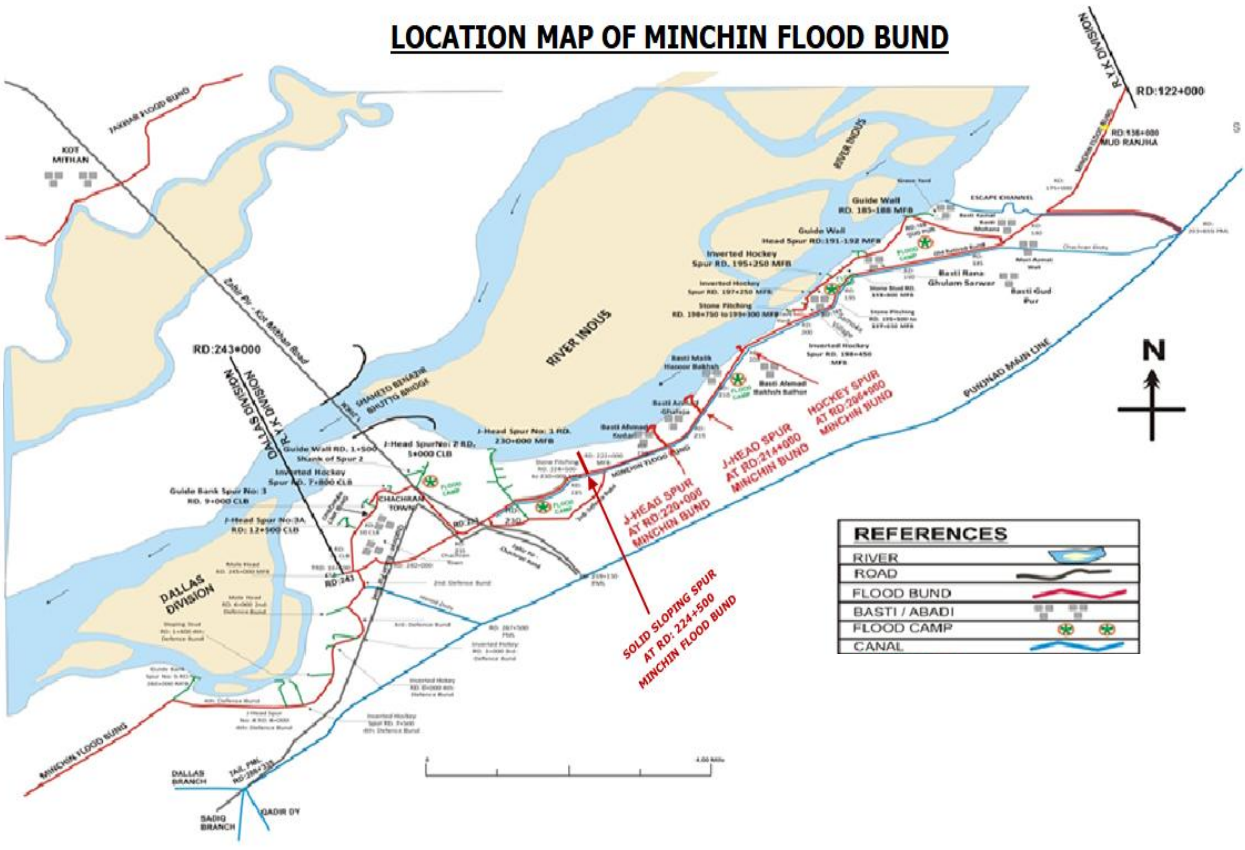
GOVERNMENT OF THE PUNJAB

IRRIGATION DEPARTMENT



FLOOD FIGHTING PLAN

FOR THE YEAR 2026

RAHIMYARKHAN CANAL DIVISION RAHIMYARKHAN

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INDEX

FLOOD FIGHTING PLAN 2026

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PART - A

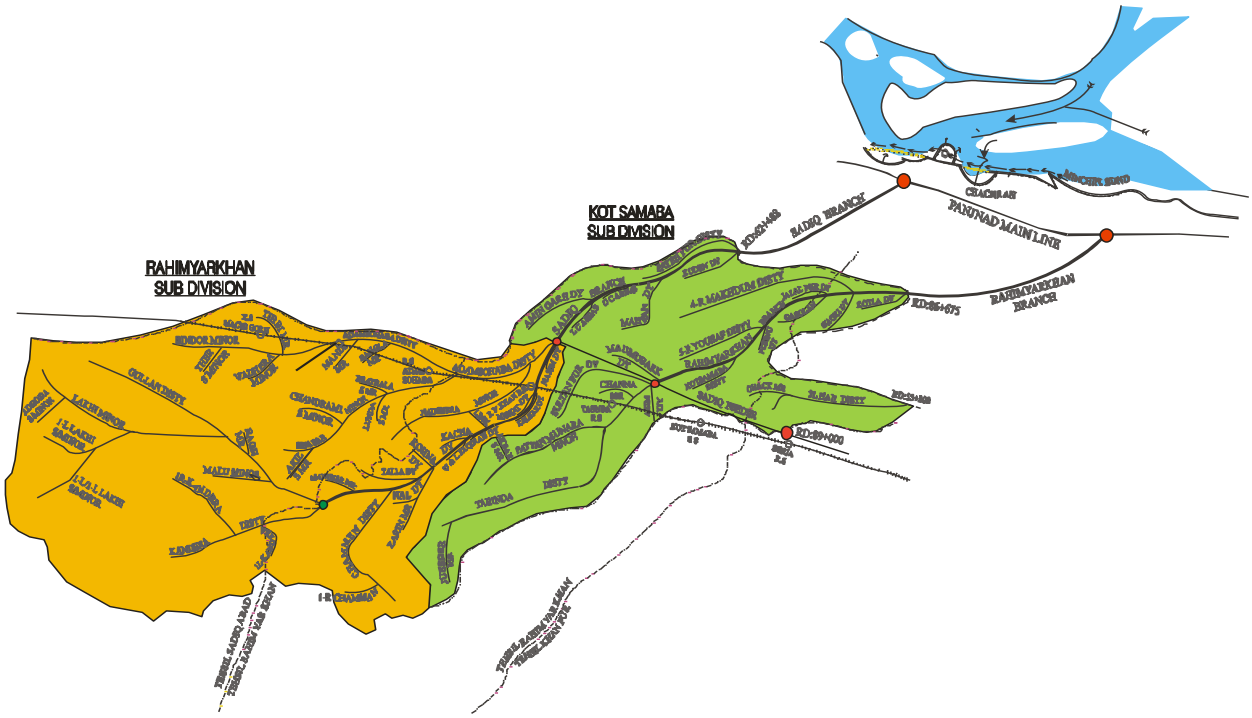
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Chapter-1

1.1 Location.

The area of Rahimyarkhan Canal Division falls in civil administrative District Rahimyarkhan. The town of Rahimyarkhan is Headquarters of the District. Old name of the town was Noshera developed by the then ruler of the State Bahawalpur in 1751 AD. In 1881 AD the name of this town was changed from Noshera to Rahimyarkhan, attributed with the name of the then Crown Prince Rahimyarkhan. The Division area lies between 29° 40" to 29° 55" Northing and 72° 50" to 73°22" Easting.

Rahimyarkhan Canal Division is situated on the left side of Indus River. It starts downstream of Panjnad & Khanpur Canal Divisions. It is bounded by river Indus on north, Dallas Canal Division on its west and irrigation boundary of Khanpur Canal Division on its east.



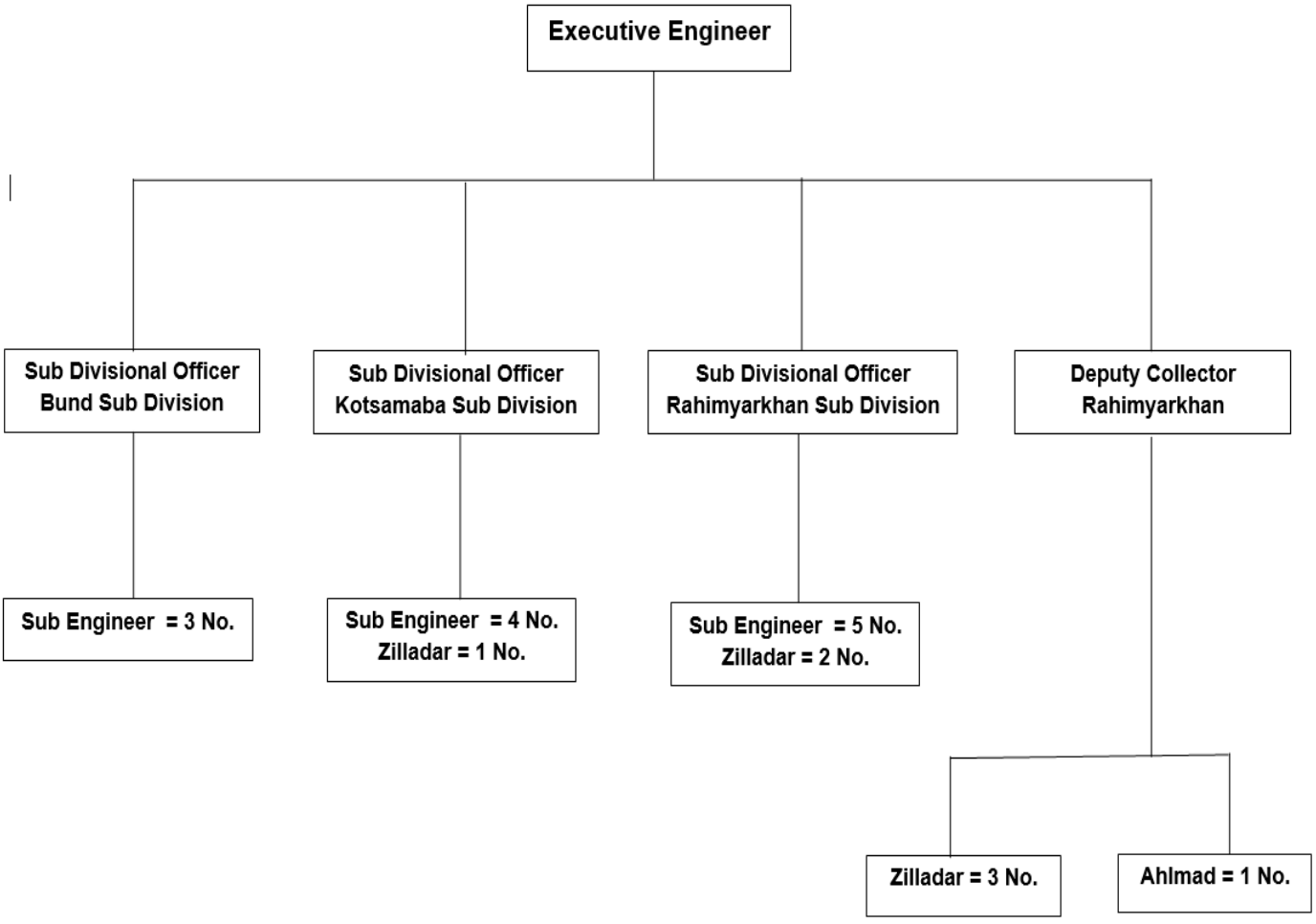
1.2 General Description.

Rahimyarkhan Canal Division is an administrative part of Rahimyarkhan Canal Circle. This Division consists of three Canal Sub Divisions as detailed under:-

- Bund Sub Division. Headquarter at Rahimyarkhan.(Camp office Zahir peer).
- Kotsamaba Sub Division. Headquarter at Kotsamaba.
- Rahimyarkhan Sub Division. Headquarter at Rahimyarkhan.

Rahimyarkhan Canal Division Maintains and operates Rahimyarkhan Branch from RD: 86 to Tail off-taking RD:204 PML and Sadiq Branch off-taking at Tail PML and along their system. Minchin Bund was constructed for the protection of Panjnad Canal System and infrastructures from RD: 0+000 to 315+000. From RD:122+000 to 243+000, this bund is situated in Rahimyarkhan Canal Division. Chachran link bund and five Nos. structures have been constructed between RD:230 to 243 of Minchin Bund for the protection of Chachran Town.

1.3 **Administrative Setup.**



Chapter-2

FLOOD PROTECTION AND RIVER TRAINING WORKS

2.1 Design parameter of training works.

Rahimyarkhan Canal Division receives the joint effect of Indus and Chenab Rivers. Confluence point of these Rivers is approximately apposite RD:105 of Minchin Bund in Panjnad Head works Division.

The flood Bund namely Minchin Bund from RD:122 to 243 which exist on left bank of River Indus is also maintained by this Division. It runs parallel to PML and protects the Canal system and other infrastructure. Thus whole District Rahimyarkhan with infrastructure is protected against flood Hazards by this Bund.

This Division is maintaining the following bunds & river training works:

Flood protection bunds.

i)	Minchin flood Bund.	RD:122+000 to 243+000
ii)	2nd Defense Bund. (Mud Adil)	RD:0+000 to 12+000 (opposite RD:222+000 to 232+000 of Minchin Bund)
iii)	Malkani Escape both sides.	RD:0+000 to 10+500
iv)	Chachran Link Bund.	RD:0+000 to 16+600

(Detail regarding design parameters is **attached**)

RIVER TRAINING WORKS

I. J-Head Spur No.1 at RD: 230+000 of Minchin Flood Bund.
ii. J-Head Spur No.2 at RD:5+000 of Chachran Link Bund.
iii. Guide Bank Spur No.3 at RD: 9+000 of Chachran Link Bund.
iv. Concave Convex Guide Wall D/S Spur No.2
v. J-Head Spur No. 3-A at RD:12+500 Chachran Link Bund.
vi. Concave Convex Guide Wall at RD:185-188 Minchin Flood Bund.
vii. Guide Wall RD:191-192 of Minchin Flood Bund.
viii. Inverted Hockey at RD: 195+250 Minchin Flood Bund.
ix. Inverted Hockey at RD: 197+250 Minchin Flood Bund.
x. Inverted Hockey at RD: 198+450 Minchin Flood Bund.
xi. Inverted Hockey at RD: 7+800 Chachran Link Bund.
xii. Inverted Hockey Spur at RD: 206+000 Minchin Flood Bund
xiii. J-Head Spur at RD: 214+000 Minchin Flood Bund.
xiv. J-Head Spur at RD: 220+000 Minchin Flood Bund.
xv. Sloping Spur at RD: 224+500 Minchin Flood Bund.

(Detail regarding design parameter is **attached**)

Objectives

Objectives of the flood plan are to develop a framework for rescue, relief and rehabilitation activities with a view to:

I. Save precious lives and properties.
II. Enable those located in vulnerable areas in moving their live stock / cattle
III. Minimize human misery and sufferings
IV. Protect installation of sensitive nature.

2.1 DESIGN PARAMETERS OF FLOOD PROTECTION BUNDS & TRAINING WORKS

S No	NAME OF WORK	LOCATION	REACH		Total length (Mile)	High flood	DESIGN PARAMETER				Remarks
			From	To			Width	Side Slope		Free Board	
								River Side	Country side		
1	2	3	4	5	6	7	8	9	10	11	12
1	Minchin Bund	Left Bank of River Indus	122	195	14.6	2010	25	3:1	2:1	6	
			195	243	9.6	2010	30	3:1	2:1	6	
2	2nd Defence Bund (Mud Adil)	Along M. Bund	0	12	2.4	2010	25	3:1	2:1	6	
3.	Malkani Escape	Right side of PML RD:204	0	10500	2.1	2010	25	2:1	2:1	6	
4.	Chachran Link Bund.	Along CCN Town.	0	16600	3.32	2010	25	3:1	2:1	6	
5.	J-Head Spurs 1,2, 3-A and at RD:214 & RD:220	5 Nos.	Exist at RD: 230 Minchin Flood Bund, RD:5 of Chachran Link Bund and RD:12500 of Chachran Link Bund. At RD:214+000 and at RD:220+000 Minchin Flood Bund.								
6.	Concave Convex Guide Wall	3 Nos.	i. D/S Spur No.2 Opposite RD:5 of Chachran Link Bund ii. At RD:185-188 of Minchin Flood Bund iii. At RD:191-192 of Minchin Flood Bund								
7.	Guide Bank Spur No.3	1 No.	Exist at RD: 9 of Chachran Link Bund.								
8.	Sloping Spur	1 No.	Exist at RD: 224+500 Minchin Flood Bund								
9.	Inverted Hockey Spurs	5 Nos.	i. At RD:195+250 of Minchin Flood Bund ii. At RD:197+250 of Minchin Flood Bund 'iii. At RD:198+450 of Minchin Flood Bund 'iv. At RD:7+800 of Chachran Link Bund .v. At RD:206+000 of Minchin Flood Bund.								

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DESIGN PARAMETERS OF RIVER TRAINING WORKS

Sr No.	Structure	Length			Section									
		Shank Ft.	Head Ft	Total Ft.	T/width Ft.	S.S.(Head)		S.S.(Shank)		Free Board	Apron	Crush Ft.	Spawl	Pitching Ft.
						U/S	D/S	U/S	D/S					
1.	**"J" Head spur No. 1**													
i)	J-Head Spur No.1 at RD:8 of 2nd defence Bund.	6262	1721	7983	30	2:1	3:1	3:1	3:1	6 Ft.	20' & 44'x6'	0.5'	0.5'	1.0'
ii)	Pitching U/S RD:1613-2478 of Shank of Spur No.1	865	-	865	-do-	2:1	-	-	-	6 Ft.	30'	-do-	-do-	-do-
iii)	Pitching D/S RD:1666-2478 of Shank of Spur No.1	812	-	812	-do-	2:1	-	-	-	6 Ft.	17'	-do-	-do-	-do-
iv)	U/S Mole Head Spur No.1 at RD:3400 of Shank of Spur No.1	750	-	750	-do-	2:1	2:1	3:1	3:1	6 Ft	20'x5'	-do-	-do-	-do-
v)	U/S Mole Head Spur No.3 at RD:5375 of Shank of Spur No.1	500	-	500	-do-	2:1	2:1	3:1	3:1	6 Ft	20' & 44'x6'	-do-	-do-	-do-
vi)	D/S Mole Head Spur No.2 at RD:4180 of Shank of Spur No.1	400	-	400	-do-	2:1	2:1	3:1	3:1	6 Ft	20'x5	-do-	-do-	-do-
2.	**"J" Head spur No. 2**													
i)	J-Head Spur No.2 at RD:5 of Chachran Link Bund.	1720	1617	3337	-do-	2:1	3:1	3:1	3:1	6 Ft.	70'x7'	-do-	-do-	-do-
3.	**Guide Bank spur No.3**													
i)	Guide Bank Spur at RD:9 of Chachran Link Bund.	585	1085	1670	-do-	2:1	3:1	3:1	3:1	6 Ft.	70'x7'	-do-	-do-	-do-
ii)	Loop Bund	5500	-	5500	20	-	-	2:1	3:1	6 Ft.	-	-	-	-

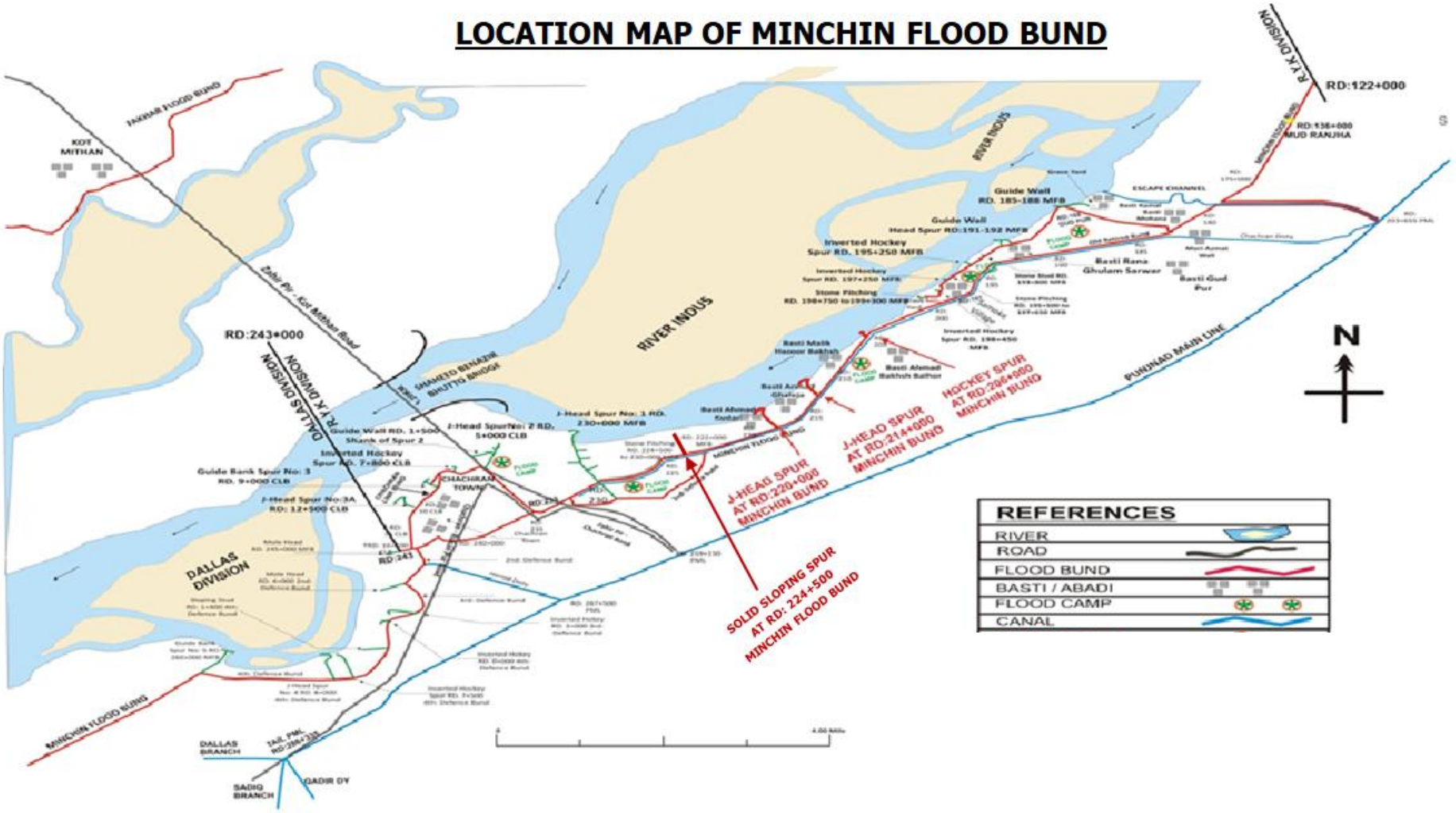
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4.	J-Head Spur at RD:12+500 of CCN Link Bund	240	1997	2237	30	2:1	3:1	2:1	3:1	6 Ft	Different width at differed part	0.50	1.0	1.0
5.	Concave Convex Guide Wall D/S Spur No.2 Opposite RD:5 of Chachran Link Bund	-	1316	1316	30	2:1	3:1			6 Ft	Different width at differed part	0.50	0.50	1.0
6.	Concave Convex Guide Wall At RD:185-188 Minchin Flood Bund	-	1800	1800	25	2:1	2:1			6 Ft	Different width at differed part	0.33	0.33	1.0
7.	Guide Wall at RD:191-192 of Minchin Bund	692	904	1596	25	2:1	2:1			7.65 Ft	Different width at differed part	0.33	0.33	1.0
8.	Inverted Hockey Spurs at RD: 195+250 of Minchin Flood Bund.	570	212	782	25	1:1	1:1	2:1	2:1	6 Ft	Different width at differed part	0.33	0.33	1.0
9.	Inverted Hockey Spurs at RD: 197+250 of Minchin Flood Bund.	-	300	300	25	1:1	1:1	-	-	6 Ft	-	-	-	-
10.	Inverted Hockey Spurs at RD: 198+450 of Minchin Flood Bund.	-	480	480	25	1:1	1:1	-	-	6 Ft	-	-	-	-
11.	Inverted Hockey Spurs at RD: 7+800 of Chachran Link Bund	800	249	1049	25	1:1	1:1	2:1	2:1	6 Ft	-	-	-	-
12.	Inverted Hockey Spur at RD:206+000 Minchin Flood Bund	250	512	762	30	2:1	2:1	2:1	2:1	6 Ft	Different width at differed part	0.50	0.50	1.50
13.	J-Head Spur at RD: 214+000 Minchin Flood Bund.	1170	1887	3057	30	2:1	3:1	2:1	3:1	6 Ft	Different width at differed part	0.50	0.50	1.50
14.	J-Head Spur at RD: 220+000 Minchin Flood Bund.	800	1887	2687	30	2:1	3:1	2:1	3:1	6 Ft	Different width at differed part	0.50	0.50	1.50
15.	Sloping Spur at RD: 224+500 Minchin Flood Bund.	1275	231	1506	30 , 20	1:1	1:1	2:1	2:1	6 Ft	Different width at differed part	0.50	0.50	1.50

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2.2 LOCATION MAP

Flood Protection and River Training Works



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Chapter-3

BRIEF HISTORY OF PAST FLOOD EVENTS

The area of Rahimyarkhan Division receives the joint effect of river Indus and chenab. The erosive action of river Indus, on its left flank, started endangering the safety of Minchin bund, Panjnad canal system & Chachran Town, in addition to washing off villages, abadies and fertile agricultural land lying between the river and Panjnad Canal during 1994-95. River Indus changed its course in reach RD: 214-263 of Minchin flood bund. Historical city of Chachran is situated at this reach on left side of River. Minchin Bund from RD: 225-230 was eroded during 1995. 2nd defence Bund in shape of loop joining RD: 222-232 of Minchin Bund was constructed in 1995. After detailed Model study 5-No. Spurs were constructed during 1998 in the supervision of resident consultant of NESPAK to train river Indus between RD: 226-260 of Minchin bund for the safety of inhabitant's public proprieties, irrigation system & other infrastructures in the area and to reclaim valuable land and fruit orchards. Out of these 5 training works, 3 Nos. Spurs i.e. J-Head Spur No.1, 2, 3-A and Guide Bank Spur No.3 have been taken by Rahimyarkhan Division. These training works are providing safety to Panjnad Main Line and Chachran Town and Flood Bunds behind it.

In subsequent years, the river continued to exhibit a leftward drifting tendency, resulting in periodic erosion along vulnerable reaches of Minchin Flood Bund. During 2015, rapid development of a creek along the left flank diverted a substantial portion of river discharge towards the flood embankment near RD:185–188, creating an alarming situation. On the recommendations of the Departmental Expert Committee, protective works including stone studs and a concave–convex guide wall were constructed to stabilize the river flow and safeguard the flood embankment and associated infrastructure.

After the flood season of 2016, further morphological changes in the river channel caused severe erosive action near RD:192–195 of Minchin Flood Bund. In response to the emerging threat, additional protective measures including guide wall spurs and launching aprons were executed in the vulnerable reaches to protect the flood embankment.

Later on, the river again exhibited a pronounced leftward drift upstream of Benazir Shaheed Bridge, particularly between RD:206–224 of Minchin Flood Bund. In view of the prevailing river behavior, a detailed model study conducted by the Irrigation Research Institute Lahore recommended construction of additional river

training works including an Inverted Hockey Spur and J-Head Spurs. Accordingly, these structures were constructed during 2022 to improve river alignment and provide long-term protection to the flood bund. However, during the flood season of 2022, the river again altered its morphology and caused partial damage to the curved portion of J-Head Spur No.1. The situation was effectively controlled through timely flood fighting operations and the damaged structures were subsequently restored along with construction of additional protective works.

During the flood seasons of 2024 and 2025, repeated river attacks were observed at various locations including RD:185–188, RD:195+250 and adjoining reaches of Minchin Flood Bund. The aggressive river currents resulted in launching of aprons and localized damage to the protection structures. These situations were managed through continuous monitoring, emergency flood fighting operations and timely interventions by the field formations under the guidance of departmental experts and consultants.

Particularly during the flood season of 2025, unprecedented flood flows were experienced in the eastern rivers including Ravi River, Sutlej River and Chenab River. At Panjnad Headworks, the five eastern rivers—Jhelum River, Chenab River, Ravi River, Sutlej River, and Beas River—combine which ultimately drains into the Indus River downstream near Sarki. Consequently, this reach of the Indus experiences the cumulative hydraulic impact of these rivers, making the flood situation highly critical. However, due to vigilant monitoring, continuous watch and ward by the field staff and timely flood fighting measures, the situation was effectively managed and the flood embankment system, including Minchin Flood Bund, was successfully protected from any major disaster.

Keeping in view the increasing flood risks and the cumulative hydraulic impact of multiple rivers converging within this reach of River Indus, the strengthening and raising of Minchin Flood Bund has assumed critical importance. Accordingly, a new ADP scheme titled “Strengthening of Weak Reaches of Minchin Flood Bund and River Training Structures in Rahimyarkhan Canal Division” has been proposed to address the medium-term flood protection requirements of the area.

For this purpose, the vulnerable reach has been reassessed on ground and the baseline data along with cross-sections have been jointly observed and verified by NESPAK as Project Consultant, duly authenticated vide letter No.3158/13/NM/01/17039 dated 02-01-2026. Failure to achieve the required design parameters may compromise the stability of the flood bund and could lead to a breach during high flood conditions, posing serious risks to adjoining abadies, agricultural lands and public infrastructure.

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Chapter-4

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

4.1 Flood Limits

Minchin Bund from RD:122 to 315 is effected by the joint discharge of River Chanab D/S Punjnad Head Works and River Indus D/S Taunsa Barrage. Flood stages as under:-

Sr. No	Site	Low (Cs)	Medium (Cs)	High (Cs)	Very High (Cs)	Exceptionally High (Cs)
1.	D/S Panjnad Head Works	1,50,000	2,00,000	3,00,000	4,50,000	6,00,000
2.	D/S Tounsa Barrage	2,50,000	3,75,000	5,00,000	6,50,000	Above 8.0 Lac
3.	U/S Guddu Barrage	3,50,000	500,000	7,00,000	9,00,000	Above 9.0 Lac

4.2 TIME LAG OF FLOODS

River	From	To	Distance in Canal Miles	Time Log in Days			
				November to April	May June	July August	September October
Indus	Terbela	Attock	25	1	0	0	0
	Attock	Kalabagh	100	2	1	1	1
	Kalabagh	Chashma	61	1	1	1	1
	Chashma	Taunsa	152	4	3	2	2
	Taunsa	Mithankot	129	3	2	2	2
	Mithankot	Guddu	59	1	1	1	1
	Guddu	Sukkar	130	2	1	1	1
	Sukkur	Kotri	298	5	4	3	3
Jhelum	Mangla	Rasool	43	1	1	1	1
	Rasool	C.J Link	118	3	2	2	2
	C.J Link	Trimmu	80	1	1	0	1
Chenab	Marala	Khanki	40	1	1	1	1
	Khanki	Qadirabad	29	1	0	0	0
	Qadirabad	Trimmu	160	4	3	2	3
	Trimmu	Panjnad	189	5	4	3	3
	Panjnad	Kot Mithan	58	1	1	1	1

4.3 Highest floods.

No control point on River exists in the jurisdiction of Rahimyarkhan Canal Division. However previous 20 year maximum discharge at Guddu Barrage is as under:-

S. No	Year	Discharge at Guddu Barrage in Cs	Flood Stages
1	2006	762344	Very High
2	2007	395110	Medium
3	2008	285135	Low
4	2009	376152	Medium
5	2010	1148738	Exceptionally High
6	2011	400313	Medium
7	2012	258262	Low
8	2013	443540	Medium
9	2014	595150	High
10	2015	727785	Very High
11	2016	325846	Low
12	2017	308003	Low
13	2018	256035	Low
14	2019	422653	Medium
15	2020	570722	High
16	2021	306131	Low
17	2022	558212	High
18	2023	481913	Medium
19	2024	428105	Medium
20	2025	635759	High

Maximum flood passed in August, 2010 Gudde Barrage discharge was observed 1148738 Cs

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4.4 Peak discharge

There is no Head works or other control points in Rahimyarkhan Division. The flood protection works of the division are meant to save the irrigation system and the area from the River spill. River discharges are not observed.

Discharges of river Indus & Chenab are as under:-

Month	Punjnad D/S	Taunsa D/S	Chachran
	Maximum (Cs)	Maximum (Cs)	Maximum (Gauge)
Year 2012			
April-12	9300	58611	-
May-12	7044	47245	-
Jun-12	10185	167264	8.30
Jul-12	15468	210961	9.10
Aug-12	41966	193397	8.80
Sep-11	59950	201238	9.50
Oct-12	11033	66123	5.00
Year 2013			
April-13	4968	42817	-
May-13	8236	122229	-
June13	27952	201727	9.60
July-13	35136	321796	10.10
Aug-13	317261	468048	12.90
Sep-13	88398	218851	9.70
Oct-13	15440	78284	5.00
Year 2014			
April-14	20100	63889	-
May-14	10586	115686	6.10
June-14	19345	231242	9.2
July-14	37771	257598	9.35
Aug-14	42161	252466	8.90
Sep-14	430493	164657	10
Oct-14	34252	91042	6.20
Nov-14	16179	59140	4.20
Year 2015			
April-15	94955	77967	3.90
May-15	65259	142679	7.50
June-15	50509	215699	8.40
July-15	138590	531570	10.75
Aug-15	131055	597730	11.80
Sep-15	94177	152893	4.60
Oct-15	62384	87838	3.40
Nov-15	22840	57054	2.00
Year 2016			
April-16	50704	86789	-
May-16	18092	146114	7.10
June-16	28393	238508	8.80
July-16	48619	296809	9.60
Aug-16	130829	273016	9.10
Sep-16	41266	131361	7.30
Oct-16	16733	85509	-
Nov-16	15682	52404	-
Dec-16	8751	47240	-

Year 2017

April-17	21821	49668	-
May-17	23419	134814	-
June-17	19839	190406	10.20
July-17	59071	253546	10.90
Aug-17	63488	418388	13.10
Sep-17	26858	147587	8.50
Oct-17	9137	73700	-
Nov-17	4103	45087	-
Dec-17	4092	40993	-

Year 2018

April-18	-	39299	-
May-18	-	61192	-
June-18	2026	187182	9.60
July-18	5109	191602	8.10
Aug-18	42664	266123	10.40
Sep-18	21739	147821	8.40
Oct-18	9397	94036	-
Nov-18	3393	50694	-
Dec-18	-	49589	-

Year 2019

April-19	24271	95348	-
May-19	29745	110063	-
June-19	45180	175606	-
July-19	47066	282282	10.60
Aug-19	87336	381353	12.90
Sep-19	47382	176778	6.60
Oct-19	32974	122716	-
Nov-19	10711	69035	-
Dec-19	11530	58628	-

Year 2020

April-20	102160	85646	-
May-20	18944	122308	-
June-20	26989	178491	7.50
July-20	17421	203137	8.0
Aug-20	45899	310720	9.0
Sep-20	133646	455923	12.50
Oct-20	9371	85035	-
Nov-20	8977	53410	-
Dec-20	8005	8714	-

Year 2021

April-21	24864	45909	-
May-21	21154	81359	5.50
June-21	15810	163204	7.70
July-21	47262	191070	8.90
Aug-21	72683	304121	10.2
Sep-21	34053	139780	6.0
Oct-21	19038	91713	-
Nov-21	8594	47912	-
Dec-21	6128	45079	-

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Year 2022

April-22	11528	49362	-
May-22	0	92306	-
June-22	0	104721	7.6
July-22	98758	292900	8.9
Aug-22	112564	622095	11.1
Sep-22	34031	58006	10.8
Oct-22	3060	62042	9.5
Nov-22	3060	45308	-
Dec-22	0	40905	-

Year 2023

April-23	7005	45043	-
May-23	0	81918	-
June-23	0	173317	6.60
July-23	97230	419895	9.90
Aug-23	134504	357457	9.40
Sep-23	86059	134018	7.60
Oct-23	16727	90040	6.20
Nov-23	9471	50856	-
Dec-23	4013	44960	-

Year 2024

April-24	6102	116369	-
May-24	11000	168925	7.60
June-24	20380	179335	7.80
July-24	21441	204749	8.00
Aug-24	64320	439179	10.20
Sep-24	51462	192251	7.70
Oct-24	5388	85302	5.00
Nov-24	0	50639	-
Dec-24	0	46752	-

Year 2025

April-25	0	47918	1.90
May-25	0	146153	5.85
June-25	0	160812	5.95
July-25	46442	426400	9.90
Aug-25	86814	488809	10.60
Sep-25	668195	236451	11.60
Oct-25	54373	91216	-
Nov-25	15242	51508	-
Dec-25	15951	48448	-

Chapter-5

FLOOD FIGHTING STRATEGY

There is no Head works or other measuring point in Rahimyarkhan Division for measuring the flood. The Gauge fixed at chachran indicates the level of water from which free board will be access. The approximately discharge at Chachran will be calculated by adding discharge D/S Taunsa 48 hours earlier & 24 hours D/s Discharge of Panjnad Head Works. However river stages will be same as indicated for Guddu Barrage. Stages of flood / Discharge will be access / observed by adding discharge of hill torrents D/S Taunsa.

The flood protection works of the Division are meant to save the irrigation system and When Discharge D/S Punjnad Head-Works exceeds from 2.0 Lac Cs. or D/S Taunsa Barrage exceeds 3.75 Lac, the watching of the Bunds becomes necessary. The necessary material for watching & to check the erosive action of water will be procured before flood season as per availability of funds. The existing position of material is attached. However, keeping in view, the flood situation, more material can be arranged / procured.

The scale of watching establishment according to flood stages Minchin Bund and Chachran Link Bund is as under:

Watching Establishment Details

S.N	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	Minchin Flood Bund RD: 122 to 243	24.20	12	1	24	1	48	2	120	3
2	Malkani Escape RD: 00 to 10+500 (Both sides)	4.20	2		4		8		20	
3	Chachran Link Bund RD: 00 to 16+600	3.32	2		3		6		15	
Total Per Shift			**16**		**31**		**62**		**155**	
G.Total			**16**		**31**		**124**		**465**	
No. of Mates			**1**		**3**		**10**		**39**	

i. LOW STAGE

When water flows in the creek along Minchin Bund in reach RD:122-175 in Rahimyarkhan Canal Division, Sub Engineer Section-1 of Bund Sub Division will arrange watching through work charge establishment.

ii. MEDIUM STAGE

When discharge reaches to medium stage, the water spills out of River and starts to touch at various reach of Minchin Bund, at this stage, Sub Divisional Officer Bund Sub Division will call Sub Engineer Jalalpur Section, Zilladar Kot Samaba to help Sub Engineer Section-I of Bund Sub Division for watching arrangements at reach RD:122-160, reach RD:160-180 including Malkani escape, while Zilladar Taranda will watch the reach, Sub Engineer Section-II of Bund Sub Division will watch reach RD:180-220 stationing at Samoka . Sub Engineer Section-III of Bund Sub Division will watch reach RD:220-243 including Chachran Link Bund stationing at Chachran.

iii. HIGH STAGE:-

The Channels will be closed at 3.0 Lac cusecs discharge at upstream Punjnad Headworks, and all establishment of the Division will be spared for watching the flood embankments. The watching arrangements will therefore, be revised according to the duty roster, as per annexure attached mentioned on P- . The official of Revenue and Police Department alongwith their staff will reach in their beats if it is anticipated that the discharge is going to touch the high stage. When the gauge at Chachran is 6.5 ft, the water spills out and touches the Minchin Bund, 2nd defence Bund upper side of Chachran Town and Railway Line.

iv. VERY HIGH STAGE..

During this stage, the Revenue Department will arrange Civil Labour and Sipah-Khidmat as provided in the duty roster. The Agriculture Department will also have to supply the dozer as provided in the District Flood Plan to meet any eventuality. 8 Nos. Jeeps and 4 Nos. Pickups will also have to be requisitioned for efficient watching and patrolling of the bund. The District Coordination Officer Rahimyarkhan will be specially requested to direct the District Machinery pool officer to arrange the same well in time.

v. EXCEPTIONALLY HIGH STAGE.

This stage is very dangerous, the Bunds and Structures i.e. “J” Head Spurs, Guide Walls & Inverted Hockey Spur are likely to give way under the pressure of flood water unless very adequate watching and patrolling arrangements are not made. Emergency would have to be declared by the Civil Administration. Not only the Civil Labour will be helpful to safe guard the situation but Army will also have to be called for efficient watching and maintenance of Bund. The strength of Civil Labour will also have to be doubled to meet with this emergency and all efforts by the Co-operation of local public will be needed through Civil and Police Department.

A comprehensive flood fighting has been prepared by each Divisions of the Circle to face the difficulties / critical situation during the coming flood.

District flood control room

District flood control will be established in the office of District Coordination Officer Rahimyarkhan as per previous practice. It remains operational round the clock and one telephone operator & official remain present around the clock. The daily situation reports are exchanged on telephone and in case of emergency, police wireless system is also used.

Chapter-6

FLOOD DAMAGES RESTORATION WORKS

Detail Flood Restoration Works is as under:-

Sr No.	Name of Work	Estimated Cost (M)	Physical Progress	Financial Progress	Remarks
1	Restoration damaged apron of Concave Convex Guide wall at RD: 185-188 of Minchin flood bund.	96.122	95%	33%	Work under Progress.
2	Strengthening of weak reaches of Minchin Flood Bund and River training structures in Rahimyarkhan Canal Division (under grant ADP 2025-26)	777.047	-	-	A.A has been granted by the competent authority vide No.SO(Floods) V1-31/2026 dated 26.03.2026 and detail estimate was submitted to NESPAK for vetting,

Chapter-7

FLOOD FIGHTING WATCHING ARRANGEMENTS

7.1 Pre-Flood Arrangement

The Executive Engineer, Rahimyarkhan Canal Division is a Officer-Incharge for overall control of the flood watching arrangement. The Sub Divisional Officers, Bund Sub Division, Kot Samaba Sub Division, Rahimyarkhan Sub Division and other sub-ordinates staff of the three Sub Divisions, have to work under his control. They are primarily responsible for the flood fighting, protective and preventive measures for safety of the structures.

During floods, Sub Divisional officers, in absence of Executive Engineer, should not hesitate to adopt protective measures for safety of the Bunds and Head Works in real emergency under intimation to higher hierarchy, through quickest means of communication. Similarly Sub Engineers, in absence of the Sub Divisional Officers should act accordingly.

Following pre-flood arrangements will be made:

i. During the month of May-June the watching establishment will work for making pre-flood arrangements till the River spills out.

ii. For flood bunds in the 2nd defence line, the same pre-flood arrangements will continue throughout the flood season unless any of these bunds comes under action.

iii. Flood watching material will be arranged in ample quantities. Particular care will be taken to ensure that adequate quantity of the required material is distributed and placed at all the watching huts especially at all critical sites. All the articles and material should be in good condition.

Consolidated Update Status of Reserve Stock

Sanctioned Quantity	Qty Available	Balance Qty Required	Remarks
11.40 Lac Cft	**9.30 Lac Cft**	**2.10 Lac Cft**	The balance quantity is necessary to be procured before coming Flood Season 2026.

Structure Wise detail of Reserve Stock

S. No	Structure/Site	Sanctioned Quantity	Qty Available	Balance Qty Required	Remarks
1	J-Head Spur No.1	1.50 Lac Cft	1.50 Lac Cft	0	
2	J-Head Spur No.2	1.10 Lac Cft	0	1.10 Lac Cft	
3	Guide Bank Spur No.3	1.30 Lac Cft	1.30 Lac Cft	0	
4	Spur No.3-A	1.50 Lac Cft	1.50 Lac Cft	0	
5	Inverted Hockey Spur RD: 195+250	1.00 Lac Cft	1.00 Lac Cft	0	
6	Protection Reach RD:185-188	1.00 Lac Cft	0	1.00 Lac Cft	Work under progress.
7	Inverted Hockey RD:206+000	1.00 Lac Cft	1.00 Lac Cft	0	
8	J-Head Spur RD: 214+000	1.50 Lac Cft	1.50 Lac Cft	0	
9	J-Head Spur RD: 220+000	1.50 Lac Cft	1.50 Lac Cft	0	
	Total	**11.40 Lac Cft**	**9.30 Lac Cft**	**2.10 Lac Cft**	

7.2 Watching Establishment

As the flood rises from normal flood stage to exceptionally high flood, the watching arrangement by labour is made and a detailed plan having duties of officer and official along with local administration is prepared mentioned above.

Watching establishment according to flood stages is as under:-

Watching Establishment Details

S.N	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	Minchin Flood Bund RD: 122 to 243	24.20	12	1	24	1	48	2	120	3
2	Malkani Escape RD: 00 to 10+500 (Both sides)	4.20	2		4		8		20	
3	Chachran Link Bund RD: 00 to 16+600	3.32	2		3		6		15	
Total Per Shift			**16**		**31**		**62**		**155**	
G.Total			**16**		**31**		**124**		**465**	
No. of Mates			**1**		**3**		**10**		**39**	

NOTE : Payment of machinery & work charge employees is subject to verification of TPM / Consultant.

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7.3 Arrangement at Sensitive sites

Special watching of Bunds, Spurs and monitoring of flood bund in eroded / sensitive sites of Minchin Bund (122-243) will be made against the spills of floods. Reasonable Quantity of stone will be replenished at site & flood fighting material will be provided at site as per SOP's after shifting the camp at these sites.

Established Camps details at Sensitive sites is as under:-

Established Camps Details							
S.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	Minchin Flood Bund RD: 122 to 243	24.20	RD: 184 to 188 RD: 202 to 205 RD: 209 to 212 RD: 230 Spur No.1	4	0	0	0
2	Malkani Escape RD: 00 to 10+500 (Both sides)	4.20	0	0	0	0	1
3	Chachran Link Bund RD: 00 to 16+600	3.32	0	0	0	0	1
Total				**4**	**0**	**0**	**2**

Detail of Camps.

S.No	Structure Name	Reach	Camp Location
1	Minchin Flood Bund RD: 122 to 243	RD: 184 to 188	At RD: 186-187
2		RD: 202 to 205	At RD: 202-203
3		RD: 209 to 212	At RD: 210-211
4		RD: 230 Spur No.1	At RD: 230 Spur No.1
5	Malkani Escape RD: 00 to 10+500 (Both sides)	RD: 5 to 10	At RD: 5-6
6	Chachran Link Bund RD: 00 to 16+600	RD: 8 to12	At RD: 9

7.4 Flood Fighting Material

Flood Fighting material will be provided at every camp as per SOP's.

Detail of minimum requirement of Flood Fighting material for permanent Camps (15 miles) is as under: -

S. No	Item	Unit	Total required Qty	Available Qty	Balance Qty	Remarks.
1.	Shouldari / Tent	No.	1	-	1	Balance quantity of Material will be procured before flood, 2026
2.	Chairs	No.	6	-	6	
3.	Table	No.	1	-	1	
4.	Generator (2-3 KVA)	No.	1	-	1	
5.	Pedestal Fans	No.	1	-	1	
6.	Charpois	No.	2	-	2	
7.	Symbolic Jackets	No.	50	-	50	
8.	Polythin Sheet	Kg	100	-	100	
9.	Bamboos 4'' dia	No.	100	-	100	
10.	Water Coller	No.	1	-	1	
11.	Portable umbrella	No.	2	-	2	
12.	Life Jacket	No.	5	-	5	
13.	Utensils (10 person)	No.	1	-	1	
14.	Jute/Plastic bags	No.	1000	50	950	
15.	Walke Talkie Set	Set	2	-	2	
16.	Raincoats	No.	10	2	8	
17.	LED flood light	No.	10	-	10	
18.	Extension Cable 10'	No.	2	-	2	
19.	Rechargeable Torches	No.	20	3	17	
20.	Kassi	No.	20	2	18	
21.	Axes	No.	20	-	20	
22.	G.I Buckets	No.	5	1	4	
23.	7/44 Cable	Feet	500	-	500	
24.	Sutli	Kg	2	-	2	
25.	Sewing Needles	No.	10	3	7	
26.	Emergency Medical Kit	No.	1	-	1	
27.	Wire Crates (at only that camp near river action and reserve stock exists)	No.	100	-	100	

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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 Arrangements for Sounding & Probing

Continuous sounding / probing would be observed for the period June to September with the help of the ordinary boats and the staff.

As per requirement, Motor Boats with boatman & skilled labour will be arranged at site through contractor.



7.6 Lighting Arrangement

Sufficient stock of rechargeable torches will be kept available in the stores along with generating sets. Sub Engineer, assisted by electricians will be responsible to keep these items in working condition. Detail of the items is given in para-7.4. These items will be shifted to the temporary huts when required.

7.7 Ration Arrangement

The establishment and supervisory staff will make their own food arrangement. DCO, Rahimyarkhan and District Food Controller, Rahimyarkhan will be requested to keep a reserve stock of the following articles at Chachran for supply to the labourers whenever a flood emergency arises:

1. Flour 50 Maunds, per week of emergency period
2. Onions 10 Maunds per week emergency period
3. Sugar 10 Maunds per week of emergency period
4. Rice 30 Maunds per week of emergency period

7.8 P.O.L Arrangement for vehicle

Reserve stock of POL for vehicles will be kept at Chachran on the following scale which will be arranged by the Civil Administration.

Petrol	=	3500 Litres
Diesel	=	4000 Litres
K. Oil	=	1000 Litres

7.9 Transportation

Following vehicles are available in Rahimyarkhan Canal Division:

GBA-484 (Double Cabin)

RNT-3200 (Double Cabin)

RNT-85 (Double Cabin)

X-68-2226 (Double Cabin)

In addition, the following vehicles will be temporarily shifted to the site by July 01, 2026 from the other Divisions less important from flood point of view:

Double Cabin = 3 No. (One for each Sub Division)

Single Cabin = 3 No. (One for each Sub Division)

Transportation will be provided by civil administration.

7.10 Law and order

Law and order situation may arise if a breach occurs in a flood embankment. In such a situation, Army, Civil Administration and Police will be contacted to control.

7.11 Medical arrangement for labour

District Health Officer, Rahimyarkhan will set up a mobile dispensary at Chachran with sufficient medical staff and medicines required against epidemics, snake bites, cholera, Dysenteries etc. In case of any eventuality, a mobile dispensary shall be kept on wheels at short notice. Executive Engineer, Rahimyarkhan Canal Division will inform Civil Administration as well as District Health Officer in such case.

7.12 Liaison with other Department

Executive Engineer, Rahimyarkhan Canal Division, and Sub Divisional Officer, Bund Sub Division will keep close liaison with their counter parts in other Departments. Higher Authorities of other Departments will be approached if needed through Director Technical / Chief Engineer. At site, Sub Engineers will attend inspections of the visiting Army and Civil officers if an Irrigation officer is not available at site.

7.13 Role of the Army

In case of emergency i.e. when discharge D/S Taunsa 3.75 Lac & D/S Panjnad exceeds 2.0 Lac cusec, Army will be stationed at Chachran to face any emergency including fear of breach, or occurrence breach and will help the staff of Irrigation Department.

7.14 Duties of Telephone Attendant

Telephone & Telegraph offices are located in Canal Colony, Malkani & Rahimyarkhan. Telephone Attendants and Signallers will be available round the clock in order to collect and disseminate information regarding flood situation. Their contact numbers are as under:-

S.No.	Name of Official	Period	Time	
			From	To
1.	Nawaz Khan (Hd Signaller) 0302-9672301	15.06.2026 to 15.10.2026	6.00 A.M	02.00 PM
2.	Abdul Basit Signaller (0306-4567858)	15.06.2026 to 15.10.2026	02.00 PM	10.00 PM
3.	Faizan Waris Signaller (0302-9679034)	15.06.2026 to 15.10.2026	10.00 PM	6.00 AM

Telegraph office Rahimyarkhan. 068-9230097

7.15 Wireless Arrangements

A long range wireless base set in Canal Telegraph Office at Rahimyarkhan has been working round the year. All the official vehicles will be equipped with mobile / wireless sets. These units will help the officers to remain in touch with flood situation while on tour. One Police wireless set is also installed in Telegraph office Rahimyarkhan. These sets are connected with all the telegraph office of circles and Police / Flood Control Centre. Moreover every officer / official has mobile phone with them.

Chapter-8

DETAIL OF ENCROACHMENTS

The flood bunds and spurs have been constructed to train the river and to ensure safe passage of the flood water. During flood season, however, the habitants of the riveran area evacuate their houses and take shelter on the flood bunds along with their animals. This practice creates law and order situation. Any existing encroachments on bunds will be removed by 30th of June, there should be no encroachment on flood bunds. Executive Engineer will ensure compliance with the help of Civil Authorities and Police.

Detail of encroachments is as under:-

S.No	District	Tehsil	Name with Father Name	Caste	Mauza	Flood Bund RD / Side	Kind of Encroachme	Location
1	R.Y.Khan	Khanpur	Qazi Ghulam Sarwar S/O Munshi Ahmad Yar	Rana	Chaudhary	193-195	Residential Building	Outer Slope of Bund
2	R.Y.Khan		Haji Muhammad Arif S/O Rahim Bux	Rana	Chaudhary	193-195	Residential Building	Outer Slope of Bund
3	R.Y.Khan		Haji Shafi Ahmad S/O Noor Ahmad	Rana	Chaudhary	193-195	Residential Building	Outer Slope of Bund
4	R.Y.Khan		Manzoor Ahmad S/O Kehar	Rana	Chaudhary	193-195	Residential Building	Outer Slope of Bund
5	R.Y.Khan		Muhammad Hanif S/O Kehar	Rana	Chaudhary	193-195	Residential Building	Outer Slope of Bund
6	R.Y.Khan		Muhammad Akbar S/O Muhammad Yar	Rana	Chaudhary	193-195	Residential Building	Outer Slope of Bund
7	R.Y.Khan		Muhammad Rahim S/O Taj Muhammad	Rana	Chaudhary	193-195	Residential Building	Outer Slope of Bund
8	R.Y.Khan	Liaquatpur	Mohd Bux S/O Hazoor Bux	Chohan	Chohan	134-135	Residential Building	Outer Slope of Bund
9	R.Y.Khan		Bashir Ahmad S/O Hussain Bux	Chohan	Chohan	134-135	Residential Building	Outer Slope of Bund
10	R.Y.Khan		Ateeq Mohd S/O Ghulam Akbar	Chohan	Chohan	136-137	Residential Building	Outer Slope of Bund
11	R.Y.Khan		Jam Mustafa S/O Jam Hasti	Chohan	Chohan	136-137	Residential Building	Outer Slope of Bund
12	R.Y.Khan		Jam Ayaz S/O Jam Hasti	Chohan	Chohan	136-137	Residential Building	Outer Slope of Bund

ABSTRACT

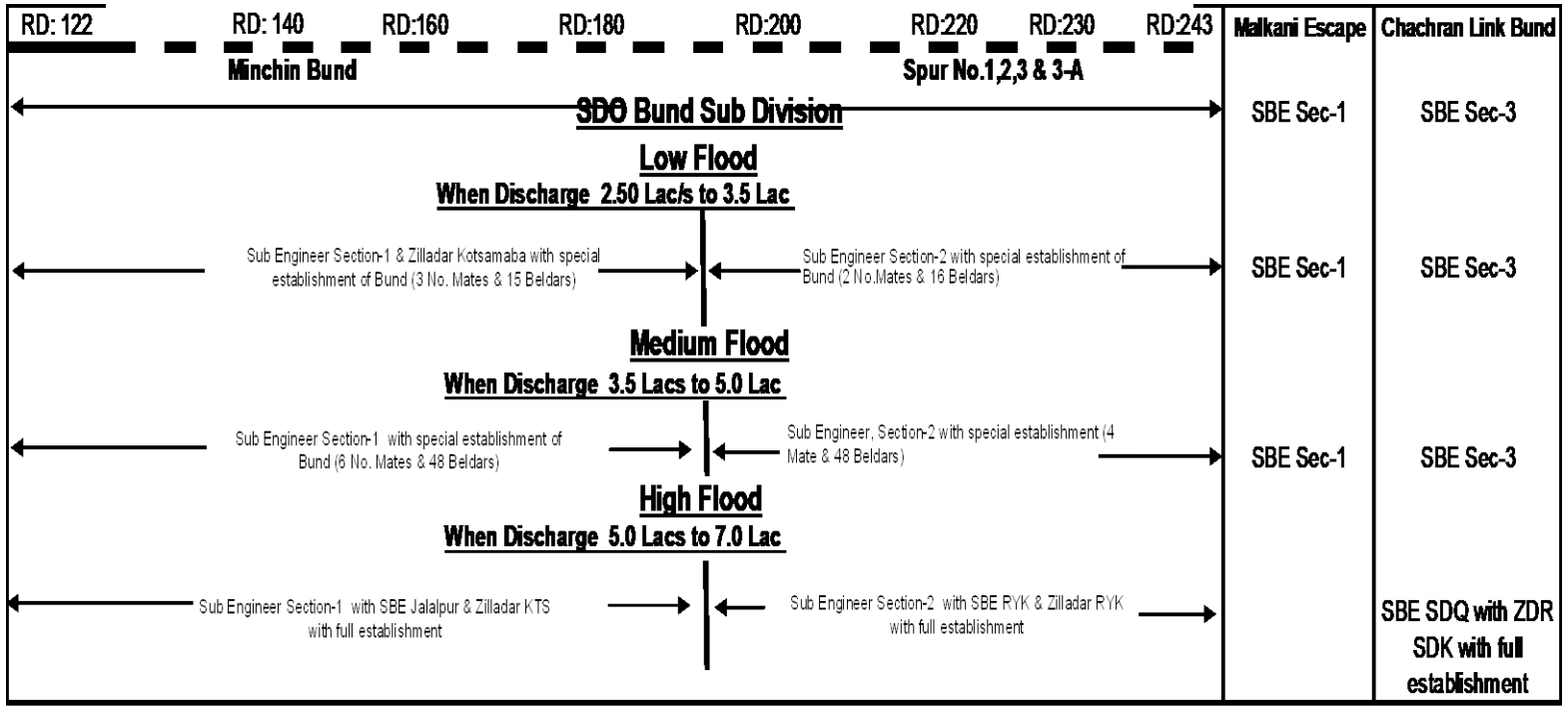
S. No	Name of Site	Total No of Encroachment	Encroachment Removed	Balance	Remarks
1	Minchin Flood Bund	12	0	12	Civil administration has been requested to remove the encroachments

- No Critical Encroachment exists at site.
- Statuesque has been issued from Civil Court Rahimyarkhan.

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DUTY ROSTER/FLOOD FIGHTING PROGRAM

Chapter-9



When Discharge 7.0 Lacs to 9.0 Lac (Very High Flood)

RD: 122	RD: 140	RD:160	RD:180	RD:200	RD:220	RD:230	RD:243		
Sub Division	Bund Sub Division							Bund	Malkani
Section	Section-1				Section-2			Section-1	Chachran
SDO Irrigation	Rahimyarkhan		Kotsamaba		Bund			BUnd	Malkani
Sub Engineer	Tillugoth	Manthar	Tarinda, Kotsamaba	Wahfaqiran,Jalalpur	Sadiqabad,	RYKhan		Section-1	T.PML
Deputy Collector	Rahimyarkhan							Rahimyarkhan	Rahimyarkhan
Zilladar	R.Y.K	Manthar	Kotsamaba,	Tarinda,	Sadiqabad			Tillugoth	Mianwali
Revenue Officer	A.C LQP, Naib Tehsildar		A.C Khanpur, Tehsildar Khanpur					Nil	Khanpur
A.S.I	Khanbela	Khanpur	Chachran	Paccalaran	Khanpur			Nil	Rukanpur
Constable	3 Nos.	3 Nos.	3 Nos.	3 Nos.	6 Nos.			Nil	2 Nos.
Mate/Beldar	2/18	2/20	3/20	2/20	4/43			2 Nos.	2 Nos.
Mate/Beldar	3/36	3/37	2/32	2/35	5/60			10 Nos.	10 Nos.
Civil Labour	100	100	100	100	200			50 Nos.	50 Nos.

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Chapter-10

EMERGENCY TELEPHONE NOs.

S.No	Name of Officers	Telephone Numbers	
		Office	Residence.
Telephone No. of Irrigation Department			
1	Secretary Irrigation Department Lahore.	042-99212117 042-99212118 Fax:042-99212116	042-99200288
2	Chief Engineer Drainage & Flood Lahore Zone.	042-99230602 042-99233551	0300-7315880
3	Director Flood & Flood warning center 46-Jail Road Lahore.	042-99231614	0303-7713303
4	Chief Engineer Irrigation Bahawal Pur Zone.	062-9250333 Fax:062-9250263	300-6746032
5	Executive Engineer (Operation) Bahawal Pur Zone.	062-9250265	062-9250275
6	Superintending Engineer Canal Circle Rahim Yar Khan	068-9230090 Fax:9230093	068-9230091 0300-6702694
7	Executive Engineer Dallas Division Rahim Yar Khan.	068-9230092	068-9230092 0333-7626359
8	Executive Engineer Rahimyarkhan Canal Division.	068-9230095 Fax:068-9230096	0301-3277500
9	Executive Engineer Khan Pur Canal Division.	068-5571564	0300-8099265
10	Sub Divisional Officer Bund Sub Division.		0300-4593400
11	Sub Divisional Officer Malkani Sub Division.		0325-4417426
12	Sub Divisional Officer Kot Samaba		0305-8281995
13	Sub Divisional Officer Rahimyarkhan	068-9230094	0300-6700545
Telephone No. of Administration.			
14	Deputy Commissioner Rahim Yar Khan.	068-9230266 Fax: 068-9230288	0304-0920085
15	District Administrator (TMA) Rahim Yar Khan.	068-9230122	0300-8678825
16	Tehsil Administrator Rahim Yar Khan.	068-9230244	0300-9680132
17	Assistant Commissioner Khan Pur.	068-5571383	0333-6173424
18	Assistant Commissioner Rahimyarkhan.	068-9230271	0322-8142227
19	Assistant Commissioner Sadiq Abad.	068-5705533	0343-0570341
20	Assistant Commissioner Liaquat Pur.	068-5795625	0300-6766155
21	Flood Emergency Center Rahim Yar Khan.	068-9230097	-
22	Flood Emergency Center Bahawal Pur.	0621-9250273	-

Telephone No. of Police Department			
23	District Police Officer (DPO) Rahim Yar Khan.	068-9230301	0301-8670464
24	Superintendent of Police (Investigation) Rahim Yar Khan.	068-9230422	0305-7060007
25	Deputy Superintendent Police Sadar Rahimyarkhan.	068-9230290	0300-6722528
26	Deputy Superintendent Police City Rahimyarkhan.	068-9230311	0300-9675837
27	Deputy Superintendent Police Sadiq Abad.	068-5705445	0332-3946488
28	Deputy Superintendent Police Khan Pur.	068-5572935	0333-8677333
29	Deputy Superintendent Police Liaqat Pur	068-5795661	0300-4243092
Telephone No. of Pakistan Military			
27	Brigade Headquarter Rahim Yar Khan.	561-6007	561-6007
28	Brigade Major (Army co-ordination Unit)	05614124 05614125	

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Chapter-11

STANDARD OPERATING PROCEDURE (SOP) FOR BREACHING SECTIONS

11.1 History of the breaching section

Not Related.

11.2 Location, Design, Quantity and Variety of the explosive required for detonation.

Not Related.

11.3 Arrangement of explosives and security of explosive stores

Not Related.

11.4 List of the security staff along with detail of their training etc

Not Related.

11.5 Detail of mechanical means as a standby arrangements in case of detonation failure.

Not Related.

11.6 Duty Roster in case of critical situation

Not Related.

11.7 Breaching Committee with their action plan

Not Related.

11.8 List of the villages likely to be inundated in case of breach

Not Related.

11.9 Announcement and detail of evacuation arrangements.

Not Related.

11.10 Detail of coordination with Civil / Army / Authorities..

Not Related.

11.11 Parallel communication arrangements.

Not Related.

11.12 Index Plan

Not Related.

Executive Engineer
Rahimyarkhan Canal Division
Rahimyarkhan

Superintending Engineer
Rahimyarkhan Canal Circle
Rahimyarkhan

Chief Engineer
Irrigation Zone
Bahawalpur

PART - B

Chapter-12

VULNERABLE SITES OF FLOOD BUND/STRUCTURES

The vulnerable site of Minchin Flood Bund From RD:122-243, in case of emergency / un-expected situation is as under.-

LIST OF VULNERABLE SITE

S.No.	Bunds	Reach
1.	Minchin Flood Bund	Minchin Flood Bund RD: 184 to 188, RD: 202 to 205, RD: 209 to 212 & J-Head Spur No.1 at RD:230+000

The above mentioned sites are critical and requires watching/attention.

12.1 Apprehended breaches in Flood Bunds / Structures.

NIL

12.2 Operation of breaching sections.

NIL / Not related

12.3 Breaches due to rising of flood water, deterioration of flood bunds etc.

NIL

Chapter-13

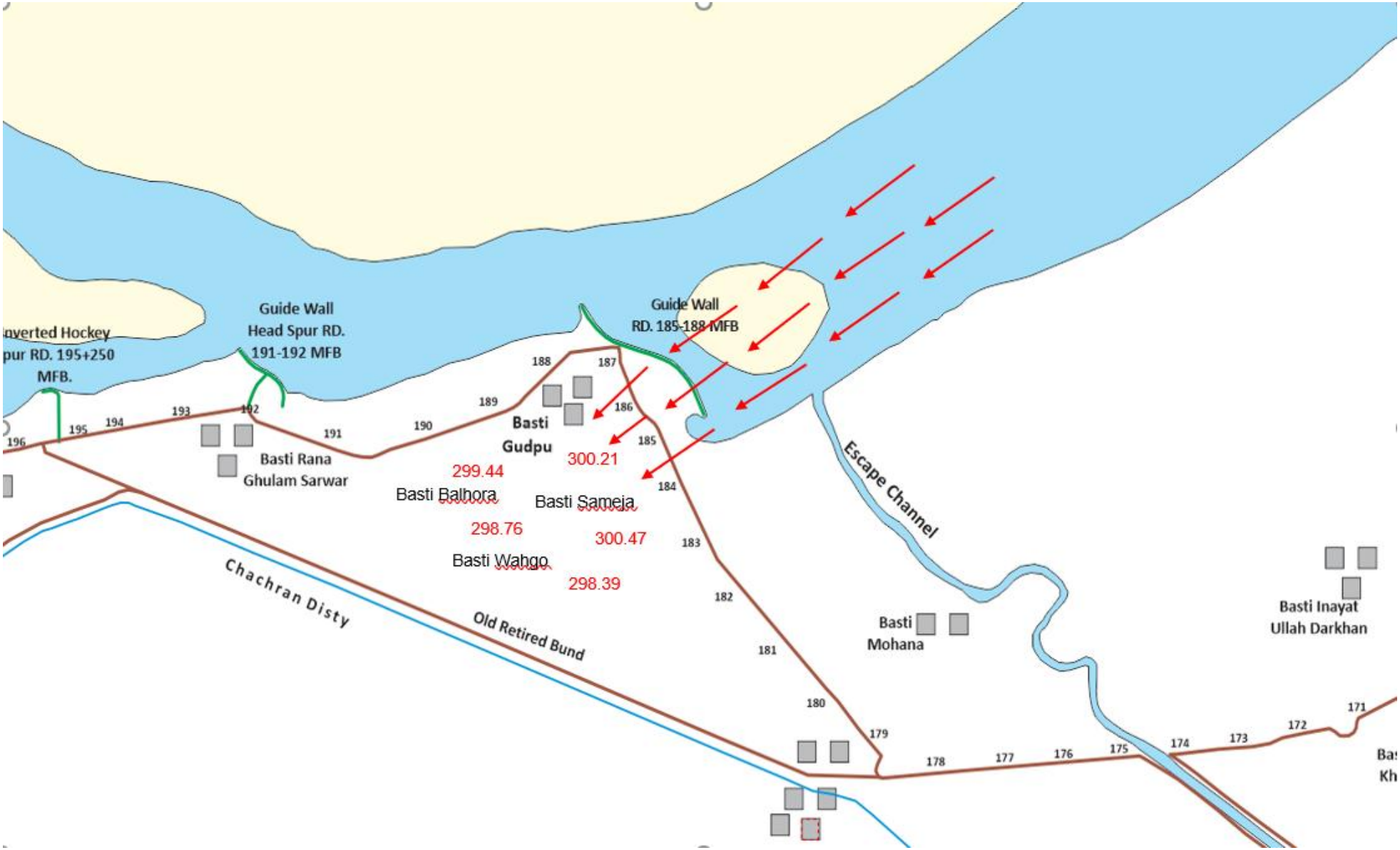
EMERGENCY CONTINGENCY PLAN FOR VULNERABLE SITES

When the Discharge downstream Tounsa Barrage is more than 5.0 Lac Cusecs, it usually takes about 52 hours to reach Chachran. During this period the following advance measures will be taken.

- Army, comprising 100 jawans will be requisitioned by the Executive Engineer.
- All departments will be requested to be place in a state of “High Alert”, depending upon the nature and gravity of the situation and shall be expected to respond accordingly. In case of High alert, all available resources at disposal of District Government shall be mobilized forthwith.
- The river side area of Minchin Flood Bund (1st Defence line) will be got evacuated with the help of civil administration.
- Day and night watching of Minchin Flood Bund and Spurs will be done by deputing the staff and establishing watching camps.
- Ample quantity of watching / flood fighting material will be arranged at each camp through out the flood season. 200 Nos. filled sand bags will also be available at each camp.
- Additional machinery will be deployed:
- Lighting arrangements i.e. Generators and search lights will be arranged at each camp site in addition to arrangement already done on commencement of flood season.
- An Army contingent with 100 Jawans will also patrol along Minchin Flood Bund.
- All crossings on all the bunds will be closed thoroughly.

13.1 Plan Showing Route of Flood Water Coming Out of Breach Supported With Levels

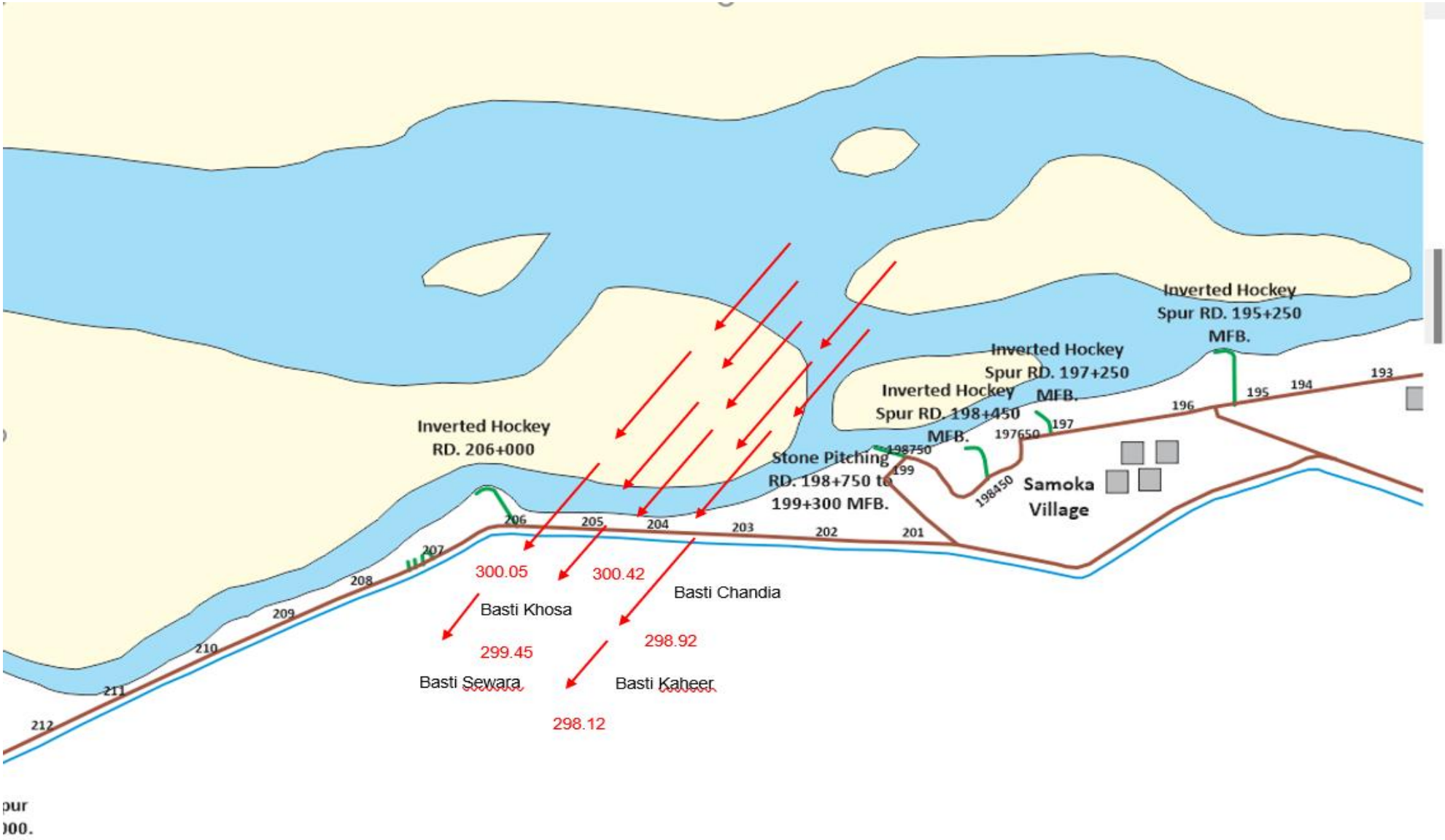
The Reach RD: 184 to 188 will be on direct hit of river Indus due to severe erosion.



XEN RYK

13.1 Plan Showing Route of Flood Water Coming Out of Breach Supported With Levels

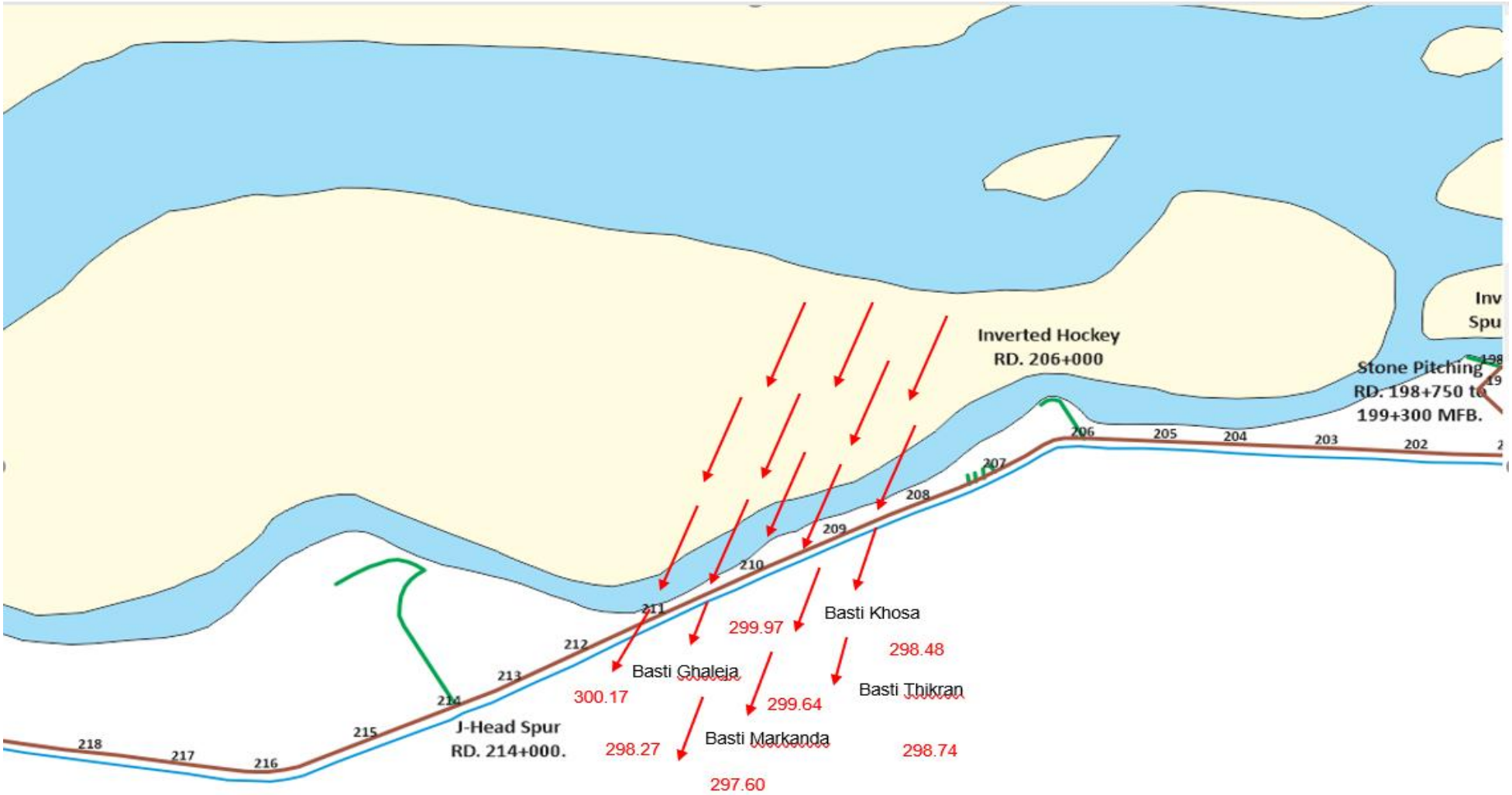
The Reach RD: 202 to 205 will be on direct hit of river Indus due to severe erosion.



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13.1 Plan Showing Route of Flood Water Coming Out of Breach Supported With Levels

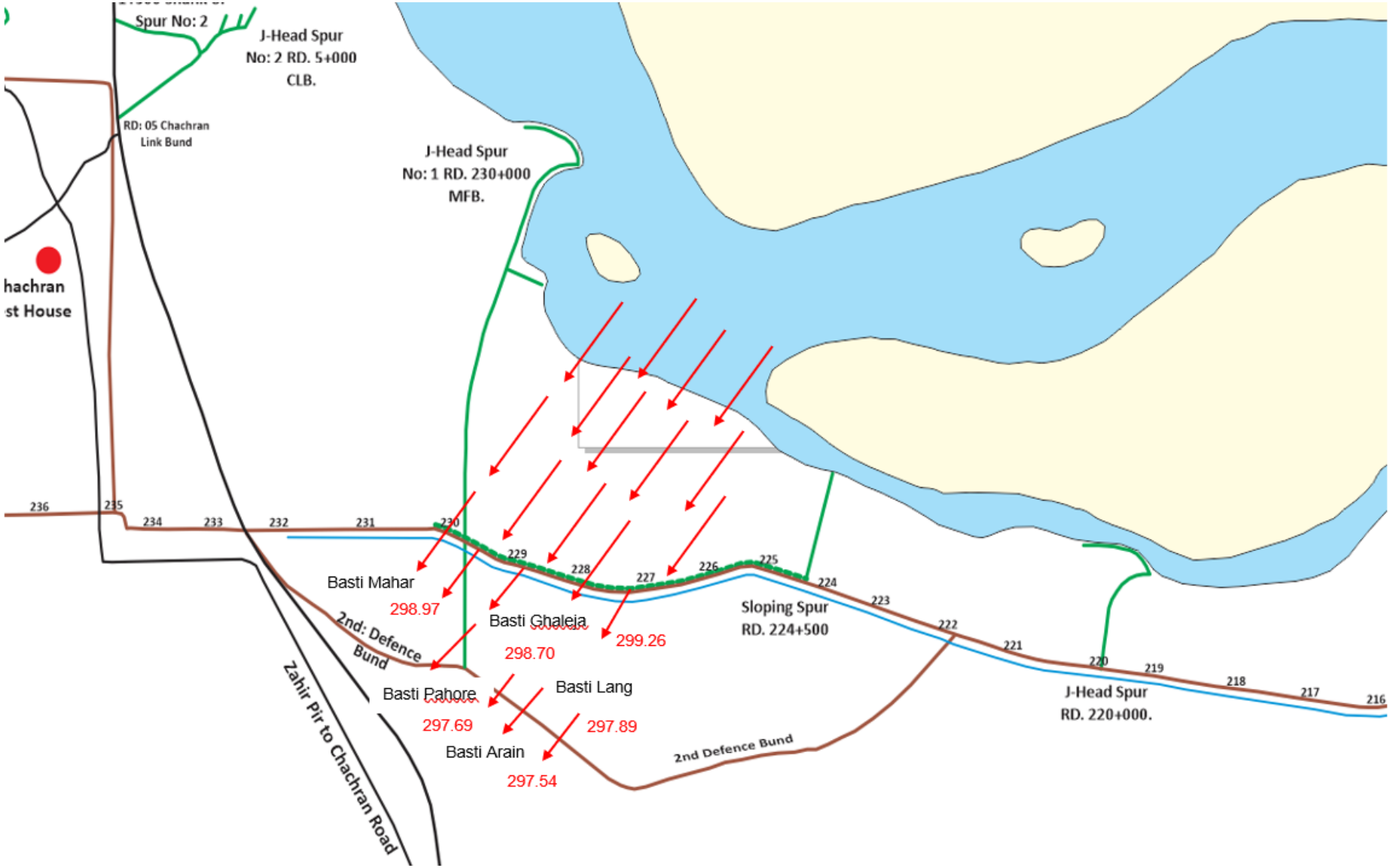
The Reach RD: 209 to 212 will be on direct hit of river Indus due to severe erosion



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13.1 Plan Showing Route of Flood Water Coming Out of Breach Supported With Levels

J-Head Spur No.1 at RD: 230+000 will be on direct hit of river Indus due to severe erosion.



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13.2 detail of villages / abadies likely to be affected.

Abadies of Basti Ahmad Bakhsh Balhaora, Basti Khosa, Basti Ghaleja, Ahmad Kuddan, Basti Arain, Basti Lang, Basti Mahar, Basti Pahore will be affected.

13.3 Strategy and action taken be explained in detail. This may include:

13.3.1 Arrangements

According to flood stages this division has made the following elements for flood strategy at different stages and have explained above, however their plans are as under:-

- Day and night watching of Minchin Flood Bund and Spurs will be done by deputing the staff and establishing watching camps.
- Ample quantity of watching / flood fighting material will be arranged at each camp through out the flood season. 200 Nos. filled sand bags will also be available at each camp.
- Additional machinery will be deployed:
- Lighting arrangements i.e. Generators and search lights will be arranged at each camp site in addition to arrangement already done on commencement of flood season.
- An Army contingent with 200 Jawans will also patrol along Minchin Flood Bund.
- All crossings on all the bunds will be closed thoroughly.

13.3.2 Establishment of Flood Fighting Camp.

Detail of Camps at Vulnerable Sites of Minchin Flood Bund.

S.No	Structure Name	Reach	Camp Location
1	Minchin Flood Bund RD: 122 to 243	RD: 184 to 188	At RD: 186-187
2		RD: 202 to 205	At RD: 202-203
3		RD: 209 to 212	At RD: 210-211
4		RD: 230 Spur No.1	At RD: 230 Spur No.1

13.3.3 Duties of Officers/Officials and their camp site.

S.No	Camp Site	Officer	Officials
1	Camp at RD: 186-187 of Minchin Flood Bund.	Sabir Hussain Cell# 03004593400	Athar Jamil Sub Engineer Cell# 03006723009
2	Camp at RD: 202-203 of Minchin Flood Bund.	Zamran Khan Cell# 03058281995	Ali Raza Sub Engineer Cell# 03158762873
3	Camp at RD: 210-211 of Minchin Flood Bund.	Zamran Khan Cell# 03058281995	Farooq Ahmad Sub Engineer Cell# 03007024546
4	Camp at RD: 230 of Minchin Flood Bund Spur No.1	Mamoon-ul-Raheed Cell# 03006700545	Muhammad Khalil Sub Engineer Cell# 03006734039

13.3.4 Departmental Machinery available

Not Available

13.3.5 Machinery available from Private Source

Machinery available from private source & as per requirement machinery will be arranged through contractor in accordance with the approval as per Govt: of the Punjab according to prevailing Flood Stages. However the Agriculture Department will have to supply the dozer as provided in the District Flood Plan to meet any eventuality. The District Coordination Officer Rahimyarkhan will be specially requested to direct the District Machinery pool officer to arrange the same well in time.

13.3.6 Flood fighting material required for each camp.

13.3.7 Flood Fighting material available.

Detail of minimum requirement of Flood Fighting material for permanent Camps (15 miles) is as under: -

S. No	Item	Unit	Total required Qty	Available Qty	Balance Qty	Remarks.
1.	Shouldari / Tent	No.	1	-	1	Balance quantity of Material will be procured before flood, 2026
2.	Chairs	No.	6	-	6	
3.	Table	No.	1	-	1	
4.	Generator (2-3 KVA)	No.	1	-	1	
5.	Pedestal Fans	No.	1	-	1	
6.	Charpois	No.	2	-	2	
7.	Symbolic Jackets	No.	50	-	50	
8.	Polythin Sheet	Kg	100	-	100	
9.	Bamboos 4'' dia	No.	100	-	100	
10.	Water Coller	No.	1	-	1	
11.	Portable umbrella	No.	2	-	2	
12.	Life Jacket	No.	5	-	5	
13.	Utensils (10 person)	No.	1	-	1	
14.	Jute/Plastic bags	No.	1000	50	950	
15.	Walke Talkie Set	Set	2	-	2	
16.	Raincoats	No.	10	2	8	
17.	LED flood light	No.	10	-	10	
18.	Extension Cable 10'	No.	2	-	2	
19.	Rechargeable Torches	No.	20	3	17	
20.	Kassi	No.	20	2	18	
21.	Axes	No.	20	-	20	
22.	G.I Buckets	No.	5	1	4	
23.	7/44 Cable	Feet	500	-	500	
24.	Sutli	Kg	2	-	2	
25.	Sewing Needles	No.	10	3	7	
26.	Emergency Medical Kit	No.	1	-	1	
27.	Wire Crates (at only that camp near river action and reserve stock exists)	No.	100	-	100	

13.4 Detail of other infrastructure like electric, Sui gas, Telephone installations, road network, other buildings, Canals and drainage network.

Abbadies of Basti Choudhary, Basti Samoka, Basti Kehi, Bghwan, Panian, Bukhari, Basti Jannat, Basti Pahora, Basti Gopang, Chachran Town, are situated in the area as well as their infrastructure like, Electric, Sui Gas, Telephone, Road, School and other buildings, canal and drainage network will be affected. Other main infrastructures which will likely to be affected areas under: -

Motorway Multan to Sukkhar Section. (M-5)

Zahir Pir to Chachran Road

Mepco Installation

Schools & Health Units

Chapter-14

14.1 Re-shuffling / recouping plan of reserve stock of stone departmentally

Rahimyarkhan Canal Division maintains the Reach from RD:122-243 of Minchin Flood Bund along with structures. Procurement of reserve stock (balance Quantity) for Pitching sites & Structures in this reach is required. Detail is as under:-

S. No	Structure/Site	Sanctioned Quantity	Qty Available	Balance Qty Required	Remarks
1	J-Head Spur No.1	1.50 Lac Cft	1.50 Lac Cft	0	
2	J-Head Spur No.2	1.10 Lac Cft	0	1.10 Lac Cft	
3	Guide Bank Spur No.3	1.30 Lac Cft	1.30 Lac Cft	0	
4	Spur No.3-A	1.50 Lac Cft	1.50 Lac Cft	0	
5	Inverted Hockey Spur RD: 195+250	1.00 Lac Cft	1.00 Lac Cft	0	
6	Protection Reach RD:185-188	1.00 Lac Cft	0	1.00 Lac Cft	Work under progress
7	Inverted Hockey RD:206+000	1.00 Lac Cft	1.00 Lac Cft	0	
8	J-Head Spur RD: 214+000	1.50 Lac Cft	1.50 Lac Cft	0	
9	J-Head Spur RD: 220+000	1.50 Lac Cft	1.50 Lac Cft	0	
	Total	**11.40 Lac Cft**	**9.30 Lac Cft**	**2.10 Lac Cft**	

14.2 Detail of inlet and outlet crossing along with closing methodology.

NiL

(No inlet and outlet crossing exists in Rahimyarkhan Canal Division)

14.3 Deployment of Machinery (Normal to Low Flood)

Deployment of Machinery (Normal to Low Flood)						
S.No	**Structure Name**	**Length (Miles)**	**Excavator**	**Trolleys**	**Dumpers**	**Tractor with Front blade (1 per 15 mile)**
1	Minchin Flood Bund RD: 122 to 243	24.20	S.E shall allow deputation of one (1) excavator & four (4) Trolleys during low flood at camps/vulnerable points & LMB / RMB.		0	2
2	Malkani Escape RD: 00 to 10+500 (Both sides)	4.20			0	0
3	Chachran Link Bund RD: 00 to 16+600	3.32			0	0
Total					**0**	**2**

NOTE: Payment for Machinery & Work charge Employees subject to verification by TPM / Consultant.

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14.4 Deployment of Machinery (Medium to High Flood)

Deployment of Machinery (Medium to High Flood)						
S.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	Minchin Flood Bund RD: 122 to 243	24.20	3	12	6	3
2	Malkani Escape RD: 00 to 10+500 (Both sides)	4.20	1	2	1	1
3	Chachran Link Bund RD: 00 to 16+600	3.32	0	0	0	0
Total			**4**	**14**	**7**	**4**

NOTE: Payment for Machinery & Work charge Employees subject to verification by TPM / Consultant.

14.5 Deployment of Machinery (Very High to Exceptionally High Flood)

Deployment of Machinery (Very High to Exceptionally High Flood)								
S.No	Structure Name	Length (Miles)	Excavators		Trolleys	Dumper	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	Minchin Flood Bund RD: 122 to 243	24.20	5	10	20	10	5	10
2	Malkani Escape RD: 00 to 10+500 (Both sides)	4.20	1	2	3	2	1	2
3	Chachran Link Bund RD: 00 to 16+600	3.32	1	2	3	2	1	2
Total			**7**	**14**	**26**	**14**	**7**	**14**

NOTE: Payment for Machinery & Work charge Employees subject to verification by TPM / Consultant.

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14.6 POLICE DEPLOYMENT PLAN

Sr. No.	Name of Structure / Bund	Camp Location	Site Incharge by Name & Cell No.	Detail of Police to be deployed
1	2	3	4	5
1	Camp at RD: 184-188 of Minchin Flood Bund.	RD: 186-187	Athar Jamil Sub Engineer 03006723009	ASI = 01 No Constable = 10 Nos.
2	Camp at RD: 202-205 of Minchin Flood Bund.	RD: 202-203	Ali Raza Sub Engineer 03158762873	ASI = 01 No Constable = 05 Nos.
3	Camp at RD: 209-212 of Minchin Flood Bund.	RD: 210-211	Farooq Ahmad Sub Engineer 03007024546	ASI = 01 No Constable = 05 Nos.
4	Camp at Spur No.1 at RD:230 of Minchin Flood Bund.	RD: 230 J-Head Spur No.1	Mohd. Khalil Sub Engineer 0300-6734039	Inspector = 01 ASI = 02 No Constable = 10 Nos.

14.7 Detail of synthetic bags with capacity of 50 kg and 100 kg.

Sr. No.	Name of Structure / Bund	Camp Location	Site Incharge by Name & Cell No.	Detail of Synthetic bags with capacity of 50 Kg required.	Detail of Synthetic bags with capacity of 50 Kg available.	Detail of Synthetic bags with capacity of 100 Kg required.	Detail of Synthetic bags with capacity of 100 Kg available.	Remarks
1	2	3	4	5	6	7	8	9
1	Camp at RD: 184-188 of Minchin Flood Bund.	RD: 186-187	Athar Jamil Sub Engineer 03006723009	10000	0	5000	0	
2	Camp at RD: 202-205 of Minchin Flood Bund.	RD: 202-203	Ali Raza Sub Engineer 03158762873	10000	0	5000	0	
3	Camp at RD: 209-212 of Minchin Flood Bund.	RD: 210-211	Farooq Ahmad Sub Engineer 03007024546	10000	0	5000	0	
4	Camp at Spur No.1 at RD:230 of Minchin Flood Bund.	J-Head Spur No.1	Mohd. Khalil Sub Engineer 0300-6734039	10000	0	5000	0	

14.8 Detail of polythene sheet of black colour to protect upstream slope against wave action and to control seepage through embankments.

Sr. No.	Name of Structure / Bund	Camp Location	Site Incharge by Name & Cell No.	Detail of Polythene Sheet required	Detail of Polythene Sheet available	Remarks
1	2	3	4	5	6	7
1	Camp at RD: 184-188 of Minchin Flood Bund.	RD: 186-187	Athar Jamil Sub Engineer 03006723009	100 Kg	0	
2	Camp at RD: 202-205 of Minchin Flood Bund.	RD: 202-203	Ali Raza Sub Engineer 03158762873	100 Kg	0	
3	Camp at RD: 209-212 of Minchin Flood Bund.	RD: 210-211	Farooq Ahmad Sub Engineer 03007024546	100 Kg	0	
4	Camp at Spur No.1 at RD:230 of Minchin Flood Bund.	J-Head Spur No.1	Mohd. Khalil Sub Engineer 0300-6734039	100 Kg	0	

14.9 Recommendation for operation during flood.

Minimum Requirement of Machinery at Breaching Section

At each breaching section there should be arrangement of two (2) Excavators, one (1) Dozer and three (3) Dumpers at Exceptionally high 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.

SE MBN

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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) 19/1/26
Member/ SE, Project Circle
DG Khan

(Abdul Qayyum Qadume) 19/01
Member / SE, Mailsi Canal
Circle, Multan

(Mohib Ullah Ali) 19/01/2026
Member / SE, Sukhrawa
Canal Circle, Sahiwal

(Imtiaz Hyssan) 19-01-26
Member / SE, Bahawalpur
Canal Circle

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

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

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

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

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Chapter-15

Backup Division (In case of breach)

It is certified that there is no breaching section exist in the jurisdiction of Rahimyarkhan Canal Division.

DALLAS CANAL DIVISION Rahimyarkhan will be backup Division in case of any breach.

Executive Engineer Rahimyarkhan Canal Division Rahimyarkhan	**Superintending Engineer** Rahimyarkhan Canal Circle Rahimyarkhan	**Chief Engineer** Irrigation zone Bahawalpur