GOVERNMENT OF PUNJAB

IRRIGATION DEPARTMENT

SARGODHA IRRIGATION ZONE, SARGODHA

FLOOD FIGHTING PLAN 2026

KHANSAR CANAL DIVISION KALLURKOT

BHAKKAR CANAL CIRCLE BHAKKAR

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FLOOD FIGHTING PLAN 2026

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PART-A

CHAPTER-1

SALIENT FEATURES OF THE KHANSAR CANAL DIVISION KALLURKOT

1.1 **LOCATION.**

Khansar Canal Division is located at Tehsil Kallurkot. Divisional Office is at 25 miles Down Stream of Chashma Barrage along the left bank of River Indus. The jurisdiction of Khansar Canal Division starts from Tibba Mehrban Shah Tehsil Piplan of District Mianwali & end at Darya khan, Bridge of District Bhakkar.

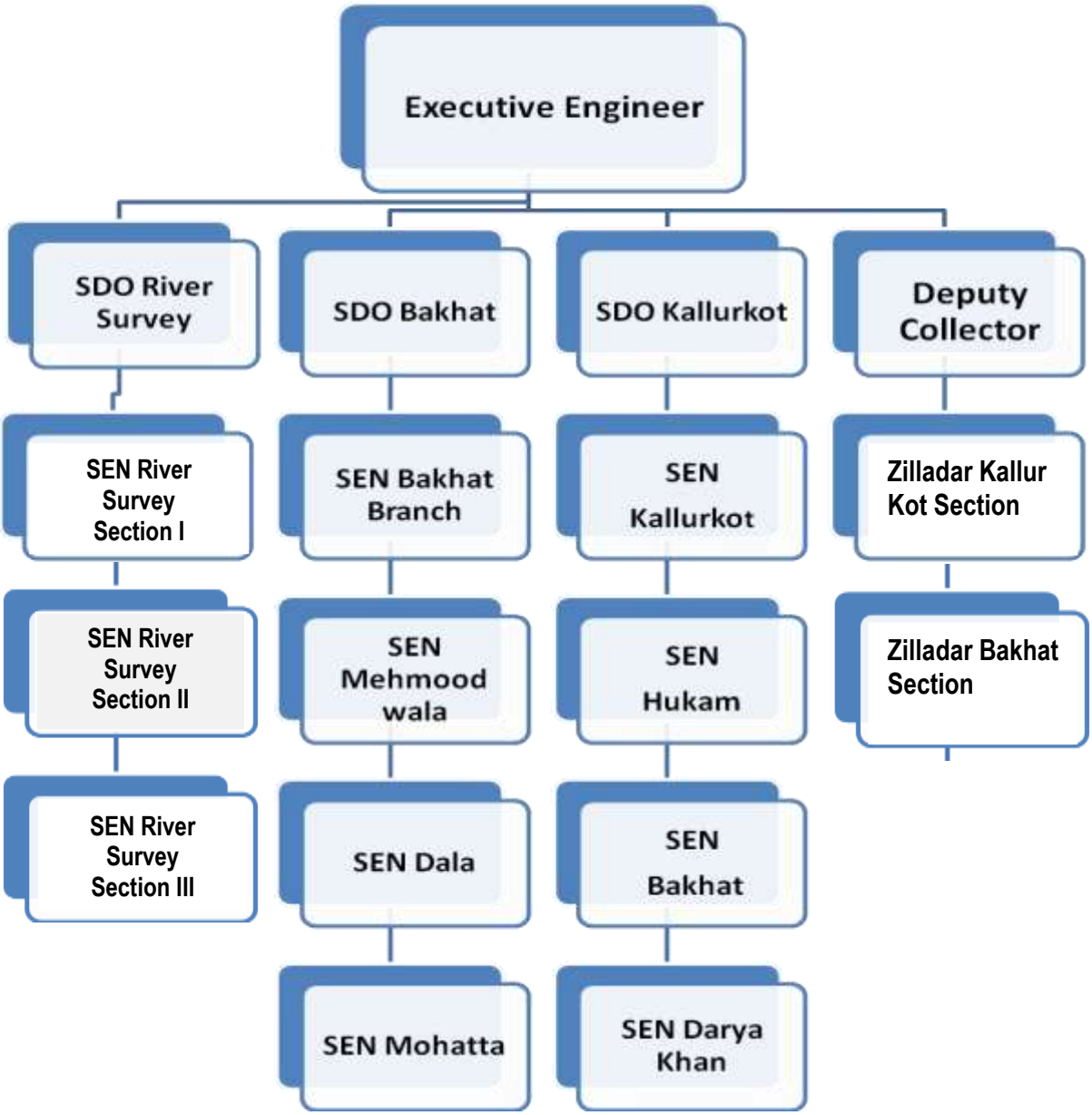
1.2 **GENERAL DESCRIPTION.**

Khansar Canal Division comprises of three Sub Divisions namely Kallurkot, Canal Sub Division Bakhat Canal Sub Division and River Survey Sub Division, Kallurkot. Executive Engineer Khansar Canal Division Kallurkot is the incharge of the Division. His primary duty is equitable distribution of canal water and safe running of irrigation channels in addition to proper watch and control of flood structures built for safety of Kallurkot city and other infrastructure in Tehsil Kallur Kot. The jurisdiction of Khansar Canal Division starts from RD 131+000 of Thal Canal Main Line Lower and extends up to RD 291+000 with its off taking distributaries and minors. The length of channels is 279.51 Miles. The gross commanded area of Khansar Canal Division is 313876 acres. The area of Thal Canal Main Line lower falling in the jurisdiction of Khansar Canal Division is spread over into two Districts as under.

Name of District	G.C.A (Acres)	C.C.A (Acres)
Mianwali.	4530	4495
Bhakkar	313876	263387
Total	**318401**	**267882**

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1.3 ADMINISTRATIVE SETUP



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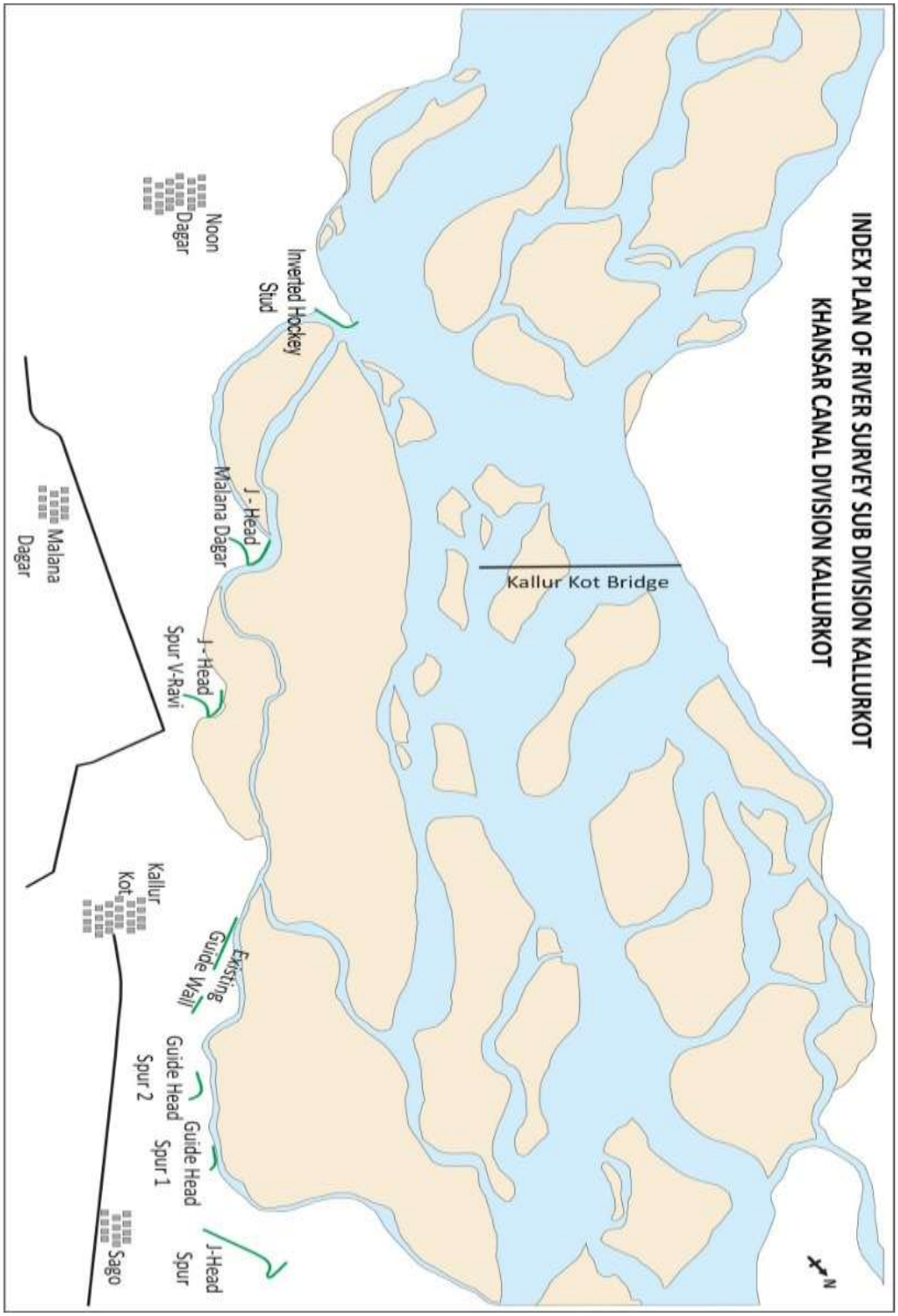
CHAPTER-2
FLOOD PROTECTION AND RIVER TRAINING WORKS

2.1 DESIGN PARAMETERS OF TRAINING WORKS

Sr. No.	Name of Flood Structures	Length (Feet)	Mile	Top width	Side Slope		Free board	Condition
				Feet	River side	Country side	Feet	
1	J-Head spur Saggu Shumali at Kallurkot	3491	0.70	30	3:1	2:1	6	Satisfactory
2	Guide spur No.01	955	0.19	30	3:1	2:1	6	Satisfactory
3	Stud No.1	380	0.08	30	3.:1	2:1	6	Satisfactory
4	Stud No. 2	380	0.08	30	3:1	2:1	6	Satisfactory
5	Guide spur No.2	865	0.17	30	3:1	2:1	6	Satisfactory
6	Guide wall at Kallurkot	8000	1.60	25	3:1	2:1	6	Satisfactory
7	J-Head spur Village Ravi	1983	0.40	30	3:1	2:1	6	Satisfactory
8	J-Head spur Daggar Malana	1993	0.40	30	3:1	2:1	6	Satisfactory
9	Sloping stud u/s Daggar Noon Village/L River Indus	745	0.15	30	3:1	2:1	6	Satisfactory
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	1109	0.22	30	3:1	2:1	6	Satisfactory

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2.2 LOCATION MAP



CHAPTER-3

BRIEF HISTORY OF PAST FLOOD EVENTS

The Indus River originates from the Tibetan Plateau (China) and drains out into the Arabian Sea while passing through India, Afghanistan and Pakistan. It is the main river of Indus Basin with length 3180 km. It is a snow cum rain fed river. The typical pattern of flow is advent in summer season, when snow starts melting along with rain falls and discharge goes on rising in monsoon season, rain becomes the main reason for high discharges and floods. After the subsidence of flows, a changed and new pattern of river bed behavior exposed which causes development of new creeks and bellas in river bed.

River Indus enters into the boundary of Bhakkar District near Saggu Shumali at Kallurkot. A bridge is constructed on river near kallur kot city which link Province of Punjab with Khyber Pakhtunkhwa through tehsil Kallurkot.

The flood infrastructure of Khansar Canal Division consists of J.Head spur Saggu Shumali, Guide spur No.01, Stud No. 1,2, Guide spur No.2, Guide wall at Kallurkot, J.Head spur Village Ravi, J.Head spur Daggar Malana, Sloping stud Daggar Noon, Inverted hockey stud near Daggar Noon on left bank of River Indus were constructed in 1990-2014 and are located about 3 km upstream Kallurkot City to 10km D/S kallur kot city to ensure the safely of kallur kot city, Villages, Abadies, Agricultural Land, Road, Railway Line and other infrastructures. These structures are playing successful role to save the Abadies and infrastructures on left of bank of river indus.

River Indus D/S Chashma Barrage passed exceptionally high flood in 2010 and is pass safely from the jurisdiction of Khansar Canal Division Kallurkot, However some minor damages of River Training Works in Kallurkot Sub Division were reported in flood 2015. The high flood was also pass 6,18000Cs safely and no any damage was reported.

Last two-year flood season in 2025 the total discharge 4,97000Cs also pass safely in the jurisdiction of Khansar Canal Division.

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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

Since there is no Head` works / Barrage in the jurisdiction of Khansar Canal Division. Therefore, this Division has to come active with respect to discharge downstream Chashma Barrage River Indus. The terminology of different kind of flood is low, Medium, High, Very high and exceptionally high will be taken as such in the light of message received from Chashma Barrage.

MENTIONED LIMIT TABLE

Sr. No.	Site	Up to Low Flood	Up to Medium Flood	Up to High Flood	Up to Very High Flood	Exceptionally High Flood
1	River Indus downstream Chashma Barrage	250000 Cs to 375000 Cs	375000 Cs to 500000 Cs	500000 Cs to 650000 Cs	650000 Cs to 800000 Cs	800000 Cs and above

4.2 TIME LAGS OF FLOODS

Sr. No.	Site	Mile	Hours
1	Distance from Attock to Jinnah Barrage Kalabagh	106	48
2	Distance from Jinnah Barrage Kalabagh to Chashma Barrage	41	18
3	Distance from Chashma Barrage to Kallurkot	25	7.30

4.3 HIGHEST FLOODS

YEAR	DATE	DISCHARGE
1976	1976	7,87,000 Cs
1998	17-07-1998	5,02,948 Cs
2005	18-07-2005	5,15,581 Cs
2010	**01-08-2010**	**10,38,873Cs**
2013	15-08-2013	5,59,935 Cs
2015	03-08-2016	6,18,626 Cs
2016	06-07-2016	3,74,610 Cs
2017	05-08-2017	4,46,361 Cs
2019	11-08-2019	3,63,783 Cs
2020	03-09-2020	4,91,184 Cs
2021	02-08-2021	3,44,907 Cs
2022	28.08.2022	5,23,937 Cs
2023	25.07.2023	4,15,651 Cs
2024	09.08.2024	4,17,763 Cs
2025	17.05.2025	4,97,435 Cs

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4.4 PEAK DISCHARGES (Last 10 Years)

YEAR	DATE	DISCHARGE
2016	06-07-2016	3,74,610 Cs
2017	05-08-2017	4,46,361 Cs
2018	16-08-2018	2,86,554 Cs
2019	11-08-2019	3,63,783 Cs
2020	03.09.2020	4,91,184 Cs
2021	02-08-2021	3,44,907 Cs
2022	28.08.2022	5,23,937 Cs
2023	25.07.2023	4,15,651 Cs
2024	09.08.2024	4,17,763 Cs
2025	17.05.2025	4,97,435 Cs

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CHAPTER-5

FLOOD FIGHTING STRATEGY

All precautionary measures will be adopted to cope with any eventuality during flood 2026, Flood fighting strategy would be adopted for the safe passage of flow and safety of river training structures.

In low flood, the temporary watching huts will be established and flood fighting material will be shifted. Watching establishment employed for this purpose will remain busy under the supervision of concerned Sub Engineer.

When river water enters in to **medium stage**, it will start spreading on adjoining area touching toe of structures, then it becomes necessary to be vigilant, watching of structure started day and night to avoid any leakage from bunds. Sub Engineers will shift their camps to site as per duty rosters. The Telegraph office of Khansar Canal Division Kallurkot will act as flood information center and flood situation will be conveyed to Civil Administration and flood warning centers. SDO will also inspect the situation daily basis and convey flood situation to the regular office timely.

When river water enters in **high flood** range or above, the Sub Divisional Officers, River Survey Kallurkot and shift his campus at vulnerable sites, as planned in the duty roaster. Executive Engineer will keep liaison with Civil Administration, Army & Public representatives.

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CHAPTER-6

FLOOD DAMAGES / RESTORATION WORKS

INESCAPABLE WORKS TO BE CARRIED BEFORE FLOOD 2026.

Sr. No.	Name of Work	Amount (In Million)
1	Filling Rain Cuts Gharas and repair work on structures in River Survey Sub Division, Kallurkot.	1.00

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CHAPTER-7

FLOOD FIGHTING / WATCHING ARRANGEMENTS

7.1 PRE-FLOOD ARRANGEMENTS

Flood season starts from 15th June of the year and watching establishment as per detail will be engaged during flood season for watching operation and flood fighting activities on monthly basis from 15-06-2026 to 15-10-2026. However, in case of very high flood or in emergency, strength of watching establishment will be increased as per site condition and requirements as provided in duty roaster.

ADDITIONAL INFORMATION

SR.NO	SITE	SANCTION LIMIT LAC.CFT	AVAILABLE AT SITE LAC.CFT	BALANCE REQUIRED
1	J-Head Spur Near Saggu Shumali at Kallurkot	1.50	1.50	-
2	Stud No.01 at Kallurkot	0.00	0.00	-
3	Guide Spur No.1 at Kallurkot	1.00	1.00	-
4	Stud No.2 at Kallurkot	1.00	1.00	-
5	Guide Spur No.2 at Kallurkot	1.00	1.00	-
6	Guide wall at Kallurkot	1.50	1.25	0.25
7	J-Head Spur Village Ravi at Kallurkot	1.50	1.06	0.44
8	J-Head Spur Daggar Malana at Kallurkot	1.50	1.09	0.41
9	Sloping Stud U/S Daggar Noon Village/L River Indus	1.00	0.80	0.20
10	Inverted Hockey Stud near Daggar Noon Village/L River Indus	1.00	0.43	0.57
	TOTAL	**11**	**9.13**	**1.87**

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7.2 WATCHING ESTABLISMENT DETAILS

Statement showing establishment (In Addition to the Regular Establishment During Floods) Kallurkot River Survey Sub Division Kallurkot in Khansar Canal Division

Name of flood Bund	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 (1 Shift)		1 Person/ mile (1 Shift)		2 Person/ mile (2 Shift)		5 Person/ mile (3 Shift)	
J-Head spur Saggu Shumali at Kallurkot	0.70								
Guide spur No.01	0.19								
Stud No.1	0.08								
Stud No. 2	0.08								
Guide spur No.2	0.17								
Guide wall at Kallurkot	1.60								
J-Head spur Village Ravi	0.40								
J-Head spur Daggar Malana	0.40								
Sloping stud u/s Daggar Noon Village/L River Indus	0.15								
Inverted hockey stud near Daggar Noon Village/L River Indus.	0.22								
Total	**3.99**	2	01	4	01	8	2	20	3
TOTAL Per Shift		2	1	4	01	16	2	60	3
No. of Mates						01		05	

Note:

It is stated that River Survey Sub Division was establish during revamping of Bhakkar Canal Circle 2021. There is no regular establishment and no SNE is sanctioned/Approved for regular establishment of watching River training structures. There are 9 no number River Training structures exist in this Sub Division and no arrangement for continually watching watching / maintaining of these structures. So, it is requested to approve 01 No work charge beldar at every structure other than labour deployed for Flood Season.

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7:3 ARRANGEMENTS AT SENSITIVE SITES.
Arrange at Sensitive Sites Established Camps Details

Sr. No.	Structure Name	Length (Miles)	Vulnerable sites		No. of Camps Established Except Vulnerable Points		
			Reach	No. of Camps	Normal Flood season/Low Flood	Medium/High Flood	Very High/Exp. High Flood
					15 Miles	7 Miles	5 Miles
1	J-Head spur Village Daggar Malana	3.99	0-40	01			-
2	Inverted Hockey stud Near Daggar Noon River Indus		0-40	01			
Total			-	**02**	**-**	**-**	**-**

7.4 WATCHING MATERIAL

Watching material will be provided in sufficient quantity as the experience shows that flood material's deployment is very necessary. The particular care would be taken to ensure that there is adequate quantity of the required material shown as to be readily available everywhere particularly at dangerous site.

A. Minimum requirement of flood fighting material for permanent camp (3.99 Miles) 02 No. Camps

Sr#	Description	Unit	Quantity Required	Quantity Available	Quantity Net (Balance)	Remarks
1	Shouldari / Tent	No	2	01	1	Flood fighting material will be purchase per necessity and subject to approval competent authority
2	Chairs.	No	12	6	6	
3	Table.	No	2	1	1	
4	Generator 2.5 KV (Mitsubishi) China	No	2	0	2	
5	Pedestal Fan	No	2		02	
6	Steel Charpoy	No	4	0	4	
7	Symbolic Jackets	No	100	0	100	
8	Poly theen bags	KG	200	0	200	
9	Bamboos (4" inch dia and 10 ft long)	No	200	0	200	
10	Water Cooler	No	2	1	1	
11	Portable Umbrella	No	4	0	4	
12	Life Jackests	No	10	4	6	
13	Utensils (10 Person serving)	No	2	0	2	
14	Jute / Plastic bags	No	2000	0	2000	
15	Walke talke set	Sets	4	0	4	
16	Raincoats	No	20	0	20	
17	LED Flood light	No	20	0	20	
18	Extension cable 10 ft	No	4	0	4	

19	RechargeableTorches	No	40	0	40	
20	Kassie with handle	No	40	2	38	
21	Axes	No	40	0	40	
22	G.I Buckets	No	10	0	10	
23	PVC insulated twin core Copper conductor cable 7/44	Metter	1000	0	1000	
24	Sutli	KG	4	0	4	
25	Sewing Needles	No	20	0	20	
26	Emergency Medical Kit	No	2	0	2	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No	200	0	200	

B Minimum requirement of flood fighting materials for temporary camp (3.99 Miles) during medium to exceptionally high flood to be outsourced) 01 No. Camp

Sr#	Description	Unit	Total Required Quantity	Sr#	Description	Unit	Total Required Quantity
1	Shouldari / Tent	No	1	**12**	Sewing Needles	No	**10**
2	Chairs.	No	6	**13**	Utensils (10 Person serving)	No	**1**
3	Table.	No	1	**14**	Jute / Plastic bags	No	**500**
4	Generator 2.5 KV (Mitsubishi) China	No	1	**15**	Walke talke set	Sets	**1**
5	Pedestal Fan	No	**1**	**16**	Raincoats	No	**10**
6	Steel Charpoy	No	2	**17**	LED Flood light	No	**10**
7	Symbolic Jackets	No	**50**	**18**	Extension cable 10 ft	No	**2**
8	Water Cooler	No	**1**	**19**	RechargeableTorches	No	**20**
9	Portable Umbrella	No	02	**20**	Kassie with handle	No	**20**
10	PVC insulated twin core Copper conductor cable 7/44	Metter	**500**	**21**	Axes	No	**20**
11	Sutli	KG	**2**	**22**	G.I Buckets	No	**5**

Note: Full quantum of material will be purchased before flood season on receipt of funds.

7.5 ARRANGEMENT FOR SOUNDING AND PROBING

If necessary for sounding arrangement will be done locally by boat.

7.6 LIGHTING ARRANGEMENT

Generator along with all accessories i.e., electric insulated conductor cable and bulb etc will be kept available at site.

7.7 RATION ARRANGEMENT

Ration will be arranged by the local agencies and through NGO's etc.

7.8 P.O. L ARRANGEMENT FOR VEHICLE.

The arrangements of extra P.O.L will be made as per site requirement.

7.9 TRANSPORTATION

Transportation arrangements will be made with the help of Civil Administration.

7.10 LAW AND ORDER

Situation of Law & Order will be controlled with the help of law enforcing agencies, i.e. Police etc.

7.11 MEDICAL ARRANGEMENT FOR LABOUR

Medical facilities will be provided with the help of Health Department.

7.12 LIAISON WITH OTHER DEPARTMENT

The Executive Engineer Khansar will keep liaison with Civil Administration, Police, Health and Civil Defense Department and fully apprise the other Departments about flood situation.

7.13 ROLE OF THE ARMY

Pak Army will play his role in evacuating the Flood affected community, Livestock, Armed Forces will also help in controlling the law-and-order situation in case of emergency.

7.14 DUTIES OF TELEPHONE ATTENDANT

Phone and cell No of all officers / officials have been given in Flood fighting plan 2026 to make immediate contact at any emergency during flood

Sr No.	Name of Officer / Officials	Period	Time	
			From	To
1	Muhammad Ramzan Cell No. 0301-6895439	During Flood Season	6:00 AM	6:00 PM
2	Mazhar Hussain Cell No. 0300-5400345	During Flood Season	6:00 PM	6:00 AM

7.15 WIRELESS ARRANGEMENTS

Wireless set will be installed in the vehicles of the Executive Engineer Khansar, Sub Divisional officer River Survey Kallurkot, Sub Divisional officer Kallurkot and Flood emergency center of Khansar Canal Division Kallurkot with the help of police Department.

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CHAPTER-8

DETAIL OF ENCROACHMENT

The flood bunds and spurs are constructed to train the river and to ensure safe passage of the flood water. During flood season, inhabitants of river area evacuate their houses and take shelter on the flood bunds along with their animals. However, no encroachments exist on the river training works / Flood bunds in Khansar Canal Division Kallurkot.

ORDINARY ENCROACHMENT

Total Encroachments	Removed	Action To Be Taken
Nil	Nil	Nil

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CHAPTER -9

DUTY ROASTER / FLOOD FIGHTING PROGRAM.

Phase-I (Pre-Flood Period)

This phase covers the pre flood period starting from start of the flood season up to the time the flood water raises up to 1 foot above general Natural Surface Level (NSL) along the flood bunds, or other training structures.

WATCHING:

Flood watching establishment will be arranged through Government contractor on hire & fire basis according to flood scales / stages and other essential needs at site.

Stage	Strength
Water level is 1 foot above NSL or below along the flood bund	1 watchman per mile per shift in two shifts during 24 hours on Kallurkot flood bund.
Water level is more than 1 foot above NSL along the flood bund	1 watchman per mile per shift in three shifts during 24 hours on Kallurkot flood bunds

During this phase concerned Sub Divisional officers of the bunds and respective Sub Engineers of the sections of the bunds will be the controlling officers under the overall supervision of the Executive Engineer, Khansar Canal Division Kallurkot.

Phase-II (Low Flood From 250000-375000 Cs.

This phase starts when the discharge downstream Chashma barrage is between 250000 Cs to 375000 Cs. The detail of actions to be taken during this phase is as follows.

Activity	Action
Shifting of watching and necessary flood material to watching huts	Respective Sub Engineers.

Stage	Strength
The discharge ranges between 2.5 to 3.75 lac cusecs	1 person per mile per shift in three shifts during 24 hours on Kallurkot flood bund. 1 Chowkidar per watching hut for round the clock duty till the time watching material is taken back from the watching huts after recession of the flood to a level 1 foot above NSL.

Supervisory Staff

S.No	Name of Flood Structures	Duty of Officers / Officials
1	J-Head spur Saggu Shumali at Kallurkot	Incharge SDO River Kallurkot, SEN River
2	Guide spur No.01	//
3	Stud No.1	//
4	Stud No. 2	//
5	Guide spur No.2	//
6	Guide wall at Kallurkot	//
7	J-Head spur Village Ravi	//
8	J-Head spur Daggar Malana	//
9	Sloping stud u/s Daggar Noon Village/L River Indus	//
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	//

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Phase-III (Medium Flood From 375000 - 500000 Cs.

This phase starts when the discharge downstream Chashma crosses to flood limits 375000 - 500000 Cs. The detail of the action to be taken during this phase are as follows: -

Stage	Strength
The discharge ranges between 3.75 to 5.0 Cs.	2 persons per mile per shift in three shifts during 24 hours on Kallurkot flood bund. 1 Chowkidar per watching hut for round the clock duty till the time watching material is taken back from the watching huts after recession of the flood to a level 1 foot above NSL.

Supervisory Staff

S.No	Name of Flood Structures	Duty of Officers / Officials
1	J-Head spur Saggu Shumali at Kallurkot	Incharge SDO River Kallurkot, SEN River
2	Guide spur No.01	//
3	Stud No.1	//
4	Stud No. 2	//
5	Guide spur No.2	//
6	Guide wall at Kallurkot	//
7	J-Head spur Village Ravi	//
8	J-Head spur Daggar Malana	//
9	Sloping stud u/s Daggar Noon Village/L River Indus	//
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	//

This duty roster during this phase of the officers/officials is tabulated below. The officials under the overall control of the Sub Divisional Officers concerned will perform the duties.

Phase-IV (High Flood From 500000-650000 Cs.

This phase starts when the discharge downstream Chashma crosses to flood limits 500000 Cs to 650000 Cs. The detail of the action to be taken during this phase is as follows: -

Stage	Strength
The discharge ranges between 5.0 to 6.5 Cs.	4 persons per mile per shift in three shifts during 24 hours on Kallurkot flood bund. 1 Chowkidar per watching hut for round the clock duty till the time watching material is taken back from the watching huts after recession of the flood to a level 1 foot above NSL.

Breach Closing Squad

When the discharge will exceed 4.50 Lac cusecs, the mobile units consisting of following items are to be raised in each sub division. It will be ensured that pick up and tractor trolly are in proper working condition.

Stack bullies 16 foot long = 140 No.
Killas = 200 No.
Munj Ban Course = 140 Kg
Showels = 50 No.
Gunny bags = 700 No.
Sutli = 3 Kg
Needles = 28 No.
Baskets = 350 No.

In Kallurkot Sub Division, a unit will be kept at Guide wall. A gang of 10 persons and a mate will move along with the unit at a moment notice. At the same time the Army Authorities will also be requested to provide manpower for closing leakage/breach.

Supervisory Staff

This duty roster during this phase of the officers/officials is tabulated below. The officials under the overall control of the Sub Divisional Officers concerned will perform the duties.

S.No	Name of Flood Structures	Duty of Officers / Officials
1	J-Head spur Saggu Shumali at Kallurkot	Incharge SDO River Kallurkot, SEN River.
2	Guide spur No.01	//
3	Stud No.1	//
4	Stud No. 2	//
5	Guide spur No.2	//
6	Guide wall at Kallurkot	//
7	J-Head spur Village Ravi	//
8	J-Head spur Daggar Malana	//
9	Sloping stud u/s Daggar Noon Village/L River Indus	//
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	//

Phase-V (Very High Flood From. 650000 - 800000 Cs.

This phase starts when the discharge at the River Indus is in very high flood stage i.e., between 6.5 to 8.0 Lac cusecs. During this phase, special attention will be given to watch most vulnerable reaches of the bunds. Concerned officer In charge is responsible for proper up keeping of their reaches that these points. The details of the actions to be taken during this phase are as follows: -

Stage	Strength
The discharge ranges between 5.0 to 6.50 Cs.	8 persons per mile per shift in three shifts during 24 hours on Kallurkot flood bund. 1 Chowkidar per watching hut for round the clock duty till the time watching material is taken back from the watching huts after recession of the flood to a level 1 foot above NSL.

Supervisory Staff

This duty roster during this phase of the officers/officials is tabulated blew. The officials under the

Overall control of the Sub Divisional Officers concerned will perform the duties.

S.No	Name of Flood Structures	Duty of Officers / Officials
1	J-Head spur Saggu Shumali at Kallurkot	Incharge SDO River Kallurkot, SEN River
2	Guide spur No.01	//
3	Stud No.1	//
4	Stud No. 2	//
5	Guide spur No.2	//
6	Guide wall at Kallurkot	//
7	J-Head spur Village Ravi	//
8	J-Head spur Daggar Malana	//
9	Sloping stud u/s Daggar Noon Village/L River Indus	//
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	//

Phase-VI (Exceptionally High Flood i.e., more than 800000 Cs.

This phase commences when the discharge downstream Chashma Barrage crosses the very High Flood limit of 8.0 Lac Cs. The detail of actions to be taken during the phase is as follows: -

Activity	Action By
Deputy Commissioner is to be informed to make arrangement for the evacuation of the marooned public within kallur kot Flood Bund	Executive Engineer
Stage	**Strength**
The discharge ranges between 8.0 Lac Cs and above.	Six Watchmen per miles per shift in three shifts during 24 Hrs on Main embankments and other structures. 1 Chowkidar per watching hut for round the clock duty till the time watching material is taken back from the watching huts after recession of the flood to a level 1 Foot above NSL.

Supervisory Staff

This duty roster during this phase of the officers/officials is tabulated blew. The officials under the overall control of the Sub Divisional Officers concerned will perform the duties.

S.No	Name of Flood Structures	Duty of Officers / Officials
1	J-Head spur Saggu Shumali at Kallurkot	Incharge SDO River Kallurkot, SEN River.
2	Guide spur No.01	//
3	Stud No.1	//
4	Stud No. 2	//
5	Guide spur No.2	//
6	Guide wall at Kallurkot	//
7	J-Head spur Village Ravi	//
8	J-Head spur Daggar Malana	//
9	Sloping stud u/s Daggar Noon Village/L River Indus	//
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	//

NOTE:-

1. All the Sub Engineers would perform their duties assigned above alongwith their establishment with necessary T & P.
2. Executive Engineers Khansar would be the overall Incharge of the whole operation during very high and exceptionally high flood.
3. However, the Sub Engineers with their establishment would be called any time anywhere and at any point as desired and required by the SDO's Incharge under intimation to Executive Engineer Khansar the Incharge of whole operation.

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CHAPTER-10
EMERGENCY TELEPHONE NUMBERS

S. No	Designation	Office	Resd / Mobile
1	Secretary Irrigation Department Lahore.	042-99212117 042-99212118	042-99200954
2	Chief Engineer Drainage & Flood Lahore	042-99233551	042-35294102 0321-8969386
3	Director Flood Lahore	042-99233552	0323-4864378
4	Deputy Director Flood Lahore	042-35880700	042-99230282 0321-9485218
5	Flood Warning Center Lahore.	042-99205157	-
6	Chief Engineer Irrigation Sargodha Zone	048-9230445	048-9230451 0336-7501575
7	Executive Engineer (Operation) Sargodha Zone	048-9230446	048-3740050 0302-9079639
8	Superintending Engineer Bhakkar Canal Circle Bhakkar	0453-9200316	0345-5165764
9	Executive Engineer Khansar Canal Division Kallurkot	0453-200905	03029079639
10	Sub Divisional Officer KallurKot	0453-200931	0300-6091979
11	Sub Divisional Officer, River.	0453.200931	0300-6091979
12	Sub Engineer River.	0453-200931	0335-4078500
13	Sub Engineer River.	0453-200931	0348-1282776
14	Sub Engineer River.	0453-200931	0347-6397850
15	Sub Engineer, Dala.	0336-7567825	0336-7567825
16	Sub Engineer, Mehmood Wala.	0336-7567825	0336-7567825
17	Sub Engineer, Hukam.	0313-7967013	0313-7967013
18	Sub Engineer Kallurkot	0302-8136026	0302-8136026
19	Sub Engineer, Bakhat Branch.	0303-6605413	0303-6605413
20	Flood Emergency Center, Telegraph Office Kallurkot.	0453-200931	0301-6895439 0300-5400345
21	Chashma Barrage Exchange at Chashma Colony Kundian	0459-241289 0459-242858	

DISTRICT ADMINISTRATION BHAKKAR.

1	Deputy Commissioner Bhakkar	0453-9200188 0453-9200288	0453-9200388 0304-0920077
2	Additional Commissioner Revenue Bhakkar	0453-9200396	0333-9995712
3	Additional Deputy Commissioner General Bhakkar	0453-9200307 0453-9200312	0333-0721412
4	District Police Officer Bhakkar	0453-9200350 0453-9200351	03004761434
5	Assistant Commissioner Kallurkot	0453-200909	0300-6001294
6	Assistant Commissioner Darya Khan.	0453-252974	0300-6861900
7	Bhakkar Flood Control Room	0453-9200082	0453-9200082

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CHAPTER-11

STANDARD OPERATION PROCEDURE (SOP) FOR BREACHING SECTIONS

11.1 HISTORY OF THE BREACHING SECTION.

There is no breaching section in the jurisdiction of Khansar Canal Division Kallurkot.

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

Not Applicable.

11.3 ARRANGEMENT OF EXPLOSIVES AND SECURITY OF EXPLOSIVE STORES.

Not Applicable.

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

Not Applicable.

11.5 DETAIL OF MECHANICAL MEANS AS A STANDBY ARRANGEMENTS IN CASE OF DETONATION FAILURE

Not Applicable.

11.6 DUTY ROSTER IN CASE OF CRITICAL SITUATION.

Attached in Page 17 to 20p

11.7 BREACHING COMMITTEE WITH THEIR ACTION PLAN.

Not Applicable.

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

Not Applicable.

11.9 ANNOUNCEMENT AND DETAIL OF EVACUATION ARRANGEMENTS.

Not Applicable.

11.10 DETAILS OF COORDINATION WITH CIVIL /ARMY AUTHORITIES.

Not Applicable.

11.11 PARALLEL COMMUNICATION ARRANGEMENT.

Not Applicable.

11.12 INDEX PLAN.

Not Applicable

Executive Engineer
Khansar Canal Division, Kallurkot

Superintending Engineer
Bhakkar Canal Circle, Bhakkar

Chief Engineer,
Sargodha Irrigation Zone,
Sargodha.

PART-B

CHAPTER-12

VULNERABLE SITES ON FLOOD BUND / STRUCTURES

12.1 APPREHENDED BREACHES IN FLOOD BUNDS / STRUCTURES

Vulnerable sites are given as below.

Two No vulnerable sites are declared

1) J- Head spur village Daggar Malana
2) Inverted Hocky stud Daggar Noon

12.2 Operation of breaching sections.

There is no such case in Khansar Canal Division, Kallurkot.

12.3 Breaches due to rising of flood water, deterioration of flood bund.

There is no such case in Khansar Canal Division Kallurkot.

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CHAPTER-13

EMERGENCY CONTINGENCY PLAN FOR VULNERABLE SITES (SITES)

1) J-Head Spur Village Daggar Malana.
2) Inverted Hocky Stud Village Daggar Noon.

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

Plan Attached

INDEX PLAN OF RIVER SURVEY SUB DIVISION KALLURKOT
KHANSAR CANAL DIVISION KALLURKOT
Noon Dagar
Inverted Hockey Stud
J - Head
Malana Dagar
Malana Dagar
Kallur Kot Bridge
J - Head
Spur V-Ravi
Kallur Kot
Existing Guide Wall
Guide Head Spur 2
Guide Head Spur 1
J-Head Spur
Sago
N

13.2 DETAIL OF VILLAGES ABADIES LIKELY TO BE AFFECTED AND THIS SHOULD BE SHOWN ON PLAN.

S. No	Name of Villages Abadies
1	Kallurkot City
2	Ravi
3	Malana
4	Daggar Noon
5	Saggu Shumali
6	Maible
7	Shahalam
8	Punjgharin
9	Darya Khan

13:3 STRATEGY AND ACTION TO BE TAKEN BE EXPLAIN IN DETILES THIS MAY INCLUDE.

The arrangements will be made to watch Flood infrastructure on round the clock basis. The Incharge Sub Engineer and Sub Divisional Officer will look after all the watching activities. They will keep liaison with the Civil Administrator Public Representative, Police Department Army authorities and Executive Engineer Khansar.

In case of any emergency, the proclamation on loudspeakers will be arranged with the coordination of Civil Administration for evacuation of abadies inside the flood plan. Flood fighting activities will be carried out with the permission and guidance of Executive Engineer Khansar. The establishment will be deployed as per site requirements. The Executive Engineer Khansar will make the arrangement of hiring the machinery on emergent basis and also request will be made to the Agricultural Engineering Department for the provision of the Department machinery i.e. dozers etc.

The flood fighting activities will be performed in true letter and spirit to control the situation and to save the human beings and public property.

13.3.1 ARRANGEMENTS

The effective arrangements will be made to mitigate the devastating effects of flood.

13.3.2 ESTABLISHMENT OF FLOOD FIGHTING CAMPS

The Flood Fighting Camps will be established as given under.

- J-Head spur village Daggar Malana
- Inverted Hocky stud Daggar Noon.

13.3.3 DUTIES OF OFFICERS / OFFICIALS ON THEIR CAMP SITES

Name of Officers/ Officials & Designation.	Contact Number
Mumtaz Khan Sub Divisional Officer	0300-6091979
M. Anwar ul Haq (SEN)	0348-1282776
Sajid Nawaz khan (SEN)	0335-4078500
Mubashir Ahmad (SEN)	0347-6397850

13.3.4 DEPARTMENTAL MACHINERY AVAILABLE

There is no any equipment / departmental machinery available in Khansar Canal Division Kallur kot...

13.3.5 MACHINERY AVAILABLE FROM PRIVATE SOURCE

The required machinery will be available through private source on need basis as describe Chapter No.14

13.3.6 Flood Fighting Material required

Sr#	Description	Unit	Quantity Required	Quantity Available	Quantity Net (Balance)	Remarks
1	Shouldari / Tent	No	2	01	1	Flood fighting material will be purchase per necessity and subject to approval competent authority
2	Chairs.	No	12	6	6	
3	Table.	No	2	1	1	
4	Generator 2.5 KV (Mitsubishi) China	No	2	0	2	
5	Pedestal Fan	No	2		02	
6	Steel Charpoy	No	4	0	4	
7	Symbolic Jackets	No	100	0	100	
8	Poly theen bags	KG	200	0	200	
9	Bamboos (4" inch dia and 10 ft long)	No	200	0	200	
10	Water Cooler	No	2	1	1	
11	Portable Umbrella	No	4	0	4	
12	Life Jackests	No	10	4	6	
13	Utensils (10 Person serving)	No	2	0	2	
14	Jute / Plastic bags	No	2000	0	2000	
15	Walke talke set	Sets	4	0	4	
16	Raincoats	No	20	0	20	
17	LED Flood light	No	20	0	20	
18	Extension cable 10 ft	No	4	0	4	
19	RechargeableTorches	No	40	0	40	
20	Kassie with handle	No	40	2	38	
21	Axes	No	40	0	40	
22	G.I Buckets	No	10	0	10	

23	PVC insulated twin core Copper conductor cable 7/44	Metter	1000	0	1000	
24	Sutli	KG	4	0	4	
25	Sewing Needles	No	20	0	20	
26	Emergency Medical Kit	No	2	0	2	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No	200	0	200	

13.3.7 FLOOD FIGHTING MATERIAL AVAILABLE

Detail of flood fighting material available as already discuss in section

.

13.4 DETAIL OF OTHER INFRASTRUCTURE LIKE ELECTRICITY.

Road network, Schools, Health centers and Electric transmission lines exist all along in the Katcha area. There is no any other important installation.

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Additional Information

CHAPTER-14 Action Plan

14.1 RESHIFTING/RECOUPING PLAN OF RESERVE OF STONE DEPARTMENTALLY.

Reserve stock of stone in case of emergency will be shifted to critical site through contractor as per requirement.

14.2 DETAIL OF INLET/OUTLET CROSSING ALONG WITH CLOSING METHODOLOGY

Nil

14.3 DEPLOYMENT OF MACHINERY (NORMAL TO LOW FLOOD)

4.3 Deployment of Machinery (Normal to Low Flood)

Sr. No.	Structure Name	Length (Miles)	Excavators	Trolleys	Dumpers	Tractor with Front blade (1 per 15 mile)
1	J-Head spur Saggu Shumali at Kallurkot	0.70	Flood fighting material will be purchase per necessity and subject to approval competent authority		-	-
2	Guide spur No.01	0.19				
3	Stud No.1	0.08				
4	Stud No. 2	0.08				
5	Guide spur No.2	0.17				
6	Guide wall at Kallurkot	1.60				
7	J-Head spur Village Ravi	0.40				
8	J-Head spur Daggar Malana	0.40				
9	Sloping stud u/s Daggar Noon Village/L River Indus	0.15				
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	0.22				
Total		**3.99**				

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14.4 DEPLOYMENT OF MACHINERY (MEDIAM 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	J-Head spur Saggu Shumali at Kallurkot	0.70				
2	Guide spur No.01	0.19				
3	Stud No.1	0.08				
4	Stud No. 2	0.08				
5	Guide spur No.2	0.17				
6	Guide wall at Kallurkot	1.60				
7	J-Head spur Village Ravi	0.40				
8	J-Head spur Daggar Malana	0.40				
9	Sloping stud u/s Daggar Noon Village/L River Indus	0.15				
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	0.22				
Total		3.99	01	02	01	01

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14.5 Deployment of Machinery (Very High to Exceptionally 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	J-Head spur Saggu Shumali at Kallurkot	0.70						
2	Guide spur No.01	0.19						
3	Stud No.1	0.08						
4	Stud No. 2	0.08						
5	Guide spur No.2	0.17						
6	Guide wall at Kallurkot	1.60						
7	J-Head spur Village Ravi	0.40						
8	J-Head spur Daggar Malana	0.40						
9	Sloping stud u/s Daggar Noon Village/L River Indus	0.15						
10	Inverted hockey stud near Daggar Noon Village/L River Indus.	0.22						
Total		3.99	1	2	4	2	1	2

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14.6POLICE DEPLOYMENT PLAN

Sr. No.	Name of Division	Name of Structurer	Length / Width		K.M	Machinery deployment plan (High Flood)				Location of embankment of machinery	Location of Base Camp / Station	Police Deployment Plan
						Excavator	Dozers	Dump Trucks	Tractor Trolleys			
3	Khansar Canal Division, Kallurkot	J-Head Spur Village Daggar Noon	0.40	30		-	-	-	1	-	J-Head Spur Village Daggar Noon	On Need basis

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

S.No	Items	Available Quantity	Required Quantity
1	2	3	4
1	Detail of Synthetic bags with a capacity of (50 KG & 100 KG)	NIL	NIL

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

S.No	Items	Available Quantity	Required Quantity
1	Black Poly Thene sheet	NIL	NIL

14.9 ANY OTHER DETAILS AS PER SOPs APPROVED BY THE ADMINISTRATIVE DEPARTMENT.

Nill

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CHAPTER-15

BACKUP DIVISIONS (IN CASE OF BREACH)

In case of Emergency Mianwali Canal Division Mianwali will be requested for help.

Executive Engineer
Khansar Canal Division,
Kallurkot

Superintending Engineer
Bhakkar Canal Circle
Bhakkar

Chief Engineer,
Sargodha Irrigation Zone,
Sargodha.