GOVERNMENT OF THE PUNJAB

IRRIGATION DEPARTMENT

FLOOD FIGHTING PLAN 2026

MUZAFFARGARH CANAL DIVISION
MUZAFFARGARH

Muzaffargarh Canal Circle
Multan

D.G. Khan Irrigation Zone,
Dera Ghazi Khan

2026

TABLE OF CONTENTS

Sr. No.		Description	Page No
PART – A -			
Chapter 1		**Salient feature of the concerned Division.**	
	1.1	Location	1
	1.2	General Description	1
	1.3	Administration	2
Chapter 2		**Flood Protection and River Training works.**	
	2.1	Design parameter of Training works	3-4
	2.2	Location Map	5
Chapter 3		**Brief History of past flood events**	6-9
Chapter 4		**Design data, Historic peak flood data and previous five years flood data of Head Works /Barrages and other control points**	
	4.1	Flood Limits	10
	4.2	Time Lags of Floods	10
	4.3	Highest Floods	11
	4.4	Peak discharge	11
Chapter 5		**Flood fighting Strategy**	12-13
Chapter 6		**Flood damages restoration works**	14
Chapter 7		**Flood fighting watching arrangements**	
	7.1	Pre-Flood Arrangements	15
		Detail of Reserve Stock of Stone	15-16
	7.2	Watching Establishment	17
	7.3	Arrangement of Sensitive sites	17-18
	7.4	Watching material	18-19
	7.5	Arrangement for sounding & probing	20
	7.6	Lighting arrangement	20
	7.7	Ration arrangement	20
	7.8	P.O.L arrangement for vehicle	20
	7.9	Transportation	20
	7.10	Law and Order	21
	7.11	Medical arrangement for Labour	21
	7.12	Liaison with other Department	21
	7.13	Role of the Army	21
	7.14	Duties of Telephone Attendant	21
	7.15	Wireless arrangements	22
Chapter 8		**Detail of encroachment**	23
Chapter 9		**Duty roaster /flood fighting program**	24-25
Chapter 10		**Emergency Telephone Nos.**	26-27
Chapter 11		**Standard operating procedure (SOP) for breaching sections.**	
	11.1	History of the breaching section	28
	11.2	Location, design, quantity and variety of the explosive required for detonation.	28
	11.3	Arrangement of explosive and security of explosive stores	28
	11.4	List of the security staff alongwith detail of their training etc	28
	11.5	Detail of mechanical means as a standby arrangements in case of detonation failure.	28
	11.6	Duty roaster in case of critical situation	28
	11.7	Breaching committee with their action plan	28
	11.8	List of the villages likely to be inundated in case of breach	28

	11.9	Announcement and detail of evacuation arrangements	28
	11.10	Details of coordination with Civil /Army authorities	28
	11.11	Parallel communication arrangements	28
	11.12	Index Plan	28
		Last page of Part-A duly signed by Superintending Engineer and Chief Engineer in token of correctness of the Flood Fighting Plan	29
PART-B			
Chapter 12		**Vulnerable sites on Flood Bunds /Structures:**	
	12.1	Apprehended breaches in flood Bunds /Structures	30
	12.2	Operation of Breaching sections	30
	12.3	Breaches due to rise of flood water, deterioration of flood bunds etc.	30
Chapter 13		**Emergency Contingency Plan for vulnerable site (sites)**	
		SITE-1, 2 & 3	
	13.1	Plan showing route of flood water coming out of the breach supported with levels.	31
	13.2	Detail of villages abadies likely to be affected and this should also be shown on the plan	31
	13.3	Strategy and action taken be explained in detail. This may include.	32
	13.3.1	Arrangements	32
	13.3.2	Establishment of flood fighting camps	32
	13.3.3	Duties of Officers/Officials and their camp sites	32
	13.3.4	Departmental Machinery available	32
	13.3.5	Machinery available from private source	32
	13.3.6	Flood fighting material required	33
	13.3.7	Flood Fighting material available	34
		SITE-4	
	13.1	Plan showing route of flood water coming out of the breach supported with levels.	35
	13.2	Detail of villages abadies likely to be affected and this should also be shown on the plan	35
	13.3	Strategy and action taken be explained in detail. This may include.	36
	13.3.1	Arrangements	36
	13.3.2	Establishment of flood fighting camps	36
	13.3.3	Duties of Officers/Officials and their camp sites	36
	13.3.4	Departmental Machinery available	36
	13.3.5	Machinery available from private source	36
	13.3.6	Flood fighting material required	37
	13.3.7	Flood Fighting material available	38
		SITE-5 & 6	
	13.1	Plan showing route of flood water coming out of the breach supported with levels.	39
	13.2	Detail of villages abadies likely to be affected and this should also be shown on the plan	39
	13.3	Strategy and action taken be explained in detail. This may include.	40
	13.3.1	Arrangements	40
	13.3.2	Establishment of flood fighting camps	40
	13.3.3	Duties of Officers/Officials and their camp sites	40
	13.3.4	Departmental Machinery available	40
	13.3.5	Machinery available from private source	40
	13.3.6	Flood fighting material required	41

	13.3.7	Flood Fighting material available	42
		Main Campus of offices of the sub divisional officers Jatoi Canal Sub Division	43
	13.4	Detail of other infrastructure like Electric, Sui Gas, Telephone installations, Road network, other buildings, Canals and drainage network.	43
Chapter 14		**Action Plan**	
	14.1	Re-Shuffling / Recouping plan of reserve stone departmentally.	44
	14.2	Detail of inlet / outlet crossing along with closing methodology.	44
	14.3	Deployment Machinery (Normal to Low Flood)	45
	14.4	Deployment Machinery (Medium to High Flood)	45
	14.5	Deployment Machinery (Very High to Exp High Flood)	45
	14.6	Police deployment plan	46
	14.7	Details of Synthetic bags with capacity of 50 kg and 100kg.	46
	14.8	Detail of polythene sheet of black colour to protect upstream slope against wave action and to control seepage through embankments.	46
	14.9	Any other details as per SOPs approved by Administrative Department (Recommendations for operation during flood)	47-48
		Follow up actions on flood preparedness activities for the year 2026 statement showing the progress achieved up to	49
Chapter. 15		**Back up division (In case of Breach).**	50
		Last page of Part-B duly signed by Superintending Engineer and Chief Engineer in token of correctness of the Flood Fighting Plan	51

P A R T.

A

CHAPTER.

1

SALIENT FEATURE

1.1 LOCATION

This Division is situated on left side of Indus River. The Muzaffargarh Canal Division has Main Muzaffargarh Canal from RD: 206+700 to 370+700 (tail) with its system is on left side of Indus.

1.2 GENERAL DESCRIPTION

Muzaffargarh Canal Division has a mighty River of the Country, i.e. River Indus, on Western side. This River has confluence point at village Sarki of Tehsil Ali Pur with River Chenab. In order to protect the Irrigation network and other infrastructures, from the spills and erosive actions of the River, a series of flood protection works and No of River Training and protection works have been constructed along the river. There is 90.01 miles length of the flood embankments together with 60 No. J-Head Spurs, Stone Studs, Guide Head Spurs, Hockey Spurs and Concavo Convex Guide Wall.

The detail of flood embankment and River Training works is as under

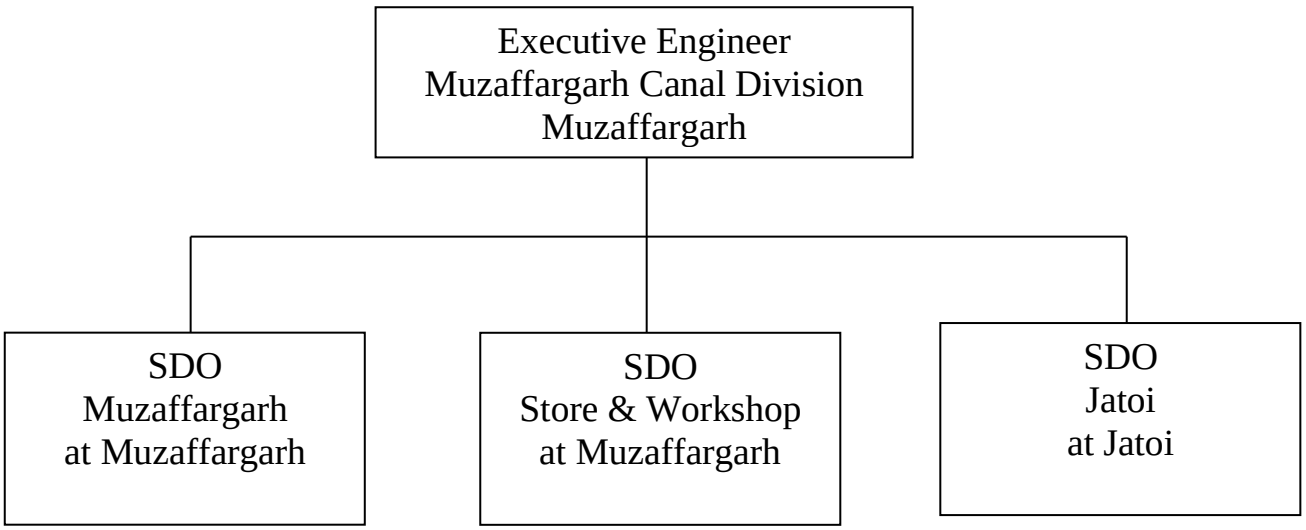
STRUCTURES	No.	LENGTH (MILES)
1. Flood Embankments.	5	77.02
2. J-Head Spurs	10	7.94
3. Stone studs	39	1.90
4. Guide Head Spurs	1	0.95
5. Hockey Spur	4	1.99
6. Concavo Convex Guide Wall	1	0.21
Total	**60 No.**	**90.01 Miles**

These flood works protect a population of 26 Lac inhabitants in Muzaffargarh District. Moreover, due to installation of Thermal Power Plant, Thal Jute Mills limited and

Textile units, this district has been transformed into industrial area and its importance /sensitiveness is increasing day by day on the National scenario. Since the Muzaffargarh District remains in danger due to two Rivers, having different, catchment area, Flood characteristics, and timings, hence Flood Fighting Plan has been prepared to combat any emergent situation during flood season 2026.

1.3 ADMINISTRATIVE SETUP.

ADMINISTRATIVE STEP OF MUZAFFARGARH CANAL DIVISION.



This Division also maintains major Irrigation system, namely, Muzaffargarh Canal System with cultural able command area of 0.256 Million Acre of Muzaffargarh District.

Detail of area as under:-

Sr. No.	Name of Channel System	GCA in Acres	CCA in Acres
1	Muzaffargarh Canal System	280692	255777

CHAPTER.

2

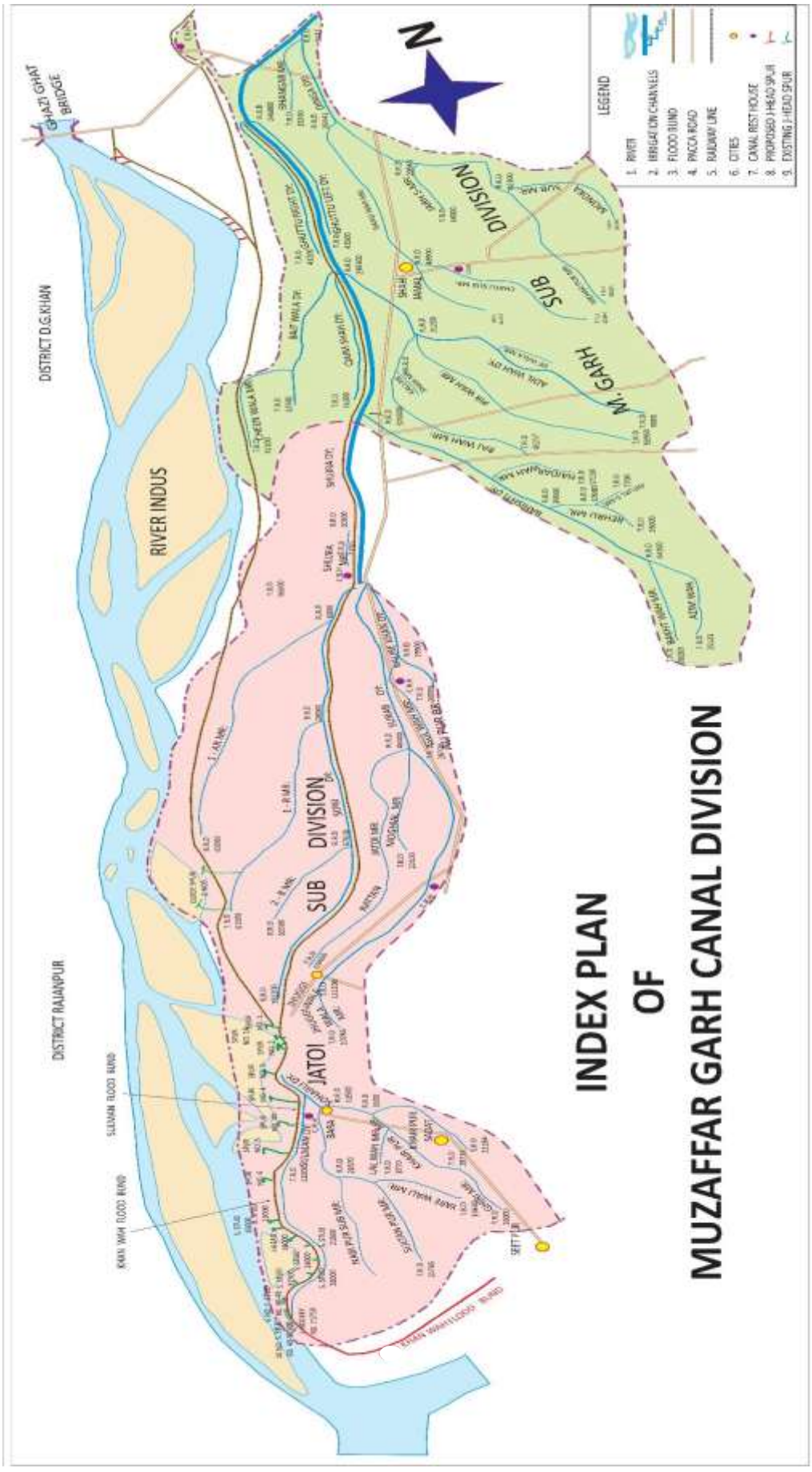
FLOOD PROTECTION AND RIVER TRAINING WORKS

2.1 DESIGN PARAMETER OF TRAINING WORKS

Sr #	Name Of Work	Length in Mile	Designed free Board (feet)	Designed top Width (feet)	Designed side Slope	
					River Side	Country Side
1	Flood Bund along Soharu & Suleman Disty 0+000 to 12+000	2.40	7	25	3:1	2:1
2	Khan Wah Flood RD 0+000 to 78+500	15.70	7	25	3:1	2:1
3	Flood Bund along 1-AR Minor RD: 26+300 to 34+000.	1.54	7	25	3:1	2:1
4	Bund along right bank of Muzaffargarh Canal RD.206+700 -370+700	26.52	5	25	3:1	2:1
5	Flood Bund along Jatoi Branch RD 0-140+000	31.06	5	25	3:1	2:1
	Total	**77.02**				
	J-HEAD SPURS					
1	J-Head Spur No. 1.-A at RD: 127+000 of Jatoi Branch	0.56	7	30	3:1	2:1
2	J-Head Spur No. 1 at RD: 135+000 of Jatoi Branch	0.66	7	30	3:1	2:1
3	J-Head Spur No. 2. at RD: 139+000 of Jatoi Branch	0.56	7	30	3:1	2:1
4	J-Head Spur No. 3. At RD: 2+000 Suleman Flood Bund	1.70	7	30	3:1	2:1
5	J-Head Spur No. 4. at RD: 8+400 Suleman Flood Bund	0.58	7	30	3:1	2:1
6	J-Head Spur No. 4-A at RD: 9+500 Suleman Flood Bund	1.52	7	30	3:1	2:1
7	J-Head Spur No. 5. RD: 7+500 Khan Wah Flood Bund	0.80	7	30	3:1	2:1
8	J-Head Spur No. 6. RD: 9+000 Khan Wah Flood Bund	0.50	7	30	3:1	2:1
9	J-Head Spur at RD: 34+500 of 1-AR Minor	0.50	7	30	3:1	2:1
10	J-Head Spur at RD: 40+300 1-AR Minor	0.56	7	30	3:1	2:1
	Total	**7.94**				
	STONE STUDS					
1	Stone stud RD 12+000 Khan Wah Flood Bund	0.14	7	20	2:1	2:1
2	Stone stud RD 13+000 Khan Wah Flood Bund	0.14	7	20	2:1	2:1
3	Stone Stud RD 15+000 Khan Wah Flood Bund	0.14	7	20	2:1	2:1
4	Sloping stone stud at RD: 15+300 Khanwah Flood Bund.	0.02	7	20	2:1	2:1
5	Stone stud RD 16+300 Khan Wah Flood Bund	0.02	7	20	2:1	2:1
6	Stone Stud RD 18+000 Khan Wah Flood Bund	0.14	7	20	2:1	2:1

Sr #	Name Of Work	Length in Mile	Designed free Board (feet)	Designed top Width (feet)	Designed side Slope	
					River Side	Country Side
7	Stone Stud RD 21+000 Khan Wah Flood Bund	0.14	7	20	2:1	2:1
8	Stone Stud RD 24+000 Khan Wah Flood Bund	0.14	7	20	2:1	2:1
9	Stone Stud RD 28+000 Khan Wah Flood Bund	0.14	7	20	2:1	2:1
10	Stone Stud RD 31+500 Khan Wah Flood Bund	0.14	7	20	2:1	2:1
11	Stone Stud RD 42+000 of 1-AR Minor	0.11	7	20	2:1	2:1
12 - 33	22 No. Stone Studs along Khanwah Flood Bund between RD: 73+000 to 77+000.	0.33	2	20	2:1	2:1
34 - 39	06 No. Stone Studs along Khanwah Flood Bund between RD: 46+000 to 48+000.	0.30	0	15	2:1	2:1
	Total	**1.90**				
1	Guide Spur No. 1 of 1 -AR Minor at RD:53+000	0.95	7	30	3:1	2:1
2	Inverted Hockey Spur of 1-AR Minor at RD: 61+500.	1.37	7	30	3:1	2:1
3	Inverted Hockey Spur at RD: 38+000 1-AR Minor	0.48	7	30	3:1	2:1
4	Inverted Hockey Spur at RD: 15+650 Khanwah Flood Bund	0.06	7	20	3:1	2:1
5	Inverted Hockey Spur at RD: 71+750 Khanwah Flood Bund	0.08	7	20	3:1	2:1
6	Concavo convex Guide Wall at RD: 26+300 of 1-AR Minor	0.21	7	25	3:1	2:1
	Total	**3.15**				

2.2 LOCATION MAP



CHAPTER.

3

Chapter. 3

BRIEF HISTORY OF PAST FLOOD EVENTS

INDUS RIVER

Unprecedented floods of 1988 & 1992 have brought morphological changes and the river is continuously drifting towards left. It has already swallowed hundreds acres of agricultural land besides shattering the irrigation network of Jatoi Brach System and the Jatoi branch has been re-aligned twice. A series of training works were constructed in the past to contain / train the river within its meandering belt. As a result of drifting, the river has further encroached the lands on the left side and is now threatening village Abadies. During the year 1999 and 2001, when the river abruptly receded, it changed its route toward extreme left and during 2001, punctured the Khan Wah Flood Bund at reaches RD. 54-57 and RD. 39-42 respectively, river remained within the deep channel otherwise there would have been colossal losses to crops and Abadies located in the area.

After conducting detail model study, the report of Irrigation Research Institute was received vide Chief Engineer Research letter No. 2764/836-C dated 16-08-2004 in which the following structures were recommended to be constructed for the long term protection of the eroded area, existing river training works, and Muzaffargarh Canal System of Mauza Nobramda, Bait Daryai, Mauza Lundi Pittafi and Mauza Kundai from the erosion of mighty river Indus.

Basically the Khanwah flood bund was constructed to protect the important badies and City Jatoi, Ali Pur and other congested badies, very fertile agriculture lands and orchards from the spills only. Due to exceptionally high flood in the past and meandering behavior, during July 2009 and, August 2010, Indus River started advancing towards left bank by its erosive action and resultantly developed a River loop between J-Head Spur No. 6 at RD: 9000 Khanwah Flood Bund and started at RD: 13000, resultantly U/S apron of Stone Stud RD: 13000 was damaged. Severe erosive action started at sloping Spur RD: 13000 Khan Wah Flood Bund and inspire of all efforts, the structure was washed at a length of 700 ft.

The situation was so alarming that Khanwah Flood Bund was in danger. In case of breach to Khan Wah Flood Bund in this reach, the badies of Gabber Arrain and Basti Hardal Wala were dislocated and heavy irreparable losses were to be occurred. In view of the gravity of situation, it was allowed to take up the work under Para 2.89 PWD code. Day and night successful efforts were made to save the Stud from further damage and subsequently Khan Wah flood bund was saved and secured. During flood season 2010, due to serious

situation, so many Mauza's of fertile land i/c the considerable segment of road was eroded at Bait Daryai and came under the River hit. The irrigation infrastructure i.e. 1-R & 1-AR Minor of Soni Disty have also come alarmingly close to the River edge. Due to heavy and constant monsoon rainfall in the upper area of the Province Khyber Pukhtun Khah, Suleman Range on the west and in the catchments area, Indus River has been in exceptionally high Floods at all Barrages as well as Taunsa Barrage with the Discharge D/S 959117 Cusecs was recorded during August 2010. The duration of flood remained for the period of about 22 days. The heavy pressure of flood was experienced on left side, breached Left Marginal Bund of Taunsa Barrage. The flood water entered in Muzaffargarh Canal with uncontrolled excessive discharge. Muzaffargarh Canal and its system breached at various places. The accumulative flood water rushed on the country slope and inundated the vast area by damaging the abadies of Kot Adu, Sanawan, Mehmood Kot, Gurmani, Qasba Gujrat and Ghazi Ghat Town. A relief cut at RD: 125800/L Muzaffargarh Canal was made to release and divert of Flood water into Chenab River. The pressure of flood water was so severe that Muzaffargarh Canal was breached at 12 various places, Downstream Head Regulator Kalu at RD: 206700 in the jurisdiction of Muzaffargarh Canal Division 3 No breaches occurred at RD: 232-233/R, 232-233/L and 239-240\L.

Flood water after breaching U/S Kalu Regulator at RD: 194000/L & R damaging the low level area of Basira, Shah Jamal, Khangarh and Rohillan Wali, Shehr Sultan Town entered into Kot Adu Main Drain. The Flood Water was disposed off into Chenab River by making relief cut at RD: 55-56 Shehr Sultan Flood Bund and RD: 56-57 and 96-97 Chandar Bhan Flood Bund.

During floods 08/2010, Indus River started severe action on Stone Stud RD: 13000, RD: 15000 and RD: 18000 and damaged their solid stone portion, apron of J-Head Spur No. 6 Khanwah Flood Bund was also damaged. The parallel flow of Indus River also damaged Khanwah Flood Bund RD: 15000 to RD: 16000. Khanwah Flood Bund was saved by hectic flood fighting during floods and the area of Gabbar Arain behind Khanwah Flood Bund was saved.

Keeping in view in the past experience during floods 2010, the relief cuts will be made at suitable places and all arrangements will be made at site.

FLOOD 2019

During flood 2019 the behavior of River Indus has become active and hit the various structures i.e. apron of Hockey spur at RD: 61+500 1-AR Minor at different locations, at RD:47+000 to 57+000 of Khanwah Flood Bund, at RD:15+650 and at J-Head Spur No.6 of Khanwah Flood Bund are partially damaged.

FLOOD 2020

During flood 2020 the behavior of River Indus has become active and hit the various structures i.e. Shank or Inverted Hockey (Guide Head Spur No.2) at RD: 5+000 to 5+500 at Tail of 1-R Minor RD: 61+500 and River Side Slope of Khanwah Flood Bund RD:7+500 to 11+000 are partially damaged.

FLOOD 2021

During Flood 2021, there was again low flood of discharge 304121 Cusecs dated: 04.08.2021 in River Indus and due to this low flood everything went good. In 2021 flood D/S Taunsa Headworks was natural and not touches the limit of medium flood even. The flood water passed to M.Garh District without any major damage and the District remained safe.

FLOOD 2022

During Flood 2022 the behavior of River Indus has becomes more active towards left, Resultantly the stone pitching and stone studs in between RD. 74+800 to 76+500 of Khanwah Flood Bund were damaged. Protective measures to ensure the safety of flood bund, the work was taken up in hands on emergency basis. The work was executed on war footing basis to meet with the critical situation. Also the work was executed under the resident supervision of M/S NESPAK Consultants and the guidelines of Officers of the Irrigation Department from time to time. Alhamdulillah high flood was passed successfully. Furthermore, the restoration work will be executed during the current year i.e. 2022-23. Pre-Flood inspection team of Drainage & Flood Irrigation Zone and the team constituted by the Secretary Irrigation, Punjab have also visited the site.

FLOOD 2023

During Flood 2023, there was medium flood of discharge 419895 Cusecs dated: 28.07.2023 in River Indus and due to this medium flood, behavior of River Indus become active and it hits various structures like Concavo convex Guide wall at RD: 26+300 of 1-AR Minor, J-Head Spur RD: 34+500 of 1-AR Minor, Stone Studs RD: 15+000 of Khanwah Flood Bund, Stone Studs RD: 15+300 of Khanwah Flood Bund and Stone Studs and apron between RD: 73+000 to 77+500 of Khanwah Flood Bund. Partially damages occurred at these structures. Furthermore, the restoration works will be completed before commencement of flood season 2024. Due to falling of discharge in River Indus, the river drifted towards left flank and started the erosive action along Khanwah Flood Bund from RD: 46+000 to 48+000. The erosive action with developing loop in between RD: 46+000 to 48+000 continued with its pace. The river action approached the top width and damaged partially the top portion as well as slopes of embankment. As there are thickly populated

abadies of Basti Jhalar, Kundai, Laarki, Amano, Mouza Hassan Pur Buha, Police station Kundai, Govt. High Schools, Roads and other infrastructures belonging to Govt. as well as private has become in risk from river erosive action.

FLOOD 2024

During Flood 2024, there was medium flood of discharge 439179 Cusecs dated: 09.08.2024 in River Indus. Due to falling trend of flood water in River Indus emergency has been occurred at various structures like Concavo convex Guide wall at RD: 26+300 of 1-AR Minor, J-Head Spur RD: 34+500 of 1-AR Minor, Reach RD: 49+000 to 51+000 of Khanwah Flood Bund and Partially damages occurred at these structures. Furthermore, the restoration works are completed at site and now the situation is much better.

FLOOD 2025

During Flood 2025, there was high flood of discharge 509477 Cusecs dated: 19.08.2025 in River Indus at D/S Taunsa Barrage. Due to high flood situation in River Indus emergency has been occurred at various structures like Concavo convex Guide wall at RD: 26+300 of 1-AR Minor, J-Head Spur RD: 34+500 of 1-AR Minor, Stone Stud RD: 18+000 and structures between RD: 15-16 of Khanwah Flood Bund. Partially damages has also occurred at these structures as well as Guide head Spur RD: 53+000 of 1-R Minor, Inverted Hockey Spur RD: 61+500 of 1-R Minor, Inverted Hockey Spur RD: 38+000 of 1-AR Minor, 20 No. solid stone stud between RD: 73-77 of Khanwah Flood Bund, Stone Stud RD: 72+500 and Inverted Hockey Spur RD: 71+750 of Khanwah Flood Bund. Furthermore, the restoration works are under progress and will be completed before commencement of flood 2026 and the situation will be much better. Due to non implementation of recommendations of Model Study report IRR-1369 conducted during 2019, these damages are continuously occurring every year. As a permanent solution and for the safety of the area, a request for inclusion in Annual Development Program (ADP) on emergent basis for the scheme "Providing River Training Works along Khanwah Flood Bund from RD: 0+000 to 78+500 to Save Abadies and Other Infrastructures in District Muzaffargarh" has also moved to Administrative Department. After construction of these structures, the area will hopefully be saved permanently.

CHAPTER.

4

Chapter. 4

DESIGN DATA, HISTORIC PEAK FLOOD DATA AND PREVIOUS FIVE YEAR FLOOD DATA OF HEAD WORKS /BARRAGES AND OTHER CONTROL POINTS

4.1 FLOOD LIMITS

INDUS RIVER.

For Taunsa Barrage the various flood stages of River Indus are given below.

Sr. No.	DISCHARGES. Lac (Cusecs)	FLOOD STAGES.
1.	below 2.50	Normal
2.	above 2.50 but below 3.75	Low
3.	above 3.75 but below 5.0	Medium
4.	above 5.0 but below 6.50	High
5.	Above 6.50 but below 8.0	Very High
6.	8.00 or above	Exceptionally High

4.2 TIME LAGS OF FLOODS

INDUS RIVER.

Sr. No	Name of Head Work	Distance in K.M.	Time in Hours
1.	Attack to Kala Bagh Head works	106	36
2.	Kala Bagh H/works to Chashma Barrage	61	24
3.	Chashma Barrage to Taunsa Barrage	152	48
4.	Taunsa Barrage to Ghazi Ghat	40	12
5.	Ghazi Ghat to Mithan Kot	89	28
4.	Mithan Kot to Guddu Barrage	59	24

4.3 HIGHEST FLOODS

INDUS RIVER

The maximum discharge received down stream

Taunsa Barrage on 02-08-2010 = 9,59,117 Cusecs

4.4 PEAK DISCHARGE.

INDUS RIVER D/S TAUNSA BARRAGE

YEAR	DATE	Discharge (in Cs)
2011	01-09-2011	227689
2012	10-08-2012	235389
2013	17-08-2013	468048
2014	18-07-2014	247412
2015	27-07-2015	604772
2016	08-07-2016	343024
2017	05-08-2017	413888
2018	17-08-2018	266123
2019	17-08-2019	373000
2020	06-09-2020	464560
2021	04-08-2021	304121
2022	30-08-2022	622095
2023	28-07-2023	419895
2024	09-08-2024	439179
2025	19-08-2025	509477

CHAPTER.

5

CHAPTER. 5
FLOOD FIGHTING STRATEGY

During flood alert, all the vulnerable points will be kept under keen watching. If any damage occurs to any structure, matter will be brought to the notice of high ups of the department by the concerned S.D.O. In case of any damage, the Standard Operating Procedure (S.O.P's) defined by the Administrative Department.

RIVER INDUS

STAGE-1

When the discharge of River Indus is bellow than 2.5 Lac Cs which is considered as Normal Flood, The Sub Divisional Officer, Jatoi Canal Sub Division will be In-charge of overall Flood operation and the Sub Engineer In-charge of their Sections will perform watching duties in their respective jurisdictions. No special watching is required.

STAGE-2

When the discharge of River Indus is between 2.5 Lac Cs to 3.75 Lac Cs which is considered as Low Flood, The Sub Divisional Officer, Jatoi Canal Sub Division will be In-charge of overall Flood operation and the Sub Engineer In-charge of their Sections will perform watching duties in their respective jurisdictions.

STAGE-3

When the discharge of River Indus is between 3.75 Lac Cs to 5.00 Lac Cs which is considered as Medium Flood, The Executive Engineer, Muzaffargarh Canal Division and the Sub Divisional Officer, Jatoi Canal Sub Division will be In-charge of overall Flood operation and the Sub Engineer In-charge of their Sections will perform watching duties in their respective jurisdictions.

STAGE-4

When discharge of River Indus is between 5.00 Lac Cs to 6.50 Lac Cs which is considered as High Flood, The Executive Engineer, Muzaffargarh Canal Division will be overall In-charge of Flood operation. In addition the Sub Divisional Officers, will be In-charge of watching operations of Flood Bunds along with supervisory staff and Sub Engineer concerned, along with their watching teams as listed in duty roster.

STAGE-5

When discharge of River Indus is between 6.50 Lac Cs to 8.00 Lac Cs which is considered as Very High Flood, The Executive Engineer, Muzaffargarh Canal Division will be overall In-charge of Flood operation. In addition the Sub Divisional Officers, will be In-charge of watching operations of Flood Bunds along with supervisory staff and Sub Engineer concerned, along with their watching teams as listed in duty roster.

STAGE-6

When the discharge is above 8.0 Lac Cs which is considered as Exceptionally High Flood, the Executive Engineer, Muzaffargarh Canal Division will be overall In-charge of Flood operation. The Sub Divisional officer Jatoi Canal Sub Division, along with supervisory staff of all the concerned Sub Engineers will also be responsible for the Flood operation.

Responsibility of Staff

(1) Executive Engineer, of Muzaffargarh Canals Division will be responsible for watch and ward of Muzaffargarh Canal Division. The Executive Engineer, will have an overall control over the flood preparedness and should have clarity in mind how to control and avert any grievous situation developing at any point around Muzaffargarh Canal Division. He should also apprise himself and alert other concerned about weather report and flood forecast.

(2) Sub Divisional Officer's along with their supervisory staff of all the concerned Sub Engineers will also be responsible for watch and ward of Flood operation.

LIAISON WITH OTHER DEPARTMENT

Executive Engineer Muzaffargarh Canal Division and Sub Divisional Officer will keep liaison with their counter parts in other departments. Higher authorities of other department will be approached through Superintending Engineer Muzaffargarh Canal Circle Multan and Chief Engineer Irrigation Zone D.G. Khan if any need arises. At site, Sub Engineers will conduct inspections with the visiting officers of Civil and Army if no higher officer is available on spot.

CHAPTER.

6

CHAPTER. 6

FLOOD DAMAGES RESTORATION WORKS

Damages to the following structures were occurred during flood 2025 and detail of restoration work is as under:-

Sr. No.	Name of Work	Status
1	Restoration of Concavo Convex Guide Wall RD:26+300 of 1-AR Minor damaged during flood 2025	Work is in progress
2	Restoration of J-Head Spur RD:34+500 of 1-AR Minor damaged during flood 2025	Work is in progress
3	Restoration of Guide Head Spur No.1 RD: 53+000 of 1-R Minor damaged during flood 2025	Work is in progress
4	Restoration of Inverted Hockey Spur at RD:61+500 of 1-R Minor damaged during flood 2025	Work is in progress
5	Restoration of Inverted Hockey Spur at RD:38+000 of 1-AR Minor	Work is in progress
6	Restoration of Stone Stud at RD 18+000 of Khanwah Flood Bund damaged during flood 2025	Tender under process
7	Restoration of Stone Stud at RD 15+000, 15+300 & Inverted Hockey Spur at RD 15+650 of Khanwah Flood Bund damaged during flood 2025	Tender under process
8	Restoration of Inverted Hockey Spur at RD:71+750 of Khanwah Flood Bund damaged during flood 2025	Tender under process
9	Restoration of 20 No.s Stone Studs between RD: 74-77 of Khanwah Flood Bund damaged during flood 2025	Tender under process
10	Restoration of Stone Stud at RD 72+500 of Khanwah Flood Bund damaged during flood 2025	Tender under process
11	Restoration of Nabi Pur Minor from RD 19+500 to 28+500 Tail damaged due to flood water of River Chenab	Job order issued to Machinery Division
12	Restoration of Sultan Pur Minor from RD 14+000 to 26+300 Tail damaged due to flood water of River Chenab	Job order issued to Machinery Division
13	Restoration of Khair Pur Minor and Yare Wali Sub Minor damaged due to flood water of River Chenab	Job order issued to Machinery Division
14	Restoration of Ghirri Sub Minor from RD 4+000 to 16+000 tail damaged due to flood water of River Chenab	Job order issued to Machinery Division

CHAPTER.

7

CHAPTER. 7
FLOOD FIGHTING WATCHING ARRANGEMENTS

7.1 PRE-FLOOD ARRANGEMENTS

a. **Flood Warning:** it is important that as soon as the Officer In-charge of canal head works knows about any probable rise in the River, he will initiate the necessary watch over embankment and regulate the weir and canal according to the rules sanctioned for each head works.

b. During High Flood, when the River over flows the banks, expensive area along the River banks is liable to be inundated. It is therefore, necessary to warn civil officer to be on the alert and to be ready to evacuate villages likely to be inundated.

c. For the reasons stated in paragraph above, flood warning are to be sent by higher officer to the Civil administration & other Irrigation officers. Flood warning will be issued by telegraph office to concerned officers.

d. Between the dated October 01 and March 31 warning will be issued immediately when a River rises to "Low" flood level. The Executive Engineer Muzaffargarh Canal Division and Executive Engineer Dera Ghazi Khan will be intimated whenever the gauge at Attock is 10' ft or above.

e. For the period April 01 to September 30 warning will be issued only when a river reaches the "Medium" stage. No warning is issued for low flood during flood season.

SPECIAL FLOOD WARNING TO THE CHIEF ENGINEER

In addition to issuing of warning as described above, when the river rises to the high flood stage, warning by postal \ wireless will also be issued to Chief Engineer from Tarbella Dam, Chashma Barrage, Kala Bagh, Mangla, Marala, Trimmu and Taunsa Barrage.

ADDITIONAL INFORMATION
LATEST POSITION OF RESERVE STOCK OF STONE

Sr #	Name of Structure	Reserve stock Limit Lac Cft	Minimum requirement 70%	Available at Site (In Lac Cft)	Balance Required (In Lac Cft)
1	J-Head Spur No. 1.-A at RD:127+000 of Jatoi Branch	1.500	1.050	0.550	0.500
2	J-Head Spur No. 1 at RD:135+000 of Jatoi Branch	1.500	1.050	1.047	0.003
3	J-Head Spur No. 2. at RD:139+000 of Jatoi Branch	1.500	1.050	0.797	0.253
4	J-Head Spur No. 3. At RD:2+000 Suleman Flood Bund	1.500	1.050	1.050	0.000
5	J-Head Spur No. 4. at RD: 8+400 Suleman Flood Bund	1.500	1.050	0.848	0.202
6	J-Head Spur No. 4-A at RD:9+500 Suleman Flood Bund	1.500	1.050	1.050	0.000
7	Flood Bund along right side of Jatoi Branch	0.200	0.140	0.139	0.001
8	Khanwah Flood Bund RD: 57+000 - 58+000	0.500	0.350	0.000	0.350
9	Guide Spur near Mouza Murali	1.050	0.735	0.544	0.191
10	Inverted Hockey Spur RD: 61+500 of 1-R Minor	1.050	0.735	0.550	0.185
11	Stone Stud Warid Tower	0.490	0.343	0.490	0.000

Sr #	Name of Structure	Reserve stock Limit Lac Cft	Minimum requirement 70%	Available at Site (In Lac Cft)	Balance Required (In Lac Cft)
12	Flood Bund along 1-AR Minor RD: 29+500 - 34+500	0.500	0.350	0.000	0.350
13	Khanwah Flood Bund RD: 75+000 to 76+000	0.700	0.490	0.000	0.490
14	Khanwah Flood Bund RD: 79+000 to 80+000	0.500	0.350	0.077	0.273
15	J-Head Spur No. 5. RD: 7+500 Khan Wah Flood Bund	1.500	1.050	1.050	0.000
16	J-Head Spur No. 6. RD: 9+000 Khan Wah Flood Bund	1.500	1.050	0.218	0.832
17	J-Head Spur at RD: 34+500 of 1-AR Minor	1.500	1.050	0.143	0.907
18	Stone stud RD 12+000 Khan Wah Flood Bund	0.500	0.350	0.343	0.007
19	Stone stud RD 13+000 Khan Wah Flood Bund	0.500	0.350	0.000	0.350
20	Stone Stud RD 31+500 Khan Wah Flood Bund	0.500	0.350	0.000	0.350
21	Guide Spur No. 1 of 1-R Minor at RD:53+000	1.500	1.050	0.151	0.899
22	Concavo convex Guide Wall at RD: 26+300 of 1-AR Minor	1.500	1.050	0.159	0.891
23	Khanwah Flood Bund RD: 15+500 to 18+000	0.530	0.371	0.000	0.371
24	Khanwah Flood Bund RD: 18+000 to 21+000	0.180	0.126	0.000	0.126
25	J-Head Spur at RD: 13+000 of Khanwah Flood Bund	1.500	1.050	0.000	1.05
26	Khanwah Flood Bund between RD: 48+000 to 49+000	1.500	1.050	0000	1.050
	G. Total:-	**26.700**	**18.690**	**9.206**	**9.631**

STATUS OF RESERVE STOCK STONE

Total Sanctioned reserve stock limit.	Minimum requirement 70%	All ready Available Quantity.	Balance Quantity.	Remarks
26.700	**18.690**	**9.206**	**9.631**	04 Nos. works having total quantity to be procured 9.586 Lac Cft are under progress. Balance quantity will be procured before commencement of flood season 2026.

7.2 WATCHING ESTABLISHMENT

Sr. No.	Structure Name	Length (Miles)	Flood Limits							
			Normal Flood Season		Low Flood		Medium/High Flood		Very High/ Exp. High Flood	
			Men	Shift	Men	Shift	Men	Shift	Men	Shift
			1 Person/ 2 mile/Shift (1 Shift)		1 Person/ mile/Shift (1 Shift)		2 Person/ mile/Shift (2 Shift)		5 Person / mile/ Shift (3 Shift)	
1	Khanwah Flood Bund RD:0+000 to 78+500	14.87	7	1	14	1	28	2	70	3
2	Flood Bund along Soharu & Suleman Disty 0+000 to 12+000	2.27	1		2		4		10	
3	Flood Bund along 1-AR Minor RD: 26+300 to 34+000.	3.03	1		3		6		15	
4	Right bank of Jatoi Branch RD: 0+000 to 140+000 (Flood Bund)	26.52	13		26		52		130	
5	Right bank of Muzaffargarh Canal RD: 206+700 to 370+700 (Flood Bund)	31.06	15		31		62		155	
TOTAL Per Shift :-			**37**		**76**		**152**		**380**	
Total			**37**		**76**		**304**		**1140**	
No. of Mates			**3**		**6**		**25**		**95**	

Note:- 01 No. Mate is for every 12 No. Beldars

- Beldar should be provided with hand tools (1 Kassie, 1 Axe and 1 Rechargeable Torch for night shift in case of flood above low flood limit)
- The activities of staff during normal flood season should be included but not limited to:
  - Removing jungle and bushes from slopes and toe of embankment
  - Filling of rain cuts / Gharas
  - Dressing of slopes
  - Filling porcupine and rat holes
  - Keeping the track motorable

Note:- Payment of work charge employees subject to verification by Consultants.

The establishment for maintaining flood embankments will be employed on 15-06-2026 to 15-10-2026 as per requirement stated above. Watching establishment will be employed keeping in view the depth of water above general N.S.L as described below.

7.3 ARRANGEMENT AT SENSITIVE SITES ESTABLISHED CAMPS DETAIL

Sr. No.	Structure Name	Length (Miles)	Vulnerable sites		No. of Camps Established Except Vulnerable Points		
					Normal Flood season/Low Flood	Medium/ High Flood	Very High/Exp. High Flood
			Reach	No. of Camps	15 Miles	7 Miles	5 Miles
1	Khanwah Flood Bund RD:0+000 to 78+500	14.87	14+000-18+000, 56+000 – 57+000 & 70+000 – 78+000	3	-	-	-

Sr. No.	Structure Name	Length (Miles)	Vulnerable sites		No. of Camps Established Except Vulnerable Points		
					Normal Flood season/Low Flood	Medium/ High Flood	Very High/Exp. High Flood
			Reach	No. of Camps	15 Miles	7 Miles	5 Miles
2	Flood Bund along Soharu & Suleman Disty 0+000 to 12+000	2.27	-	0	-	-	-
3	Concavo Convex Guide wall at RD: 26+300 of 1-AR Minor	-	26+300	1	-	-	-
4	J-Head spur at RD: 34+500 of 1-AR Minor	-	34+500	1	-	-	-
5	Inverted Hockey Spur at RD: 61+500 of 1-R Minor	-	61+500	1	-	-	-
6	Right bank of Jatoi Branch RD: 0+000 to 140+000 (Flood Bund)	26.52	-	0	1	3	1
7	Right bank of Muzaffargarh Canal RD: 206+700 to 370+700 (Flood Bund)	31.06	-	0	2	2	2
Total				**6**	**3**	**5**	**3**

Note: The Superintending Engineer (SE) will notify all vulnerable points as per recommendations of Executive Engineer (XEN) and if the vulnerable sites falls within 15 miles of embankment, then camp will be established at vulnerable site.

ARRANGEMENT AT SENSITIVE SITES

1. Khanwah Flood Bund reach RD: 14+000 to 18+000, Khanwah Flood Bund reach RD:56+000 to 57+000, Khanwah Flood Bund in reach RD: 70+000 to 78+500, Inverted Hockey Spur at RD:61+500 of 1-R Minor, Concavo convex Guide wall at RD: 26+300 of 1-AR Minor & J-Head Spur at RD: 35+000 of 1-AR Minor.

Emergency gang of 5 men per mile will be employed when the river rises beyond low flood mark and will be maintained till the end of the season. This strength will be sufficient for medium and high flood stages. In case of very high and exceptionally high flood, this scale may be increased where-ever necessary by the Executive Engineer Muzaffargarh Division in consultation with Superintending Engineer Muzaffargarh Canal Circle Multan.

In case, where it is difficult to get Labour at the time of high discharge, it will be arranged through the civil authorities or contractors. A group of tractors with blade or dozers must be there as a standby arrangement for use in emergency during very high floods.

7.4 WATCHING MATERIAL

Flood fighting material should be purchased on the basis of the worst-case scenario, i.e. for exceptionally high flood. The minimum requirement is as follows:

Minimum requirement of Flood Fighting Materials for Permanent Camp (15 miles)

Sr. No.	Item	Unit	Total Required Quantity	Available Quantity	Balance Quantity	Remarks
1	Shouldari / Tent	No.	01	0	01	Will be Purchased before coming of Flood Season 2026
2	Chairs	No.	06	0	06	
3	Table	No.	01	0	01	
4	Generator (2-3 KVA)	No.	01	0	01	
5	Pedestal Fans	No.	01	0	01	
6	Charpois	No.	02	0	02	
7	Symbolic Jackets	No.	50	0	50	
8	Polythene Sheets	Kg	100	0	100	
9	Bamboos (4" dia and 10 ft long)	No.	100	0	100	
10	Water Cooler	No.	01	0	01	
11	Portable Umbrella	No.	02	0	02	
12	Life Jackets	No.	05	0	05	
13	Utensils (10 person serving)	No.	01	0	01	
14	Jute / Plastic Bags	No.	1000	0	1000	
15	Walke Talkie Set	Set	02	0	02	
16	Raincoats	No.	10	0	10	
17	LED Flood Light	No.	10	0	10	
18	Extension Cable (10 ft)	No.	02	0	02	
19	Rechargeable Torches	No.	20	0	20	
20	Kassi	No.	20	0	20	
21	Axes	No.	20	0	20	
22	G.I Buckets	No.	05	0	05	
23	7/44 cable	Feet	500	0	500	
24	Sutli	Kg	02	0	02	
25	Sewing Needles	No.	10	0	10	
26	Emergency Medical Kit	No.	1	0	1	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No.	100	0	100	

Minimum requirement of Flood Fighting Materials for Temporary Camp: (7 or 5 miles during medium to exceptionally high flood to be outsourced)

Sr. No.	ITEM	UNIT	Total Required Qty	Sr. No.	ITEM	UNIT	Total Required Qty
1	Shouldari / Tent	No.	01	2	Walke Talkie Set	Set	01
3	Chairs	No.	06	4	Raincoats	No.	10
5	Table	No.	01	6	LED Flood Light	No.	10
7	Generator (2-3 KVA)	No.	01	8	Extension Cable (10 ft)	No.	02
9	Pedestal Fans	No.	01	10	Rechargeable Torches	No.	20
11	Charpois	No.	02	12	Kassi	No.	20
13	Symbolic Jackets	No.	50	14	Axes	No.	20
15	Water Cooler	No.	01	16	G.I Buckets	No.	05
17	Portable Umbrella	No.	02	18	7/44 cable	Feet	500
19	Utensils (10 person serving)	No.	01	20	Sutli	Kg	02
21	Jute / Plastic Bags	No.	500	22	Sewing Needles	No.	10

7.5 ARRANGEMENT FOR SOUNDING & PROBING

For every Spur site and vulnerable serious location following arrangement will be made for probing.

S. No.	Item.	Period.
1.	1 Large boat with boatman	01-06-2026 to 30-09-2026
2.	1 Small boat with boatman.	-do-
3.	2 Helpers to boatmen.	-do-
4.	2 Sounders per boat.	-do-

7.6 LIGHTING ARRANGEMENT.

Sufficient stock of dry cell torches, lanterns and patronages etc will be kept available in the emergency store. Mobile Generating set will be arranged at vulnerable points. Sub Engineer concerned assisted by electricians will be responsible to keep these in working order.

7.7 RATION ARRANGEMENT

The Deputy Commissioner, Muzaffargarh and District food controller will make food arrangement. Deputy Commissioner, Muzaffargarh will be requested to keep a reserve stock of following articles at Muzaffargarh Canal Colony for supply to the labour if any flood emergency occurs.

1. Atta 50 mounds. Per week.
2. Gur, 20 mounds. Per week.
3. Onion 10 mounds. Per week.
4. Sugar 10 mounds. Per week.
5. Rice 30 mounds. Per week.

7.8 P.O.L ARRANGEMENT FOR VEHICLE

Reserve stock of P.O.L for vehicle will be kept at Canal Colony Muzaffargarh on the following scale.

1.	Petrol	2500 Liters
2.	Diesel	1500 //
3.	K.Oil	1000 //

7.9 TRANSPORTATION

This Division has two No's jeeps and one No. Toyota double Cabin. 03 No. jeeps and 1 No. Toyota double cabin shall be made available from Executive Engineer, Khangarh Canal Division Muzaffargarh. During extreme emergency, Tehsil Municipal officer Muzaffargarh/Jatoi /Ali Pur Deputy Superintendent Police and Deputy Commissioner Muzaffargarh will be requested to arrange vehicles as per requirements.

7.10 LAW AND ORDER.

Law and Order situation may arise due to occurrence of breach in any of the flood retaining embankment (God forbid). In such a situation Police will maintain the law and order situation.

7.11 MEDICAL ARRANGEMENT FOR LABOUR.

District health office, Muzaffargarh will set up a mobile dispensary on the different points along flood bunds with sufficient medical staff and medicines required against epidemics, snake bit, Choler etc. In case of any eventuality, a mobile dispensary will be kept on wheels at short notice. Executive Engineer Muzaffargarh Canal Division will inform to Civil Administration as well as District Health Officer in such a case.

7.12 LIAISON WITH OTHER DEPARTMENT

Executive Engineer Muzaffargarh Canal Division and Sub Divisional Officer's, Jatoi Canal Sub Division, Jatoi and Muzaffargarh Canal Sub Division, Muzaffargarh will keep liaison with their counter parts in other departments. Higher authorities of other department will be approached through Superintending Engineer Muzaffargarh Canal Circle Multan and Chief Engineer Irrigation Zone D.G.Khan if any need arises. At site, Sub Engineers will conduct inspections with the visiting officers of Civil and Army if no higher officer is available on spot.

7.13 ROLE OF THE ARMY

In case of acute flood emergency, Executive Engineer Muzaffargarh Canal Division will issue SOS message to Deputy Commissioner, Muzaffargarh who will be requested to call the Army. The Deputy Commissioner, Muzaffargarh will be requested to call the Army for immediate help and rescue. It is also appropriate to ask for 100 Army men to be stationed at Jatoi as and when discharge in the River exceeds 8.0 Lac, Cusec.

7.14 DUTIES OF TELEPHONE ATTENDANT

Telephone and Telegraph office are located in office of Executive Engineer Muzaffargarh and in the Canal colony Muzaffargarh as well as in the others Canal Colonies. Telephone attendant and signalers will be available round the clock in order to collect and provide information regarding flood situation. Executive Engineer Muzaffargarh office is telephonically connected with telephone No. 066-9200223 /224.

Name of Official	Period	Time	
		From	To
Qaiser Wazeer	15-06-2026	06:00 AM	02:00 PM
M. Shahid	To	02:00 PM	10:00 PM
M. Waqas	15-10-2026	10:00 PM	06:00 AM

7.15 WIRELESS ARRANGEMENTS

There will be long-range wireless base set in Canal Telegraph office at Muzaffargarh during flood season. Only one mobile set is allowed by the Punjab Flood Commission for vehicle of Executive Engineer Muzaffargarh. There is a necessity of at least two more mobile sets for the vehicles of the Sub Divisional Officer Jatoi Canal Sub Division, Jatoi and Sub Divisional Officer, Muzaffargarh Canal Sub Division, Muzaffargarh. This mobile unit will help the officer while on tour to remain in touch with flood situation. Arrangement of new wireless system is required.

CHAPTER.

8

CHAPTER. 8
DETAIL OF ENCROACHMENT

The encroachment reported by the field staff in the jurisdiction of Muzaffargarh Canal Division has been submitted to the District Coordination Officer Muzaffargarh for taking necessary action against un-authorized occupation.

DETAIL OF NORMAL ENCROACHMENT

Sr. No.	Total Encroachments	Removed	Remaining	Remarks
1	**130**	**30**	**100**	The Balance encroachments will be removed soon with the cooperation / Help of District Administration.

DETAIL OF CRITICAL ENCROACHMENT

Sr. No.	Total Encroachments	Removed	Remaining	Remarks
1	**20**	**8**	**12**	The Balance encroachments will be removed soon with the cooperation / Help of District Administration.

DETAIL

Sr. No.	Name of Bund	Nature of encroachments	Reach RD.	Status
1	Khanwah flood bund	63 No Houses 20 No Shops	0+000 To 78+500	20 No. House removed.
2	Suleman flood bund	27 No Houses 20 No Shops	0+000 to 12+000	10 No. House removed.
Total		**130 No.**		**30 No.**

CHAPTER.

9

CHAPTER. 9
DUTY ROASTER /FLOOD FIGHTING PROGRAM
KHAN WAH FLOOD BUND

Vulnerable Reach RD 14+000 – 18+000, 56+000 – 57+000 & RD 70+000 – 78+500 of Khanwah Flood Bund

Inverted Hockey Spur RD: 61+500 of 1-R Minor

Concavo Convex Guide Wall at RD: 26+300 of 1-AR Minor

J-Head Spur at RD: 34+500 of 1-AR Minor

Contribution of Civil authorities. Tehsil Municipal Officer M.Garh will arrange Average 50. No Volunteers.

Police = 10 No Police men i.e 2 at each site to work for 8 hours.

Army = 100 Hundred Jawans will be requisitioned in extra emergency

DETAIL OF FLOOD FIGHTING/ RELIF CAMPS

Sr. #	Name of embankment	Reach allocated to the camps	Incharge of Camp (Sub Engineer)	NAME OF SDOs
1	Khanwah Flood Bund	14+000 – 18+000	Abdul Rehman 0300-7864992	Dilshad Hussain 0300-4632019
2	Khanwah Flood Bund	56+000 – 57+000	Abdul Rehman 0300-7864992	
3	Khanwah Flood Bund	70+000 – 78+500	Abdul Rehman 0300-7864992	
4	Inverted Hockey Spur RD: 61+500 of 1-R Minor	61+500	M. Bilal 0300-7122822	
5	Concavo Convex Guide wall at RD:26+300 of 1-AR Minor	26+300	Majid Rasol 0345-7527007	
6	J-Head Spur RD: 34+500 of 1-AR Minor	34+500	Majid Rasol 0345-7527007	

ESTABLISHMENT OF CAMP CRITERIA:

Sr. No.	Structure Name	Length (Miles)	Vulnerable sites		No. of Camps Established Except Vulnerable Points		
					Normal Flood season/Low Flood	Medium/ High Flood	Very High/Exp. High Flood
			Reach	No. of Camps	15 Miles	7 Miles	5 Miles
1	Khanwah Flood Bund RD:0+000 to 78+500	14.87	14+000-18+000, 56+000 – 57+000 & 70+000 – 78+000	3	-	-	-
2	Flood Bund along Soharu & Suleman Disty 0+000 to 12+000	2.27	-	0	-	-	-
3	Concavo Convex Guide wall at RD: 26+300 of 1-AR Minor	-	26+300	1	-	-	-

Sr. No.	Structure Name	Length (Miles)	Vulnerable sites		No. of Camps Established Except Vulnerable Points		
					Normal Flood season/Low Flood	Medium/ High Flood	Very High/Exp. High Flood
			Reach	No. of Camps	15 Miles	7 Miles	5 Miles
4	J-Head spur at RD: 34+500 of 1-AR Minor	-	34+500	1	-	-	-
5	Inverted Hockey Spur at RD: 61+500 of 1-R Minor	-	61+500	1	-	-	-
6	Right bank of Jatoi Branch RD: 0+000 to 140+000 (Flood Bund)	26.52	-	0	1	3	1
7	Right bank of Muzaffargarh Canal RD: 206+700 to 370+700 (Flood Bund)	31.06	-	0	2	2	2
Total				**6**	**3**	**5**	**3**

CHAPTER.

10

CHAPTER. 10

EMERGENCY TELEPHONE No's

Sr. No.	Name of officer	Office	Residence/ Cell No
IRRIGATION DEPARTMENT			
1	Secretary Irrigation Department Lahore	042-99212117 042-99212118 Fax #. 042-99212116	
2	Chief Engineer Irrigation Zone D.G Khan	064/9260245 064-9260251 Fax:064-9260252	064-9260539
3	Chief Engineer D&F Lahore.	042-99230602 042-99230368 Fax= 042-35862081	
4	Director Flood Lahore.	042-99231614	
5	Flood Emergency Cell Lahore.	042-99205371-72	---
6	Incharge Flood Relief Cell Board of Revenue Lahore	042-99204409	---
7	Superintending Engineer, Muzaffargarh Canal Circle, Multan.	Phone= 061-9200090 Fax = 061-9200088	0307-4081390
8	Executive Engineer, Muzaffargarh Canal Division, Muzaffargarh.	066/9200223 Fax. 066/9200245	0301-3277500
9	Emergency Flood Control Centre Executive Engineer Office, Muzaffargarh	Phone=066-9200223 Fax=066-9200245	---
CIVIL DEPARTMENT			
10	Deputy Commissioner Office, Muzaffargarh	066-9200264	0669200259 0669200260
11	Assistant Commissioner, Sadar Muzaffargarh	---	0333-6114689
12	Assistant Commissioner, Jatoi	---	0300-4274885
13	Assistant Commissioner, Alipur	---	0346-7143133
14	D.S.P Muzaffargarh	066-9200322	0300-7518331
15	D.S.P Jatoi	066-2591451	0300-6362955
16	D.S.P Alipur	066-2901478	0307-8660000
17	District Emergency Control Centre Muzaffargarh	066-9200260	066-9200256
18	Sub-Divisional Emergency Control Centre Muzaffargarh (T.M.A. Muzaffargarh)	066-9200274	

Sr. No.	Name of officer	Office	Residence/ Cell No
19	Sub-Divisional Emergency Control Centre Muzaffargarh (T.M.A. Alipur)	066-2700824	
20	Sub-Divisional Emergency Control Centre Muzaffargarh (T.M.A. Jatoi)	066-2391277	
21	Emergency Flood Control Centre Deputy Commissioner Office Muzaffargarh	066-9200251 066-9200252-253	9200254
22	D.P.O District Police Office	066-9200311	
23	Wireless Control Center S.P Office Muzaffargarh	066-9200321	
24	District Health Officer Muzaffargarh.	066-9200239	
25	Medical Superintendent Muzaffargarh D.H.Q Hospital Muzaffargarh.	066-9200226	
26	Executive Engineer, Provincial Highway Muzaffargarh	066-2422459	
	ARMY		
27	Military Officer Head Quarter Engineers 2 Corps Multan Cantt.	061-5313388 061-5313389	
28	Military Officer, Head Quarter Engineers 31-Corps Bahawalpur Cantt.	0621/891/2353/2360	

CHAPTER.

11

CHAPTER. 11
STANDARD OPERATING PROCEDURE (SOP) FOR BREACHING SECTIONS

(There is no any breaching section in the jurisdiction of Muzaffargarh Canal Division, Muzaffargarh).

11.1 HISTORY OF THE BREACHING SECTION

Nil

11.2 LOCATION, DESIGN, QUANTITY AND VARIETY OF THE EXPLOSIVE REQUIRED FOR DETONATION.

Nil

QUANTITY AND VARITY OF THE EXPLOSION
STATUS OF EXPLOSIVE / ACCESSRIES

Nil

11.3 ARRANGEMENT OF EXPLOSIVE AND SECURITY OF EXPLOSIVE STORES

Nil

11.4 LIST OF THE SECURITY STAFF ALONGWITH DETAIL OF THEIR TRAINING ETC

Nil

11.5 DETAIL OF MACHINERY MEANS AS STANDBY ARRANGEMENTS IN CASE OF DETONATION FAILURE.

Nil

11.6 DUTY ROASTER IN CASE OF CRITICAL SITUATION

Nil

11.7 BREACHING COMMITTEE WITH THEIR ACTION PLAN

Nil

11.8 LIST OF THE VILLAGES LIKELY TO BE INUNDATED IN CASE OF BREACH

Nil

11.9 ANNOUNCEMENT AND DETAIL OF EVACUATION ARRANGEMENTS

Nil

11.10 DETAILS OF COORDINATION WITH CIVIL /ARMY AUTHORITIES.

Nil

11.11 PARALLEL COMMUNICATION ARRANGEMENTS

Nil

11.12 INDEX PLAN

Nil

CERTIFICATE

It is certified that Part-A of the Flood Fighting Plan 2026 of Muzaffargarh Canal Division, Muzaffargarh is correct entire to my satisfaction.

Executive Engineer
Muzaffargarh Canal Division
Muzaffargarh

Superintending Engineer
Muzaffargarh Canal Circle
Multan

Chief Engineer
D.G. Khan Irrigation Zone
Dera Ghazi khan

P A R T.

B

CHAPTER.

12

Chapter. 12

VULNERABLE SITES ON FLOOD BUNDS /STRUCTURES

12.1 APPREHENDED BREACHES IN FLOOD BUNDS /STRUCTURES

Sr #	Name of Vulnerable site	Reach RD:	Length Ft.	Remarks
1	Khanwah Flood Bund	14+000 – 18+000	4000	Extra ordinary vigilance / watching will be done on all the vulnerable reaches from low flood limits.
2	Khanwah Flood Bund	56+000 – 57+000	1000	
3	Khanwah Flood Bund	70+000 – 78+500	8500	
4	Inverted Hockey Sour RD:61+500 of 1-R Minor	61+500	1000	
5	Concavo Convex Guide wall at RD:26+300 of 1-AR Minor	26+300	1000	
6	J-Head Spur RD: 35+000 of 1-AR Minor	35+000	1000	

12.2 OPERATION OF BREACHING SECTION

No Breaching section exists in Jurisdiction of Muzaffargarh Canal Division, Muzaffargarh.

12.3 BREACHES DUE TO RISE OF FLOOD WATER, DETERIORATION OF FLOOD BUNDS.

Nil

CHAPTER.

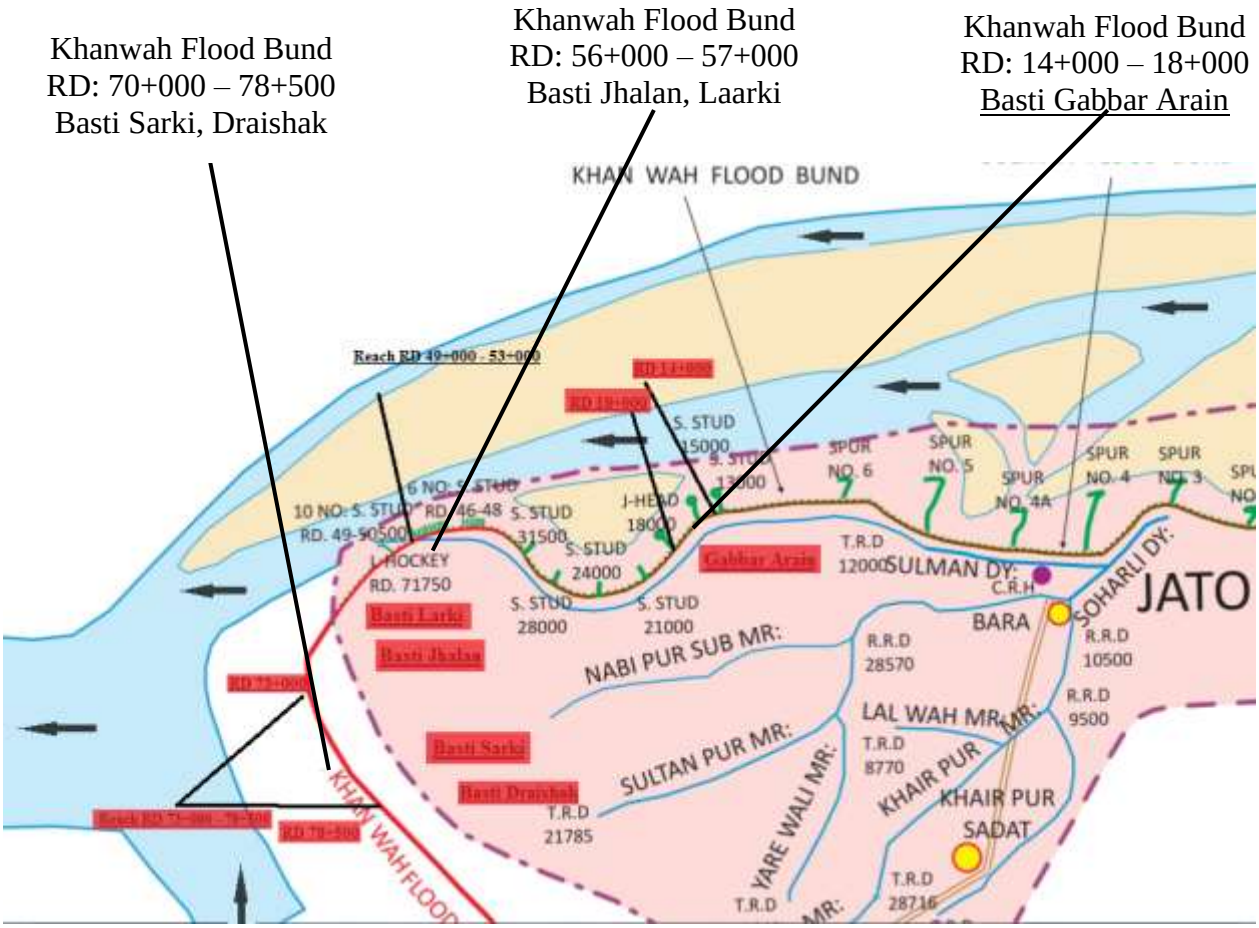
13

EMERGENCY CONTINGENCY PLAN FOR VULNERABLE SITE

SITE.1, 2 & 3

13.1 **PLAN SHOWING ROUTE OF FLOOD WATER COMING OUT OF THE BREACH SUPPORTED WITH LEVELS.**

Plan showing rout of flood water coming out of the breach from reach start



13.2 **DETAIL OF VILLAGES ABADIES LIKELY TO BE AFFECTED AND THIS SHOULD ALSO BE SHOWN ON THE PLAN**

Khanwah Flood Bund between RD: 14+000 – 18+000
Khanwah Flood Bund between RD: 56+000 – 57+000
Khanwah Flood Bund between RD: 70+000 – 78+500
Basti Gabbar Arain, Jhalan, Laarki, Sarki & Basti Draishak

If any mishap occurs at this vulnerable, the flood water will inundate the above abadies / structures and the water will come back into the River near Khanwah Flood Bund in the area of Basti Gabbar Arain, Jhalan, Laarki, Sarki & Basti Draishak and the above abadies / structures, the flooded water will go to the confluence point of River Indus and Chenab (Plan attached herewith).

Sr #	Name of Flood Bund	Reach RD	Length (ft)	Villages to be affected
1	Khanwah Flood Bund	14+000 – 18+000	4000	Basti Gabbar Arain
2	Khanwah Flood Bund	56+000 – 57+000	1000	Basti Jhalan, Basti, Laarki
3	Khanwah Flood Bund	70+000 – 78+500	8500	Basti Sarki, Basti Draishak

13.3 STRATEGY AND ACTION TAKEN BE EXPLAINED IN DETAIL. THIS MAY INCLUDE.

Quick strategy will be adopted according to the flood situation.

13.3.1 ARRANGEMENT.

EMERGENCY GANG

At important and dangers sites, emergency gang in strength of 20 Beldars with one or 2 mates will be maintained from the time the river rises above the prescribed gauges till it finally drops below that gauge. These gang will remain deployed on bunds and will shift to portions share lakes slips or wave action giving trouble for emergent action as deemed necessary In addition to the above, the Executive Engineer will employ additional labours as and when required in emergency under intimation to the superiors.

The Deputy Commissioner Muzaffargarh will be requested to enlistable bodies persons living in the adjoining areas for theirs engagement in case of increased requirements.

13.3.2 ESTABLISHMENT OF FLOOD FIGHTING CAMPS.

FLOOD CAMP

Khanwah Flood Bund between RD: 14+000 – 18+000 (camp at RD: 15+500)
Khanwah Flood Bund between RD: 56+000 – 57+000 (camp at RD: 56+500)
Khanwah Flood Bund between RD: 70+000 – 78+500 (camp at RD: 72+500)

13.3.3 DUTIES OF OFFICERS/OFFICIALS AND THEIR CAMPS

Section	Location	Officer	Official
Bara Section	15+500, 56+500 & 72+500 Khanwah Flood Bund	**Dilshad Hussain Sub Divisional Canal Officer Jatoi Canal Sub Division. Mob # 0300-4632019**	**Abdul Rehman (Sub Engineer) 0300-7864992 3 No. Mans / Shift of 8 Hours.**

13.3.4 DEPARTMENTAL MACHINERY AVAILABLE

Nill

13.3.5 MACHINERY AVAILABLE FROM PRIVATE SOURCES

In case of emergency Private Machinery can be made available locally through Government Contractor.

1. Excavator
2. Dozer
3. Tractor with trolley
4. Tractor with Blade with Hall
5. Truck / Dalla
6. Vehicles.

13.3.6 FLOOD FIGHTING MATERIAL REQUIRED (FOR PERMANENT CAMP)

Sr. No	Item	Unit	Total Required Quantity	Remarks

1	Shouldari / Tent	No.	01	Will be Purchased as per Requirement in Flood Season 2026
2	Chairs	No.	06	
3	Table	No.	01	
4	Generator (2-3 KVA)	No.	01	
5	Pedestal Fans	No.	01	
6	Charpois	No.	02	
7	Symbolic Jackets	No.	50	
8	Polythene Sheets	Kg	100	
9	Bamboos (4” dia and 10 ft long)	No.	100	
10	Water Cooler	No.	01	
11	Portable Umbrella	No.	02	
12	Life Jackets	No.	05	
13	Utensils (10 person serving)	No.	01	
14	Jute / Plastic Bags	No.	1000	
15	Walke Talkie Set	Set	02	
16	Raincoats	No.	10	
17	LED Flood Light	No.	10	
18	Extension Cable (10 ft)	No.	02	
19	Rechargeable Torches	No.	20	
20	Kassi	No.	20	
21	Axes	No.	20	
22	G.I Buckets	No.	05	
23	7/44 cable	Feet	500	
24	Sutli	Kg	02	
25	Sewing Needles	No.	10	
26	Emergency Medical Kit	No.	1	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No.	100	

13.3.7 FLOOD FIGHTING MATERIAL AVAILABLE (FOR PERMANENT CAMP)

The following flood fighting material is available for pre-flood arrangements and the required short items will be purchased before coming flood 2026

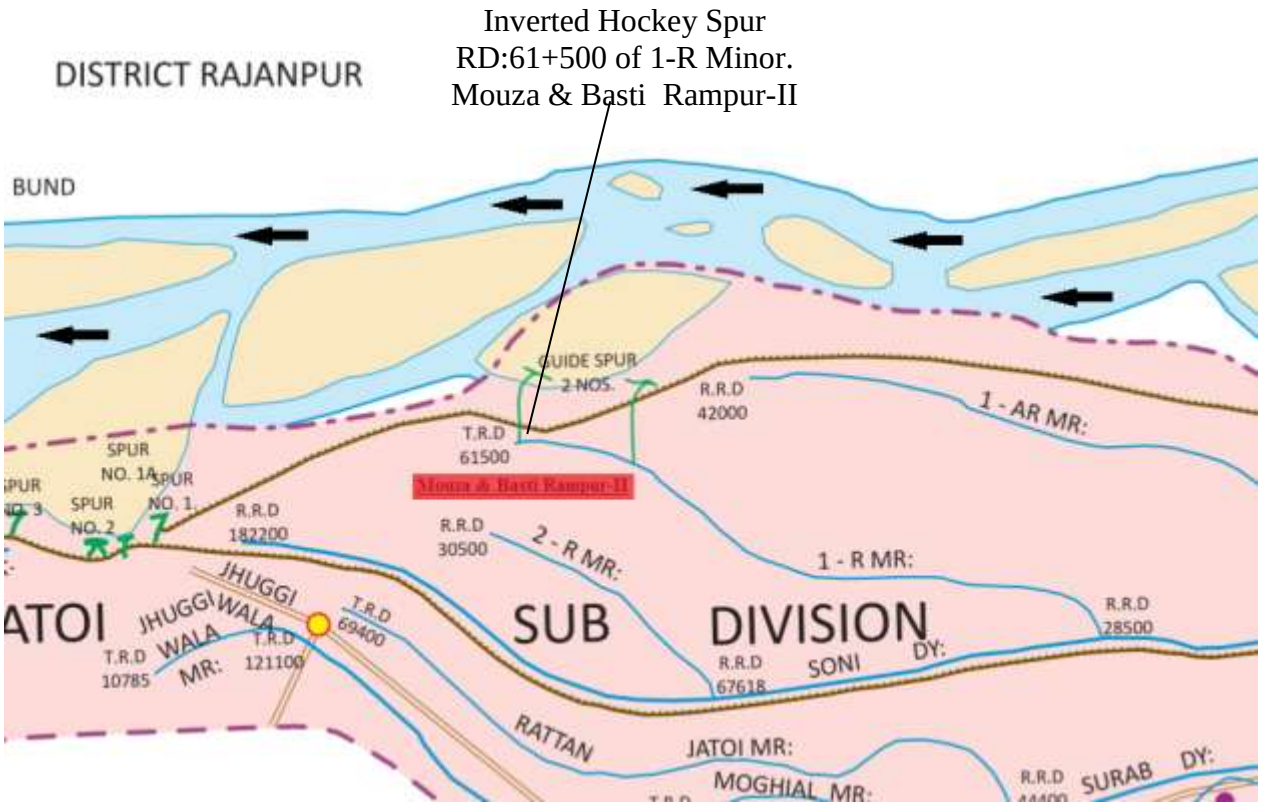
Sr. No	Name of Item	Unit	Total Required Quantity	Available Quantity	Balance Quantity	Remarks
1	Shouldari / Tent	No.	01	0	01	Will be Purchased as per Requirement in Flood Season 2026
2	Chairs	No.	06	0	06	
3	Table	No.	01	0	01	
4	Generator (2-3 KVA)	No.	01	0	01	
5	Pedestal Fans	No.	01	0	01	
6	Charpois	No.	02	0	02	
7	Symbolic Jackets	No.	50	0	50	
8	Polythene Sheets	Kg	100	0	100	
9	Bamboos (4” dia and 10 ft long)	No.	100	0	100	
10	Water Cooler	No.	01	0	01	
11	Portable Umbrella	No.	02	0	02	
12	Life Jackets	No.	05	0	05	
13	Utensils (10 person serving)	No.	01	0	01	
14	Jute / Plastic Bags	No.	1000	0	1000	
15	Walke Talkie Set	Set	02	0	02	
16	Raincoats	No.	10	0	10	
17	LED Flood Light	No.	10	0	10	
18	Extension Cable (10 ft)	No.	02	0	02	
19	Rechargeable Torches	No.	20	0	20	
20	Kassi	No.	20	0	20	
21	Axes	No.	20	0	20	
22	G.I Buckets	No.	05	0	05	
23	7/44 cable	Feet	500	0	500	
24	Sutli	Kg	02	0	02	
25	Sewing Needles	No.	10	0	10	
26	Emergency Medical Kit	No.	1	0	1	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No.	100	0	100	

SITE.4

13.1 **PLAN SHOWING ROUTE OF FLOOD WATER COMING OUT OF THE BREACH SUPPORTED WITH LEVELS.**

Plan showing rout of flood water coming out of the breach from reach start

Inverted Hockey Spur at RD: 61+500 of 1-R Minor.



13.2 **DETAIL OF VILLAGES ABADIES LIKELY TO BE AFFECTED AND THIS SHOULD ALSO BE SHOWN ON THE PLAN**

Inverted Hockey Spur at RD:61+500 of 1-R Minor

Mouza & Basti Rampur-II and other allied abadies.

If any mishap occurs at this vulnerable, the flood water will inundate the above abadies / structures and the water will come back into the River near Inverted Hockey Spur at RD:61+500 of 1-R Minor in the area of Basti Ram Pur and the above abadies / structures, the flooded water will go to the confluence point of Sarki and enter into the River Chenab (Plan attached herewith).

Sr #	Name of Flood Bund	Reach RD	Length (ft)	Villages to be affected
1	Inverted Hockey Spur at RD: 61+500 of 1-R Minor	61+500	1000	Mouza & Basti Rampur-II

13.3 STRATEGY AND ACTION TAKEN BE EXPLAINED IN DETAIL. THIS MAY INCLUDE.

Quick strategy will be adopted according to the flood situation.

13.3.1 ARRANGEMENT.

EMERGENCY GANGE

At important and dangers sites, emergency gang in strength of 20 Beldars with one or 2 mates will be maintained from the time the river rises above the prescribed gauges till it finally drops below that gauge. These gang will remain deployed on bunds and will shift to portions share lakes slips or wave action giving trouble for emergent action as deemed necessary In addition to the above, the Executive Engineer will employ additional labours as and when required in emergency under intimation to the superiors.

The Deputy Commissioner Muzaffargarh will be requested to enlistable bodies persons living in the adjoining areas for theirs engagement in case of increased requirements.

13.3.2 ESTABLISHMENT OF FLOOD FIGHTING CAMPS.

FLOOD CAMP

Inverted Hockey Spur at RD: 61+500 of 1-R Minor

13.3.3 DUTIES OF OFFICERS/OFFICIALS AND THEIR CAMPS

Section	Location	Officer	Official
Jatoi Section	Inverted Hockey Spur at RD:61+500 of 1-R Minor.	**Dilshad Hussain Sub Divisional Canal Officer Jatoi Canal Sub Division. Mob # 0300-4632019**	**M. Bilal (Sub Engineer), 0300-7122822 3 No. Mans / Shift of 8 Hours.**

13.3.4 DEPARTMENTAL MACHINERY AVAILABLE

Nill

13.3.5 MACHINERY AVAILABLE FROM PRIVATE SOURCES

In case of emergency Private Machinery can be made available locally through Government Contractor.

1. Excavator
2. Dozer
3. Tractor with trolley
4. Tractor with Blade with Hall
5. Truck / Dalla
6. Vehicles.

13.3.6 FLOOD FIGHTING MATERIAL REQUIRED (FOR PERMANENT CAMP)

Sr. No	Item	Unit	Total Required Quantity	Remarks
1	Shouldari / Tent	No.	01	Will be Purchased as

2	Chairs	No.	06	per Requirement in Flood Season 2026
3	Table	No.	01	
4	Generator (2-3 KVA)	No.	01	
5	Pedestal Fans	No.	01	
6	Charpois	No.	02	
7	Symbolic Jackets	No.	50	
8	Polythene Sheets	Kg	100	
9	Bamboos (4” dia and 10 ft long)	No.	100	
10	Water Cooler	No.	01	
11	Portable Umbrella	No.	02	
12	Life Jackets	No.	05	
13	Utensils (10 person serving)	No.	01	
14	Jute / Plastic Bags	No.	1000	
15	Walke Talkie Set	Set	02	
16	Raincoats	No.	10	
17	LED Flood Light	No.	10	
18	Extension Cable (10 ft)	No.	02	
19	Rechargeable Torches	No.	20	
20	Kassi	No.	20	
21	Axes	No.	20	
22	G.I Buckets	No.	05	
23	7/44 cable	Feet	500	
24	Sutli	Kg	02	
25	Sewing Needles	No.	10	
26	Emergency Medical Kit	No.	1	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No.	100	

13.3.7 FLOOD FIGHTING MATERIAL AVAILABLE (FOR PERMANENT CAMP)

The following flood fighting material is available for pre-flood arrangements and the required short items will be purchased before coming flood 2026

Sr. No	Name of Item	Unit	Total Required Quantity	Available Quantity	Balance Quantity	Remarks
1	Shouldari / Tent	No.	01	0	01	Will be Purchased as per Requirement in Flood Season 2026
2	Chairs	No.	06	0	06	
3	Table	No.	01	0	01	
4	Generator (2-3 KVA)	No.	01	0	01	
5	Pedestal Fans	No.	01	0	01	
6	Charpois	No.	02	0	02	
7	Symbolic Jackets	No.	50	0	50	
8	Polythene Sheets	Kg	100	0	100	
9	Bamboos (4” dia and 10 ft long)	No.	100	0	100	
10	Water Cooler	No.	01	0	01	
11	Portable Umbrella	No.	02	0	02	
12	Life Jackets	No.	05	0	05	
13	Utensils (10 person serving)	No.	01	0	01	
14	Jute / Plastic Bags	No.	1000	0	1000	
15	Walke Talkie Set	Set	02	0	02	
16	Raincoats	No.	10	0	10	
17	LED Flood Light	No.	10	0	10	
18	Extension Cable (10 ft)	No.	02	0	02	
19	Rechargeable Torches	No.	20	0	20	
20	Kassi	No.	20	0	20	
21	Axes	No.	20	0	20	
22	G.I Buckets	No.	05	0	05	
23	7/44 cable	Feet	500	0	500	
24	Sutli	Kg	02	0	02	
25	Sewing Needles	No.	10	0	10	
26	Emergency Medical Kit	No.	1	0	1	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No.	100	0	100	

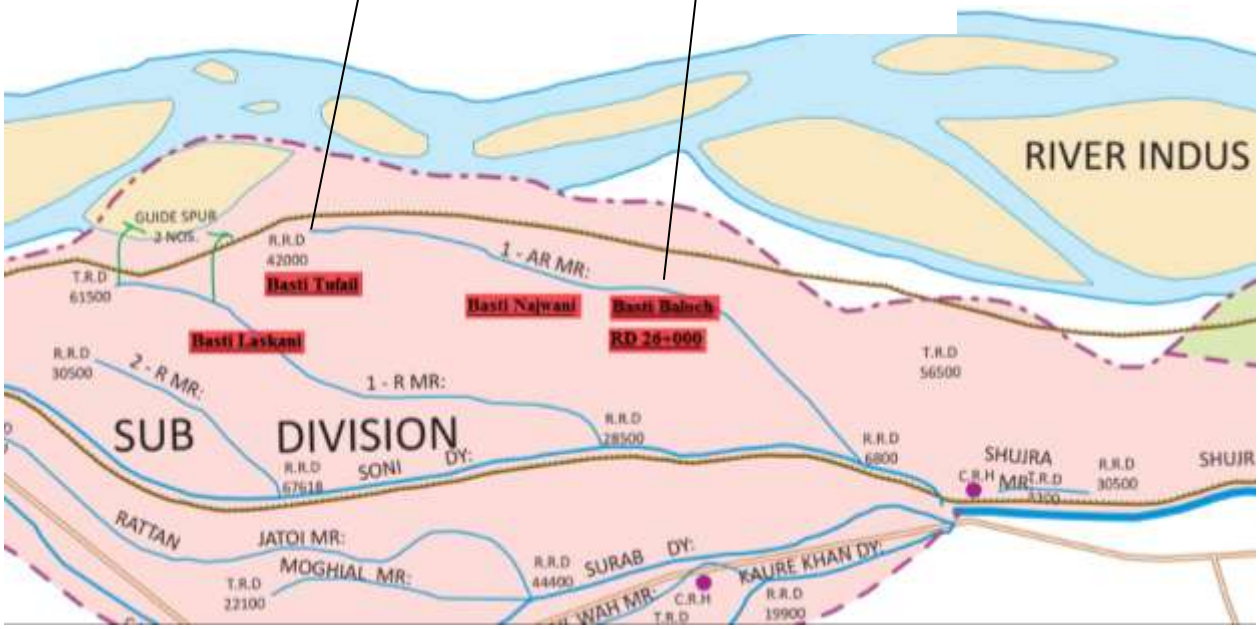
SITE.5 & 6

13.1 **PLAN SHOWING ROUTE OF FLOOD WATER COMING OUT OF THE BREACH SUPPORTED WITH LEVELS.**

Plan showing rout of flood water coming out of the breach from reach start

Concavo Convex Guide Wall at RD: 26+300 of 1-AR Minor
J-Head Spur at RD: 34+500 of 1-AR Minor

1-AR Minor between RD:26+000 to 42+000.
Basti Baloach, Najwani, Tufail, Laskani etc



13.2 **DETAIL OF VILLAGES ABADIES LIKELY TO BE AFFECTED AND THIS SHOULD ALSO BE SHOWN ON THE PLAN**

Concavo Convex Guide Wall at RD: 26+300 of 1-AR Minor
J-Head Spur at RD: 34+500 of 1-AR Minor

Basti Baloach, Najwani, Tufail, Laskani etc

If any mishap occurs at this vulnerable, the flood water will inundate the above abadies / structures and the water will come back into the River near 1-AR Minor between RD:26+000 to 42+000 in the area of Basti Baloach, Najwani, Tufail, Laskani etc and the above abadies / structures, the flooded water will go to the confluence point of Sarki and enter into the River Chenab (Plan attached herewith).

Sr #	Name of Flood Bund	Reach RD	Length (ft)	Villages to be affected
1	Concavo Convex Guide Wall at RD: 26+300 of 1-AR Minor	26+300	1000	Basti Baloach, Najwani etc
2	J-Head Spur at RD: 34+500 of 1-AR Minor	34+500	1000	Basti Tufail, Laskani etc

13.3 STRATEGY AND ACTION TAKEN BE EXPLAINED IN DETAIL. THIS MAY INCLUDE.

Quick strategy will be adopted according to the flood situation.

13.3.1 ARRANGEMENT.

EMERGENCY GANGE

At important and dangers sites, emergency gang in strength of 20 Beldars with one or 2 mates will be maintained from the time the river rises above the prescribed gauges till it finally drops below that gauge. These gang will remain deployed on bunds and will shift to portions share lakes slips or wave action giving trouble for emergent action as deemed necessary In addition to the above, the Executive Engineer will employ additional labours as and when required in emergency under intimation to the superiors.

The Deputy Commissioner Muzaffargarh will be requested to enlistable bodies persons living in the adjoining areas for theirs engagement in case of increased requirements.

13.3.2 ESTABLISHMENT OF FLOOD FIGHTING CAMPS.

FLOOD CAMP

J-Head Spur RD: 34+500 of 1-AR Minor

13.3.3 DUTIES OF OFFICERS/OFFICIALS AND THEIR CAMPS

Section	Location	Officer	Official
Bakaini Section	1-AR Minor between RD: 26+000 – 42+000	**Dilshad Hussain Sub Divisional Canal Officer Jatoi Canal Sub Division. Mob # 0300-4632019**	**Majid Rasool (Sub Engineer) 0345-7527007 3 No. Mans / Shift of 8 Hours.**

13.3.4 DEPARTMENTAL MACHINERY AVAILABLE

Nill

13.3.5 MACHINERY AVAILABLE FROM PRIVATE SOURCES

In case of emergency Private Machinery can be made available locally through Government Contractor.

2. Excavator
3. Dozer
4. Tractor with trolley
5. Tractor with Blade with Hall
6. Truck / Dalla
7. Vehicles.

13.3.6 FLOOD FIGHTING MATERIAL REQUIRED (FOR PERMANENT CAMP)

Sr. No	Item	Unit	Total Required Quantity	Remarks
1	Shouldari / Tent	No.	01	Will be Purchased as

2	Chairs	No.	06	per Requirement in Flood Season 2026
3	Table	No.	01	
4	Generator (2-3 KVA)	No.	01	
5	Pedestal Fans	No.	01	
6	Charpois	No.	02	
7	Symbolic Jackets	No.	50	
8	Polythene Sheets	Kg	100	
9	Bamboos (4” dia and 10 ft long)	No.	100	
10	Water Cooler	No.	01	
11	Portable Umbrella	No.	02	
12	Life Jackets	No.	05	
13	Utensils (10 person serving)	No.	01	
14	Jute / Plastic Bags	No.	1000	
15	Walke Talkie Set	Set	02	
16	Raincoats	No.	10	
17	LED Flood Light	No.	10	
18	Extension Cable (10 ft)	No.	02	
19	Rechargeable Torches	No.	20	
20	Kassi	No.	20	
21	Axes	No.	20	
22	G.I Buckets	No.	05	
23	7/44 cable	Feet	500	
24	Sutli	Kg	02	
25	Sewing Needles	No.	10	
26	Emergency Medical Kit	No.	1	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No.	100	

13.3.7 FLOOD FIGHTING MATERIAL AVAILABLE (FOR PERMANENT CAMP)

The following flood fighting material is available for pre-flood arrangements and the required short items will be purchased before coming flood 2026

Sr. No	Name of Item	Unit	Total Required Quantity	Available Quantity	Balance Quantity	Remarks
1	Shouldari / Tent	No.	01	0	01	Will be Purchased as per Requirement in Flood Season 2026
2	Chairs	No.	06	0	06	
3	Table	No.	01	0	01	
4	Generator (2-3 KVA)	No.	01	0	01	
5	Pedestal Fans	No.	01	0	01	
6	Charpois	No.	02	0	02	
7	Symbolic Jackets	No.	50	0	50	
8	Polythene Sheets	Kg	100	0	100	
9	Bamboos (4” dia and 10 ft long)	No.	100	0	100	
10	Water Cooler	No.	01	0	01	
11	Portable Umbrella	No.	02	0	02	
12	Life Jackets	No.	05	0	05	
13	Utensils (10 person serving)	No.	01	0	01	
14	Jute / Plastic Bags	No.	1000	0	1000	
15	Walke Talkie Set	Set	02	0	02	
16	Raincoats	No.	10	0	10	
17	LED Flood Light	No.	10	0	10	
18	Extension Cable (10 ft)	No.	02	0	02	
19	Rechargeable Torches	No.	20	0	20	
20	Kassi	No.	20	0	20	
21	Axes	No.	20	0	20	
22	G.I Buckets	No.	05	0	05	
23	7/44 cable	Feet	500	0	500	
24	Sutli	Kg	02	0	02	
25	Sewing Needles	No.	10	0	10	
26	Emergency Medical Kit	No.	01	0	01	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No.	100	0	100	

DETAIL

Main Camps at offices of the Sub Divisional Officer Jatoi Canal Sub Division.

Sr. No	Site of Camp	Section	Establishment per shift of 8 hours (Man)
JATOI CANAL SUB DIVISION			
1	Khanwah Flood Bund RD: 14+000 to 18+000	Bara	3
2	Khanwah Flood Bund RD: 56+000 to 57+000	Bara	3
3	Khanwah Flood Bund RD: 70+000 to 78+500	Bara	3
4	Inverted Hockey Spur RD: 61+500 of 1-R Minor	Jatoi	3
5	J-Head Spur RD: 34+500 of 1-AR Minor	Bakaini	3
6	Concavo Convex Guide Wall at RD: 26+300 of 1-AR Minor	Bakaini	3
7	Reach RD: 140+000 of Jatoi Branch	Jatoi	3

DUTIES OF OFFICERS/OFFICIALS AND THEIR CAMPS

S.#	Name of Flood Bund/Structure	Sub Divisional Officer	Sub Engineer	Mate
a.	Khanwah Flood Bund RD: 14+000 to 18+000	Dilshad Hussain	Abdul Rehman	Abdul Sattar
b.	Khanwah Flood Bund RD: 56+000 to 57+000		Abdul Rehman	Abdul Sattar
c.	Khanwah Flood Bund RD: 70+000 to 78+500		Abdul Rehman	M. Saleem
d.	Inverted Hockey Spur RD: 61+500 of 1-R Minor		M. Bilal	M. Ahsan
e.	J-Head Spur RD: 34+500 of 1-AR Minor		Majid Rasool	M. Aazam
f.	Concavo Convex Guide Wall at RD: 26+300 of 1-AR Minor		Majid Rasool	M. Tahir
g.	Reach RD: 140+000 of Jatoi Branch		M. Bilal	M. Ahsan

13.4 DETAIL OF OTHER INFRASTRUCTURE LIKE ELECTRIC, SUI GAS, TELEPHONE INSTALLATIONS, ROAD NETWORK, OTHER BUILDINGS, CANALS AND DRAINAGE NETWORK.

Electric line Gas pipe line, Telephone Line and Roads are passing, other building i.e Petrol Pumps, Cotton Factories and Rice Factories are also present in surrounding localities.

Muzaffargarh Canal Jatoi Branch and its system located along left side of River Indus.

CANALS

a. 1-R Minor, 2-R Minor, Sony Disty and Jatoi Branch.
b. Nabi Pur Minor, Mithan Wali Minor, Yare Wali Minor Ghiri Minor
c. Nabi Pur Minor Sultan Pur Minor

ROADS

a. Shah Jamal to Jatoi Road.
b. Ali Pur to Khair Pur, Khair Pur to Gabar Arrain, Ali Pur to Seet Pur.
c. Seet Pur to Sultan Pur, Sultan Pur to Nabi Pur, Seet Pur to Khangarh Doma
d Khangarh Doma to Sarki Road.

BACK UP DIVISION

River Diversion Division at Muzaffargarh & Khangarh Canal Division at Muzaffargarh will act as back up Division in case of emergency.

CHAPTER

14

ACTION PLAN

14.1 RE-SHUFFLING/RECOUPING PLAN OF RESERVE STONE DEPARTMENTALLY

By deploying Private Contractor for re-shuffling/recouping plan of Reserve Stone in case of any emergency.

14.2 DETAIL OF INLET/OUTLET CROSSING ALONG WITH CLOSING METHODOLOGY.

Sr. No.	Name of Embankment / Bund	Reach	Length (ft)	Category (A/B/C)	Outlet crossing RD's
RIVER INDUS					
1	Right Side of Jatoi Branch	RD:0-140000	140000	B	RD:127-128, 132-133 **(Total = 2 No.)**
2	Suleman Flood Bund	RD:0-12000	12000	B	N I L.
3	Khan Wah Flood Bund	RD 0-78+500	78500	A	RD: 20-21, 26-27, 28-29, 29-30, 30-31, 33-34, 36-37, 37-38, 39-40, 41-42, 44-45, 45-46, 48-49, 50-51 **(Total = 14 No.)**

14.3 DEVELOPMENT MACHINERY (NORMAL TO LOW FLOOD)

Sr. No.	Structure Name	Length (Miles)	Excavators	Trolleys	Dumpers	Tractor with Front blade (1 per 15 mile)
1	Khanwah Flood Bund RD:0+000 to 78+500	14.87	S.E shall allow deputation of one (1) excavator & four (4) Trolleys during low flood at camps/vulnerable points & LMB / RMB		-	1
2	Flood Bund along Soharu & Suleman Disty 0+000 to 12+000	2.27			-	-
3	Flood Bund along 1-AR Minor RD: 26+300 to 34+000.	3.03			-	-
4	Right bank of Jatoi Branch RD: 0+000 to 140+000 (Flood Bund)	26.52			-	1
5	Right bank of Muzaffargarh Canal RD: 206+700 to 370+700 (Flood Bund)	31.06			-	2
Total					-	**4**

14.4 DEVELOPMENT MACHINERY (MEDIUM TO HIGH FLOOD)

Sr. No.	Structure Name	Length (Miles)	Excavators	Trolleys	Dumpers	Tractor with Front blade
			1 per 7 mile	4 per 7 mile	2 per 7 mile	1 per 7 mile
1	Khanwah Flood Bund RD:0+000 to 78+500	14.87	2	8	4	2
2	Flood Bund along Soharu & Suleman Disty 0+000 to 12+000	2.27	-	-	-	-
3	Flood Bund along 1-AR Minor RD: 26+300 to 34+000	3.03	-	-	-	-
4	Right bank of Jatoi Branch RD: 0+000 to 140+000 (Flood Bund)	26.52	4	14	8	4
5	Right bank of Muzaffargarh Canal RD: 206+700 to 370+700 (Flood Bund)	31.06	4	16	8	4
Total			**10**	**38**	**20**	**10**

14.5 DEVELOPMENT MACHINERY (VERY HIGH TO EXP HIGH FLOOD)

Sr. No.	Structure Name	Length (Miles)	Excavators		Trolleys	Dumpers	Tractor with Front blade	
			Very High Flood	Exp. High Flood	4 per 5 mile	2 per 5 mile	Very High Flood	Exp. High Flood
			1 per 5 mile	2 per 5 mile			1 per 5 mile	2 per 5 mile
1	Khanwah Flood Bund RD:0+000 to 78+500	14.87	3	6	12	6	3	6
2	Flood Bund along Soharu & Suleman Disty 0+000 to 12+000	2.27	-	-	-	-	-	-
3	Flood Bund along 1-AR Minor RD: 26+300 to 34+000.	3.03	-	-	-	-	-	-
4	Right bank of Jatoi Branch RD: 0+000 to 140+000 (Flood Bund)	26.52	5	10	20	10	5	10
5	Right bank of Muzaffargarh Canal RD: 206+700 to 370+700 (Flood Bund)	31.06	6	12	24	12	6	12
Total			**14**	**28**	**56**	**28**	**14**	**28**

14.6 POLICE DEPLOYMENT PLAN

Sr No	Vulnerable sites used for illegal cuts during floods	Concerned Canal Division	Concerned Police station	Police persons deployed		Remarks (if any)
				Inspector /SI/ ASI	Constable	
1	Khanwah Flood Bund RD: 14+000 – 18+000	Muzaffargarh Canal Division	Seet Pur	1 No	3 No	
2	Khanwah Flood Bund RD: 56+000 – 57+000	Muzaffargarh Canal Division	Kundai	1 No	3 No	
3	Khanwah Flood Bund RD: 70+000 – 78+500	Muzaffargarh Canal Division	Kundai	1 No	3 No	
4	Inverted Hockey Sour RD: 61+500 of 1-R Minor	Muzaffargarh Canal Division	Jatoi	1 No	3 No	
5	J-Head Spur RD: 35+000 of 1-AR Minor	Muzaffargarh Canal Division	Bait Meer Hazar	1 No	3 No	
6	Concavo Convex Guide Wall at RD: 26+300 of 1-AR Minor	Muzaffargarh Canal Division	Bait Meer Hazar	1 No	3 No	

14.7 DETAILS OF SYNTHETIC BAGS WITH CAPACITY OF 50KG AND 100KG.

Funds are awaited on receipt of funds synthetic bags with capacity of 50 kg and 100 kg will be recouped.

Sr. No.	Capacity	Required Quantity	Available Quantity	Balance Quantity	Remarks
1	50 Kg	500 No.	-	500 No.	Will be procured before upcoming flood season 2026
2	100 Kg	500 No.	-	500 No.	

14.8 DETAILS OF POLYTHENE SHEETS OF BLACK COLOR TO PROTECT UPSTREAM SLOPE AGAINST WAVE ACTION AND TO CONTROL SEEPAGE THROUGH EMBANKMENTS.

Funds are awaited on receipt of funds polythene sheets of black color to protect upstream slope against wave action and to control seepage through embankments.

Sr. No.	Required Quantity	Available Quantity	Balance Quantity	Remarks
1	5000 Square Feet	-	5000 Square Feet	Will be procured before upcoming flood season 2026

14.9 ANY OTHER DETAILS AS PER SOPS APPROVED BY ADMINISTRATIVE DEPARTMENT. (RECOMMENDATIONS FOR OPERATION DURING FLOOD)

Recommendations for Operation During Flood

i. The Superintending Engineer (SE) will notify all vulnerable points on the recommendations of Executive Engineer (XEN) and if the vulnerable site falls within 15 miles of embankment, then camp will be established at vulnerable site.

ii. Superintending Engineer shall allow deputation of one (1) excavator and four (4) Trolleys during low flood at Camps/ vulnerable points and LMB/RMB.

iii. The Superintending Engineer (SE) shall approve one additional shift during low to high flood based on necessity of site but he shall clearly mention the reach where additional shift is allowed.

iv. For emergent situation when very high flood levels are attained at lower flood discharges, additional camps may also be established with the approval of Superintending Engineer.

v. The concerned division shall procure flood fighting material as per requirement of seasonal flood fighting camps.

vi. Jackets with official emblem of the PID should be purchased by the concerned Division, to be used during the worst-case scenario, i.e., for exceptionally high flood.

vii. All others camps and supplies along with establishment i.e. Beldars and mates shall be outsourced before the flood season for operational efficiency during the flood fighting activities.

viii. The above mentioned yard stick of human resource is inclusive of 100% of regular flood establishment of the division at normal and low flood and for medium and above flood situation 50% of total regular establishment of the division and backup division in Flood Fighting Plan.

ix. The **Trigger Point** upstream of a Canal Division for commencing preparations shall be mentioned in the flood fighting plan and it shall be such point upstream with lag time of 3 days / 72 hours. The division shall initiate preparation corresponding to discharge magnitude expected to receive at their jurisdiction with respect to discharge at trigger point with 2025 flood data.

6

SE MBN

x. Superintending Engineers shall approve additional resources above the approved FFP on the recommendations of Executive Engineer based on site necessity with copy to TPM and respective Chief Engineer but must mentioned the reach and justify the reason for additional resources in approval.

xi. Executive Engineers (XEN) shall decide the location and relocation of flood camps.

xii. The machinery mentioned above should be hired to remain standby for 24/7 to fight any extreme situation. The working of deployed machinery during normal situation shall be with prior approval of Superintending Engineer.

xiii. Communication means must be arranged through the Government. It is recommended to allocate a unique frequency for irrigation department.

xiv. In the event that water levels reach the 'High Flood' threshold even if the recorded discharge remains below established benchmarks, all field preparations and personnel deployments must immediately escalate to Critical Level protocols.

(Zeeshan Ali)
Member/ SE, Project Circle DG Khan

(Abdul Qayyum Qadume)
Member / SE, Mailsi Canal Circle, Multan

19/01/2026

(Mohib Ullah Ali)
Member / SE, Sukhrawa Canal Circle, Sahiwal

19-01-26

(Imtiaz Hussain)
Member / SE, Bahawalpur Canal Circle

(Sammar Iqbal)
Member / SE, LCC(West) Canal Circle, Faisalabad 19/01/26

(Hafiz Ijaz Ahmed)
Member / SE, Mandi Bahauddin Canal Circle 19/1/26

(Mudassar Rehan)
Member / SE Link Circle, Lahore 19/01/26

(Khurram Amin)
Convener / Chief Engineer, Drainage & Flood Zone, Lahore.

CHAPTER

15

BACKUP DIVISIONS

In case of emergency River Diversion Division & Khangarh Canal Division at Muzaffargarh will be back-up division.

Executive Engineer
Muzaffargarh Canal Division
Muzaffargarh

Superintending Engineer
Muzaffargarh Canal Circle
Multan

Chief Engineer
D.G. Khan Irrigation Zone
Dera Ghazi khan

CERTIFICATE

It is certified that Part-B of the Flood Fighting Plan 2026 of Muzaffargarh Canal Division, Muzaffargarh is correct entire to my satisfaction.

Executive Engineer
Muzaffargarh Canal Division
Muzaffargarh

Superintending Engineer
Muzaffargarh Canal Circle
Multan

Chief Engineer
D.G. Khan Irrigation Zone
Dera Ghazi khan

FOLLOW UP ACTIONS ON FLOOD PREPAREDNESS ACTIVITES FOR THE YEAR 2026

Sr. No.	Irrigation Zone	Preparation of Flood Fighting Plan	Field Inspection (Certificates)	Removal of Encroachments	repair/ painting of Gauges, RD Marks, Data	Reserve Stock of Stone	Inspection Notes	Status of Breaching Sections	Status of Explosive Stores	Security of Explosive Stores	Notification of Flood Emergency Officer	Purchase of Flood Fighting Material
1	2	3	4	5	6	7	8	9	10	11	12	13
1	D.G. Khan	Flood Fighting Plan submitted to Chief Engineer D&F for vetting vide XEN M.Garh No.CEIDGK/MZCD/MZFR/O/260328/0129 dated:28.03.2026	Certified that I have been inspecting the Flood Bund and found satisfactory. Necessary repair is in progress.	The list of encroachments has already been submitted to the DCO/ DPO, Muzaffargarh for removal.	The work of Repairing and painting of gauges, RD Marks and Data Boards will be completed upto 30.06.2026	Reserve Stock Limit submitted to Chief Office for Approval.	I have been inspected the flood bunds, necessary repair is in progress.	No breaching section existing in jurisdiction of this division.	The explosive store is available at Head Quarter Engineer 21 Battalion Core Abdul Hakeem.	Responsibility of 2 Core Abdul Hakeem.	Dilshad Hussain SDO Jatoi is notified as flood emergency Officer / Focal Person	Sufficient Flood fighting material is available as per provision in the flood fighting plan short item will be purchase soon.