GOVERNMENT OF PUNJAB

IRRIGATION DEPARTMENT

FLOOD FIGHTING PLAN 2026.

BHAKKAR CANAL DIVISION BHAKKAR.

BHAKKAR CANAL CIRCLE, BHAKKAR

SARGODHA IRRIGATION ZONE SARGODHA

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FLOOD FIGHTING PLAN 2026

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PART-A
CHAPTER-1

SALIENT FEATURE OF THE BHAKKAR CANAL DIVISION BHAKKAR

1.1 LOCATION.

Bhakkar Canal Division is located at District Headquarter of Bhakkar. Divisional Headquarter is at 80 miles Down Stream of Chashma Barrage along left bank of River Indus. The jurisdiction of Bhakkar Canal Division starts from Tehsil Darya Khan of District Bhakkar 45 miles Down Stream Chashma Barrage along left bank of River Indus and upto Tehsil Karor of District Layyah.

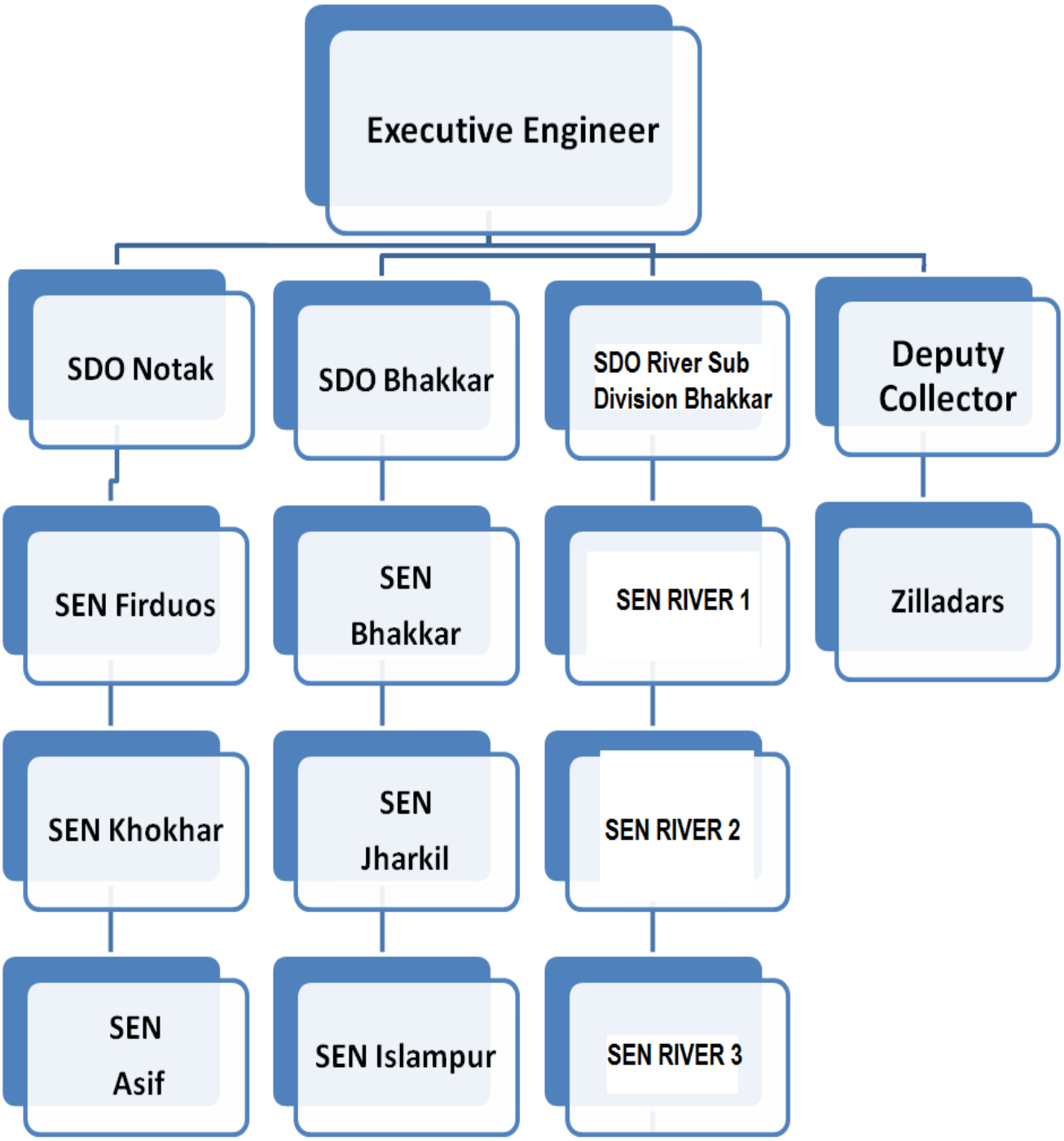
1.2 GENERAL DESCRIPTION.

Bhakkar Canal Division comprises of Three Sub Divisions namely Bhakkar, Notak & River Sub Division. All Sub Divisions are located in Canal Colony at Bhakkar City. Executive Engineer Canal Division Bhakkar is overall 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 ward of flood structures built for safety of Bhakkar City. The jurisdiction of Bhakkar Canal Division starts from RD 291+000 Thal Canal Main Line Lower and extends up to RD 448+000 with its off taking distributaries and minors. The length of channels is 330.18 Miles. The gross commanded area of Bhakkar Canal Division is 326955 acres. The area of Thal Canal Main Line lower falling in the jurisdiction of Bhakkar Canal Division is spread over in two Districts as under.

Name of District	G.C.A (Acres)	C.C.A (Acres)
Bhakkar	243530	198129
Layyah	83425	68510
Total	**326955**	**266639**

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1.3 ADMINISTRATIVE SETUP



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CHAPTER-2
FLOOD PROTECTION AND RIVER TRAINING WORKS

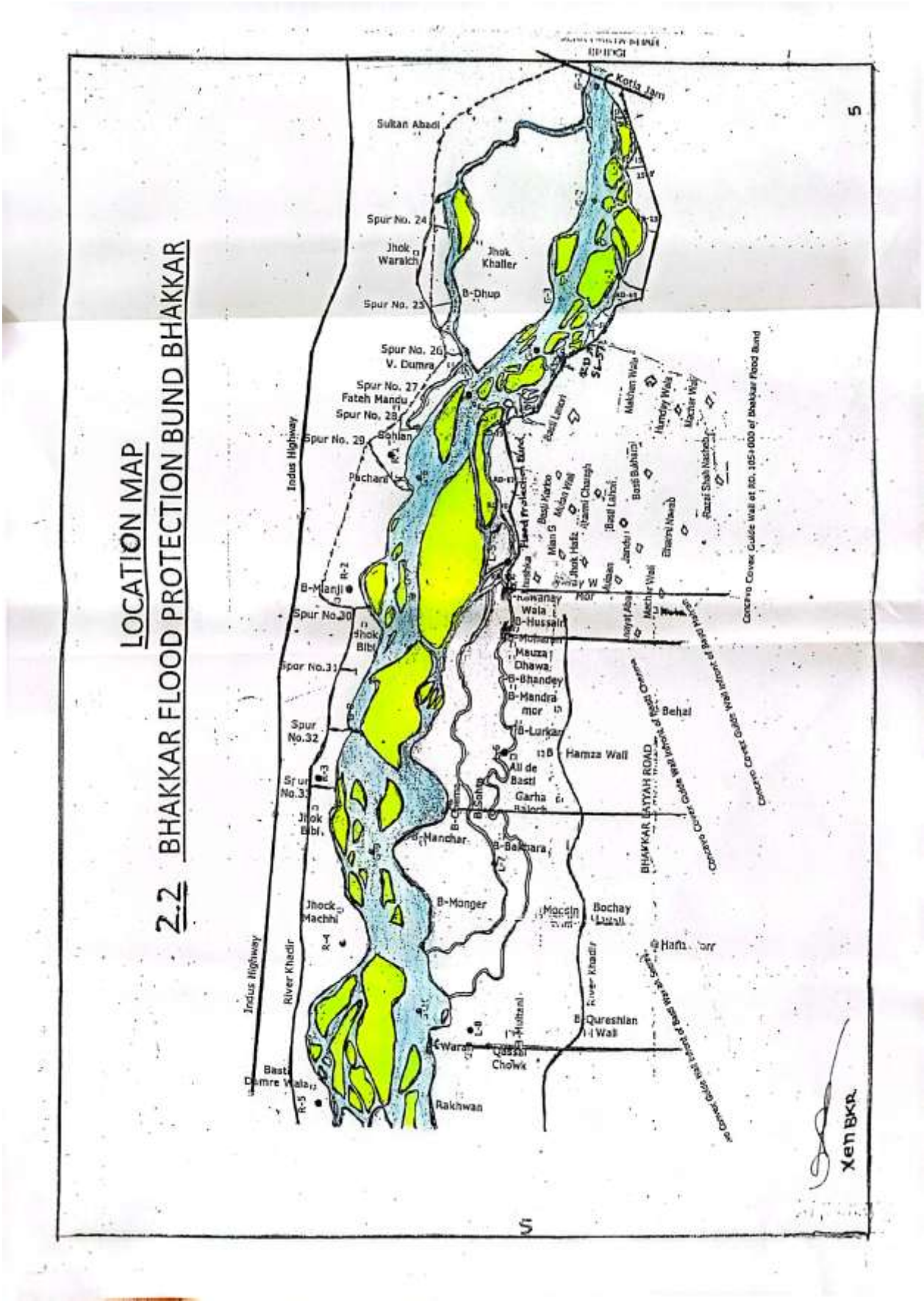
2.1 DESIGN PARAMETERS OF TRAINING WORKS:

S. No	Name of Flood Structures	Length	Mile	Top width	Side Slope		Free board	Condition
				Feet	River side	Country side	Feet	
1	Bhakkar Flood Bund RD 0+000 – 105+000	105000	21	25	3:1	2:1	6	Satisfactory
2	J-Head Spur at RD 5+000 of Bhakkar Flood Protection Bund	3510	0.70	30	3:1	2:1	6	Satisfactory
3	Solid Stone Stud at RD 7+500	210	0.042	15	1:1	1:1	6	Satisfactory
4	Solid Stone Stud at RD 8+600	75	0.015	15	1:1	1:1	6	Satisfactory
5	Solid Stone Stud at RD 9+140	35	0.007	15	1:1	1:1	6	Satisfactory
6	Solid Stone Stud at RD 10+000	60	0.012	20	1:1	1:1	6	Satisfactory
7	J-Head spur No.1 RD 14+700	4263	0.85	25	3:1	2:1	6	Satisfactory
8	J-Head spur No.2 RD 27+175	2843	0.57	25	3:1	2:1	6	Satisfactory
9	J-Head spur No.3 RD 38+550	5000	1.00	25	1:1	1:1	6	Satisfactory
10	Hockey stud at RD 43+500	1312	0.26	15	3:1	2:1	6	Satisfactory
11	J-Head spur No.4 at RD 47+000	4000	0.80	30	3:1	2:1	6	Satisfactory
12	J-Head spur No.5 at RD 52+800	4100	0.82	30	3:1	2:1	6	Satisfactory
13	Inverted hockey stud at RD 56+800	206	0.041	12	1:1	1:1	0	Satisfactory
14	Solid stone stud at RD 57+500	100	0.020	15	1:1	1:1	0	Satisfactory
15	Solid stone stud at RD 58+050	94	0.01	30	3:1	2:1	0	Satisfactory
16	J-Head Spur at RD 58-800 of Bhakkar Flood Protection Bund	2660	0.53	30	3:1	2:1	6	Satisfactory
17	Concavo Convex Guide wall b/w RD 58-59	1450	0.29	15	1:1	1:1	6	Satisfactory
18	Solid stone stud at RD 59+500	200	0.04	12	3:1	2:1	0	Satisfactory
19	Solid Stone inverted Hockey Stud at RD 60+250	418	0.084	12	3:1	2:1	0	Satisfactory
20	Mole Head spur RD 60+700	1060	0.21	30	1:1	1:1	6	Satisfactory.
21	Conversion existing Solid stone Stud RD 62+500 in to Inverted Hockey Spur,	462	0.087	15	1:1	1:1	0	Satisfactory
22	Solid stone stud at RD 63+000	75	0.031	15	1:1	1:1	0	Satisfactory
23	Inverted Hockey stud at RD 63+700	762	0.152	20	3:1	1:1	0	Restoration work will be completed before Flood 2026.
24	Inverted Hockey stud at RD 68+000	3120	0.59	15.30	3:1	1:1	6	work will be completed before Flood 2026.
25	J-Head Spur at RD 70+000 of Bhakkar Flood Protection Bund	5462	1.09	30	3:1	2:1	6	Restoration work will be completed before Flood 2026.
26	Mole head spur at RD 71+750	1525	0.30	30	3:1	2:1	6	Satisfactory

27	Inverted Hockey Stud at RD 73+000	826	0.165	20	1:1	1:1	0	Under construction
28	Solid Stone Stud at RD 74+250.	60	0.011	20	1;1	1;1	0	Satisfactory
29	Solid Stone Stud at RD 74+500.	60	0.011	20	1;1	1;1	0	Satisfactory
30	Solid Stone Stud at RD 74+800.	60	0.011	20	1;1	1;1	0	work will be completed before Flood 2026.
31	Solid Stone Stud at RD 75+000.	60	0.011	20	1;1	1'1	0	work will be completed before Flood 2026.
32	Hockey Stud at RD 75+800	350	0.070	25	3:1	2:1	6	Satisfactory
33	Inverted Hockey Stud at RD 77+100	550	0.100	20	1;1	1;1	0	Satisfactory
34	Concavo Convex Guide Wall at RD 105+000 of Bhakkar Flood Bund.	1000	0.20	30	1:2	1:3	6	Satisfactory
35	Concavo Convex Guide Wall in front of Basti Maharan.	1000	0.20	30	1:2	1:3	6	Satisfactory
36	Concavo Convex Guide Wall in front of Basti Cheema.	1000	0.20	30	1:2	1:3	6	Satisfactory
37	Concavo Convex Guide Wall in front of Basti Warah Seeran.	1000	0.20	30	1:2	1:3	6	Satisfactory

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2.2 LOCATION MAP



CHAPTER-3

BRIEF HISTORY OF PAST FLOOD EVENTS

Bhakkar Flood Bund was constructed from RD 0+000 – 42+000 during the year 1996-97 to protect low lying Katcha agricultural area, abadies, schools, basic health units and other infrastructures. Bhakkar flood bund was further extended from RD 42+000 – 105+000 with allied structures during the year 2006-07 by development Division Mianwali. After completion of the project Bhakkar Flood Bund from 0+000 – 105+000 along with allied structure was handed over to the Bhakkar Canal Division in June 2012. River Indus D/S Chashma Barrage passed exceptionally high flood in 2010 which passed safely from the jurisdiction of Bhakkar Canal Division Bhakkar.

Bhakkar Flood Bund remained under direct hit of aggressive action of River Indus from 2012 -14 due to which a number of flood protection works were executed during last decade. In order to have a permanent remedy to check the continuous river action and a permanent threat to Bhakkar Flood Bund, model study was conducted to determine the suitable interventions and to eradicate the erosive action of river Indus between RD 0+000 – 76+000, following river training works were proposed by model study.

1. Construction of J-Head Spur at RD 5+000 of Bhakkar flood bund**.**
2. Construction of J-Head Spur at RD 58+800 of Bhakkar flood bund**.**
3. Restoration of Existing J-Head Spur, Shank at RD 70+000 of Bhakkar flood bund.

The aforementioned works were executed under ADP 2014-15 which have been completed. During Flood 2018, it was experienced that maximum discharge of 286554 cusecs passed through Bhakkar Flood Bund and no damage occurred in said reach due to blessing of these under construction structures.

At the instant the reach of River Indus beyond RD 105+000 of Bhakkar Flood Bund were under severe threat and river was penetrating further towards left due to continuous tendency of erosion. Some thickly populated villages namely **"Basti Metala, Basti Manchra & Basti Tarkhani of Tehsil Bhakkar"** had since been gulped by the river and following were under threat **"Bast Moharan, Basti Cheema, Basti Mongar, Basti Warah Seeran, Basti Sohla, Basti Bahar Shah and Basti Rakhwan of Tehsil Bhakkar and Tehsil Karor Lal Essan".** There was every likely hood of their burial if not protected on the dot.

In order to comply with the directions imported by the high-ups detailed precise survey was carried out at site, the depicted on the plan afresh presented to Irrigation Research Institute Lahore for conducting model study on the basis of fresh survey.

The outcomes of model study issued vide Irrigation Research Institute Lahore No. 1213/PRO (H) /836-C/II dated 23.11.2017, reveals that construction of 5 No. Concavo Convex shaped Guide Walls at different locations as depicted in the plan by the Irrigation Research Institute Lahore will certainly fructify in checking, drifting and training the river in the affected vicinity of District Bhakkar and Layyah. Afterwards due to site conditions,

1 No. concavo convex guide wall was deleted.

The following interventions were constructed and their locations are here under:-

1) **Concavo convex Guide Wall at RD 105+000 of Bhakkar Flood Bund.**
2) **Concavo Convex Guide Wall in front of Basti Maharan.**
3) **Concavo Convex Guide Wall in front of Basti Cheema.**
4) **Concavo Convex Guide Wall in front of Basti Warah Seeran.**

In spite of giving alignment of proposed flood bund from RD 105+000 – RD 200+000 along with interventions "it was advised in the said technical report that the River morphology may be monitored after construction of above recommended Guide Walls. It was observed on the model that the River morphology will be improved after construction of Guide Walls. The assessment of change of the river morphology for a period of 4 years may be recorded to ascertain the need of extension of existing Bhakkar Flood Bund. If the river regime of this reach after above assessment attracts the requirement of the extension of the existing Bhakkar Flood Bund, then a fresh model study may be got conducted with the site prevailing conditions for alignment of the proposed extension of Bhakkar Flood Bund along with other training works as Phase-II.

Sequel to above, in order to comply with the directions imported by the high-ups detailed survey was carried out at site, the depicted on the plan afresh presented to Irrigation Research Institute Lahore for conducting model study on the basis of fresh survey. Model study conducted at Research station Nandipur and final outcome of Model study issued vide Final Technical Report No. IRR-1396 dated: 27.02.2024. Survey work on the purposed alignment as per Model Study Final Technical Report No. IRR-1396 was conducted. The reach of Bhakkar Flood Bund between RD 60+000 to RD 70+000 was also taken for protection. The interventions proposed for protection of Reach RD 60+000 to RD 70+000 were taken up under ADP 2024-25, which are currently under execution with physical progress of about 85%. These interventions are as

1) Restoration of existing mole head spur RD 60+700 of Bhakkar Flood Bund.

2) Conversion of existing solid stone stud RD 62+500 of Bhakkar Flood Bund into inverted hockey spur.

3) Construction of inverted hockey spur at RD 68+000 of Bhakkar Flood Bund.

As per survey carried out, the PC-1 for extension of Bhakkar Flood Bund upto Layyah city flood bund was framed and submitted to higher ups. The said PC-1 is under consideration by FFC under NFP Program.

During the flood 2025 on August 20/21 the river Indus experienced exceptional discharge variation D/S Chashma barrage where flow abruptly dropped from 487842 cusecs to 296021 cusecs. This sudden fluctuation triggered significant morphological changes in river bed downstream, J-head spur RD 70+000 of Bhakkar Flood Bund. An active river creek abruptly drifted towards flood bund and attacked the reach between stud RD 74+800 and stud RD 75+000 a strong roller

action developed between two studs causing erosion of Bhakkar flood bund upto country side over a length of 200 ft. The situation was controlled by invoking 2.8 of PWD code by dumping of stone and construction of ring bund at set back location.

The Bhakkar Flood Bund is vulnerable due to its close alignment with main river bed. There is long history of river action at Bhakkar Flood Bund. After flood 2025, Administrative Department has taken decision to execute through remodeling of Bhakkar Flood Bund for protection of vulnerable reaches. The work remodeling and protection of critical reaches of Bhakkar Flood Bund has been included in ADP for year 2025-26 and administrative approval has been issued. The scope of work includes providing pitching and apron in vulnerable reach of Bhakkar Flood Bund and maintaining short comings of earthwork in top level and slopes as per design parameters of revised L-section of Bhakkar Flood Bund with shingle on top to ensure uninterrupted patrolling and carriage of stone during monsoon.

Furthermore, the restoration works of Bhakkar Flood Bund damaged during flood 2025 have been taken in hand and contractor has been mobilized at site. These works includes:

1) Restoration of J-head spur RD 70+000 of Bhakkar Flood Bund.

2) Restoration of inverted hockey spur RD 63+700 of Bhakkar Flood Bund.

3) Restoration of inverted hockey spur RD 75+800 of Bhakkar Flood Bund.

4) Bhakkar Flood washed away in length from RD 74+500 to RD 75+000.

The above said restoration works shall be completed before 30 May 2025 well before flood season 2026 as per deadline fixed by Administrative Department.

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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 Bhakkar Canal Division. Therefore this Division has to come active with respect to discharge of River Indus downstream Chashma Barrage. The terminology of different kind of flood as low, Medium, High, Very high and exceptionally high will be taken as such in the light of discharge received from downstream Chashma Barrage.

S.No	Site	Low Flood	Medium Flood	High Flood	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 LAG OF FLOODS

S.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	03-08-2015	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	3,30,102 Cs
2022	28.08.2022	5,23,937 Cs
2023	25.07.2023	4,00,511 Cs
2024	09.08.2024	4,29,760 Cs
2025	19.08.2025	4,77,466 Cs

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4.4 **PEAK DISCHARGES (Last 10 Years)**

YEAR	DATE	DISCHARGE
2015	03-08-2015	6,18,626 Cs
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	3,30,102 Cs
2022	28.08.2022	5,23,937 Cs
2023	25.07.2023	4,00,511 Cs
2024	09.08.2024	4,29,760 Cs
2025	19.08.2025	4,77,466 Cs

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CHAPTER-5

FLOOD FIGHTING STRATEGY

All precautionary measures will be adopted to cope with any eventuality during flood 2025, Flood fighting strategy would be adopted for the safe passage of flow.

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 Bunds. Then it becomes necessary to be vigilant, watching of Bunds and deploying of machinery will be started to avoid any leakage from bunds. Sub Engineers will shift their camps to site as per duty rosters. The Telegraph office of Bhakkar Canal Division will act as flood information center and flood situation will be conveyed to Civil Administration and flood warning centers. SDO, River Sub Division, Bhakkar will keep the Executive Engineer apprised about latest development regarding flood situation.

When river water enters in **high flood** range and above, the Sub Divisional Officers, River, Bhakkar and Notak shall also shift their camps 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

S.No	Name of Work	Amount (In Millions)
1	Bhakkar Flood Bund washed away in Length of 800 ft between RD 73+000 to RD 75+000.	**54.335**
2	Restoration of inverted Hockey stud at RD 63+700.	**28.849**
3	J-head Spur at RD 70+000.	**177.768**
4	Inverted Hockey Stud at RD 75+800.	**17.232**
	TOTAL:-	**278.184**

Note.

The work at Sr. No. 1 & 4 are in progress and completed before Flood season 2026.

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CHAPTER-7

FLOOD FIGHTING / WATCHING ARRANGEMENTS

7.1 Pre-Flood Arrangements

Additional Information

Sr. No	Site	Sanction Limit Lac Cft	Available Lac Cft	Balance Required
1	J-Head Spur No.1 at RD 14+700 of Bhakkar Flood Protection Bund	1.50	-	1.50
2	J-Head Spur No.1 at RD 14+700 of Bhakkar Flood Protection Bund	1.50	1.50	-
3	Head Spur No.2 at RD 27+175 of Bhakkar Flood Protection Bund	1.50	1.360	0.140
4	J-Head Spur No.3 at RD 38+550 of Bhakkar Flood Protection Bund	1.50	1.013	0.397
5	J-Head Spur No.4 at RD 47+000 of Bhakkar Flood Protection Bund	1.50	1.03	0.47
6	J-Head Spur No.5 at RD 52+000 of Bhakkar Flood Protection Bund	1.50	1.00	0.50
7	Guide-Head Spur at RD 58+800 of Bhakkar Flood Protection Bund	1.50	-	1.50
8	Solid stone Hockey stud at RD 60+250 of Bhakkar Flood Protection Bund	1.00	-	1.00
9	Mole Head Spur No.6 at RD 60+700 of Bhakkar Flood Protection Bund	1.50	0.909	0.591
10	J-Head Spur at RD 70+000 of Bhakkar Flood Protection Bund	1.50	-	1.50
11	J-Head Spur at RD 71+750 of Bhakkar Flood Protection Bund	1.50	1.015	0.485
12	Hockey spur at RD 75+800 of Bhakkar Flood Protection Bund	1.50	0.295	1.205
	TOTAL	**17.50**	**8.10**	**9.40**

Note:-

Work for procurement of reserve stock of stone in progress at J-head Spur RD 5+000,Guide Head Spur at RD 58+800 and J-Head Spur at RD 70+000..

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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	Bhakkar Flood Protection Bund RD 0+000 – 105+000	21.00	11	1	21	1	42	2	105	3
TOTAL Per Shift			**11**	**1**	**21**	**1**	**42**	**2**	**105**	**3**
Total			**11**		**21**		**84**		**315**	
No. of Mates			**1**		**2**		**7**		**26**	

7.3 Arrangement at Sensitive sites.

7.3 Arrangements at Sensitive Sites Established Camps Details

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	Bhakkar Flood Protection Bund RD 0+000 – 105+000	21.00	60+000-70+000	1	-	1	2
			73+000-75+000	1			
Total				**2**	**-**	**1**	**2**

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7.4 WATCHING MATERIAL

Watching material will be provided in ample 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 (15 Miles) 2 No. Camps

Sr#	Description	Unit	Quantity Required	Quantity Available	Quantity Net (Balance)	Remarks
1	Shouldari / Tent.	No.	2	2	-	Flood fighting material will be purchase as per necessity and subject to approval of competent authority.
2	Chairs	No.	12	12	-	
3	Table.	No.	2	2	-	
4	Generator 2-3 KVA	No.	2	1	1	
5	Pedestal Fan.	No.	2	-	2	
6	Charpois	No.	4	3	1	
7	Symbolic Jackets.	No.	100	100	-	
8	Polythene sheet	Kg.	200	-	200	
9	Bamboos (4" inch dia and 10 ft long)	No.	200	-	200	
10	Water Cooler	No.	2	-	2	
11	Portable umbrella	No.	4	-	4	
12	Life jackets	No.	10	10	-	
13	Utensils (10 Person serving)	No.	2	-	2	
14	Jute / Plastic bags	No.	2000	2000	-	
15	Walke talkie set	Sets.	4	-	4	
16	Raincoats	No.	20	-	20	
17	LED Flood light	No.	20	-	20	
18	Extension cable 10 ft	No.	4	-	4	
19	Rechargeable torches	No.	40	-	40	
20	Kassi	No.	40	36	4	
21	Axes	No.	40	36	4	
22	G.I Buckets	No.	10	-	10	
23	7/44 Cable	Feet.	1000	-	1000	
24	Sutli	Kg.	4	-	4	
25	Sewing Needles	No.	20	-	20	
26	Emergency Medical Kit	No.	2	-	2	
27	Wire crates (3x3x3) (at only those camp near river action and reserve stock exists)	No.	200	-	200	

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B.Minimum requirement of Flood Fighting Materials for Temporary camp (7 or 5 Miles during medium to exceptionally high flod to be outsourced.) 1 No. Camps

Sr#	ITEM	Unit	Total Required Quantity	Sr#	ITEM	Unit	Total Required Quantity
1	Shouldari / Tent.	No.	1	2	Walke talkie set	Sets.	1
3	Chairs	No.	6	4	Raincoats	No.	10
5	Table.	No.	1	6	LED Flood light	No.	10
7	Generator 2-3 KVA	No.	1	8	Extension cable 10 ft	No.	2
9	Pedestal Fan.	No.	1	10-	Rechargeable torches	No.	20
11	Charpois	No.	2	12	Kassi	No.	20
13	Symbolic Jackets.	No.	50	14	Axes	No.	20
15	Water Cooler	No.	1	16	G.I Buckets	No.	5
17	Portable umbrella	No.	2	18	7/44 Cable	Feet.	500
19	Utensils (10 Person serving)	No.	1	20	Sutli	Kg.	2
21	Jute / Plastic bags	No.	500	22	Sewing Needles	No.	10

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

7.5 **ARRANGEMENT FOR SOUNDING AND PROBING**

The arrangement for sounding and probing will be taken up with the 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 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

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 Bhakkar 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

The telephone attendant will remain present 24 hours turn wise. They will receive gauges from all related stations and pass on to concerned quarter for necessary action.

Sr. No	Name of officials	Time of Duties	
		From	To
1	Muhammad Javed Akhtar Signaler Cell No. 0344-7988130 Muhammad Jamshed Signaler Cell No 0345-7642139	6:00 AM	02:00 PM
2	Ameer hussain Signaler Cell No 0345-7659597 Akhtar Hussain Signaler Cell No 0345-7658754	02:00 PM	10: 00 PM
3	Asim Nawaz Signaler Cell No. 0332.4141008 Nusrat Abbas Signaler Cell No. 0333-5591610	10:00 PM	06:00 AM

7.15 WIRELESS ARRANGEMENTS

Wireless set will be installed in the vehicles of the Executive Engineer Bhakkar, Sub Divisional officer River, Bhakkar flood emergency center of Canal division Bhakkar 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 Bhakkar Division.

Ordinary Encroachment

Total Encroachments	Removed	Action To Be Taken
Nil	Nil	Nil

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CHAPTER -9

DUTY ROASTER / FLOOD FIGHTING PROGRAM.

9.1 Executive Engineer, Bhakkar Canal Division:

The Executive Engineer is the overall in-charge of flood protection activities within the jurisdiction of Bhakkar Canal Division, covering Districts Bhakkar and Layyah. He is responsible for supervising and maintaining flood protection measures during the flood season and coordinating with civil and military authorities, as well as the Superintending Engineer, Bhakkar Canal Circle.

9.2 Sub Divisional Officer, River Sub Division:

Responsible for the left Bank of Indus River from RD 0+000- 60+000 Bhakkar Flood Bund. Oversees critical Reach RD 60+000-70+000 & 73+000-75+000.

- **Primary Camp:** Canal Colony, Bhakkar
- **Field Camp** RD 58+050 of Bhakkar Flood Bund
- Communication Base: Police Frequency, Bhakkar

9.3 Sub Divisional Officer, River Sub Division:

Supervise flood Structures along the left Bank from RD 60+000 - 105+000 of Bhakkar Flood Bund, Concavo Convex Guide Wall in front of Basti Maharan, Concavo Convex Guide Wall in front of Basti Cheema, Concavo Convex Guide Wall in front of Basti Warah Seeran including Left side key areas such as Notak, Behal & UC Yousaf Shah. Coordinates with the Army, District Civil Administration, and the Executive Engineer of Bhakkar Canal Division.

- **Primary Camp:** Canal Colony, Bhakkar
- **Field Camp** RD 58+050 of Bhakkar Flood Bund
- Communication Base: Police Frequency, Bhakkar.

9.4 Sub Engineers

Attached at Headquarters (For Emergency Response):

Sub Engineer River Section I.

Field Assignments

RD 0+000- 58+800 and its allied structures.

Sub Engineer, River Section II.

Field Assignments

RD 58+800 -105+000 and its allied structures.

Sub Engineer, River Section III.

Field Assignments

Concavo Convex Guide Wall in front of Basti Maharan.

Concavo Convex Guide Wall in front of Basti Cheema.

Concavo Convex Guide Wall in front of Basti Warah Seeran.

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CHAPTER-10
EMERGENCY TELEPHONE NUMBERS

S. No	Designation	Office	Mobile
1	Secretary Irrigation Department Lahore.	042-99212117 042-99212118	0304-0920033
2	Chief Engineer Drainage & Flood Lahore	042-99233551	0321-9485218
3	Director Flood Lahore	042-99233552	0334-4669308
4	Deputy Director Flood Lahore	042-99233553	0331-4432859
5	Flood Warning Center Lahore.	042-99205371	042-99205157
6	Chief Engineer Irrigation Sargodha Zone	048-9230445	0300-9608339 0322-4486727
7	Executive Engineer Operation Sargodha Zone	048-9230446	048-3740050 0345-5165764
8	Superintending Engineer Bhakkar Canal Circle,Bhakkar.	0453921316	0345-5165765
9	Executive Engineer Canal Division Bhakkar	0453-921016	0306-1577172
10	Sub Divisional Officer, River.	0453-921016	0300-6054595
11	Sub Engineer, River-I	0333-8301002	0333-8301002
12	Sub Engineer, River-II	03012860289	03012860289
13	Sub Engineer, River-III	0303-5593451	0303-5593451
14	Chashma Barrage Exchange at Chashma Colony Kundian	0459-241289 0459-242858	0331-7233027

DISTRICT ADMINISTRATION BHAKKAR.

1	Deputy Commissioner Bhakkar	0453-921188 0453-921288	0453-921388 0304-0920077
2	Additional Commissioner Revenue Bhakkar	0453-921396	0313-5406772
3	Additional Deputy Commissioner General Bhakkar	0453-921307 0453-921312	0300-4872316
4	District Police Officer Bhakkar	0453-921350 0453-921351	0321-8888330
5	Assistant Commissioner Bhakkar	0453-921299	0301-7181870
6	Bhakkar Flood Control Room	0453-921082	0453-921082

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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 Canal Division Bhakkar.

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.

Already attached in Page.20

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.

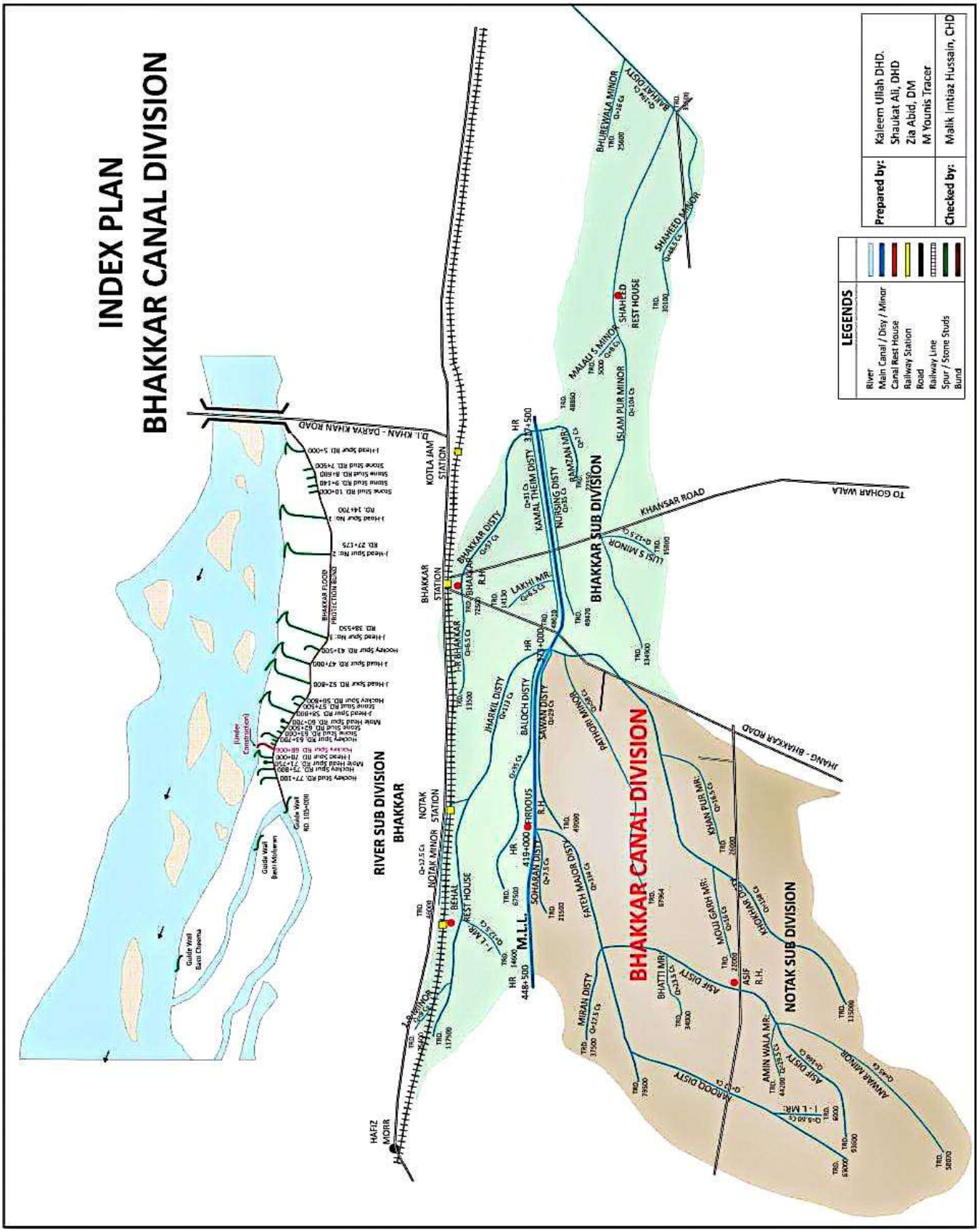
11.12 INDEX PLAN.

Attached on Page No.23

Executive Engineer
Bhakkar Canal Division,
Bhakkar

Superintending Engineer
Bhakkar Canal Circle
Bhakkar

Chief Engineer,
Sargodha Irrigation Zone,
Sargodha.


INDEX PLAN
BHAKKAR CANAL DIVISION
LEGENDS
River
Main Canal / Disy / Minor
Canal Rest House
Railway Station
Road
Railway Line
Spur / Stone Studs
Bund
Prepared by:
Kaleem Ullah DHD,
Shaukat Ali, DHD
Zia Abid, DM
M Younis Tracer
Checked by:
Malik Imtiaz Hussain, CHD
BHAKKAR CANAL DIVISION
BHAKKAR SUB DIVISION
NOTAK SUB DIVISION
RIVER SUB DIVISION
BHAKKAR
KOTLA JAM STATION
BHAKKAR STATION
NOTAK STATION
HAFIZ MORR
BEHAL REST HOUSE
SHAHEED REST HOUSE
KHANSAR ROAD
TO GOHAR WALA
JHANG - BHAKKAR ROAD
D.I. KHAN - DARYA KHAN ROAD
BHAKKAR FLOOD PROTECTION BUND
(Under Construction)
BHAKKAR DISTY
KAMAL THEIM DISTY
NURSING DISTY
RAMZAN MR.
ISLAM PUR MINOR
MALAU S MINOR
BHUREWALA MINOR
SHAHEED MINOR
LAKHI MR.
LISU S MINOR
JHARKIL DISTY
BALOCH DISTY
SAWAN DISTY
PATHORI MINOR
NOTAK MINOR
SOHRAN DISTY
FATEH MAJOR DISTY
MIRAN DISTY
BHATTI MR.
ASIF DISTY
MOU GARH MR.
KHOKHAR DISTY
KHAN PUR MR.
AMIN WALA MR.
ANWAR KHOR
MADOO DISTY
M.L.L.
R.H.
L.H.
HR
I.-L. MR.

PART-(B)

CHAPTER-12

VULNERABLE SITES ON FLOOD BUND / STRUCTURES

12.1 APPREHENDED BREACHES IN FLOOD BUNDS / STRUCTURES

02. No. Vulnerable site as recommended by the Executive Engineer and notified by the Superintending Engineer Bhakkar Canal Circle Bhakkar vide No._____ Dated._____ are given as below.

S. No	Name of Flood Bund	Reach		Camp Location
		From RD	To RD	RD
1	Bhakkar Flood Protection Bund	60+000	70+000	58+050
2	Bhakkar Flood Protection Bund	73+000	75+800	70+500

12.2 Operation of breaching sections.

There is no such case in Bhakkar Canal Division Bhakkar.

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

There is no such case in Bhakkar Canal Division Bhakkar.

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CHAPTER-13

EMERGENCY CONTINGENCY PLAN FOR VULNERABLE SITES.

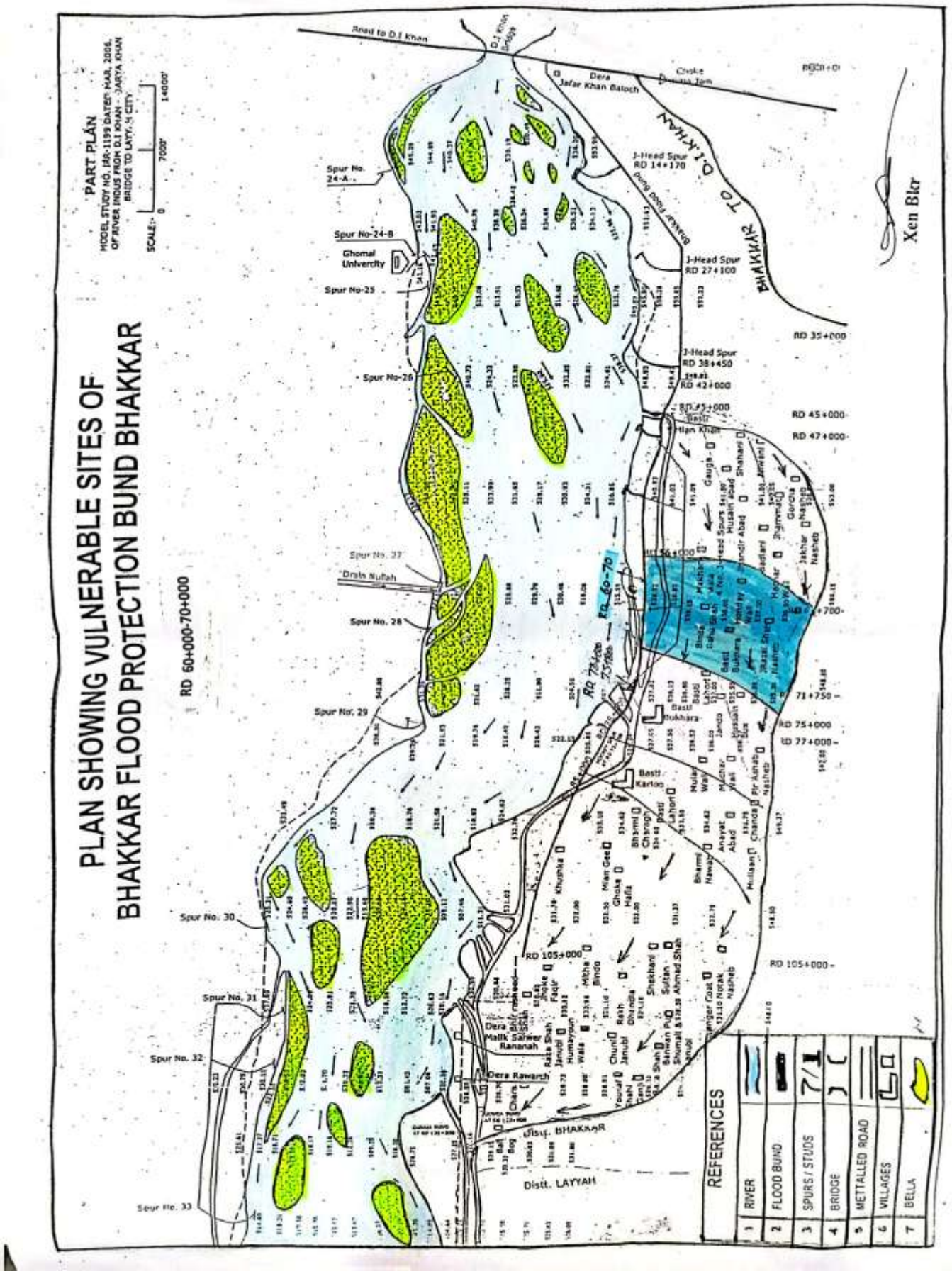
Site No-1. Bhakkar Flood Protection Bund RD 60+000 – 70+000.

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

Plan Attached

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13.1


PLAN SHOWING VULNERABLE SITES OF
BHAKKAR FLOOD PROTECTION BUND BHAKKAR
PART PLAN
MODEL STUDY NO. IAR-1199 DATED: MAR, 2006.
OF RIVER INDUS FROM D.I KHAN - SARYA KHAN
BRIDGE TO LAYYA, 4 CITY
SCALE:- 0 7000' 14000'
RD 60+000-70+000
Road to D.I Khan
D.I Khan Bridge
Dera Jafar Khan Baloch
TO D.I.KHAN
BHAKKAR
Bhakkar Flood Bund
J-Head Spur RD 14+170
J-Head Spur RD 27+100
J-Head Spur RD 38+450
RD 42+000
RD 35+000
RD 45+000
RD 47+000
RD 56+000
RD 60-70
RD 71+750
RD 75+000
RD 77+000
RD 105+000
Spur No. 24-A
Spur No-24-B
Ghomal University
Spur No-25
Spur No-26
Spur No. 27
Drain Nullah
Spur No. 28
Spur No. 29
Spur No. 30
Spur No. 31
Spur No. 32
Spur No. 33
Dera Malik Sarwer Rananah
Dera Rawarsh
Distt. BHAKKAR
Distt. LAYYAH
Xen Bkr
REFERENCES
1 RIVER
2 FLOOD BUND
3 SPURS / STUDS
4 BRIDGE
5 METTALLED ROAD
6 VILLAGES
7 BELA

13.2 DETAIL OF VILLAGES ABADIES LIKELY TO BE EFFECTED.

- Basti Main Khan
- Basti Bokhara
- Binda Baho Shah
- Razai Shah Nasheeb
- Mchar wali
- Honday wall

13.3. STRATEGY AND ACTION TAKEN BE EXPLAINED IN DETAIL. This may include.

The Bhakkar Flood Bund along the left bank of Indus River, is crucial in protecting the adjacent villages. If the bund sustains damage during a flood, water could inundate these settlements.

13.3.1. Arrangements

in case of breach or emergency situation, immediate countermeasures will include.

- Tree Launching
- Gunny Bags.
- Stone Dumping:

13.3.2. Establishment of Flood Fighting Camp.

A flood monitoring and response camp will be established at RD 58+050 Bhakkar Flood Bund.

SR No	Flood Bund Name	Camp RD
1	Bhakkar Flood Bund	RD 58+050

13.3.3 DUTIES OF OFFICERS / OFFICIALS ON THEIR CAMP SITES. (CAMP RD 58+050)

Officers (Name, Designation & Contact)
Muhammad Zamir Kazim
Sub Divisional Officer
River Sub Division Bhakkar.
Cell # 0300-6054595

Officials (Name, Designation & Contact)
Muhammad Majid
Sub Engineer
River Section I.
Cell # 0301-2860289

- The Executive Engineer of Bhakkar Canal Division oversees of all flood related activities, including maintenance, supervision and co-ordination with civil and military authorities.
- The Sub Divisional Officer monitors key flood protection structures, ensures low lying Katcha area & Bhakkar city safety, coordinates with relevant authorities.
- The Sub Engineer of River Section-I managed Bhakkar Flood Bund, ensuring 24/7 monitoring with the dedicated labour force for infrastructure protection.

13.3.4 DEPARTMENTAL MACHINERY AVAILABLE

1 No tractor along with front end loader + trolley + water tank.

13.3.5 MACHINERY AVAILABLE FROM PRIVATE SOURCE

In case of emergency ,the following machinery can be hired from private contractors.

- **Dozer**
- **Excavator machine**
- **Dumper**
- **Tractor with Trolley**

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13.3.6 FLOOD FIGHTING MATERIAL REQUIRED.

Sr#	Description	Unit	Quantity Required	Quantity Available	Quantity Net (Balance)	Remarks
1	Shouldari / Tent.	No.	1	1	-	Flood fighting material will be purchase as per necessity and subject to approval of competent authority.
2	Chairs	No.	6	6	-	
3	Table.	No.	1	1	-	
4	Generator 2-3 KVA	No.	1	1	-	
5	Pedestal Fan.	No.	1	-	1	
6	Charpois	No.	2	2	-	
7	Symbolic Jackets.	No.	50	50	-	
8	Polythene sheet	Kg.	100	-	100	
9	Bamboos (4" inch dia and 10 ft long)	No.	100	-	100	
10	Water Cooler	No.	1	-	1	
11	Portable umbrella	No.	2	-	2	
12	Life jackets	No.	5	5	-	
13	Utensils (10 Person serving)	No.	1	-	1	
14	Jute / Plastic bags	No.	1000	1000	-	
15	Walke talkie set	Sets.	2	-	2	
16	Raincoats	No.	10	-	10	
17	LED Flood light	No.	10	-	10	
18	Extension cable 10 ft	No.	2	-	2	
19	Rechargeable torches	No.	20	-	20	
20	Kassi	No.	20	18	2	
21	Axes	No.	20	18	2	
22	G.I Buckets	No.	5	-	5	
23	7/44 Cable	Feet.	500	-	500	
24	Sutli	Kg.	2	-	2	
25	Sewing Needles	No.	10	-	10	
26	Emergency Medical Kit	No.	1	-	1	
27	Wire crates (3x3x3) (at only those camps near river action and reserve stock exists)	No.	100	-	100	

13.3.7 FLOOD FIGHTING MATERIAL AVAILABLE .

Detailed information already provided IN Section 13.3.6.

13.4 Detail of other infrastructure like electric, Sui Gas, Telephone installation, Road network, other building canals and Drainage network.

The following essential infrastructure and utilities are present in the flood-prone area.

- Electric lines
- Telephone installation
- Road network.
- Buildings.
- BHU Centers

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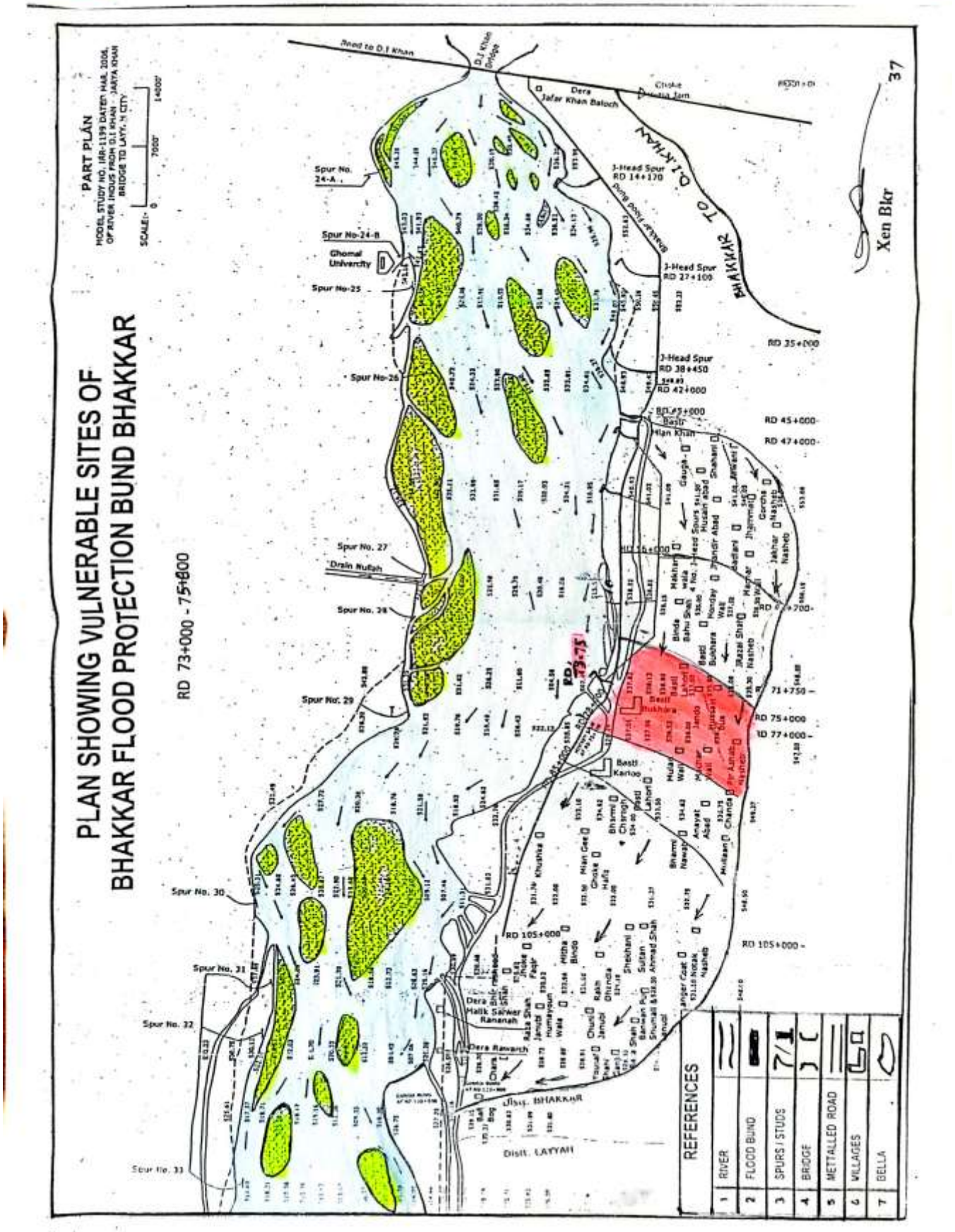
Site No-2. Bhakkar Flood Protection Bund RD 73+000 – 75+800.

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

Plan Attached

XEN BKR

13.1


PLAN SHOWING VULNERABLE SITES OF
BHAKKAR FLOOD PROTECTION BUND BHAKKAR
RD 73+000 - 75+800
PART PLAN
MODEL STUDY NO. IRR-1139 DATED MAR, 2006,
OF RIVER INDUS FROM D.I KHAN - JARTA KHAN
BRIDGE TO LAYY, 'H CITY'
SCALE:- 0 7000' 14000'
Road to D.I Khan
D.I Khan Bridge
Dera Jafar Khan Baloch
Spur No. 24-A
Spur No-24-B
Ghomal University
Spur No-25
Spur No-26
Spur No. 27
Drain Nullah
Spur No. 28
Spur No. 29
Spur No. 30
Spur No. 31
Spur No. 32
Spur No. 33
J-Head Spur RD 14+170
J-Head Spur RD 27+100
J-Head Spur RD 38+450
RD 42+000
RD 45+000
RD 47+000
RD 71+750
RD 75+000
RD 77+000
RD 105+000
TO D.I.KHAN
BHAKKAR
Xen Bkr
37
Dera Shah Mehmood
Halik Sahiwer Rananah
Dera Rawarch
Dist. BHAKKAR
Distt. LAYYAH
REFERENCES
1 RIVER
2 FLOOD BUND
3 SPURS / STUDS
4 BRIDGE
5 METTALLED ROAD
6 VILLAGES
7 BELLA

13.2 DETAIL OF VILLAGES ABADIES LIKELY TO BE EFFECTED.

- Basti Lahori
- Basti Karloo
- Peer Ashab Nasheed
- Mulan wali
- Bhermi Charagh
- Bhermi Nawab.
- Mithu Bhindu.
- Notak Nasheeb
- UC Yousaf Shah.

13.3. STRATEGY AND ACTION TAKEN BE EXPLAINED IN DETAIL. This may include.

The Bhakkar Flood Bund along the left bank of Indus River, is crucial in protecting the adjacent villages. If the bund sustains damage during a flood, water could inundate these settlements.

13.3.1. Arrangements

in case of breach or emergency situation, immediate countermeasures will include.

- Tree Launching
- Gunny Bags.
- Stone Dumping:

13.3.2. Establishment of Flood Fighting Camp.

A flood monitoring and response camp will be established at RD 70+500 Bhakkar Flood Bund.

SR No	Flood Bund Name	Camp RD
1	Bhakkar Flood Bund	RD 70+500

13.3.3 DUTIES OF OFFICERS / OFFICIALS ON THEIR CAMP SITES. (CAMP RD 70+500)

Officers (Name, Designation & Contact)
Muhammad Zamir Kazim
Sub Divisional Officer
River Sub Division Bhakkar.
Cell # 0300-6054595

Officials (Name, Designation & Contact)
Muhammad Nadeem Iqbal
Sub Engineer
River Section II.
Cell # 0344-7618921

- The Executive Engineer of Bhakkar Canal Division oversees of all flood related activities, including maintenance, supervision and co-ordination with civil and military authorities.
- The Sub Divisional Officer monitors key flood protection structures, ensures low lying Katcha area & Bhakkar city safety, coordinates with relevant authorities.
- The Sub Engineer of River Section-II managed Bhakkar Flood Bund, ensuring 24/7 monitoring with the dedicated labour force for infrastructure protection.

13.3.4 DEPARTMENTAL MACHINERY AVAILABLE

1 No tractor along with front end loader + trolley + water tank.

13.3.5 MACHINERY AVAILABLE FROM PRIVATE SOURCE

In case of emergency ,the following machinery can be hired from private contractors.

- **Dozer**
- **Excavator machine**
- **Dumper**
- **Tractor with Trolley**

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13.3.6 FLOOD FIGHTING MATERIAL REQUIRED.

Sr#	Description	Unit	Quantity Required	Quantity Available	Quantity Net (Balance)	Remarks
1	Shouldari / Tent.	No.	1	1	-	Flood fighting material will be purchase as per necessity and subject to approval of competent authority.
2	Chairs	No.	6	6	-	
3	Table.	No.	1	1	-	
4	Generator 2-3 KVA	No.	1	1	-	
5	Pedestal Fan.	No.	1	-	1	
6	Charpois	No.	2	1	1	
7	Symbolic Jackets.	No.	50	50	-	
8	Polythene sheet	Kg.	100	-	100	
9	Bamboos (4" inch dia and 10 ft long)	No.	100	-	100	
10	Water Cooler	No.	1	-	1	
11	Portable umbrella	No.	2	-	2	
12	Life jackets	No.	5	5	-	
13	Utensils (10 Person serving)	No.	1	-	1	
14	Jute / Plastic bags	No.	1000	1000	-	
15	Walke talkie set	Sets.	2	-	2	
16	Raincoats	No.	10	-	10	
17	LED Flood light	No.	10	-	10	
18	Extension cable 10 ft	No.	2	-	2	
19	Rechargeable torches	No.	20	-	20	
20	Kassi	No.	20	18	2	
21	Axes	No.	20	18	2	
22	G.I Buckets	No.	5	-	5	
23	7/44 Cable	Feet.	500	-	500	
24	Sutli	Kg.	2	-	2	
25	Sewing Needles	No.	10	-	10	
26	Emergency Medical Kit	No.	1	-	1	
27	Wire crates (3x3x3) (at only those camps near river action and reserve stock exists)	No.	100	-	100	

13.3.7 FLOOD FIGHTING MATERIAL AVAILABLE .

Detailed information already provided in Section 13.3.6.

13.4 Detail of other infrastructure like electric, Sui Gas, Telephone installation, Road network, other building canals and Drainage network.

The following essential infrastructure and utilities are present in the flood-prone area.

- Electric lines
- Telephone installation
- Road network.
- Buildings.
- BHU Center.

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CHAPTER-14
ADDITIONAL INFORMATION
Action Plan

14.1 RESHIFTING/RECOUPING PLAN OF RESERVE STOCK OF STONE DEPARTMENTALLY.

SR No.	Name of Flood Bund infrastructures having resrve stock stone.	Available Quantity of stone (Lac Cft)	Site where stone can be used during flood emergency
1	1- J-Head spur RD 14+700. 2- J-Head spur RD 27+175. 3- J-Head spur RD 38+500. 4- J-Head spur RD 47+000. 5- J-Head spur RD 52+800. 6- M-Head spur RD 60+700 7- M-Head spur RD 70+000. 8- Hockey Spur RD 75+800. 9- Guide Wall RD 105+000.	8.360	Used from RD 0+000-105+000 and its allied structures will be shifted to critical site through contractor as per requirement

14.2 DETAIL OF INLET/OUTLET CROSSING ALONG WITH CLOSING METHODOLOGY

NA

14.3 DEPLOYMENT MACHINERY (NORMAL TO LOW FLOOD)

Sr. No.	Structure Name	Length (Miles)	Excavators	Trolleys	Dumpers	Tractor with Front blade 1 per 15 mile reach
1	Bhakkar Flood Protection Bund RD 0+000 – 105+000	21.00	S.E shall allow deputation of one (1) excavator & four (4) Trolleys during low flood at camps/vulnerable points & LMB / RMB.		-	1

14.4 DEPLOYMENT MACHINERY (MEDIUM TO HIGH FLOOD)

Sr. No.	Structure Name	Length (Miles)	Excavators	Trolleys	Dumpers	Tractor with Front blade
			1 per 7 mile reach	4 per 7 mile reach	2 per 7 mile reach	1 per 7 mile reach
1	Bhakkar Flood Protection Bund RD 0+000 – 105+000	21.00	3	12	6	3

14.5 DEPLOYMENT 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 reach	2 per 5 mile reach	Very High Flood	Exp. High Flood
			1 per 5 mile reach	2 per 5 mile reach			1 per 5 mile reach	2 per 5 mile reach
1	Bhakkar Flood Protection Bund RD 0+000 – 105+000	21.00	4	8	16	8	4	8

14.6 POLICE DEPLOYMENT PLAN

Sr. No.	Name of Sub Division	Name of Embankment	Length / Width		Kilometer	Machinery deployment plan (High Flood)				Location of embankment of machinery	Location of Base Camp / Station	Police deployment plan
						Excavator	Dozers	Dump Trucks	Tractor Trolleys			
1	Bhakkar	0+000-58+000	58000	25'	17.68	0	-	-	1	RD.58+000	Base camp No.1 at Village Makha	On need basis
2	Bhakkar	58+000 - 105+000	47000	25'	14.33	0	-	-	1	RD.70+000	Base cam No.2 at Village RD 70+500.	On need basis

14.7 DETAILS OF SYNTHETIC BAGS WITH CAPACITY OF 500 KG AND 1000 KG

S.No	Item	Available Quantity	Required Quantity
1	2	3	4
1	Detail of Synthetic bags with a Capacity of (500 Kg & 1000 Kg)	NIL	NIL

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

SR.No	Item	Available Quantity	Required Quantity
1	2	3	4
1	**Black polythene Sheet**	NIL	NIL

14.9 Any other details as per SOPs approved by the administrative department

SOPs shared vide No. SO(FLOODS)VII-22/2017 DATED 26-12-2025 shall be strictly followed.

XEN BKR

CHAPTER-15

BACKUP DIVISIONS (IN CASE OF BREACH)

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

Executive Engineer
Bhakkar Canal Division,
Bhakkar

Superintending Engineer
Bhakkar Canal Circle
Bhakkar

Chief Engineer,
Sargodha Irrigation Zone,
Sargodha.