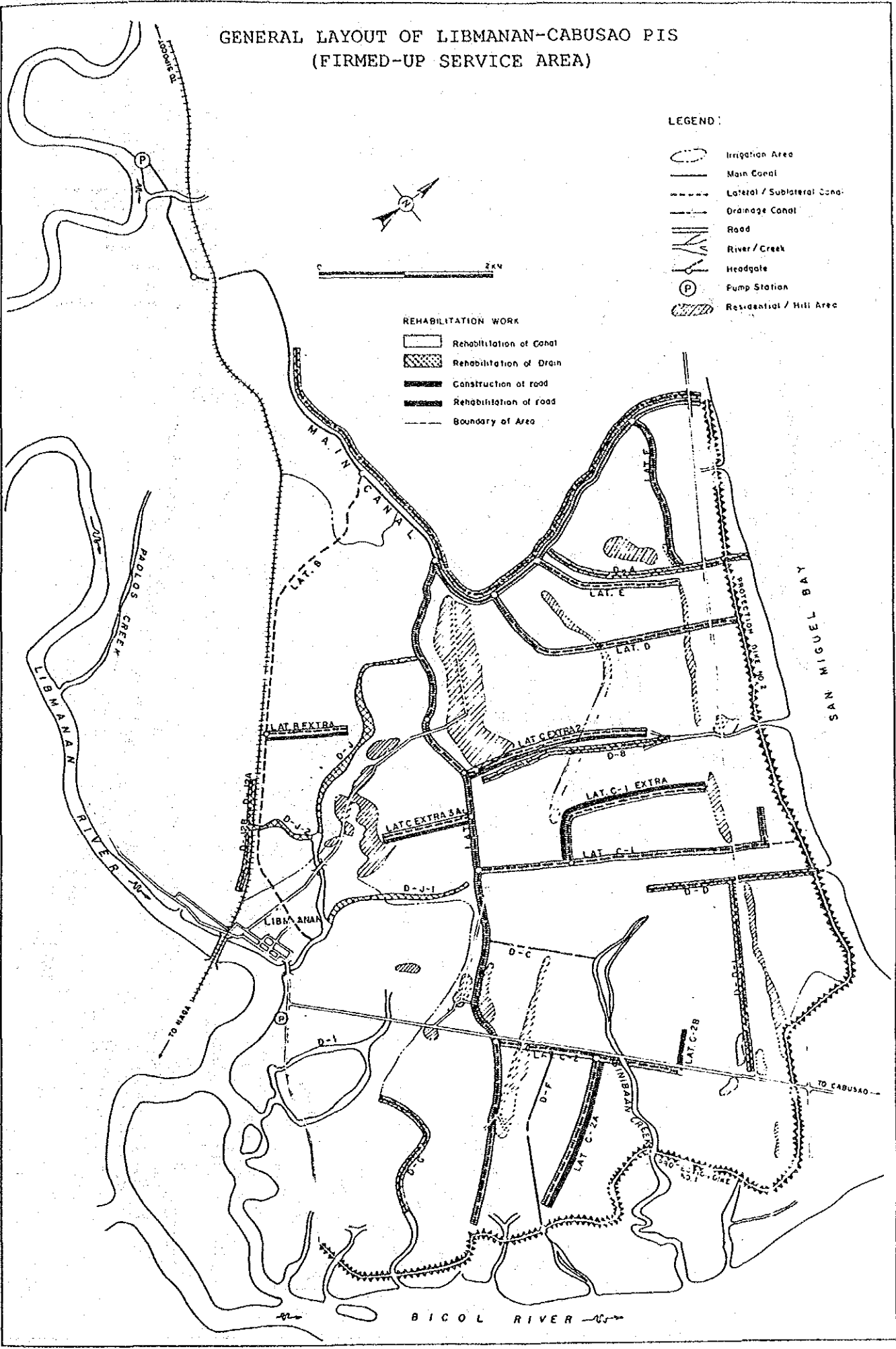
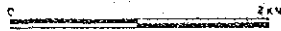
GENERAL LAYOUT OF LIBMANAN-CABUSAO PIS (FIRMED-UP SERVICE AREA)

LEGEND:

-  Irrigation Area
-  Main Canal
-  Lateral / Sublateral Canal
-  Drainage Canal
-  Road
-  River / Creek
-  Headgate
-  Pump Station
-  Residential / Hill Area










REHABILITATION WORK

-  Rehabilitation of Canal
-  Rehabilitation of Drain
-  Construction of road
-  Rehabilitation of road
-  Boundary of Area








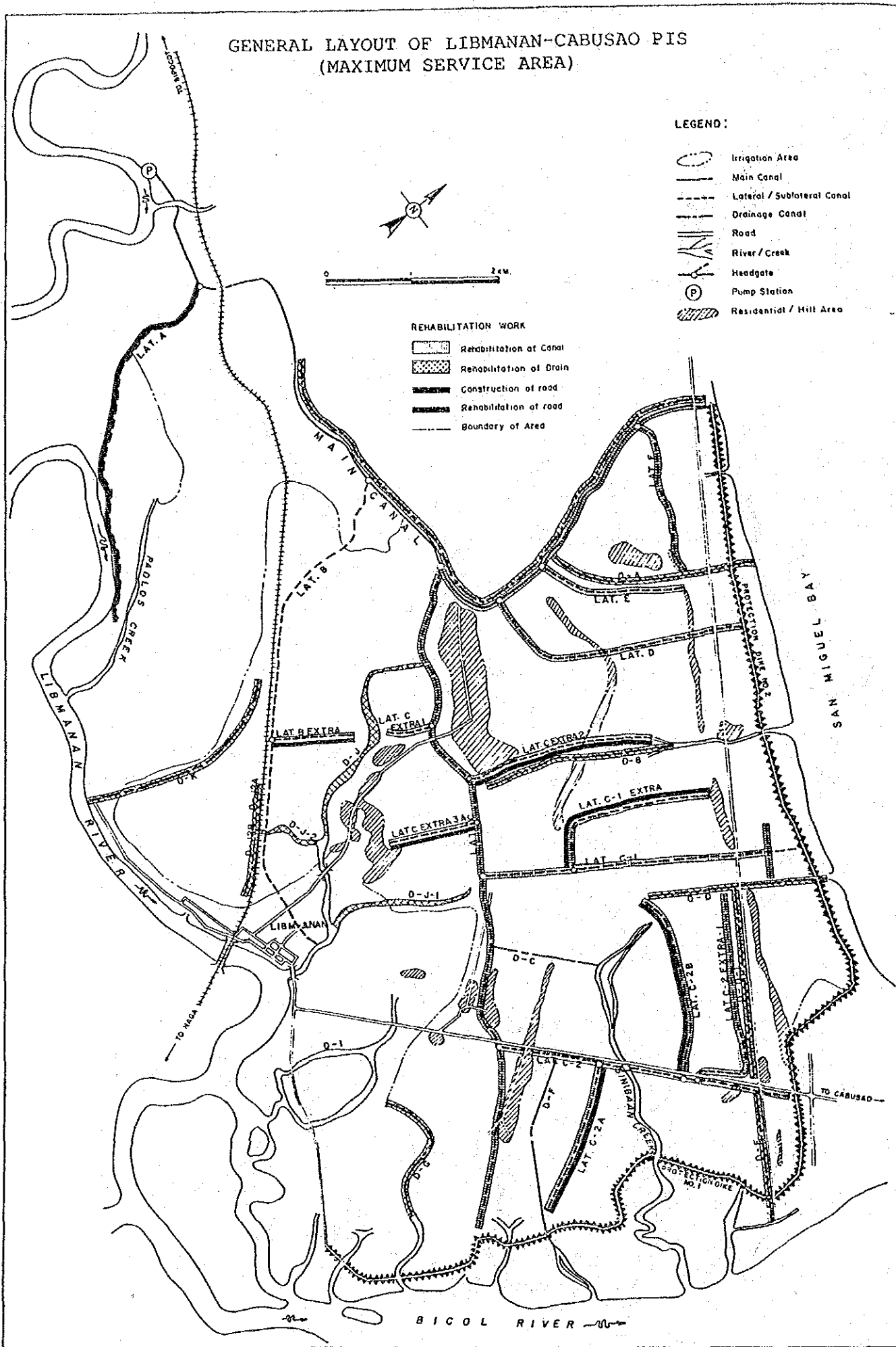
GENERAL LAYOUT OF LIBMANAN-CABUSAO PIS (MAXIMUM SERVICE AREA)

LEGEND:

-  Irrigation Area
-  Main Canal
-  Lateral / Sublateral Canal
-  Drainage Canal
-  Road
-  River / Creek
-  Headgate
-  Pump Station
-  Residential / Hill Area

REHABILITATION WORK

-  Rehabilitation at Canal
-  Rehabilitation of Drain
-  Construction of road
-  Rehabilitation of road
-  Boundary of Area



ANNEX - I

OPERATION AND MAINTENANCE MANUAL FOR
THE LIBMANAN-CABUSAO PUMP IRRIGATION SYSTEM

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DEFINITIONS

Gross field requirement	Gross water requirement at a turnout including on-farm irrigation losses. It is also called as Turnout water requirement.
Headgate	A diversion structure related to main canal or lateral canal to divert irrigation water from main to lateral or from lateral to sublateral. It is located at the head of main or lateral or sublateral canal.
Irrigation block	A unit of a rotational distribution of water. An irrigation block consists of several rotation areas. In an irrigation block, water distribution is made in the same schedule.
Main facilities	Irrigation facilities from the pump station to turnouts. They are composed of the pump station, the main canal, lateral & sublateral canals, and their related structures such as checks, headgates, turnouts and etc. As for drainage facilities, the main facilities are main drains, lateral drains and their related structures. The operation and maintenance of the main facilities are executed by the system office.
Normal irrigation	Irrigation to be executed after transplanting until full drainage at 2 weeks before harvest.
On-farm facilities	Irrigation facilities such as farm ditches and their related structures in a rotation area commanded by a turnout. The turnout is not included in the on-farm facilities. As for drainage facilities, on-farm ones are farm drains and their related structures. The operation and maintenance of the on-farm facilities are executed by farmers.
Rotation area	An on-farm irrigation block commanded by a turnout. In a rotation area, all the operation and maintenance works are conducted by farmers on their own responsibilities.
Rotation block	An irrigation block in which water distribution is rotationally executed in the same period. A rotation block is composed of one or several irrigation blocks. The composition of a rotation block is changed depending upon the irrigation stages such as land soaking, land preparation and normal irrigation.
Turnout	A diversion structure related to main canal or lateral or sublateral canal to divert irrigation water to a rotation area.

**PART - 1 MANUAL FOR OPERATION AND MAINTENANCE OF
IRRIGATION AND DRAINAGE SYSTEMS**

CHAPTER - 1 GENERAL PROVISIONS

Article - 1 These provisions provided hereunder shall be applied for operation and maintenance of irrigation and drainage facilities in the Libmanan-Cabusao Pump Irrigation System. Irrigation and drainage facilities for operation and maintenance

<u>Irrigation Facilities</u>	<u>Number</u>
Pumps	4 nos.
Main canal	1 no.
Lateral canals (Lat.B, Lat.C, Lat.D, Lat.E, Lat.F)	5 nos.
Sublateral canals (Lat.B-Ext., Lat.C-Ext.1, Lat.C-Ext.2, Lat.C-Ext.3, Lat.C-1, Lat.C-2, Lat.C-1-Ext.1, Lat.C-2A, Lat.C-2B)	9 nos.
Canal related structures	280 nos.

<u>Drainage Facilities</u>	<u>Number</u>
Main drains (D-A, D-B, D-C, D-D, D-E, D-F, D-G, D-H, D-I, D-J, D-K)	11 nos.
Lateral drains (D-D-1, D-J-1, D-J-2)	3 nos.
Canal related structures	140 nos.

Article - 2 The operation and maintenance of irrigation and drainage facilities is: Purpose

- (1) To distribute irrigation water properly and increase irrigation benefit from the system with rehabilitated improvement facilities,
- (2) To increase irrigation efficiency and minimize pump operation cost.

Article - 3 The rotational distribution method of irrigation water at system level shall be applied under the discontinuous pump operation. Distribution method of irrigation water

Article - 4 The irrigation plans such as annual irrigation plan and seasonal irrigation plan shall be prepared in accordance with the cropping pattern and calendar which shall be approved by the municipal agriculture offices in Libmanan and Cabusao. The irrigation plans and water distribution schedule shall be announced to farmers by the system office at least one week before the scheduled date of starting irrigation.

Irrigation plan
and water
distribution
schedule

Article - 5 Suspension and resumption of irrigation at the certain depth of rainfall shall be executed in accordance with the irrigation suspension schedule to be prepared based upon the daily rainfall observation record. The irrigation suspension schedule shall be announced occasionally to farmers by the system office.

Irrigation
suspension
schedule

CHAPTER - 2 ORGANIZATION

Article - 6 The Libmanan-Cabusao Pump Irrigation System Office shall be responsible for operation of the system. The organization chart of the system is shown in Fig. I.1. Organization responsible for system

Article - 7 The O&M Section in the System Office shall be in charge of operation and maintenance for facilities such as pumps, main and lateral & sublateral irrigation canals, main and lateral drains, and their related structures. Organization responsible for main facilities

(1) Superintendent shall check and approve all the operation and maintenance activities to be executed by the staffs, namely 2 watermasters, 1 pump operators and 9 ditchtenders, of the O&M Section.

(2) The watermasters shall perform the following works.

- Preparation of cropping pattern and calendar.
- Preparation of annual irrigation plan and seasonal irrigation plan.
- Preparation of water distribution schedule.
- Observation of rainfall.
- Preparation of irrigation suspension schedule and information to the pump operator and ditchtenders.
- Analysis of all the data about paddy cropping, harvest and irrigation condition reported by ditchtenders.
- Preparation of maintenance and repair plan of facilities in the system.
- Report to the superintendent of all the operation and maintenance activities.

(3) The pump operator shall conduct the following works.

- Pump operation according to the water distribution schedule informed by the watermaster.
- Discharge measurement at the parshall flume located just downstream point of the pump station.
- Determination of numbers of pumps to be operated and their operation hours based on the discharge measurement results.
- Pump operation according to the irrigation suspension schedule informed by the watermaster.
- Inspection of pump equipments and report to the watermaster of the inspection results.
- Execution or supervision of maintenance and repair works according to the maintenance and repair plan prepared by the watermaster.

(4) The ditchtenders shall executed the following works.

- Information to farmers of the cropping pattern and calendar.
- Information to farmers of the annual irrigation plan and the seasonal irrigation plan.
- Information to farmers of the water distribution schedule.
- Information to farmers of the irrigation suspension schedule.
- Inspection and record about the paddy cropping, harvest and irrigation condition. The data shall be reported to the watermaster.
- Inspection and record about maintenance condition of facilities in the system. The inspection results shall be reported to the watermaster.
- Discharge measurement at diversion points such as headgates and turnouts. The results shall be reflected to gate operation.
- Instruction of gate operation to persons in charge.

- Execution or supervision of maintenance and repair works according to the maintenance and repair plan prepared by the watermaster.
- Guidance to farmers of on-farm irrigation activities in the rotation areas.

Article - 8	<p>(1) Farmers in a rotation area shall be responsible for operation and maintenance of irrigation and drainage canals and their related structures in the rotation area under guidance of the O&M Section in the System Office.</p> <p>(2) For facilities in a rotation area after handed over from the System Office to irrigator's associations or irrigator's group/compact farms, the irrigator's associations or the others shall be responsible for operation and maintenance.</p>	<p>Organization responsible for on-farm facilities</p>
Article - 9	<p>The municipal agriculture offices in Libmanan and Cabusao shall be responsible for agricultural extension services.</p>	<p>Organization responsible for agricultural extension services</p>
Article - 10	<p>The provincial office and the municipal offices which will govern irrigator's associations or irrigator's group/compact farms in rotation areas shall be responsible for mobilization of the irrigator's associations or the others and shall observe the responsibilities for their operation in cooperation with the System Office.</p>	<p>Organization responsible for mobilization of irrigator's associations</p>
Article - 11	<p>The Administrative Section in the System Office shall be in charge of billing of irrigation service fee in cooperation with the O&M Section in the System Office. The O&M Section shall be in charge of distribution of bills and statements of account and of collection of irrigation service fee.</p>	<p>Organization responsible for irrigation service fee collection</p>
Article - 12	<p>The administrative Section in the System Office shall be in charge of administrative works in the System Office.</p>	<p>Organization responsible for administration</p>

- Article - 13
- (1) Coordination to farmers or irrigator's associations on operation and maintenance matters shall be made by the O&M Section in the System Office. Coordination among organizations
 - (2) Coordination to farmers or irrigator's associations on agricultural extension service shall be made through the municipal agriculture office in Libmanan or Cabusao by the O&M Section in the System Office.
 - (3) Coordination to farmers or irrigator's associations on irrigation service fee collection matters shall be made by the O&M Section in the System Office.
 - (4) Coordination to the provincial office and the municipal office shall be made by the O&M Section in the System Office.
 - (5) Coordination to the regional office shall be made by the superintendent in the System Office.

CHAPTER - 3 OPERATION OF IRRIGATION

- Article - 14
- (1) Operation of irrigation shall be made based on the distribution schedule of irrigation water. The distribution schedule shall be prepared on the weekly basis. Water distribution schedule
- (2) A distribution schedule of irrigation water shall consist of the following:
- a. Required discharge to be pumped up from the Libmanan river and pump operation time.
 - b. Required discharge and operation time of respective head gates and turnout gates in the main canal.
 - c. Required discharge and operation time of respective headgates and turnout gates in lateral & sublateral canals.
 - d. Required discharge to be passed down through respective check gates in the main canal, lateral & sublateral canals and their operation time.
- (3) Method of preparing the distribution schedule of irrigation water is given in Chapter 4.

- Article - 15
- Operation of pumps shall be made according to the following principles: Operation of pumps
- (1) Weekly diversion schedule for the pump operation shall be regularly informed to the pump operator by a watermaster at every weekend.
 - (2) Starting time of pump operation shall be fixed at 1:00 in the midnight. Stopping time shall be adjusted depending on the daily diversion requirement, but not later than 18:00 in the evening.
 - (3) The daily diversion requirement at the pump station shall be confirmed to a pump operator through radio from a watermaster of the O&M Section in the System Office at 11:30 every morning. The diversion discharge shall be adjusted at 12:00 according to the diversion requirement.

- (4) Pump operation shall be made in connection to measurement of diversion discharge with the parshall flume to meet the diversion requirement. The discharge measurement shall be made twice a day at 8:00 and 12:00. The measuring method is shown in Appendix-1.1.
- (5) Discharge control shall be made not only by number of pump units to be operated but also by their operation hours. All units necessary to be operated shall be operated at the capacity simultaneously so that, if for example three units have been started, these three shall be stopped at the same time. Relation among the diversion requirement, the number of pumps to be operated and the pump operation hours is shown in Table I-2.
- (6) In case of suspending water delivery due to effective rainfall, pump operation shall be made in compliance with an occasional order. The occasional order shall be based on the daily suspension schedule as mentioned in Article-18.

Article - 16

- (1) The main, lateral & sublateral canals and their related structures shall be operated according to the distribution schedule of irrigation water to be prepared on the basis of weekly rotation at system level.
- (2) Three kinds of irrigation practices shall be adopted depending on the irrigation stage. The first is for the land soaking, the second is for the land preparation and the third is for the normal irrigation after transplanting. The irrigation blocks for each irrigation practice shall be established as follows:

Operation of main and lateral & sublateral facilities

i) For the land soaking stage

Block-LS1	225.1 ha
Block-LS2	237.4 ha
Block-LS3	240.6 ha
Block-LS4	223.3 ha
Block-LS5	237.8 ha
Block-LS6	246.1 ha
Block-LS7	231.5 ha
Block-LS8	195.8 ha
Total	1,837.6 ha

ii) For the land preparation stage

Block-LP1	225.1 ha
Block-LP2	237.4 ha
Block-LS3-1	56.1 ha
Block-LS3-2	184.5 ha
Block-LS4-1	83.6 ha
Block-LS4-2	139.7 ha
Block-LS5-1	206.4 ha
Block-LS5-2	31.4 ha
Block-LS6-1	169.9 ha
Block-LS6-2	76.2 ha
Block-LS7-1	110.5 ha
Block-LS7-2	121.0 ha
Block-LS8-1	21.4 ha
Block-LS8-2	174.4 ha
Total	1,837.6 ha

iii) For the normal irrigation stage

Irrigation blocks shall be same as those for the land preparation. While, the rotation blocks shall be as follows:

Block-A	518.6 ha
Block-B	776.3 ha
Block-C	542.7 ha
Total	1,837.6 ha

(3) Programmed water distribution days for respective irrigation blocks shall be as follows:

i) For the land soaking

Block-LS1	1st week (7 days)
Block-LS2	2nd week (7 days)
Block-LS3	3rd week (7 days)
Block-LS4	4th week (7 days)
Block-LS5	5th week (7 days)
Block-LS6	6th week (7 days)
Block-LS7	7th week (7 days)
Block-LS8	8th week (7 days)

ii) For the land preparation

Block-LP1	2nd-4th weeks (21 days)
Block-LP2	3rd-4th weeks (14 days) 5th week (2 days, Mon. Tue.)
Block-LP3-1	4th week (7 days) 5th-6th weeks (4 days, Mon. Tue.)
Block-LP3-2	4th week (7 days) 5th-6th weeks (6 days, Wed. Thu. Fri.)
Block-LP4-1	5th-7th weeks (9 days, Wed. Thu. Fri.)
Block-LP4-2	5th-7th weeks (6 days, Sat. Sun.)
Block-LP5-1	6th-8th weeks (9 days, Wed. Thu. Fri.)
Block-LP5-2	6th-8th weeks (6 days, Sat. Sun.)
Block-LP6-1	7th-9th weeks (9 days, Wed. Thu. Fri.)
Block-LP6-2	7th-9th weeks (6 days, Sat. Sun.)
Block-LP7-1	8th-10th weeks (9 days, Wed. Thu. Fri.)
Block-LP7-2	8th-10th weeks (6 days, Sat. Sun.)
Block-LP8-1	9th-11th weeks (9 days, Wed. Thu. Fri.)
Block-LP8-2	9th-11th weeks (6 days, Sat. Sun.)

iii) For the normal irrigation

After the land preparation and transplanting, the normal irrigation shall be performed rotationally for 13 weeks as follows:

Block-A	2 days per week (Mon. Tue.)
Block-B	3 days per week (Wed. Thu. Fri.)
Block-C	2 days per week (Sat. Sun.)

- (4) Operation of checks and headgates shall be made on every ending day of water delivery period, namely on Tuesday, Thursday and Sunday. Taking into account the travelling time of canal flow, the gate operation time is tentatively decided and shown in Table I-2.

- (5) Gate opening heights of checks, headgates and turnouts shall be fixed at the rates which shall be determined for the respective irrigation stages by reflecting the discharge measurement results to be obtained for various opening heights.
- (6) Opening the gates of checks, headgates and turnouts shall be inspected by ditchtenders, and the discharges be measured by reading staff gauges once a day between 8:00 and 12:00.

Article - 17 The on-farm facilities in rotation areas shall be operated by farmers or irrigator's associations according to the Part-II "MANUAL FOR OPERATION AND MAINTENANCE OF ON-FARM IRRIGATION AND DRAINAGE SYSTEMS".

Operation of on-farm facilities

- Article - 18
- (1) During operation, if it rains in a day, or rains continuously for two or more days, the water delivery can be suspended or adjusted. The irrigation water supply shall be temporarily shut down for the next day/days according to the daily suspension schedule depending on the amount of rainfall.
 - (2) The daily suspension schedule shall be prepared by a watermaster in the O&M Section in the System Office using the rainfall record at the System Office. The calculation method is shown in Appendix-1.2.
 - (3) The rainfall observation shall be made by a watermaster in the O&M Section at 8:00 every morning and recorded in the attached Form I.1.
 - (4) The daily suspension order shall be informed to a pump operator in the pump station by a watermaster in the O&M Section at 11:30 in the morning with radio. The information to farmers or irrigator's associations shall be made by watermasters through ditchtenders between 13:00 and 15:00.

Suspension of water delivery

CHAPTER - 4 PREPARATION AND EXECUTION OF WATER DISTRIBUTION SCHEDULE

Article - 19	The programmed cropping pattern and calender in the system is illustrated in Fig. I.2.	Programmed cropping pattern and calender
Article - 20	The programmed planting acreage of paddy in each rotation area in the system are shown in Table I.3.	Programmed acreage of paddy
Article - 21	Gross field requirements, so-called turnout water requirements, in each irrigation stage prepared in accordance with the programmed cropping pattern, calender and planting acreage are shown in Table I.3.	Gross field requirement
Article - 22	Diversion water requirements at the pump station and headgates in each irrigation stage are shown in Table I.4.	Diversion water requirement at pump station and headgates
Article - 23	The programmed water distribution schedule is shown in Table I.5.	Programmed water distribution schedule
Article - 24	The flow diagram of the system in each irrigation stage prepared based on the programmed water distribution schedule is shown in Fig. I.3.	Programmed flow diagram
Article - 25	(1) After irrigation is started, the actual cropping calendar and acreage of paddy planted to land in each rotation area shall be surveyed weekly. If the actual ones will be different from the proposed, the proposed cropping calendar and planting acreage shall be updated after all the transplanting will be finished and the acreage be fixed. (2) The programmed water distribution schedule shall be modified based on the updated cropping calendar and planting acreage.	Updating cropping calendar and planting acreage Updating water distribution schedule

Article - 26 The water requirement at a turnout commanding a rotation area, namely gross field requirement so-called turnout water requirement, shall be calculated as follows:

Calculation of gross field requirement

$$\left(\begin{array}{c} \text{Gross} \\ \text{field} \\ \text{requirement} \end{array} \right) = \left(\begin{array}{c} \text{Unit gross} \\ \text{field} \\ \text{requirement} \end{array} \right) \times \left(\begin{array}{c} \text{Acreage of} \\ \text{a rotation} \\ \text{area} \end{array} \right)$$

Unit gross field requirements in respective irrigation stages are shown in Table I.6.

Article - 27 The diversion water requirements at the pump station and headgates, so-called headgate water requirements, shall be calculated as follows:

Calculation of diversion water requirements at pump station and headgates

$$\left(\begin{array}{c} \text{Diversion} \\ \text{water} \\ \text{requirement} \\ \text{at the pump} \\ \text{station or} \\ \text{a headgate} \end{array} \right) = \left(\begin{array}{c} \text{Total gross} \\ \text{field} \\ \text{requirement} \\ \text{for} \\ \text{rotation areas} \\ \text{being} \\ \text{irrigated} \end{array} \right) \times \left(\begin{array}{c} \text{Coef-} \\ \text{ficient} \\ \text{for} \\ \text{irriga-} \\ \text{tion} \\ \text{loss} \end{array} \right)$$

Calculation formulas for diversion water requirements at the pump station and headgates are shown in Table I.7.

Article - 28 The calculation result of required diversion discharges at respective turnouts and headgates mentioned in Article-26 and -27 shall be compiled into the water distribution schedule consisting of Tables I.3, I.4, I.5.

Preparation of water distribution schedule

Article - 29 The water distribution schedule shall be shown in the flow diagram such as Fig. I.3.

Preparation of flow diagram

Article - 30 The daily suspension schedule of water delivery shall be prepared at every certain rainfall. The suspension days of irrigation water supply to each irrigation block varies depending on the water supply to the block for the week having been finished or not at the time when effective rainfall is obtained. The calculation shall be made using Form I.2. The calculation method is shown in Appendix-1.2.

Preparation of daily suspension schedule of water delivery

- | | | |
|--------------|--|--|
| Article - 31 | <ul style="list-style-type: none"> (1) A watermaster in the O&M Section of the System Office shall be responsible for updating cropping calendar and planting acreage of paddy mentioned in Article-25(1). (2) A watermaster in the O&M Section shall be responsible for updating water distribution schedule mentioned in Article-25(2). (3) Leaders of farmers or irrigator's associations shall be responsible to survey the actual planting acreage of paddy in their respective rotation areas. (4) A watermaster in the O&M Section shall be responsible for preparation of the daily suspension schedule of water delivery. | <p>Organization responsible for preparation of water distribution schedule and daily suspension schedule</p> |
| Article - 32 | <ul style="list-style-type: none"> (1) The starting date of water distribution shall be decided by the System Office. (2) The water distribution schedule shall be announced by the System Office one week before the starting date of water distribution. (3) A sign board shall be erected at all the sites of headgates and turnouts. Items posted on the sign board shall be renewed for next week operation at every week end. The items posted shall be as follows: <ul style="list-style-type: none"> a. Starting and ending days of water delivery. b. Rotation area or irrigation block/blocks to be irrigated by a turnout or a headgate. c. Planting acreage in the rotation area or irrigation block/blocks. d. Required discharge at the turnout or headgate and gate opening height. e. Gate opening time and day, and gate closing time and day. Form I.3 shall be used. | <p>Execution of water distribution schedule and daily suspension schedule</p> |

(4) Gate operation shall be executed as follows:

- a. Gate operation of headgates and checks relating to the headgates operation shall be performed by the ditchtenders in the O&M Section.
- b. Gate operation of turnouts and checks relating to the turnouts operation shall be conducted by gatekeepers selected from farmers living near the gate sites.
- c. The gatekeepers shall be selected by farmers and necessary to be accepted by the system office. Subsidy to the gatekeepers shall be born by farmers or irrigator's association.
- d. Watermasters in the O&M Section shall notify, through ditchtenders, the gatekeepers on delivery of water. The gatekeepers shall operate the gates of turnouts and relating checks according to the water distribution schedule under the guidance of ditchtenders.
- e. Watermasters in the O&M Section shall notify, through ditchtenders, the gatekeepers on suspension schedule of water delivery. The gatekeepers shall operate the gates of turnouts and relating checks according to the suspension schedule of water delivery.
- f. Ditchtenders in the O&M Section shall notify leaders of farmers or irrigator's associations in respective rotation areas of the water delivery and suspension.

Article - 33

- (1) Ditchtenders shall inspect their respective main, lateral & sublateral canals and related structures. They shall be informed by leaders of farmers or irrigator's associations of the water delivery situation in respective rotation areas. They shall take necessary measures for the main facilities and advise the necessary measures for the on-farm facilities, if the situation goes wrong.
- (2) The ditchtenders shall report to watermasters in the O&M Section of the water delivery situation in their respective irrigation blocks. The water masters shall take necessary measures if the situation goes wrong.
- (3) The watermasters shall report to the superintendent in the System Office of the water delivery situation in the whole system.

Inspection and
report of water
delivery
situation

CHAPTER - 5 OPERATION OF DRAINAGE

- Article - 34 Drainage systems in the area are gravity ones, and so the excess water is drained automatically. Automatic operation
- Article - 35 Regular inspection shall be made in the following way: Inspection
- (1) For main and lateral drains, the inspection shall be made by ditch tenders in the O&M Section of the System Office once a week in the wet season and once a month in the dry season.
 - (2) In the inspection, special attention shall be paid to flow condition of cross drains.
- Article - 36 Any kind of object which obstructs the water flow in drains and their related structures shall be removed immediately after the inspection by the O&M Section. Clearing of object obstructing drainage flow

CHAPTER - 6 REPAIR AND MAINTENANCE

- Article - 37 Repair and maintenance of the following facilities shall be made in either force account basis or contract basis by the O&M Section in the System Office. It means that the O&M Section will entrust private firms or farmers with the repair and maintenance works as occasion demands.
- Organization responsible for repair and maintenance.
- (1) Pumps, main canal, lateral & sublateral canals, and their related structures.
 - (2) Main drains, lateral drains, and their related structures.
- Article - 38 The O&M Section shall technically assist farmers or irrigator's associations in the repair and maintenance of on-farm facilities as occasion demands.
- Assistance for repair and maintenance of on-farm facilities
- Article - 39 Any damage in canal section, which will result in obstruction of irrigation or drainage water flow, shall be repaired on-the-spot immediately by the O&M Section.
- On-the-spot repair
- Article - 40 Routine maintenance shall mean day-to-day maintenance of canals and structures to keep them always in workable condition.
- Routine maintenance
- (1) Floating debris shall be well cleared at inlet of the tunnel, the cut & cover, and the other all structures such as culvert, cross drain, etc. Floating debris at gates of check, headgate and turnout also shall be well cleared.
 - (2) The moving part of gate lifting devices shall be well greased.
 - (3) Repairing any unexpected damage happened to any small structure shall be conducted as occasion requires.

Article - 41 Regular maintenance shall mean periodical maintenance to be executed with fixed certain interval.

Regular maintenance of canal bank and service road

- (1) Embankment of irrigation and drainage canals shall be maintained and repaired twice a year. The time for maintenance work shall be selected in the month prior to starting each cropping season.
- (2) Grasses on canal inside surface shall be well cleared to keep smooth flow condition. The time for the maintenance work be same as the above.
- (3) Silt in the inlet channel and the suction pit of the pump station shall be well cleared. Silt in canals and their related structures such as measuring devices and crossing structures also shall be well cleared. The time for the maintenance work shall be made monthly and additionally as occasion demands.
- (4) Inspection roads shall be maintained after a wet season once a year.

CHAPTER - 7 IRRIGATED AGRICULTURE

- | | | |
|--------------|--|--|
| Article - 42 | The cropping pattern and calendar prepared by the O&M Section in the System Office shall be discussed and approved by the municipal agriculture offices in Libmanan and Cabusao. Fig. I.4 "Relation between the System Office and other institutional organizations" shows the relationship of the System Office to the municipal agriculture offices. | Approval of cropping pattern and calendar |
| Article - 43 | The cropping pattern and calendar, after the approval, shall be executed by farmers or irrigator's associations under the guidance of the O&M Section. Part-II "MANUAL FOR OPERATION AND MAINTENANCE OF ON-FARM IRRIGATION AND DRAINAGE SYSTEMS" gives the details. | Execution of cropping pattern and calendar |
| Article - 44 | Agricultural extension services regarding seed, fertilizer, cultural method and disease control shall be made directly to farmers or irrigator's associations by the municipal agriculture offices in Libmanan and Cabusao. | Agricultural extension services |

CHAPTER - 8 MONITORING AND RECORD

- Article - 45 Daily observation of rainfall shall be made by a watermaster in the O&M Section at the rainfall station in the System Office site. The observation time shall be at 8:00 every morning. The magnitude of rainfall shall be recorded in Form I.1. Rainfall observation
- Article - 46 A leader of farmers or irrigator's association in a rotation area shall make observation of the varieties, planting date, planting acreage and growing condition of paddy in different growing stages under the guidance of the O&M Section. The results of observation shall be recorded in Form I.4, and be submitted to the O&M Section through ditchtenders. Observation and recording of paddy cropping
- Article - 47 Ditchtenders in the O&M Section shall record of all the operation and maintenance activities to be taken. Form I.5 shall be used for recording the operation activities such as discharge control and measurement, and Form I.6 be used for recording the maintenance activities. Operation and maintenance records
- Article - 48 The O&M Section shall systematically compile all the records to be resulted in by implementing irrigation and drainage in the system. Compilation of records

CHAPTER - 9 OTHER PROVISIONS

- Article - 49 (1) Swimming in main and lateral canals Safety of life is strictly prohibited.
- (2) Washing and bathing are only allowed in washing steps to be provided on the inner side slope at selected places of canals.
- Article - 50 Private vehicles and public transportation are not allowed to use service roads without any permission given by the System Office. Use of service roads
- Article - 51 Water buffalo and other animals are not allowed to enter into canals. Washing of the water buffalo and the other animals is only allowed in animal washing basins to be provided on the inner side at selected places of canals. Washing of water buffalo and other animals
- Article - 52 Use of the outer side slopes of canal for cultivation is strictly prohibited. Use of outer side slopes of canal
- Article - 53 Private installation of turnouts and/or outlets on the main, lateral & sublateral canals and/or on-farm ditches is illegal and is strictly prohibited. Private installation of turnout and outlet
- Article - 54 (1) The O&M Section in the System Office shall be responsible to execute the provisions mentioned in Article-49, 50, 51, 52 and 53 for main, lateral & sublateral irrigation and drainage canals. Execution of provisions
- (2) Farmers or irrigator's associations shall be responsible to execute the provisions mentioned in Article-53 for on-farm ditches.

Table. I-1 RELATION AMONG DIVERSION REQUIREMENT,
NUMBER OF PUMPS TO BE OPERATED AND
PUMP OPERATION HOURS

Diversion Requirement (m ³ /s)	Nos. of Pumps (Nos.)	Operation Hours (hrs.)
0.20	1	3
0.40	1	6
0.60	1	9
0.80	1	12
1.00	1	15
1.20	2	9
1.40	2	10
1.60	2	12
1.80	2	13
2.00	2	15
2.20	2	16
2.40	3	12
2.60	3	13
2.80	3	14
3.00	3	15
3.20	3	16
3.40	3	17
3.60	4	13
3.80	4	14
4.00	4	15
4.20	4	15
4.40	4	16
4.60	4	17

Note. The above diversion requirement is that for 17 hours/day pump operation.

The pump operation hours are those for capacity operation at the low water level. So, the discharge increases when water level is higher than the low water.

Table.I-2 GATE OPERATION TIME (1/2)

Operation Time	Gates to be operated
13:00	Main Canal Check gate Lat.B Headgate Lat.B
14:00	Lat.B Canal All gates located from B.P.to headgate Lat.B-Ext. Main Canal Check gate Lat.C Headgate Lat.C Turnout gate MCSP-3
15:00	Lat.B Canal All gates located from turnout BSP-2 to turnout B-6 Lat.B-Ext. Canal All gates Lat.C Canal All gates located from B.P.to headgate Lat.C-Ext.1 Main Canal Check gate Lat.D, Lat.E Headgate Lat.D, Lat.E Lat.C Canal All gates located from headgate Lat.C-Ext.2 to check gate Lat.C-1 Lat.C-Ext.2 Canal All gates Lat.C-Ext.3 Canal All gates Lat.D Canal All gates Lat.E Canal All gates

Table.I-2 GATE OPERATION TIME (2/2)

Operation Time	Gates to be operated
16:00	Main Canal All gates located from turnout MCSP-1 to E.P. Lat.C Canal All gates located from turnout C-7 to check gate Lat.C-2. Lat.C-1 Canal All gates located from B.P.to check gate C1-2. Lat.C-1-Ext.1 Canal All gates located from B.P.to turnout C1X1-2. Lat.F Canal All gates 17:00 Lat.C Canal All gates located from turnout C-14 to E.P. Lat.C-1 Canal All gates located from turnout C1-3 to E.P. Lat.C-1-Ext.1 Canal All gates located from turnout C1X1-3 to E.P. Lat.C-2 Canal All gates Lat.C-2A Canal All gates Lat.C-2B Canal All gates

Table I-3 GROSS FIELD REQUIREMENT (1/12)

(i) Land soaking (1/3)

Name of Turnout	Command Area (ha)	Distribution Days	Requirement (l/s)	
			Wet Season	Dry Season
1st Week				
Block-LS1				
Main Canal	14.9	7	67.8	22.6
MOSP-3				
Lat.B Canal	16.8	7	76.4	25.5
B-1	57.2	7	260.3	85.9
B-2	26.9	7	122.4	40.9
B-3	20.8	7	94.6	31.6
Lat.C Canal				
C-2	20.1	7	91.5	30.6
C-3	31.3	7	142.4	47.6
C-4	17.3	7	78.7	26.3
Lat.C-Ext.1 Canal				
CX1-1	19.8	7	90.1	30.1
Total Area	225.1			
2nd Week				
Block-LS2				
Lat.B Canal				
B-4	29.9	7	136.0	45.4
BX-1	50.7	7	230.7	77.1
BSP-1	8.9	7	40.5	13.5
BSP-2	27.5	7	125.1	41.8
BXSP-1	2.6	7	11.8	4.0
B-6	13.2	7	60.1	20.1
Lat.B-Ext. Canal				
BX-2	17.4	7	79.2	26.4
BX-3	8.5	7	38.7	12.9
Lat.C Canal				
C-5	8.3	7	37.8	12.6
C-6	29.3	7	133.3	44.5
Lat.C-Ext.2 Canal				
CX2-1	15.7	7	71.4	23.9
CX2-2	25.4	7	115.6	38.6
Total Area	237.4			
3rd Week				
Block-LS3				
Lat.C Canal				
CSP-1	16.6	7	75.5	25.2
Lat.C-Ext.3 Canal				
CX3A-2	21.8	7	99.2	33.1
CX3A-1	17.7	7	80.5	26.9
Lat.C-1 Canal				
CX3-2	25.2	7	114.7	38.3
C1-1	31.5	7	143.3	47.9
C1-2	40.1	7	182.5	61.0

Table I-3 GROSS FIELD REQUIREMENT (2/12)

(i) Land soaking (2/3)

Name of Turnout	Command Area (ha)	Distribution Days	Requirement (l/s)	
			Wet Season	Dry Season
4th Week				
Block-LS4				
Lat.C Canal				
C-7	14.5	7	66.0	22.0
C-9	5.9	7	26.8	9.0
C-8	28.5	7	129.7	43.3
C-10	8.8	7	40.0	13.4
C-11	18.2	7	82.8	27.7
C-13	7.7	7	35.0	11.7
Lat.C-1 Canal				
C1-3	47.3	7	215.2	71.9
Lat.C-1-Ext.1 Canal				
CX1-3	40.1	7	182.5	61.0
CX1-4	52.3	7	238.0	79.5
Total Area	223.3			
5th Week				
Block-LS5				
Lat.C Canal				
C-12	6.1	7	27.8	9.3
CSP-2	5.9	7	26.8	9.0
Lat.C-1-Ext.1 Canal				
CX1-6	31.4	7	142.9	47.7
Lat.D Canal				
D-2	41.9	7	190.6	63.7
D-1	21.9	7	99.6	33.3
D-3	41.3	7	187.9	62.8
Lat.E Canal				
E-1	48.5	7	220.7	73.7
E-2	40.8	7	185.6	62.0
Total Area	237.8			
6th Week				
Block-LS6				
Main Canal				
MOSP-1	8.2	7	37.3	12.5
MC-1	20.6	7	93.7	31.3
MC-2	11.4	7	51.9	17.3
Lat.C Canal				
C-16	26.5	7	120.6	40.3
Lat.C-2 Canal				
C2-1	9.7	7	44.1	14.7
C2SP-1	9.4	7	42.8	14.3

Table I-3 GROSS FIELD REQUIREMENT (3/12)

Name of Turnout	Command Area (ha)	Distribution Days	Requirement (l/s)	
			Wet Season	Dry Season
(i) Land soaking (3/3)				
Lat.C-2A Canal				
C2A-3	15.4	7	70.1	23.4
C2ASP-1	15.2	7	69.2	23.1
Lat.D Canal				
D-4	51.5	7	234.3	78.3
D-5	26.7	7	121.5	40.6
Lat.E Canal				
E-3	5.0	7	22.8	7.6
E-4	22.2	7	101.0	33.7
Lat.F Canal				
F-1	24.3	7	110.6	36.9
Total Area	246.1			
7th Week				
Block-LS7				
Main Canal				
MCSP-2	9.4	7	42.8	14.3
Lat.C Canal				
C-14	37.8	7	172.0	57.5
Lat.C-1 Canal				
C1SP-2	18.0	7	81.9	27.4
C1-4	35.8	7	162.9	54.4
Lat.C-2A Canal				
C2A-1	29.4	7	133.8	44.7
Lat.D Canal				
DSP-1	24.2	7	110.1	36.8
D-6	49.1	7	223.4	74.6
Lat.F Canal				
F-2	27.8	7	126.5	42.3
Total Area	231.5			
8th Week				
Block-LS8				
Lat.C Canal				
C-15	5.4	7	24.6	8.2
CX4-2	24.8	7	112.8	37.7
CX4-1	19.9	7	90.5	30.2
C-18	32.8	7	149.2	49.9
Lat.C-2 Canal				
C2-2	18.8	7	85.5	28.6
Lat.C-2A Canal				
C2A-2	2.5	7	11.4	3.8
C2ASP-2	27.3	7	124.2	41.5
Lat.C-2B Canal				
C2B-1	42.9	7	195.2	65.2
Lat.F Canal				
F-3	15.2	7	69.2	23.1
F-4	5.2	7	28.2	9.4
Total Area	195.8			

Table I-3 GROSS FIELD REQUIREMENT (4/12)

Name of Turnout	Command Area (ha)	Distribution Days	Requirement (l/s)	
			Wet Season	Dry Season
(ii) Land Preparation (1/5)				
Block-LP1				
Main Canal				
MCSP-3	14.9	21	18.0	16.1
Lat.B Canal				
BSP-3	16.8	21	20.3	18.1
B-1	57.2	21	69.2	61.8
B-2	26.9	21	32.5	29.1
B-3	20.8	21	25.2	22.5
Lat.C Canal				
C-2	20.1	21	24.3	21.7
C-3	31.3	21	37.9	33.8
C-4	17.3	21	20.9	18.7
Lat.C-Ext.1 Canal				
CX1-1	19.8	21	24.0	21.4
Total Area	225.1			
Block-LP2				
Lat.B Canal				
B-4	29.9	14	36.2	32.3
BX-1	50.7	14	61.3	54.8
BSP-1	8.9	14	10.8	9.6
BSP-2	27.5	14	33.3	29.7
BIXSP-1	2.6	14	3.1	2.8
B-6	13.2	14	16.0	14.3
Lat.B-Ext. Canal				
BX-2	17.4	14	21.1	18.8
BX-3	8.5	14	10.3	9.2
Lat.C Canal				
C-5	8.3	14	10.0	9.0
C-6	29.3	14	35.5	31.6
Lat.C-Ext.2 Canal				
CX2-1	15.7	14	19.0	17.0
CX2-2	25.4	14	30.7	27.4
Total Area	237.4			

Table.I-3 GROSS FIELD REQUIREMENT (5/12)

(ii) Land Preparation (2/5)				Requirement(l/s)	
Name of Turnout	Command. Area (ha)	Distribution Days		Wet Season	Dry Season
Block-LP2					
5th Week					
Mon. Tue.					
Lat.B Canal					
B-4	29.9	2		126.8	113.3
BX-1	50.7	2		215.0	192.2
BSP-1	8.9	2		37.7	33.7
BSP-2	27.5	2		116.8	104.2
BIXSP-1	2.6	2		11.0	9.9
B-6	13.2	2		56.0	50.0
Lat.B-Ext. Canal					
BX-2	17.4	2		73.8	65.9
BX-3	8.5	2		36.0	32.2
Lat.C Canal					
C-5	8.3	2		35.2	31.5
C-6	29.3	2		124.2	111.0
Lat.C-Ext.2 Canal					
CX2-1	15.7	2		66.6	59.5
CX2-2	25.4	2		107.7	96.3
Total Area	237.4				
Block-LP3-1					
4th Week					
Lat.C Canal					
CSP-1	16.6	7		20.1	17.9
Lat.C-Ext.3 Canal					
CX3A-2	21.8	7		26.4	23.5
CX3A-1	17.7	7		21.4	19.1
Total Area	56.1				
5th-6th Weeks					
Mon. Tue.					
Lat.C Canal					
CSP-1	16.6	4		70.4	62.9
Lat.C-Ext.3 Canal					
CX3A-2	21.8	4		92.4	82.6
CX3A-1	17.7	4		75.0	67.1
Total Area	56.1				
Block-LP3-2					
4th Week					
Lat.C-1 Canal					
CIX2-2	25.2	7		30.5	27.2
C1-1	31.5	7		38.1	34.0
C1-2	40.1	7		48.5	43.3
Lat.C-1-Ext.1 Canal					
CIX1-1	55.7	7		67.4	60.2
CIX1-2	32.0	7		38.7	34.6
Total Area	184.5				

Table.I-3 GROSS FIELD REQUIREMENT (6/12)

(ii) Land Preparation (3/5)				Requirement(l/s)	
Name of Turnout	Command. Area (ha)	Distribution Days		Wet Season	Dry Season
Block-LP3-2					
5th-6th Weeks					
Wed. Thu. Fri.					
Lat.C-1 Canal					
CIX2-2	25.2	6		71.3	63.8
C1-1	31.5	6		89.1	79.7
C1-2	40.1	6		113.5	101.5
Lat.C-1-Ext.1 Canal					
CIX1-1	55.7	6		157.6	140.9
CIX1-2	32.0	6		90.6	81.0
Total Area	184.5				
Block-LP4-1					
5th-7th Week					
Wed. Thu. Fri.					
Lat.C Canal					
C-7	14.5	9		41.0	36.7
C-9	5.9	9		16.7	14.9
C-8	28.5	9		80.7	72.1
C-10	8.8	9		24.9	22.3
C-11	18.2	9		51.5	46.0
C-13	7.7	9		21.8	19.5
Total Area	83.6				
Block-LP4-2					
5th-7th Weeks					
Sat. Sun.					
Lat.C-1 Canal					
C1-3	47.3	6		200.6	179.3
Lat.C-1-Ext.1 Canal					
CIX1-3	40.1	6		170.0	152.0
CIX1-4	52.3	6		221.8	198.2
Total Area	139.7				
Block-LP5-1					
6th-8th Weeks					
Wed. Thu. Fri.					
Lat.C Canal					
C-12	6.1	9		17.3	15.4
CSP-2	5.9	9		16.7	14.9
Lat.D Canal					
D-2	41.9	9		118.6	106.0
D-1	21.9	9		62.0	55.4
D-3	41.3	9		116.9	104.5
Lat.E Canal					
E-1	48.5	9		137.3	122.7
E-2	40.8	9		115.5	103.2
Total Area	206.4				

Table I-3 GROSS FIELD REQUIREMENT (7/12)

Name of Turnout	Command Area (ha)	Distribution Days	Requirement (l/s)	
			Wet Season	Dry Season
(ii) Land Preparation (4/5)				
Block-LP5-2		5th-8th Weeks Sat. Sun.	133.1	119.0
Lat.C-1-Ext.1 Canal				
CIXI-6	31.4	6		
Total Area	31.4			
Block-LP6-1		7th-9th Weeks Wed. Thu. Fri.		
Main Canal				
MCSP-1	8.2	9	23.2	20.7
MC-1	20.6	9	58.3	52.1
MC-2	11.4	9	32.3	28.8
Lat.D Canal				
D-4	51.5	9	145.7	130.3
D-5	26.7	9	75.6	67.6
Lat.E Canal				
E-3	5.0	9	14.2	12.7
E-4	22.2	9	62.8	56.2
Lat.F Canal				
F-1	24.3	9	68.8	61.5
Total Area	169.9			
Block-LP6-2		7th-9th Weeks Sat. Sun.		
Lat.C Canal				
C-16	26.5	6	112.4	100.4
Lat.C-2 Canal				
C2-1	9.7	6	41.1	36.8
C2SP-1	9.4	6	39.9	35.6
Lat.C-2A Canal				
C2A-3	15.4	6	65.3	58.4
C2ASP-1	15.2	6	64.4	57.6
Total Area	76.2			
Block-LP7-1		8th-10th Weeks Wed. Thu. Fri.		
Main Canal				
MCSP-2	9.4	9	26.6	23.8
Lat.D Canal				
DSP-1	24.2	9	68.5	61.2
D-6	49.1	9	139.0	124.2
Lat.F Canal				
F-2	27.8	9	78.7	70.3
Total Area	110.5			

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Table I-3 GROSS FIELD REQUIREMENT (8/12)

Name of Turnout	Command Area (ha)	Distribution Days	Requirement (l/s)	
			Wet Season	Dry Season
(ii) Land Preparation (5/5)				
Block-LP7-2		8th-10th Weeks Sat. Sun.		
Lat.C Canal				
C-14	37.8	6	160.3	143.3
Lat.C-1 Canal				
CISP-2	18.0	6	76.3	68.2
CI-4	35.8	6	151.8	135.7
Lat.C-2A Canal				
C2A-1	29.4	6	124.7	111.4
Total Area	121.0			
Block-LP8-1		9th-11th Weeks Wed. Thu. Fri.		
Lat.F Canal				
F-3	15.2	9	43.0	38.5
F-4	6.2	9	17.5	15.7
Total Area	21.4			
Block-LP8-2		9th-11th Weeks Sat. Sun.		
Lat.C Canal				
C-15	5.4	6	22.9	20.5
CX4-2	24.8	6	105.2	94.0
CX4-1	19.9	6	84.4	75.4
C-18	32.8	6	139.1	124.3
Lat.C-2 Canal				
C2-2	18.8	6	79.7	71.3
Lat.C-2A Canal				
C2A-2	2.5	6	10.6	9.5
C2ASP-2	27.3	6	115.8	103.5
Lat.C-2B Canal				
C2B-1	42.9	6	181.9	162.6
Total Area	174.4			

Table I-3 GROSS FIELD REQUIREMENT (9/12)

(iii) Normal Irrigation (1/4)				Requirement (l/s)	
Name of Turnout	Command Area (ha)	Distribution Days	Wet Season	Dry Season	
Block-NI1					
5th-17th Weeks Mon. Tue.					
Main Canal					
MCSP-3	14.9	26	58.7	88.7	
Lat.B Canal					
BSP-3	16.8	26	66.2	100.0	
B-1	57.2	26	225.4	340.3	
B-2	26.9	26	106.0	160.1	
B-3	20.8	26	82.0	123.8	
Lat.C Canal					
C-2	20.1	26	79.2	119.6	
C-3	31.3	26	123.3	186.2	
C-4	17.3	26	68.2	102.9	
Lat.C-Ext.1 Canal					
CX1-1	19.8	26	78.0	117.8	
Total Area	225.1				
Block-NI2					
6th-18th Weeks Mon. Tue.					
Lat.B Canal					
B-4	29.9	26	117.8	177.9	
BX-1	50.7	26	199.8	301.7	
BSP-1	8.9	26	35.1	53.0	
BSP-2	27.5	26	108.4	163.6	
BXSP-1	2.6	26	10.2	15.5	
B-6	13.2	26	52.0	78.5	
Lat.B-Ext. Canal					
BX-2	17.4	26	68.6	103.5	
BX-3	8.5	26	33.5	50.6	
Lat.C Canal					
C-5	8.3	26	32.7	49.4	
C-6	29.3	26	115.4	174.3	
Lat.C-Ext.2 Canal					
CX2-1	15.7	26	61.9	93.4	
CX2-2	25.4	26	100.1	151.1	
Total Area	237.4				
Block-NI3-1					
7th-19th Weeks Mon. Tue.					
Lat.C Canal					
CSP-1	16.6	26	65.4	98.8	
Lat.C-Ext.3 Canal					
CX3A-2	21.8	26	85.9	129.7	
CX3A-1	17.7	26	69.7	105.3	
Total Area	56.1				

Table I-3 GROSS FIELD REQUIREMENT (10/12)

(iii) Normal Irrigation (2/4)				Requirement (l/s)	
Name of Turnout	Command Area (ha)	Distribution Days	Wet Season	Dry Season	
Block-NI3-2					
7th-19th Weeks Wed. Thu. Fri.					
Lat.C-1 Canal					
CIX2-2	25.2	39	66.3	100.0	
C1-1	31.5	39	82.8	125.1	
C1-2	40.1	39	105.5	159.2	
Lat.C-1-Ext.1 Canal					
CIX1-1	55.7	39	146.5	221.1	
CIX1-2	32.0	39	84.2	127.0	
Total Area	184.5				
Block-NI4-1					
8th-20th Week Wed. Thu. Fri.					
Lat.C Canal					
C-7	14.5	39	38.1	57.6	
C-9	5.9	39	15.5	23.4	
C-8	28.5	39	75.0	113.1	
C-10	8.8	39	23.1	34.9	
C-11	18.2	39	47.5	72.3	
C-13	7.7	39	20.3	30.6	
Total Area	83.6				
Block-NI4-2					
8th-20th Weeks Sat. Sun.					
Lat.C-1 Canal					
C1-3	47.3	26	186.4	281.4	
Lat.C-1-Ext.1 Canal					
CIX1-3	40.1	26	158.0	238.6	
CIX1-4	52.3	26	206.1	311.2	
Total Area	139.7				
Block-NI5-1					
9th-21st Weeks Wed. Thu. Fri.					
Lat.C Canal					
C-12	6.1	39	16.0	24.2	
CSP-2	5.9	39	15.5	23.4	
Lat.D Canal					
D-2	41.9	39	110.2	166.3	
D-1	21.9	39	57.5	86.9	
D-3	41.3	39	108.6	164.0	
Lat.E Canal					
E-1	48.5	39	127.6	192.5	
E-2	40.8	39	107.3	162.0	
Total Area	206.4				

Table I-3 GROSS FIELD REQUIREMENT (11/12)

(iii) Normal Irrigation (3/4)				Requirement (l/s)	
Name of Turnout	Command Area (ha)	Distribution Days		Wet Season	Dry Season
Block-NI5-2 9th-21st Weeks					
		Sat. Sun.		123.7	186.8
Lat.C-1-Ext.1 Canal		26			
C1J-6	31.4				
Total Area	31.4				
Block-NI6-1 10th-22nd Weeks					
		Wed. Thu. Fri.			
Main Canal					
NCSP-1	8.2	39		21.6	32.6
MC-1	20.6	39		54.2	81.8
MC-2	11.4	39		30.0	45.3
Lat.D Canal					
D-4	51.5	39		135.4	204.5
D-5	26.7	39		70.2	106.0
Lat.E Canal					
E-3	5.0	39		13.2	19.9
E-4	22.2	39		58.4	88.1
Lat.F Canal					
F-1	24.3	39		63.9	96.5
Total Area	169.9				
Block-NI6-2 10th-22nd Weeks					
		Sat. Sun.			
Lat.C Canal					
C-16	26.5	26		104.4	157.7
Lat.C-2 Canal					
C2-1	9.7	26		38.2	57.7
C2SP-1	9.4	26		37.0	55.9
Lat.C-2A Canal					
C2A-3	15.4	26		60.7	91.6
C2ASP-1	15.2	26		59.9	90.4
Total Area	76.2				
Block-NI7-1 11th-23rd Weeks					
		Wed. Thu. Fri.			
Main Canal					
MCSP-2	9.4	39		24.7	37.3
Lat.D Canal					
DSP-1	24.2	39		63.6	96.1
D-6	49.1	39		129.1	194.9
Lat.F Canal					
F-2	27.8	39		73.1	110.4
Total Area	110.5				

Table I-3 GROSS FIELD REQUIREMENT (12/12)

(iii) Normal Irrigation (4/4)				Requirement (l/s)	
Name of Turnout	Command Area (ha)	Distribution Days		Wet Season	Dry Season
Block-NI7-2 11th-23rd Weeks					
		Sat. Sun.			
Lat.C Canal					
C-14	37.8	26		148.9	224.9
Lat.C-1 Canal					
C1SP-2	18.0	26		70.9	107.1
C1-4	35.8	26		141.1	213.0
Lat.C-2A Canal					
C2A-1	29.4	26		115.8	174.9
Total Area	121.0				
Block-NI8-1 12th-24th Weeks					
		Wed. Thu. Fri.			
Lat.F Canal					
F-3	15.2	39		40.0	60.3
F-4	6.2	39		16.3	24.6
Total Area	21.4				
Block-NI8-2 12th-24th Weeks					
		Sat. Sun.			
Lat.C Canal					
C-15	5.4	26		21.3	32.1
CX4-2	24.8	26		97.7	147.6
CX4-1	19.9	26		78.4	118.4
C-18	32.8	26		129.2	195.2
Lat.C-2 Canal					
C2-2	18.8	26		74.1	111.9
Lat.C-2A Canal					
C2A-2	2.5	26		9.9	14.9
C2ASP-2	27.3	26		107.6	162.4
Lat.C-2B Canal					
C2B-1	42.9	26		169.0	255.3
Total Area	174.4				

Note. All the above gross field requirements in respective irrigation stages are those for 17 hours/day pump operation.

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (1/19)

1st Week	Diversion Requirement (m ³ /s)							
	Name of Headgate	Command Area (ha)	Wet Season			Dry Season		
			Mon.	Tue.	Sun.	Mon.	Tue.	Sun.
Pump Station		1837.6	1.38	1.38	1.38	0.46	0.46	0.46
Main Canal								
HG-Lat.B								
Lat.B		280.4	0.64	0.64	0.64	0.21	0.21	0.21
Main		1557.2	0.64	0.64	0.64	0.21	0.21	0.21
HG-Lat.C								
Lat.C		1046.1	0.46	0.46	0.46	0.15	0.15	0.15
Main		496.2	0.00	0.00	0.00	0.00	0.00	0.00
HG-Lat.D								
Lat.D		256.6						
Main		239.6						
HG-Lat.E								
Lat.E		116.5						
Main		123.1						
HG-Lat.F								
Lat.F		73.5						
Main		9.4						
Lat.B Canal								
HG-Lat.B-Ext.		25.9	0.00	0.00	0.00	0.00	0.00	0.00
Lat.B-Ext.		43.3	0.00	0.00	0.00	0.00	0.00	0.00
Lat.B								
Lat.C Canal								
HG-Lat.C-Ext.1		19.8	0.10	0.10	0.10	0.03	0.03	0.03
Lat.C-Ext.1		974.9	0.09	0.09	0.09	0.03	0.03	0.03
Lat.C								
HG-Lat.C-Ext.2		41.1	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C-Ext.2		933.8	0.09	0.09	0.09	0.03	0.03	0.03
Lat.C								
HG-Lat.C-Ext.3		39.5	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C-Ext.3		839.4	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C								
HG-Lat.C-1								
Lat.C-1		409.4						
Lat.C		413.4						
HG-Lat.C-2								
Lat.C-2		170.6						
Lat.C		147.2						
Lat.C-1 Canal								
HG-Lat.C-1-Ext.1		211.5						
Lat.C-1-Ext.1		172.7						
Lat.C-1								
HG-Lat.C-2 Canal								
Lat.C-2A		89.8						
Lat.C-2		61.7						
HG-Lat.C-2B								
Lat.C-2B		42.9						
Lat.C-2		0.0						

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (2/19)

2nd Week	Diversion Requirement (m ³ /s)							
	Name of Headgate	Command Area (ha)	Wet Season			Dry Season		
			Mon.	Tue.	Sun.	Mon.	Tue.	Sun.
Pump Station		1837.6	1.83	1.83	1.83	0.82	0.82	0.82
Main Canal								
HG-Lat.B								
Lat.B		280.4	1.00	1.00	1.00	0.43	0.43	0.43
Main		1557.2	0.65	0.65	0.65	0.31	0.31	0.31
HG-Lat.C								
Lat.C		1046.1	0.53	0.53	0.53	0.25	0.25	0.25
Main		496.2	0.00	0.00	0.00	0.00	0.00	0.00
HG-Lat.D								
Lat.D		256.6						
Main		239.6						
HG-Lat.E								
Lat.E		116.5						
Main		123.1						
HG-Lat.F								
Lat.F		73.5						
Main		9.4						
Lat.B Canal								
HG-Lat.B-Ext.		25.9	0.14	0.14	0.14	0.05	0.05	0.05
Lat.B-Ext.		43.3	0.23	0.23	0.23	0.08	0.08	0.08
Lat.B								
Lat.C Canal								
HG-Lat.C-Ext.1		19.8	0.03	0.03	0.03	0.02	0.02	0.02
Lat.C-Ext.1		974.9	0.44	0.44	0.44	0.16	0.16	0.16
Lat.C								
HG-Lat.C-Ext.2		41.1	0.22	0.22	0.22	0.07	0.07	0.07
Lat.C-Ext.2		933.8	0.22	0.22	0.22	0.09	0.09	0.09
Lat.C								
HG-Lat.C-Ext.3		39.5	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C-Ext.3		839.4	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C								
HG-Lat.C-1								
Lat.C-1		409.4						
Lat.C		413.4						
HG-Lat.C-2								
Lat.C-2		170.6						
Lat.C		147.2						
Lat.C-1 Canal								
HG-Lat.C-1-Ext.1		211.5						
Lat.C-1-Ext.1		172.7						
Lat.C-1								
HG-Lat.C-2 Canal								
Lat.C-2A		89.8						
Lat.C-2		61.7						
HG-Lat.C-2B								
Lat.C-2B		42.9						
Lat.C-2		0.0						

Table.I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (3/19)

3rd Week	Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)						
			Wet Season			Dry Season			
			Mon.	Wed.	Sat.	Mon.	Wed.	Sat.	Thu.
Pump Station		1837.6	2.23	2.23	2.23	1.17	1.17	1.17	1.17
Main Canal									
HG-Lat.B		280.4	0.39	0.39	0.39	0.35	0.35	0.35	0.35
Lat.B		1557.2	1.78	1.78	1.78	0.76	0.76	0.76	0.76
Main									
HG-Lat.C		1046.1	1.49	1.49	1.49	0.63	0.63	0.63	0.63
Lat.C		496.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Main									
HG-Lat.D		256.6							
Lat.D		239.6							
Main									
HG-Lat.E		116.5							
Lat.E		123.1							
Main									
HG-Lat.F		73.5							
Lat.F		9.4							
Main									
Lat.B Canal									
HG-Lat.B-Ext.		25.9	0.04	0.04	0.04	0.03	0.03	0.03	0.03
Lat.B-Ext.		43.3	0.06	0.06	0.06	0.05	0.05	0.05	0.05
Lat.B									
Lat.C Canal									
HG-Lat.C-Ext.1		19.8	0.03	0.03	0.03	0.02	0.02	0.02	0.02
Lat.C-Ext.1		974.9	1.39	1.39	1.39	0.54	0.54	0.54	0.54
Lat.C									
HG-Lat.C-Ext.2		41.1	0.06	0.06	0.06	0.05	0.05	0.05	0.05
Lat.C-Ext.2		933.8	1.34	1.34	1.34	0.49	0.49	0.49	0.49
Lat.C									
HG-Lat.C-Ext.3		39.5	0.21	0.21	0.21	0.07	0.07	0.07	0.07
Lat.C-Ext.3		839.4	1.05	1.05	1.05	0.35	0.35	0.35	0.35
Lat.C									
HG-Lat.C-1		409.4	0.97	0.97	0.97	0.32	0.32	0.32	0.32
Lat.C-1		413.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C									
HG-Lat.C-2		170.6							
Lat.C-2		147.2							
Lat.C									
Lat.C-1 Canal									
HG-Lat.C-1-Ext.1		211.5	0.46	0.46	0.46	0.15	0.15	0.15	0.15
Lat.C-1-Ext.1		172.7	0.37	0.37	0.37	0.13	0.13	0.13	0.13
Lat.C-1									
Lat.C-2 Canal									
HG-Lat.C-2A		89.8							
Lat.C-2A		61.7							
Lat.C-2									
HG-Lat.C-2B		42.9							
Lat.C-2B		0.0							
Lat.C-2									

Table.I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (4/19)

4th Week	Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)						
			Wet Season			Dry Season			
			Mon.	Wed.	Sat.	Mon.	Wed.	Sat.	Thu.
Pump Station		1837.6	2.52	2.52	2.52	1.48	1.48	1.48	1.48
Main Canal									
HG-Lat.B		280.4	0.39	0.39	0.39	0.35	0.35	0.35	0.35
Lat.B		1557.2	2.06	2.06	2.06	1.07	1.07	1.07	1.07
Main									
HG-Lat.C		1046.1	1.74	1.74	1.74	0.90	0.90	0.90	0.90
Lat.C		496.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Main									
HG-Lat.D		256.6							
Lat.D		239.6							
Main									
HG-Lat.E		116.5							
Lat.E		123.1							
Main									
HG-Lat.F		73.5							
Lat.F		9.4							
Main									
Lat.B Canal									
HG-Lat.B-Ext.		25.9	0.04	0.04	0.04	0.03	0.03	0.03	0.03
Lat.B-Ext.		43.3	0.06	0.06	0.06	0.05	0.05	0.05	0.05
Lat.B									
Lat.C Canal									
HG-Lat.C-Ext.1		19.8	0.03	0.03	0.03	0.02	0.02	0.02	0.02
Lat.C-Ext.1		974.9	1.64	1.64	1.64	0.81	0.81	0.81	0.81
Lat.C									
HG-Lat.C-Ext.2		41.1	0.06	0.06	0.06	0.05	0.05	0.05	0.05
Lat.C-Ext.2		933.8	1.58	1.58	1.58	0.76	0.76	0.76	0.76
Lat.C									
HG-Lat.C-Ext.3		39.5	0.06	0.06	0.06	0.05	0.05	0.05	0.05
Lat.C-Ext.3		839.4	1.45	1.45	1.45	0.64	0.64	0.64	0.64
Lat.C									
HG-Lat.C-1		409.4	0.99	0.99	0.99	0.47	0.47	0.47	0.47
Lat.C-1		413.4	0.44	0.44	0.44	0.15	0.15	0.15	0.15
Lat.C									
HG-Lat.C-2		170.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C-2		147.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C									
Lat.C-1 Canal									
HG-Lat.C-1-Ext.1		211.5	0.61	0.61	0.61	0.27	0.27	0.27	0.27
Lat.C-1-Ext.1		172.7	0.35	0.35	0.35	0.17	0.17	0.17	0.17
Lat.C-1									
Lat.C-2 Canal									
HG-Lat.C-2A		89.8							
Lat.C-2A		61.7							
Lat.C-2									
HG-Lat.C-2B		42.9							
Lat.C-2B		0.0							
Lat.C-2									

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (7/19)

Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)						
		Wet Season			Dry Season			
		Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Pump Station	1837.6	4.18	3.83	2.84	4.64	3.03	1.74	
Main Canal								
HG-Lat.B	280.4	1.27	0.00	0.00	1.92	0.00	0.00	
Main	1557.2	2.69	3.83	2.84	2.39	3.03	1.74	
HG-Lat.C	1046.1	1.64	1.50	1.84	1.74	1.33	1.29	
Main	496.2	0.68	2.07	0.68	0.23	1.47	0.23	
HG-Lat.D	256.6	0.38	0.98	0.38	0.13	0.66	0.13	
Main	239.6	0.23	0.92	0.23	0.08	0.69	0.08	
HG-Lat.E	116.5	0.00	0.38	0.00	0.00	0.34	0.00	
Main	123.1	0.23	0.47	0.23	0.08	0.30	0.08	
HG-Lat.F	73.5	0.15	0.22	0.15	0.05	0.12	0.05	
Main	9.4	0.06	0.06	0.06	0.02	0.02	0.02	
Lat.B Canal								
HG-Lat.B-Ext.	25.9	0.12			0.18			
Main	43.3	0.20			0.30			
Lat.C Canal								
HG-Lat.C-Ext.1	19.8	0.09	0.00	0.00	0.14	0.00	0.00	
Main	974.9	1.32	1.50	1.84	1.25	1.33	1.29	
HG-Lat.C-Ext.2	41.1	0.19	0.00	0.00	0.26	0.00	0.00	
Main	933.8	1.14	1.50	1.84	0.97	1.33	1.29	
HG-Lat.C-Ext.3	39.5	0.18	0.00	0.00	0.27	0.00	0.00	
Main	839.4	0.71	1.50	1.84	0.33	1.33	1.29	
HG-Lat.C-1	409.4	0.28	0.84	1.12	0.09	0.94	0.84	
Main	413.4	0.35	0.66	0.72	0.12	0.40	0.45	
HG-Lat.C-2	170.6	0.15	0.15	0.40	0.05	0.05	0.27	
Main	147.2	0.20	0.20	0.33	0.07	0.07	0.18	
Lat.C-1 Canal								
HG-Lat.C-1-Ext.1	211.5	0.00	0.27	0.60	0.00	0.40	0.54	
Main	172.7	0.28	0.50	0.51	0.09	0.54	0.30	
Lat.C-2 Canal								
HG-Lat.C-2A	89.8	0.15	0.15	0.30	0.05	0.05	0.18	
Main	61.7	0.00	0.00	0.00	0.00	0.00	0.00	
HG-Lat.C-2B	42.9							
Main	0.0							

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (8/19)

Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)						
		Wet Season			Dry Season			
		Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Pump Station	1837.6	4.19	4.01	3.27	4.55	3.50	2.56	
Main Canal								
HG-Lat.B	280.4	1.27	0.00	0.00	1.92	0.00	0.00	
Main	1557.2	2.70	4.01	3.27	2.39	3.50	2.56	
HG-Lat.C	1046.1	2.12	1.76	2.69	1.90	1.56	2.14	
Main	496.2	0.13	1.95	0.13	0.04	1.67	0.04	
HG-Lat.D	256.6	0.00	0.84	0.00	0.00	0.75	0.00	
Main	239.6	0.13	0.97	0.13	0.04	0.79	0.04	
HG-Lat.E	116.5	0.00	0.38	0.00	0.00	0.34	0.00	
Main	123.1	0.13	0.52	0.13	0.04	0.39	0.04	
HG-Lat.F	73.5	0.11	0.28	0.11	0.04	0.19	0.04	
Main	9.4	0.00	0.04	0.00	0.00	0.03	0.00	
Lat.B Canal								
HG-Lat.B-Ext.	25.9	0.12			0.18			
Main	43.3	0.20			0.30			
Lat.C Canal								
HG-Lat.C-Ext.1	19.8	0.09	0.00	0.00	0.14	0.00	0.00	
Main	974.9	1.80	1.76	2.68	1.41	1.56	2.14	
HG-Lat.C-Ext.2	41.1	0.19	0.00	0.00	0.28	0.00	0.00	
Main	933.8	1.61	1.76	2.68	1.13	1.56	2.14	
HG-Lat.C-Ext.3	39.5	0.18	0.00	0.00	0.27	0.00	0.00	
Main	839.4	1.19	1.76	2.68	0.48	1.56	2.14	
HG-Lat.C-1	409.4	0.00	0.56	1.06	0.00	0.84	1.21	
Main	413.4	1.11	1.20	1.61	0.37	0.72	0.93	
HG-Lat.C-2	170.6	0.48	0.48	0.86	0.16	0.16	0.50	
Main	147.2	0.63	0.43	0.75	0.73	0.66	0.43	
Lat.C-1 Canal								
HG-Lat.C-1-Ext.1	211.5		0.27	0.57	0.40	0.77		
Main	172.7		0.22	0.49	0.33	0.44		
Lat.C-2 Canal								
HG-Lat.C-2A	89.8	0.16	0.16	0.45	0.05	0.05	0.31	
Main	61.7	0.32	0.32	0.32	0.11	0.11	0.11	
HG-Lat.C-2B	42.9	0.22	0.22	0.22	0.08	0.08	0.08	
Main	0.0	0.00	0.00	0.00	0.00	0.00	0.00	

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (9/19)

Name of Headgate	Command Area (ha)	Diversion Requirement (m3/a)						
		Wet Season				Dry Season		
		Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Pump Station	1837.6	2.76	2.84	3.06	4.17	3.58	3.13	
Main Canal								
HG-Lat.B	280.4	1.27	0.00	0.00	1.92	0.00	0.00	
Main	1557.2	1.27	2.84	3.06	1.91	3.58	3.13	
HG-Lat.C	1046.1	1.01	0.75	2.60	1.53	1.28	2.66	
Main	496.2	0.00	1.84	0.00	0.00	2.08	0.00	
HG-Lat.D	256.6		0.81			0.92		
Main	239.6		0.39			1.00		
HG-Lat.E	116.5		0.36			0.50		
Main	123.1		0.47			0.42		
HG-Lat.F	73.5		0.24			0.21		
Main	9.4		0.04			0.03		
Lat.B Canal								
HG-Lat.B-Ext.	25.9	0.12				0.12		
Lat.B-Ext.	43.3	0.20				0.30		
Lat.B								
Lat.C Canal								
HG-Lat.C-Ext.1	19.8	0.09	0.00	0.00	0.14	0.00	0.00	
Lat.C-Ext.1	974.9	0.69	0.85	2.60	1.04	1.28	2.66	
Lat.C								
HG-Lat.C-Ext.2	41.1	0.19	0.00	0.00	0.28	0.00	0.00	
Lat.C-Ext.2	933.8	0.50	0.85	2.60	0.76	1.28	2.66	
Lat.C								
HG-Lat.C-Ext.3	39.5	0.18	0.00	0.00	0.27	0.00	0.00	
Lat.C-Ext.3	839.4	0.08	0.85	2.60	0.11	1.28	2.66	
Lat.C								
HG-Lat.C-1	409.4	0.00	0.56	1.05	0.00	0.84	1.33	
Lat.C-1	413.4	0.00	0.29	1.56	0.00	0.44	1.34	
Lat.C								
HG-Lat.C-2	170.6	0.00	0.84		0.00	0.69		
Lat.C-2	147.2	0.00	0.72		0.00	0.64		
Lat.C								
Lat.C-1 Canal								
HG-Lat.C-1-Ext.1								
Lat.C1-Ext.1	211.5	0.27	0.57		0.40	0.77		
Lat.C-1	172.7	0.22	0.48		0.33	0.56		
Lat.C-2 Canal								
HG-Lat.C-2A	89.8		0.44			0.39		
Lat.C-2A	61.7		0.31			0.22		
Lat.C-2								
HG-Lat.C-2B	42.9		0.21			0.19		
Lat.C-2B	0.0		0.00			0.00		
Lat.C-2								

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (10/19)

Name of Headgate	Command Area (ha)	Diversion Requirement (m3/a)						
		Wet Season				Dry Season		
		Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Pump Station	1837.6	2.76	2.79	3.03	4.17	3.90	3.35	
Main Canal								
HG-Lat.B	280.4	1.27	0.00	0.00	1.92	0.00	0.00	
Main	1557.2	1.27	2.79	3.03	1.91	3.90	3.35	
HG-Lat.C	1046.1	1.01	0.85	2.58	1.53	1.28	2.85	
Main	496.2	0.00	1.80	0.00	0.00	2.40	0.00	
HG-Lat.D	256.6		0.79			1.05		
Main	239.6		0.87			1.17		
HG-Lat.E	116.5		0.35			0.53		
Main	123.1		0.45			0.55		
HG-Lat.F	73.5		0.23			0.25		
Main	9.4		0.03			0.03		
Lat.B Canal								
HG-Lat.B-Ext.	25.9	0.12				0.18		
Lat.B-Ext.	43.3	0.20				0.30		
Lat.B								
Lat.C Canal								
HG-Lat.C-Ext.1	19.8	0.09	0.00	0.00	0.14	0.00	0.00	
Lat.C-Ext.1	974.9	0.69	0.85	2.58	1.04	1.28	2.85	
Lat.C								
HG-Lat.C-Ext.2	41.1	0.19	0.00	0.00	0.28	0.00	0.00	
Lat.C-Ext.2	933.8	0.50	0.85	2.58	0.76	1.28	2.85	
Lat.C								
HG-Lat.C-Ext.3	39.5	0.18	0.00	0.00	0.27	0.00	0.00	
Lat.C-Ext.3	839.4	0.08	0.85	2.58	0.11	1.28	2.85	
Lat.C								
HG-Lat.C-1	409.4	0.00	0.56	1.05	0.00	0.84	1.33	
Lat.C-1	413.4	0.00	0.29	1.53	0.00	0.44	1.53	
Lat.C								
HG-Lat.C-2	170.6	0.00	0.82		0.00	0.69		
Lat.C-2	147.2	0.00	0.71		0.00	0.71		
Lat.C								
Lat.C-1 Canal								
HG-Lat.C-1-Ext.1								
Lat.C1-Ext.1	211.5	0.27	0.57		0.40	0.77		
Lat.C-1	172.7	0.22	0.48		0.33	0.56		
Lat.C-2 Canal								
HG-Lat.C-2A	89.8		0.43			0.47		
Lat.C-2A	61.7		0.30			0.27		
Lat.C-2								
HG-Lat.C-2B	42.9		0.21			0.19		
Lat.C-2B	0.0		0.00			0.00		
Lat.C-2								

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (11/19)

Name of Headgate	11th Week						
	Diversion Requirement (m3/s)						
	Command Area (ha)	Wet Season	Dry Season	Mon.	Tue.	Wed.	Thu.
Pump Station	1837.6	2.76	2.96	4.17	4.12	3.85	
Main Canal							
HG-Lat.B	280.4	1.27	0.00	1.92	0.00	0.00	
Main	1557.2	1.27	2.96	1.91	4.12	3.85	
HG-Lat.C	1046.1	1.01	0.85	1.53	1.28	3.28	
Lat.C	496.2	0.00	1.77	0.00	2.62	0.00	
Main							
HG-Lat.D	256.6	0.78		1.17			
Main	239.6	0.86		1.24			
HG-Lat.E	116.5	0.35		0.53			
Main	123.1	0.44		0.62			
HG-Lat.F	73.5	0.23		0.30			
Lat.F	9.4	0.02		0.05			
Main							
Lat.B Canal							
HG-Lat.B-Ext.	25.9	0.12		0.18			
Lat.B-Ext.	43.3	0.20		0.30			
Lat.B							
Lat.C Canal							
HG-Lat.C-Ext.1	19.8	0.09	0.00	0.14	0.00	0.00	
Lat.C-Ext.1	974.9	0.69	0.85	1.04	1.28	3.28	
Lat.C							
HG-Lat.C-Ext.2	41.1	0.19	0.00	0.28	0.00	0.00	
Lat.C-Ext.2	933.8	0.50	0.85	0.76	1.28	3.28	
Lat.C							
HG-Lat.C-Ext.3	39.5	0.18	0.00	0.27	0.00	0.00	
Lat.C-Ext.3	839.4	0.08	0.85	0.11	1.28	3.28	
Lat.C							
HG-Lat.C-1	409.4	0.00	0.56	0.00	0.84	1.54	
Lat.C-1	413.4	0.00	0.29	0.00	0.44	1.74	
Lat.C							
HG-Lat.C-2	170.6	0.00	0.80	0.00	0.94		
Lat.C-2	147.2	0.00	0.70	0.00	0.80		
Lat.C							
Lat.C-1 Canal							
HG-Lat.C-1-Ext.1	211.5	0.27	0.56	0.40	0.85		
Lat.C-1-Ext.1	172.7	0.22	0.46	0.33	0.69		
Lat.C-1							
Lat.C-2 Canal							
HG-Lat.C-2A	89.8		0.42	0.54			
Lat.C-2A	61.7		0.30	0.27			
Lat.C-2							
HG-Lat.C-2B	42.9		0.21	0.19			
Lat.C-2B	0.0		0.00	0.00			
Lat.C-2							

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (12/19)

Name of Headgate	12th - 17th Weeks						
	Diversion Requirement (m3/s)						
	Command Area (ha)	Wet Season	Dry Season	Mon.	Tue.	Wed.	Thu.
Pump Station	1837.6	2.76	2.89	4.17	4.16	4.36	
Main Canal							
HG-Lat.B	280.4	1.27	0.00	1.92	0.00	0.00	
Main	1557.2	1.27	2.76	1.91	4.16	4.36	
HG-Lat.C	1046.1	1.01	0.85	1.53	1.28	3.71	
Lat.C	496.2	0.00	1.76	0.00	2.66	0.00	
Main							
HG-Lat.D	256.6	0.78		1.17			
Main	239.6	0.85		1.28			
HG-Lat.E	116.5	0.35		0.53			
Main	123.1	0.44		0.66			
HG-Lat.F	73.5	0.22		0.34			
Lat.F	9.4	0.03		0.05			
Main							
Lat.B Canal							
HG-Lat.B-Ext.	25.9	0.12		0.18			
Lat.B-Ext.	43.3	0.20		0.30			
Lat.B							
Lat.C Canal							
HG-Lat.C-Ext.1	19.8	0.09	0.00	0.14	0.00	0.00	
Lat.C-Ext.1	974.9	0.69	0.85	1.04	1.28	3.71	
Lat.C							
HG-Lat.C-Ext.2	41.1	0.19	0.00	0.28	0.00	0.00	
Lat.C-Ext.2	933.8	0.50	0.85	0.76	1.28	3.71	
Lat.C							
HG-Lat.C-Ext.3	39.5	0.18	0.00	0.27	0.00	0.00	
Lat.C-Ext.3	839.4	0.08	0.85	0.11	1.28	3.71	
Lat.C							
HG-Lat.C-1	409.4	0.00	0.56	0.00	0.84	1.54	
Lat.C-1	413.4	0.00	0.29	0.00	0.44	2.17	
Lat.C							
HG-Lat.C-2	170.6	0.00	0.77	0.00	0.94		
Lat.C-2	147.2	0.00	0.67	0.00	0.80		
Lat.C							
Lat.C-1 Canal							
HG-Lat.C-1-Ext.1	211.5	0.27	0.56	0.40	0.85		
Lat.C-1-Ext.1	172.7	0.22	0.46	0.33	0.69		
Lat.C-1							
Lat.C-2 Canal							
HG-Lat.C-2A	89.8		0.42	0.54			
Lat.C-2A	61.7		0.30	0.27			
Lat.C-2							
HG-Lat.C-2B	42.9		0.21	0.19			
Lat.C-2B	0.0		0.00	0.00			
Lat.C-2							

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (13/19)

Name of Headgate	Diversion Requirement (m ³ /s)						
	Command Area (ha)	Wet Season			Dry Season		
		Mon.	Tue.	Sun.	Mon.	Tue.	Sun.
Pump Station	1837.6	1.56	2.76	2.89	2.36	4.16	4.36
Main Canal							
HG-Lat.B							
Lat.B	280.4	0.72	0.00	0.00	1.09	0.00	0.00
Main	1557.2	0.72	2.76	2.89	1.08	4.16	4.36
HG-Lat.C							
Lat.C	1046.1	0.61	0.85	2.46	0.92	1.28	3.71
Main	496.2	0.00	1.76	0.00	0.00	2.66	0.00
HG-Lat.D							
Lat.D	256.6		0.78			1.17	
Main	239.6		0.85			1.28	
HG-Lat.E							
Lat.E	116.5		0.35			0.53	
Main	123.1		0.44			0.66	
HG-Lat.F							
Lat.F	73.5		0.22			0.34	
Main	9.4		0.03			0.05	
Lat.B Canal							
HG-Lat.B-Ext.	25.9	0.12				0.18	
Lat.B-Ext.	43.3	0.20				0.30	
Lat.C Canal							
HG-Lat.C-Ext.1							
Lat.C-Ext.1	19.8	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C	974.9	0.61	0.85	2.46	0.92	1.28	3.71
HG-Lat.C-Ext.2							
Lat.C-Ext.2	41.1	0.19	0.00	0.00	0.28	0.00	0.00
Lat.C	933.8	0.42	0.85	2.46	0.54	1.28	3.71
HG-Lat.C-Ext.3							
Lat.C-Ext.3	39.5	0.18	0.00	0.00	0.27	0.00	0.00
Lat.C	839.4	0.08	0.85	2.46	0.11	1.28	3.71
HG-Lat.C-1							
Lat.C-1	409.4	0.00	0.56	1.02	0.00	0.84	1.54
Lat.C	413.4	0.00	0.29	1.44	0.00	0.44	2.17
HG-Lat.C-2							
Lat.C-2	170.6	0.00	0.77			0.00	1.17
Lat.C	147.2	0.00	0.67			0.00	1.01
Lat.C-1 Canal							
HG-Lat.C-1-Ext.1							
Lat.C-1-Ext.1	211.5	0.27	0.56			0.40	0.85
Lat.C-1	172.7	0.22	0.46			0.33	0.69
Lat.C-2 Canal							
HG-Lat.C-2A	89.8					0.41	0.61
Lat.C-2A	61.7					0.28	0.42
HG-Lat.C-2B	42.9					0.19	0.29
Lat.C-2B	0.0					0.00	0.00

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (14/19)

Name of Headgate	Diversion Requirement (m ³ /s)						
	Command Area (ha)	Wet Season			Dry Season		
		Mon.	Tue.	Sun.	Mon.	Tue.	Sun.
Pump Station	1837.6	0.30	2.76	2.89	0.45	4.16	4.36
Main Canal							
HG-Lat.B							
Lat.B	280.4	0.00	0.00	0.00	0.00	0.00	0.00
Main	1557.2	0.30	2.76	2.89	0.45	4.16	4.36
HG-Lat.C							
Lat.C	1046.1	0.25	0.85	2.46	0.38	1.28	3.71
Main	496.2	0.00	1.76	0.00	0.00	2.66	0.00
HG-Lat.D							
Lat.D	256.6		0.78			1.17	
Main	239.6		0.85			1.28	
HG-Lat.E							
Lat.E	116.5		0.35			0.53	
Main	123.1		0.44			0.66	
HG-Lat.F							
Lat.F	73.5		0.22			0.34	
Main	9.4		0.03			0.05	
Lat.B Canal							
HG-Lat.B-Ext.	25.9					0.18	
Lat.B-Ext.	43.3					0.30	
Lat.C Canal							
HG-Lat.C-Ext.1							
Lat.C-Ext.1	19.8	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C	974.9	0.25	0.85	2.46	0.38	1.28	3.71
HG-Lat.C-Ext.2							
Lat.C-Ext.2	41.1	0.00	0.00	0.00	0.00	0.00	0.00
Lat.C	933.8	0.25	0.85	2.46	0.38	1.28	3.71
HG-Lat.C-Ext.3							
Lat.C-Ext.3	39.5	0.18	0.00	0.00	0.27	0.00	0.00
Lat.C	839.4	0.08	0.85	2.46	0.11	1.28	3.71
HG-Lat.C-1							
Lat.C-1	409.4	0.00	0.56	1.02	0.00	0.84	1.54
Lat.C	413.4	0.00	0.29	1.44	0.00	0.44	2.17
HG-Lat.C-2							
Lat.C-2	170.6	0.00	0.77			0.00	1.17
Lat.C	147.2	0.00	0.67			0.00	1.01
Lat.C-1 Canal							
HG-Lat.C-1-Ext.1							
Lat.C-1-Ext.1	211.5	0.27	0.56			0.40	0.85
Lat.C-1	172.7	0.22	0.46			0.33	0.69
Lat.C-2 Canal							
HG-Lat.C-2A	89.8					0.41	0.61
Lat.C-2A	61.7					0.28	0.42
HG-Lat.C-2B	42.9					0.19	0.29
Lat.C-2B	0.0					0.00	0.00

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (15/19)

20th Week	Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)						
			Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Pump Station		1837.6	0.00	2.10	2.89	0.00	3.17	4.36	
Main Canal									
HG-Lat.B		280.4	0.00	0.00	0.00	0.00	0.00	0.00	
Lat.B		1557.2	2.10	2.89		3.17	4.36		
Main									
HG-Lat.C		1046.1	0.29	2.46		0.44	3.71		
Lat.C		496.2	1.76	0.00		2.66	0.00		
Main									
HG-Lat.D		256.6	0.78			1.17			
Lat.D		239.6	0.85			1.28			
Main									
HG-Lat.E		116.5	0.35			0.53			
Lat.E		123.1	0.44			0.66			
Main									
HG-Lat.F		73.5	0.22			0.34			
Lat.F		9.4	0.03			0.05			
Main									
Lat.B Canal									
HG-Lat.B-Ext.		25.9							
Lat.B-Ext.		43.3							
Lat.B									
Lat.C Canal									
HG-Lat.C-Ext.1		19.8	0.00	0.00		0.00	0.00		
Lat.C-Ext.1		974.9	0.29	2.46		0.44	3.71		
Lat.C									
HG-Lat.C-Ext.2		41.1	0.00	0.00		0.00	0.00		
Lat.C-Ext.2		933.8	0.29	2.46		0.44	3.71		
Lat.C									
HG-Lat.C-Ext.3		39.5	0.00	0.00		0.00	0.00		
Lat.C-Ext.3		839.4	0.29	2.48		0.44	3.71		
Lat.C									
HG-Lat.C-1		409.4	0.00	1.02		0.00	1.54		
Lat.C-1		413.4	0.29	1.44		0.44	2.17		
Lat.C									
HG-Lat.C-2		170.6	0.00	0.77		0.00	1.17		
Lat.C-2		147.2	0.00	0.67		0.00	1.01		
Lat.C									
Lat.C-1 Canal									
HG-Lat.C-1-Ext.1		211.5	0.56			0.85			
Lat.C-1-Ext.1		172.7	0.46			0.69			
Lat.C-1									
Lat.C-2 Canal									
HG-Lat.C-2A		89.8	0.41			0.61			
Lat.C-2A		61.7	0.28			0.42			
Lat.C-2									
HG-Lat.C-2B		42.9	0.19			0.23			
Lat.C-2B		0.0	0.00			0.00			
Lat.C-2									

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (16/19)

21th Week	Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)						
			Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Pump Station		1837.6	0.00	1.80	2.14	0.00	2.72	3.24	
Main Canal									
HG-Lat.B		280.4	0.00	0.00		0.00	0.00		
Lat.B		1557.2	1.80	2.14		2.72	3.24		
Main									
HG-Lat.C		1046.1	0.04	1.83		0.05	2.76		
Lat.C		496.2	1.76	0.00		2.66	0.00		
Main									
HG-Lat.D		256.6	0.78			1.17			
Lat.D		239.6	0.85			1.28			
Main									
HG-Lat.E		116.5	0.35			0.53			
Lat.E		123.1	0.44			0.66			
Main									
HG-Lat.F		73.5	0.22			0.34			
Lat.F		9.4	0.03			0.05			
Main									
Lat.B Canal									
HG-Lat.B-Ext.		25.9							
Lat.B-Ext.		43.3							
Lat.B									
Lat.C Canal									
HG-Lat.C-Ext.1		19.8	0.00	0.00		0.00	0.00		
Lat.C-Ext.1		974.9	0.04	1.93		0.05	2.76		
Lat.C									
HG-Lat.C-Ext.2		41.1	0.00	0.00		0.00	0.00		
Lat.C-Ext.2		933.8	0.04	1.93		0.05	2.76		
Lat.C									
HG-Lat.C-Ext.3		39.5	0.00	0.00		0.00	0.00		
Lat.C-Ext.3		839.4	0.04	1.83		0.05	2.76		
Lat.C									
HG-Lat.C-1		409.4	0.00	0.39		0.00	0.98		
Lat.C-1		413.4	0.04	1.44		0.05	2.17		
Lat.C									
HG-Lat.C-2		170.6	0.00	0.77		0.00	1.17		
Lat.C-2		147.2	0.00	0.67		0.00	1.01		
Lat.C									
Lat.C-1 Canal									
HG-Lat.C-1-Ext.1		211.5	0.14			0.21			
Lat.C-1-Ext.1		172.7	0.24			0.37			
Lat.C-1									
Lat.C-2 Canal									
HG-Lat.C-2A		89.8	0.41			0.61			
Lat.C-2A		61.7	0.28			0.42			
Lat.C-2									
HG-Lat.C-2B		42.9	0.19			0.23			
Lat.C-2B		0.0	0.00			0.00			
Lat.C-2									

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (17/19)

Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)						
		Wet Season			Dry Season			
		Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Pump Station	1837.6	0.00	1.07	1.98	0.00	1.62	2.98	
Main Canal								
HG-Lat.B								
Lat.B	280.4	0.00	0.00	0.00	0.00	0.00	0.00	
Main	1557.2	1.07	1.98		1.62	2.98		
HG-Lat.C								
Lat.C	1046.1	0.00	1.68	0.00	0.00	2.54		
Main	496.2	1.07	0.00		1.62	0.00		
HG-Lat.D								
Lat.D	256.6	0.46			0.69			
Main	239.6	0.53			0.81			
HG-Lat.E								
Lat.E	116.5	0.08			0.12			
Main	123.1	0.44			0.66			
HG-Lat.F								
Lat.F	73.5	0.22			0.34			
Main	9.4	0.03			0.05			
Lat.B Canal								
HG-Lat.B-Ext.	25.9							
Lat.B-Ext.	43.3							
Lat.B								
Lat.C Canal								
HG-Lat.C-Ext.1	19.8	0.00			0.00			
Lat.C-Ext.1	974.9	1.63			2.54			
Lat.C								
HG-Lat.C-Ext.2	41.1	0.00			0.00			
Lat.C-Ext.2	933.8	1.68			2.54			
Lat.C								
HG-Lat.C-Ext.3	39.5	0.00			0.00			
Lat.C-Ext.3	839.4	1.68			2.54			
Lat.C								
HG-Lat.C-1	409.4	0.24			0.37			
Lat.C-1	413.4	1.44			2.17			
Lat.C								
HG-Lat.C-2	170.6	0.77			1.17			
Lat.C-2	147.2	0.67			1.01			
Lat.C								
Lat.C-1 Canal								
HG-Lat.C-1-Ext.1	211.5	0.00			0.00			
Lat.C1-Ext.1	172.7	0.24			0.37			
Lat.C-1								
Lat.C-2 Canal								
HG-Lat.C-2A	89.8	0.41			0.61			
Lat.C-2A	61.7	0.28			0.42			
Lat.C-2								
HG-Lat.C-2B	42.9	0.19			0.29			
Lat.C-2B	0.0	0.00			0.00			
Lat.C-2								

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (18/19)

Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)						
		Wet Season			Dry Season			
		Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Pump Station	1837.6	0.00	0.47	1.57	0.00	0.71	2.37	
Main Canal								
HG-Lat.B								
Lat.B	280.4	0.00	0.00	0.00	0.00	0.00	0.00	
Main	1557.2	0.47	1.57		0.71	2.37		
HG-Lat.C								
Lat.C	1046.1	0.00	1.34	0.00	0.00	2.02		
Main	496.2	0.47	0.00		0.71	0.00		
HG-Lat.D								
Lat.D	256.6	0.22			0.33			
Main	239.6	0.21			0.31			
HG-Lat.E								
Lat.E	116.5	0.00			0.00			
Main	123.1	0.21			0.31			
HG-Lat.F								
Lat.F	73.5	0.15			0.22			
Main	9.4	0.03			0.05			
Lat.B Canal								
HG-Lat.B-Ext.	25.9							
Lat.B-Ext.	43.3							
Lat.B								
Lat.C Canal								
HG-Lat.C-Ext.1	19.8	0.00			0.00			
Lat.C-Ext.1	974.9	1.34			2.02			
Lat.C								
HG-Lat.C-Ext.2	41.1	0.00			0.00			
Lat.C-Ext.2	933.8	1.34			2.02			
Lat.C								
HG-Lat.C-Ext.3	39.5	0.00			0.00			
Lat.C-Ext.3	839.4	1.34			2.02			
Lat.C								
HG-Lat.C-1	409.4	0.24			0.37			
Lat.C-1	413.4	1.09			1.65			
Lat.C								
HG-Lat.C-2	170.6	0.55			0.83			
Lat.C-2	147.2	0.55			0.83			
Lat.C								
Lat.C-1 Canal								
HG-Lat.C-1-Ext.1	211.5	0.00			0.00			
Lat.C1-Ext.1	172.7	0.24			0.37			
Lat.C-1								
Lat.C-2 Canal								
HG-Lat.C-2A	89.8	0.27			0.41			
Lat.C-2A	61.7	0.28			0.42			
Lat.C-2								
HG-Lat.C-2B	42.9	0.19			0.29			
Lat.C-2B	0.0	0.00			0.00			
Lat.C-2								

Table I-4 DIVERSION WATER REQUIREMENT AT HEADGATE (19/19)

24th Week (1/2)

Name of Headgate	Command Area (ha)	Diversion Requirement (m ³ /s)					
		Wet Season			Dry Season		
		Mon. Tue.	Wed. Thu.	Sat. Sun.	Mon. Tue.	Wed. Thu.	Sat. Sun.
Pump Station							
	1837.6	0.00	0.08	0.93	0.00	0.11	1.40
Main Canal							
HG-Lat.B							
Lat.B	280.4		0.00	0.00		0.00	0.00
Main	1557.2		0.08	0.93		0.11	1.40
HG-Lat.C							
Lat.C	1046.1		0.00	0.79		0.00	1.19
Main	496.2		0.08	0.00		0.11	0.00
HG-Lat.D							
Lat.D	256.6		0.00			0.00	
Main	239.6		0.08			0.11	
HG-Lat.E							
Lat.E	116.5		0.00			0.00	
Main	123.1		0.08			0.11	
HG-Lat.F							
Lat.F	73.5		0.06			0.10	
Main	9.4		0.00			0.00	
Lat.B Canal							
HG-Lat.B-Ext.							
Lat.B-Ext.	25.9						
Lat.B	43.3						
Lat.C Canal							
HG-Lat.C-Ext.1							
Lat.C-Ext.1	19.8			0.00			0.00
Lat.C	974.9			0.79			1.19
HG-Lat.C-Ext.2							
Lat.C-Ext.2	41.1			0.00			0.00
Lat.C	933.8			0.79			1.19
HG-Lat.C-Ext.3							
Lat.C-Ext.3	39.5			0.00			0.00
Lat.C	839.4			0.79			1.19
HG-Lat.C-1							
Lat.C-1	409.4			0.00			0.00
Lat.C	413.4			0.79			1.19
HG-Lat.C-2							
Lat.C-2	170.6			0.41			0.63
Lat.C	147.2			0.38			0.57
Lat.C-1 Canal							
HG-Lat.C-1-Ext.1							
Lat.C1-Ext.1	211.5						
Lat.C-1	172.7						
Lat.C-2 Canal							
HG-Lat.C-2A							
Lat.C-2A	89.8			0.14			0.20
Lat.C-2	61.7			0.28			0.42
HG-Lat.C-2B							
Lat.C-2B	42.9			0.19			0.29
Lat.C-2	0.0			0.00			0.00

Note. All the above diversion requirements at respective headgates from 1st week to 24th week are those for 17 hours/day pump operation.