IRRIGATION DEPARTMENT

OFFICE OF THE
EXECUTIVE ENGINEER
SULEIMANKI HEADWORKS DIVISION
SULEIMANKI
E: mail xensuleimanki@gmail.com Phone#0327-4168941

To,

No:1427-71/102-M Dated: 22/04/2025

1.	The Director, Flood Forecasting and warning center 46-Gulbarg, Lahore.	2	The Director Irrigation Dept: Indus water treaty & Regulation Irrigation Department Secretariat near old Anar Kali Lahore.
3	The Chief Engineer, Irrigation Multan Zone, Multan.	4	The Director General, PDMA, Relief & Crises Management 48/8 Lawrance Road Lahore.
5	The Director (Technical), Board of Revenue, Punjab Disaster & Management Authority /PDMA, 40-A Lawarance Road, Lahore.	6	The Head PMO, PMO for Punjab Barrages, Project Office Building, Irrigation Department, Canal Bank, Mustafaabad (Dharampura), Lahore.
7	The Chief, Metrological Department 46-Jail Road Lahore.	8	The Director Hydrology, Engineering Academy, Thokar Niaz Baig, Lahore.
9	The Director Technical (Suleimanki), PMO for Punjab Barrages, Project Office Building, Irrigation Department, Canal Bank, Mustafaabad (Dharampura), Lahore.	10	The Director, Hydraulic Structure Safety Evaluation Unit (HSSEU),Cell, Govt. Engineering Academy, thokar Niaz Baig, Lahore. HESSUE
11	The Superintending Engineer, Canal Circle, Bhawal Nagar	12	Headquarters Engineers, 31-Corps Bahawal pur, Cantt: (062-2740040)
13	The XEN / Deputy Director, Flood Monitoring Multan	14	The SE / Director, Flood Monitoring Circle-II, old Bahawal pur Road, Officers Canal Colony, Multan
15	The Executive Engineer, Eastern Bar, Pakpattan	16	The Executive Engineer, Western Bar, Thingi
17	The Executive Engineer, Fordwah Division, Bahawalnagar	18	The Head Quarter Engineer, 4-Corps Lahore Cantt:
19	The Senior Superintendent of Police, Chairman Provincial Survey Team, Special Branch, Lahore.	20	The Commanding Officer, 31 Baloch Regiment, Shabbir Sharif Shaheed Cantt. at Suleimanki.
21	The Wing Commander, Desert Rangers, Suleimanki	22	The Captain, 21 Medium Regiment, Artillery, Al Jehad Division, Okara Cantt:
23	The Commissioner, Sahiwal Region, Sahiwal	24	The Deputy Commissioner, District Okara
25	The Deputy Commissioner, District Bahawal Nagar	26	The Deputy Commissioner, District Pakpattan
27	The District Police Officer, Okara	28	The District Police Officer, Pakpattan
29	The District Police Officer, Bahawal Nagar	30	The Deputy District Officer, (Revenue) Pakpattan
31	The Deputy District Officer, (Revenue) Depalpur	32	The Deputy District Officer, (Revenue) Minchin Abad
33	The Sub Divisional Police Officer, Minchin Abad	34	The Sub Divisional Police Officer, Depalpur
35	92 Mechanize Company Engineers Chunian Cantonment at Chunian.	36	The Executive Engineer, Sadiqia Division, Bahawalnagar
37	The Sub Divisional Officer, Headworks Sub Division, Suleimanki	38	Intelligence Bureau (IB) Okara.
39	The Sub Divisional Officer, Pakpattan Sub Division, Pakpattan.	40	The District Officer, Rescue 1122, District Okara
41	The Resident Engineer, Project Office (TPM Consultant) SE Link Circle Office, Canal Bank, Mustafabad (old Dharampura) Lahore.	42	The Project Manager,ADP consultant (NESPAK), RHC/JV,H/No 148-A Township Lahore.

Subject: - **FLOOD FIGHTING PLAN FOR THE YEAR 2025 OF SULEIMANKI HEADWORKS.**

Kindly find enclosed herewith a copy of approved Flood Fighting Plan 2025 of Suleimanki Headworks, for information and necessary guidance. You are requested to ensure requisite arrangements / actions as detail in the Plan. Any further information on the subject can be collected from this office.

D.A/As above

Executive Engineer
Suleimanki Headworks Division
Suleimanki

C.C.

D.A/as above	1	The Chief Engineer Irrigation Sahiwal Zone Sahiwal for information along with 05-copies of same.
	2	The Chief Engineer, Drainage & Flood Zone, Irrigation Department, Government Engineering Academy Punjab, Canal Bank Road, Thokar Niaz Beg, Lahore for information with reference to his office letter No. D&F/2025/412/25/76 dated 11.03.2025 duly attached 04-No. copies and 01-copy to Director HSSEU at Sr.10
	3	The Superintending Engineer Nili Bar Circle Sahiwal for information along with 02-copies of same

IRRIGATION DEPARTMENT

FLOOD FIGHTING PLAN 2025
SULEIMANKI HEADWORKS

SULEIMANKI HEADWORKS DIVISION

INDEX

FLOOD FIGHTING PLAN 2025

din*Haseeb*

XEN Suleimanki

3	Total design capacity of Headwork.	3.25	Lac Cs
4	Design discharge of Pakpattan Canals.	6594	Cusecs
5	Design discharge of Sadiqia Canals.	6327	Cusecs
6	Design discharge of Fordwah Canals.	3447	Cusecs
7	Normal Pond Level	569.00	Feet
8	Highest flood level of 1988.	572.50	Feet.
9	Crest / Floor level of under sluices.	552.00	Feet.
10	Crest level of Head Regulator of Pakpattan Canal.	559.50	Feet.
11	Downstream floor level of weir.	549.75	Feet.
12	Upstream floor level of weir.	552.00	Feet.
13	Crest level of weir.	560.00	Feet.
14	Length of floor Upstream	20.00	Feet.
15	Length of stone apron upstream	30.00	Feet
16	Length of Floor Downstream	33.25	Feet.
17	Crest level of head Regulator of Eastern Sadiqia Canal.	559.50	Feet.
18	Crest level of head Regulator of Fordwah Canal.	561.50	Feet.
19	Length of the Headwork between abutments.	2223	Feet.
20	Water Way.	1920	Feet.
21	Number of bays of main weir.	24	Nos.
22	Width of each bay.	60	Feet.
23	Numbers of bays/gates with LCPs of under sluices (Left & Right).	16	Nos.
24	Width of Each Bay of under sluice	30	Feet.
25	Width of Pier of Under Sluice	5	Feet.
26	Width of Pier of Main Weir.	7	Feet.
27	Divide Wall Width	5	Feet.
28	Divide Wall Length.	700	Feet.
29	Number of bays / gates with LCPs of Pakpattan canal upper)	8	No.
30	Number of bays / gates with LCPs of Eastern Sadiqia canal	7	No.
31	Number of bays / gates with LCPs of Fordwah canal	5	No.
32	Width of Gates of Off-taking canals	20	Feet

udin*Haseeb*

XEN Suleimanki

XEN Suleimanki

Office of the Chief Engineer

Drainage & Flood Zone, Irrigation Department, Punjab, Lahore
Government Engineering Academy Punjab, Canal Bank Road,
Thokar Niaz Beg, Lahore – 53700,
E-mail: cednf@yahoo.comPh.042-99233551

To

The Executive Engineer,
Suleimanki Headworks Division,
Suleimanki.

No.DSF/2025/ 412 /25/76, Dated 11 /03/2025.

SUBJECT: - **FLOOD FIGHTING PLANS FOR FLOOD SEASON 2025.**

Ref:- Your office letter No.1302-04/102-M, Dated 01.03.2025.

The Flood Fighting Plan 2025 received from your Division under above reference is hereby vetted and returned.

Therefore, it is requested, to circulate the same copies of Flood Fighting Plan 2025, after approved by the competent authority to all stakeholders as well as 04 copies (soft copy of Flood Fighting Plans through **E-mail:cednf@yahoo.com)** to this office and 01 copy to Director Hydraulic Structure Safety Evaluation Cell situated at Government Engineering Academy Punjab, Thokar Niaz Baig, Lahore.

1103.

DIRECTOR FLOOD
SECRETARY PUNJAB FLOOD COMMISSION
Drainage & Flood Zone
Irrigation Department Punjab, Lahore.

C.C..

1. **The Chief Engineer, Irrigation Sahiwal Zone, Sahiwal.**
2. **The Superintending Engineer, Nili Bar-Circle, Sahiwal.**

CHAPTER – 1

SALIENT FEATURE OF SULEIMANKI DIVISION

LOCATION

Suleimanki Headwork Division is one of three Canal Division of Nili Bar Circle Sahiwal, Sahiwal Irrigation Zone. The Division manages the regulation of Canal supplies of Suleimanki Barrage, maintenance of Barrage structure, Flood Routing and up-keeping it's allied River Training Works. Suleimanki Headwork was constructed under the Sutlej Valley Project, during 1921-26 to provide Canal Irrigation to vast fertile tract of barren land. The design capacity of this barrage is 325000 Cs.

Three Main Canals namely Eastern Sadiqia (6327-Cs), Fordwah Canal (3447-Cs) and Pakpattan Canal (6594-Cs) off-takes from Suleimanki Headwork. The Headwork is located 20-KM from Haveli Lakha Town of Tehsil Depalpur District Okara and is very important for its irrigation as well as strategic value.

1.2 GENERAL DESCRIPTION

Suleimanki Head works is located on River Sutlej at a distance of 20 KM East of Haveli Lakha Town in the Tehsil Depalpur District Okara. The origin of the River Sutlej is situated in TIBBET near MANASAR-OWAR LAKE. The major tributary of the River is BEAS having its confluence near HARIKE Head works which is 40 miles upstream of FEROZEPUR Head works. The Sutlej River enters in Pakistan territory just downstream of FEROZEPUR Head works and travels 127 Km to reach Suleimanki Head works. This Headwork is located only 1Km from Indo-Pak International Border and has vital role in defence of Pakistan for Suleimanki sector. The Irrigation Boundary of this Division up to Sahuka in Districts Vehari.

The river supply was cut off by India in 1960 according to Indus Water Treaty between Pakistan & India. A link Canal system was constructed from Mangla Reservoir to Suleimanki Headwork to feed the off taking canals of Suleimanki Headwork. The normal river supply was disconnected by the Indian Government after construction of storage dams on the upper reach of Sutlej River. The limited / restricted supply at Suleimanki Headwork started shoaling upstream Headwork resulting bela formation.

A huge and firm bela was formed all along the upstream left guide bund on the left side of Headwork. This bela had chocked almost two third water way upstream of Headwork and due to low discharges, the size of bela was increasing gradually. This bela was excavated mechanically under the mega project of "Rehabilitation and Up-gradation of Suleimanki Headwork". Now the approach of river is direct and sufficient ponding volume is available to feed off-taking channels up to their indents.

All the flood protection works are safe and sound to cope Flood Emergency. The Pak Army base bund was constructed along River Sutlej from nose of left Guide bund to RD.12+000 upstream. The construction of this base bund will act as defence line against LMB.

Design Capacity of Suleimanki Headwork. =325000-Cs.

Total Length of Bunds and Spurs.	=44-Miles.
Total length of Main Canals.	=25-Miles.
Total length of Branch Canal.	=48-Miles.
Total length of Disty & Minor.	=168-Miles.
	G.Total=241-Miles.

Suleimanki Division comprises two Sub Divisions namely Headwork Sub Division Suleimanki and Pakpattan Sub Division which are headed by the Sub Divisional Officers stationed at Suleimanki and Pakpattan respectively.

Headwork Sub Division is responsible for regulation of the Barrage, Canals off taking from Suleimanki Headwork along with their maintenance up to 6000 feet each of Left side Canals as well as 112350 feet of Pakpattan Canal on right sides with its off takes. This Sub Division also maintains the Barrage allied structures and River training works.

Pakpattan Sub Division is responsible for maintenance of Khadir Branch up to 241000 feet along with its off taking Channels. Khadir Branch extends its Irrigation between the River Sutlej and Pakpattan Canal.

Three main Canals off takes from Suleimanki Headwork with total discharge of 16368-Cusecs and Irrigates 28 Lac Acres of land. Pakpattan Canal off takes from the Right flank which Irrigates the area in Okara, Pakpattan and Vehari Districts. Eastern Sadiqia and Fordwah Canals off take from the Left side and Irrigate the area of Bahawalnagar and Bahawalpur Districts. After partition of Indo-Pak and as consequence of Indus Water treaty, the supply at Suleimanki Head works is maintained through Balloki Suleimanki Link (B.S.L). This Link Canal joins the Sutlej with its out fall structure 25 Kilometers upstream of Suleimanki Head works.

Area irrigated by the Suleimanki Headwork Division falls in the 3 Districts as under:-.

District	G.A (Acres)	C.C.A (Acres)
Okara	18113	16237
Pakpattan	167482	155973
Vehari	9901	8314
TOTAL	**195496**	**180524**

Major Crops in the command area are wheat, Sugar Cane, Cotton & Rice etc. Zamindars are taking keen interest in laser leveling of land and making Pacca water courses to bring more area under command by using modern techniques and as a result irrigation is increasing day by day.

Right Marginal Bund & Left Marginal Bund with allied spurs have been raised 5.0 ft above the highest flood level of 1988. Pak Army has constructed pacca bunkers on the top of Left Marginal Bund for defense purpose. The Left Marginal Bund strengthened by providing ring bunds around the bunkers to cope the stress flood water.

INFRASTRUCTURES UNDER CONTROL OF SULEIMANKI HEADWORK

Headwork	1.No.Suleimanki Headwork
Main Canals	3.No
i. Pakpattan Canal (Upper) ii. Sadiqia Canal iii. Fordwah Canal	22.47 Canal Miles 01.20 Canal Miles 01.20 Canal Miles
Total: -	**24.87 Canal Miles**
Branches	1.No
i. Khadir Branch	48.20 Miles
Distributaries	27.No 140.74 Miles
Minors	6. No 27.10 Miles
Total No. of Channels	**27. No**
Total Length of Channels (Main Canals, Branches Disties and Minors)	241 Miles
Water Allowance i. Non-perennial	5.50 Cs Per 1000 Acres
Designed Intensity i. Non Perennial	60%
Total GCA	0.195 Million Acres
Total CCA	0.181 Million Acres
Total No. of Tails	27. No.
Total No of Outlets	419 No.
Total length of Flood Bunds	17.24 Miles

DISTRICT WISE LENGTH OF CHANNELS

Name of District	Main Canal (Canal Miles)	Branch (Canal Miles)	Disty (Canal Miles)	Minor (Canal Miles)	Total (Canal Miles)
Okara	18.40	-	14.90	1.20	34.50
Pakpattan	6.47	44.20	111.10	25.95	187.72
Vehari	-	4.0	14.75	-	18.75
Total	**24.87**	**48.20**	**140.75**	**27.15**	**240.97**

SALIENT FEATURES OF SULEIMANKI HEADWORK

1	Design discharge of main weir.	2.10	Lac Cs
2	Design discharge of under sluices.	1.15	Lac Cs

Headwork	1.No.Suleimanki Headwork
Main Canals	3.No
i. Pakpattan Canal (Upper) ii. Sadiqia Canal iii. Fordwah Canal	22.47 Canal Miles 01.20 Canal Miles 01.20 Canal Miles
Total: -	**24.87 Canal Miles**
Branches	1.No
i. Khadir Branch	48.20 Miles
Distributaries	27.No 140.74 Miles
Minors	6. No 27.10 Miles
Total No. of Channels	**27. No**
Total Length of Channels (Main Canals, Branches Disties and Minors)	241 Miles
Water Allowance i. Non-perennial	5.50 Cs Per 1000 Acres
Designed Intensity i. Non Perennial	60%
Total GCA	0.195 Million Acres
Total CCA	0.181 Million Acres
Total No. of Tails	27. No.
Total No of Outlets	419 No.
Total length of Flood Bunds	17.24 Miles

DISTRICT WISE LENGTH OF CHANNELS

Name of District	Main Canal (Canal Miles)	Branch (Canal Miles)	Disty (Canal Miles)	Minor (Canal Miles)	Total (Canal Miles)
Okara	18.40	-	14.90	1.20	34.50
Pakpattan	6.47	44.20	111.10	25.95	187.72
Vehari	-	4.0	14.75	-	18.75
Total	**24.87**	**48.20**	**140.75**	**27.15**	**240.97**

SALIENT FEATURES OF SULEIMANKI HEADWORK

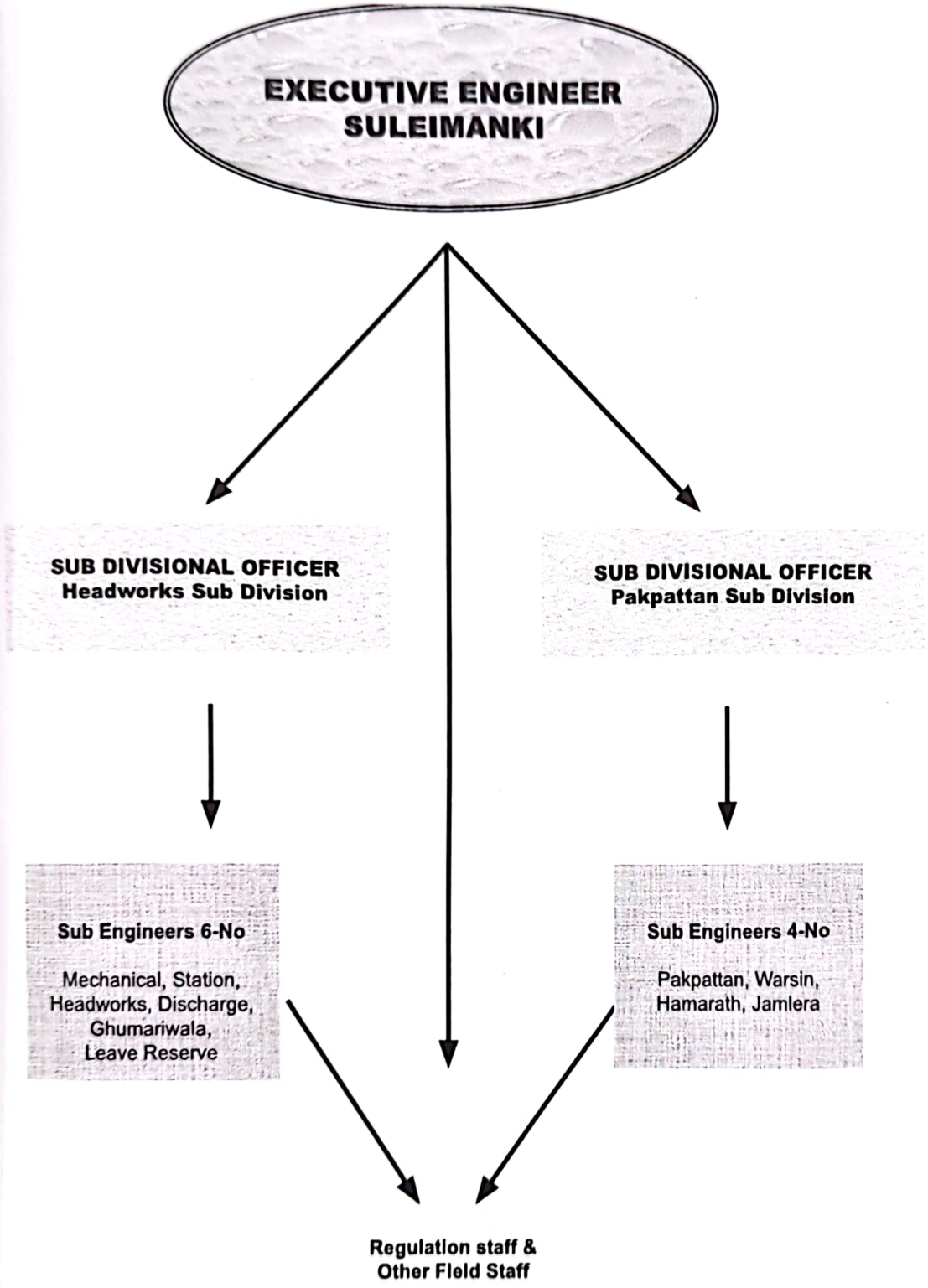
1	Design discharge of main weir.	2.10	Lac Cs
2	Design discharge of under sluices.	1.15	Lac Cs

3	Total design capacity of Headwork.	3.25	Lac Cs
4	Design discharge of Pakpattan Canals.	6594	Cusecs
5	Design discharge of Sadiqia Canals.	6327	Cusecs
6	Design discharge of Fordwah Canals.	3447	Cusecs
7	Normal Pond Level	569.00	Feet
8	Highest flood level of 1988.	572.50	Feet.
9	Crest / Floor level of under sluices.	552.00	Feet.
10	Crest level of Head Regulator of Pakpattan Canal.	559.50	Feet.
11	Downstream floor level of weir.	549.75	Feet.
12	Upstream floor level of weir.	552.00	Feet.
13	Crest level of weir.	560.00	Feet.
14	Length of floor Upstream	20.00	Feet.
15	Length of stone apron upstream	30.00	Feet
16	Length of Floor Downstream	33.25	Feet.
17	Crest level of head Regulator of Eastern Sadiqia Canal.	559.50	Feet.
18	Crest level of head Regulator of Fordwah Canal.	561.50	Feet.
19	Length of the Headwork between abutments.	2223	Feet.
20	Water Way.	1920	Feet.
21	Number of bays of main weir.	24	Nos.
22	Width of each bay.	60	Feet.
23	Numbers of bays/gates with LCPs of under sluices (Left & Right).	16	Nos.
24	Width of Each Bay of under sluice	30	Feet.
25	Width of Pier of Under Sluice	5	Feet.
26	Width of Pier of Main Weir.	7	Feet.
27	Divide Wall Width	5	Feet.
28	Divide Wall Length.	700	Feet.
29	Number of bays / gates with LCPs of Pakpattan canal upper)	8	No.
30	Number of bays / gates with LCPs of Eastern Sadiqia canal	7	No.
31	Number of bays / gates with LCPs of Fordwah canal	5	No.
32	Width of Gates of Off-taking canals	20	Feet

din*Haseeb*

XEN Suleimanki

1.3 ADMINISTRATIVE SETUP



XEN Suleimanki

CHAPTER – 2

FLOOD PROTECTION AND RIVER TRAINING WORKS

2.1 DESIGN PARAMETER OF TRAINING WORKS / FLOOD EMBANKMENTS.

Sr.	Name of Bund / Embankment	H.F.L in 1988		Reach	Length In Miles	Top Width	Slope	Top RL at source	Top RL at Tail
		At Head	At Tail						
1	Upstream Left Guide Bank	575.50	573.50	0-3500	0.70	30-56	1:2 1:3	579.50	582.00
2	Upstream Right Guide Bank	575.50	573.50	0-3500	0.70	30-56	1:2 1:3	579.00	582.00
3	Downstream Left Guide Bank	575.50	572.00	0-1000	0.20	30	1:2 1:3	578.00	574.00
4	Downstream Right Guide Bank	575.50	572.00	0-1000	0.20	30	1:2 1:3	578.00	574.00
5	Left Marginal Bund	577.10	585.20	0-47500	9.50	25	1:2 1:3	582.10	590.20
6	T.T. Bund	577.10	577.10	0-6000	1.20	20	1:2 1:2	582.10	582.10
7	Jhanger Spur	577.10	577.10	Shank =0-3300 Pitching Portion =400	0.74	20	1:3 1:3	582.30	582.20
8	New Hasta Spur	585.20	585.20	Shank =0-13000 Pitching portion =500	2.70	25	1:3 1:3	590.20	590.20
9	Right Marginal Bund	579.50	583.50	0-63000	12.60	25.20	1:3 1:2	584.50	588.50
10	Station Spur	529.50	579.50	Shank =0-4950 Pitching portion =1050	1.20	20	1:2 1:2	584.50	584.50
11	Dharanga Spur	580.60	580.60	Shank =0-11000 Pitching portion =525	2.31	20	1:2 1:2	585.60	585.60
12	Suleimanki Spur	569.50	569.50	Shank =0-1300 Pitching portion =200	0.30	20	1:2 1:2	574.50	574.50
13	Malleki Spur	568.00	568.00	Shank =0-1000 Pitching portion =200	0.24	20	1:2 1:2	573.00	573.00
14	Sujeki Spur	561.50	561.50	Shank =0-2700 Pitching portion =300	0.60	20	1:2 1:2	566.5	566.5
15	Jodheki Spur	567.00	567.00	Shank =0-1200 Pitching portion =300	0.30	20	1:2 1:2	572.00	572.00
16	Tulleki Spur	559.50	559.50	Shank =0-3770 Pitching portion =330	0.82	20	1:2 1:2	564.50	564.50
17	Ferozepur Flood Bund	530.17	523.76	0-28672	5.73	20	1:2 1:2	535.17	535.17
18	New Mari Amb Flood Bund	522.87	518.62	0-16035	3.20	20	1:2 1:2	527.82	527.82
19	Jamlera flood Bund	593.85	587.21	0-41500	8.30	25	1:2 1:3	498.85	498.85

DETAIL OF FLOOD PROTECTION AND RIVER TRAINING WORKS ALONGWITH THE DESIGN PARAMETERS AND LOCATION MAPS

The list of Flood Protection and River Training Works marked on the location plan is attaches. The detail of Flood Protection / Training works is as under:-

DETAIL OF RIVER TRAINING WORKS

NAME	Type	Off-Take RD	TOP WIDTH	LENGTH	TOP R.L	Slope
Upstream Right & Left Guide Bank.	J Head	Suleimanki Barrage	56	3500	579.50 582.00	1:2/1:3
Downstream Right and Left Guide Bank.	J Head	Suleimanki Barrage	30	1000	578.00 574.00	1:2/1:3
Right Marginal Bund	Earthen	Suleimanki Barrage	25/20	63000	584.50 588.50	1:3/1:2
Station Spurs	Armored Head	6000/RMB	20	6000	582.50	1:2/1:2
Dharang Spurs	T Head	16000/RMB	20	11525	583.50	1:2/1:2
Left Marginal Bund.	Earthen	Suleimanki Barrage	25	47500	582.10 590.20	1:3/1:2
T.T. Bund	Earthen	2000/LMB	20	6000	582.10	1:2/1:2
Jhangar Spurs.	Armored Head	13282/LMB	15	3700	580.85	1:2/1:2
New Hasta Spurs.	Armored Head	47500/LMB	25	13500	590.20	1:2/1:2
Suleimanki Spurs.	J Head	Opposite 5000/PC	20	1500	574.50	1:2/1:2
Malleki Spurs.	T Head	Opposite 15000/PC	20	1200	573.00	1:2/1:2
Jodheki Spurs.	T Head	Opposite 22000/PC	20	1500	572.00	1:2/1:2
Sujeiki Spurs.	T Head	Opposite 28000/PC	20	3000	566.50	1:2/1:2
Tulleki Spurs.	T Head	Opposite 38130/PC	20	4100	564.50	1:2/1:2
Ferozepur Flood Protection Bun	Earthen	40000/L of Ferozepur	20	28672	531.36	1:2 /1:3
New Mari Amb Flood Protection Bund	Earthen	68672/L of Ferozepur	25	16035	525.02	1:2 /1:3
Jamlera Flood Protection Bund	Earthen	Opposite 228000/L of KB	25	41500	495.33	1:2 /1:3

XEN Suleimanki

DETAIL OF LEFT GUIDE BUND UPSTREAM AT SULEIMANKI HEADWORK.

Length of Guide Bund	3500 Ft.	It is an earthen bund with river side stone pitched and is in satisfactory condition existing bund is as per design parameters. 6 in thick shingle is placed on top of bund up to RD 1+050=18ft & 1+050–3+500=10ft
Top R.L. of Apron	558.0 Ft.	
Width of Apron	30 Ft	
Side Slopes	1 : 2 - 1 : 3	

DETAIL OF LEFT GUIDE BUND DOWNSTREAM AT SULEIMANKI HEADWORK.

Length of Guide Bund	1000 Ft.	It is an earthen bund with river side stone pitched and is in satisfactory condition existing bund is as per design parameters.
Top R.L. of Apron	549/555 Ft.	
Width of Apron	30 Ft	
Side Slopes	1: 2 - 1:3	

DETAIL OF RIGHT GUIDE BUND UPSTREAM AT SULEIMANKI HEADWORK.

Length of Guide Bund	3500 Ft.	It is an earthen bund with river side stone pitched and is in satisfactory condition existing bund is as per design parameters. 6 in thick shingle is placed on top of bund up to RD.1+500=18ft & 1+500–3+500 =10ft
Top R.L. of Apron	558.0 Ft.	
Width of Apron	30 Ft	
Side Slopes	1: 2 - 1:3	

DETAIL OF RIGHT GUIDE BUND DOWNSTREAM AT SULEIMANKI HEADWORK.

Length of Guide Spur	1000 Ft.	It is an earthen bund with river side stone pitched and is in satisfactory condition existing bund is as per design parameters.
Top R.L. of Apron	549/554 Ft.	
Width of Apron	40 Ft	
Side Slopes	1: 2 - 1:3	

DETAIL OF RIGHT MARGINAL FLOOD PROTECTION BUND

Length of Bund	63000 Ft.	Overall condition is satisfactory.
To width	25-20 Ft.	
Free board	5.00 Ft	
Side slopes	1:2 - 1:3	

DETAIL OF ARMORED STATION SPUR

Length of spur	6000 Ft.	The work for provision of stone pitching as well as apron (Stone) from RD. 0+500 to RD. 1+500 has been taken up next financial year.
Free Board	5.0 Ft	
Top width	20.0 Ft	
Apron width	80 Ft	
Pitching length of spur	1150 Ft	
Side slopes	1:2 – 1:2.	

DETAIL OF T-HEAD DHRANGA SPUR

Length of spur	11525 Ft.	Overall condition is satisfactory.
Free Board	5.0 Ft	
Top width	20.0 Ft	
Apron width	80 Ft	
Pitching length of spur	600 Ft	
Side slopes	1:2 – 1:2	

DETAIL OF LEFT MARGINAL FLOOD PROTECTION BUND

Length of Bund	47500 Ft.	There are 82-Nos of Bunkers constructed by Pak Army for defense purpose, these places of bunkers was vulnerable. During the financial year 2023-24 the bund was protected by providing ring bunds around bunkers to cope the flood.
To width	25.00 Ft.	
Free board	5.00 Ft	
Side slopes	1:2 – 1:3	

DETAIL OF T.T BUND

Length of Bund	6000 Ft.	Overall condition is satisfactory.
To width	20.00 Ft.	
Free board	5.00 Ft	
Side slopes	1:2 – 1:2	

DETAIL OF ARMORED JHANGAR SPUR

Length of spur	3700 Ft.	Overall condition is satisfactory.
Free Board	5.0 Ft	
Top width	25.0 Ft	
Apron width	80 Ft	
Pitching length of spur	600 Ft	
Side slopes	1:2 – 1:2	

DETAIL OF ARMORED NEW HASTA SPUR

Length of spur	13500 Ft.	Overall condition is satisfactory.
Free Board	5.0 Ft	
Top width	20.0 Ft	
Apron width	30 Ft	
Pitching length of spur	1500 Ft	
Side slopes	1:2 – 1:2	

DETAIL OF ARMORED SULEIMANKI SPUR

Length of spur	1500 Ft.	Overall condition is satisfactory.
Free Board	5.0 Ft	
Top width	25.0 Ft	
Apron width	50 Ft	
Pitching length of spur	200 Ft	
Side slopes	1:2 & 1:2	

DETAIL OF ARMORED MALLEKE SPUR

Length of spur	1200 Ft.	Overall condition is satisfactory.
Free Board	5.0 Ft	
Top width	20.0 Ft	
Apron width	50 Ft	
Pitching length of spur	200 Ft	
Side slopes	1:2 & 1:2	

DETAIL OF T-HEAD JODHEKE SPUR

Length of spur	1500 Ft.	Overall condition is satisfactory.

Free Board	5.0 Ft	
Top width	20.0 Ft	
Apron width	45 Ft	
Pitching length of spur	200 Ft	
Side slopes	1:2 & 1:2	

DETAIL OF T-HEAD SUJEKE SPUR

Length of spur	3000 Ft.	Overall condition is satisfactory.
Free Board	5.0 Ft	
Top width	20.0 Ft	
Apron width	50 Ft	
Pitching length of spur	200 Ft	
Side slopes	1:2 & 1:2	

DETAIL OF T-HEAD TULLEKE SPUR

Length of spur	4100 Ft.	Overall condition is satisfactory.
Free Board	5.0 Ft	
Top width	20.0 Ft	
Apron width	80 Ft	
Pitching length of spur	600 Ft	
Side slopes	1:2 & 1:2	

DETAIL OF FEROZEPUR FLOOD PROTECTION BUND

Length of Bund	28672 Ft.
To width	20 Ft.
Free board	5.00 Ft
Side slopes	1:2 – 1:3

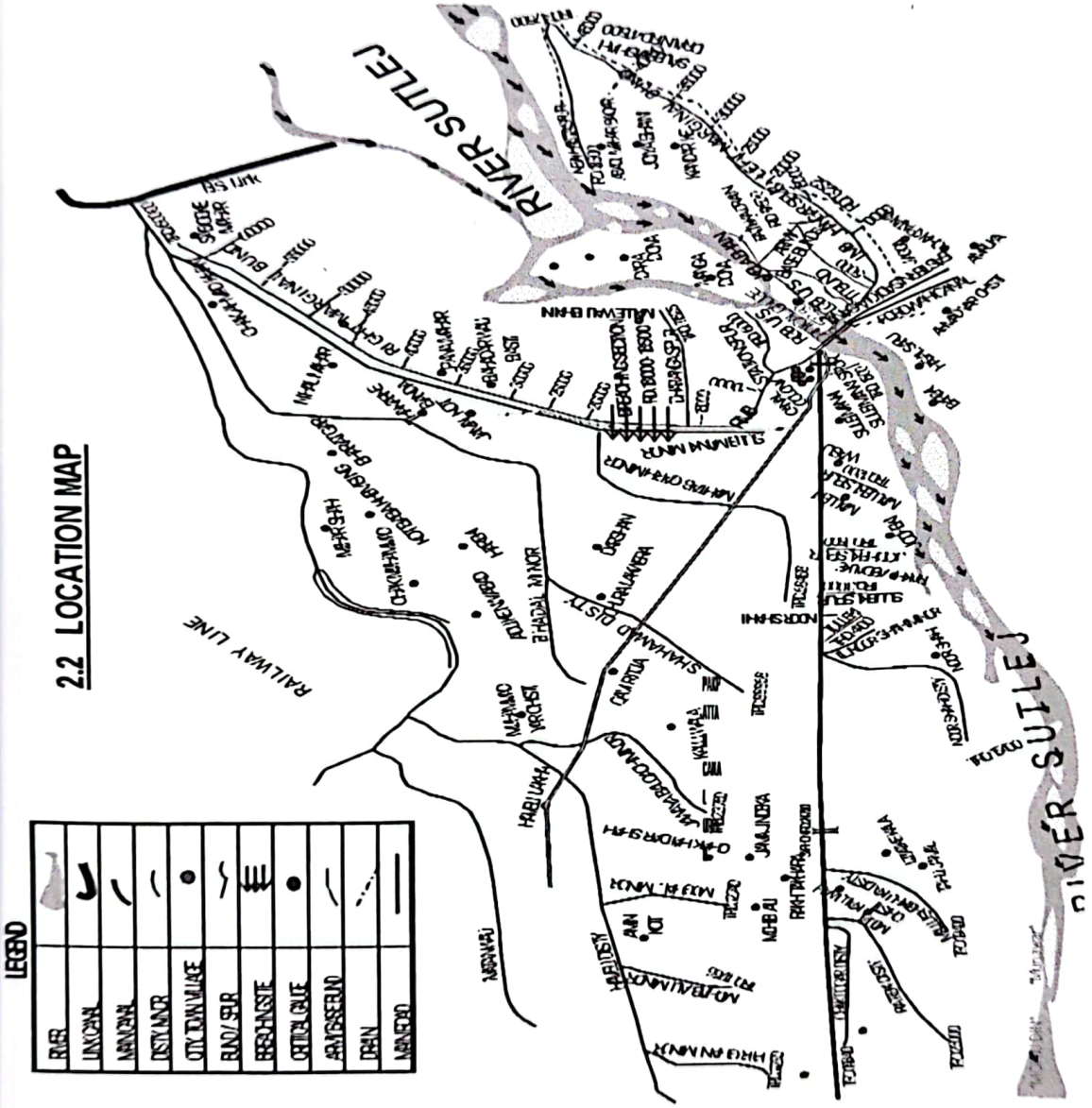
DETAIL OF NEW MARI AMB FLOOD PROTECTION BUND

Length of Bund	16035 Ft.
To width	25 Ft.
Free board	5.00 Ft
Side slopes	1:2 – 1:3

DETAIL OF JAMLERA FLOOD PROTECTION BUND

Length of Bund	41500 Ft.
To width	25 Ft.
Free board	5.00 Ft
Side slopes	1:2 – 1:3

2.2 LOCATION MAP



CHAPTER – 3

BRIEF HISTORY OF PAST FLOOD EVENTS

Three number exceptionally high floods have been experienced in River Sutlej at Suleimanki Headwork after partition of Indo-Pak 1947.

During 1955 an unprecedented flood was experienced when 4.22 Lac Cusecs passed through the Suleimanki Headwork at RL. 572.50 against the design high flood level of 572.00. In flood 1955, RMB breached at RD.20 and the area pocketed by Shahmad Disty, Pakpattan Canal and RMB was inundated. About 14 No breaches / cuts occurred on Pakpattan Canal and the water was disposed off into the Sutlej River Downstream to Suleimanki Headwork.

During 1988, flood of 4.0 Lac Cusecs passed through barrage while 1.0 Lac Cusecs through breaching section at RD.20+000 to 20+500 of RMB. In spite of operating breaching section RMB breached at RD. 16+000 to 17+000 and RD. 33+000 to 35+000 and the area pocketed by Shahamad Disty, Pakpattan Canal and RMB were inundated. About 20 No breaches / cuts were made on Pakpattan Canal and the water was disposed off into the Sutlej River. The LMB breached at RD.8+000 to 10+000, flood water entered in Eastern Sadiqia Canal and Fordwah Canal. This water was disposed off in River Sutlej by breaching both of canals at RD.14+000 and 17+000. The proposed breaching section of RMB has been changed offer the flood 1988 and approved at RD. 18+000 to 18+500 instead of RD.20+000 to 20+500 of RMB.

During 1995 i.e. 3.0 Lac CS passed through barrage and no allied structure was damaged in 1995 upstream but downstream abadies / villages were affected and huge loss of crops, residential buildings, animals was experienced during flood 1995.

During 2023, the flood was started during the month of July –August with first peak during July and second peak during August which was also unusual as per previous record, river rises only one time but during 2023 river rises two times in same period of flood, 2023. First flood peak of 114,260 cusecs reached at Ganda Singh Wala on 13th July 2023 and first flood peak of 83,570 cusecs reached at Suleimanki barrage at 16th July 2023. Second flood peak of 278,297 cusecs reached at Ganda Singh Wala on 19th August 2023 and likewise second flood peak of 191,053 cusecs reached at Suleimanki barrage on 22nd August 2023. This pattern shows that peak discharge remained sustained for similar time i.e. 03:00 hours at both points Ganda Singh Wala and Suleimanki barrage.

However lag time was 72 hours which was considered 48 hours before this flood 2023. This early filling of Indian dams not resulted in early flood flows in Sutlej River but it also produced continuous flows for period of two months which was not happened after construction of Indian Dams on Sutlej & Beas Rivers.

XEN Suleimanki

DISCHARGE AT SULEIMANKI HEADWORK FROM 1925 TO DATE

Date / Year	Maximum Discharge In Lac CS.	Condition
1925	1.90	High Flood
1926	2.07	Very High Flood
1927	1.76	High Flood
1928	1.35	High Flood
1929	2.67	Exceptionally High Flood
1930	2.71	Exceptionally High Flood
1931	1.41	High Flood
1932	2.40	Exceptionally High Flood
1933	2.02	Very High Flood
1934	1.74	High Flood
1935	1.95	Very High Flood
1936	2.07	Very High Flood
1937	1.55	High Flood
1938	2.14	Very High Flood
1939	1.24	High Flood
1940	1.16	Medium Flood
1941	1.72	High Flood
16.8.1942	**3.25**	**Exceptionally High Flood**
18.8.1943	**3.09**	**Exceptionally High Flood**
1944	2.05	Very High Flood
30.9.1945	2.57	Very High Flood
1946	2.10	Very High Flood
30.9.1947	**3.60**	**Exceptionally High Flood**
23.8.1948	1.70	High Flood
19.09.1949	1.29	High Flood
27.8.1951	2.86	Exceptionally High Flood
1952	2.62	Exceptionally High Flood
8.8.1953	2.72	Exceptionally High Flood
30.9.1954	2.39	Exceptionally High Flood
8.10.1955	**5.97**	**Exceptionally High Flood**
15.8.1956	1.76	Very High Flood
7.9.1957	2.10	Very High Flood
10.8.1958	2.44	Very High Flood
24.9.1959	1.52	High Flood
6.9.1960	2.68	Exceptionally High Flood
24.8.1961	2.65	Exceptionally High Flood
27.9.1962	2.26	Exceptionally High Flood
16.8.1963	1.52	High Flood
22.8.1964	1.71	High Flood
30.7.1965	0.92	Medium Flood
13.9.1966	2.03	Very High Flood
30.8.1967	1.90	Very High Flood
1.8.1968	1.01	High Flood
23.8.1969	1.51	High Flood
17.8.1970	1.09	Medium Flood
14.8.1971	2.28	Exceptionally High Flood
15.7.1972	0.93	Medium Flood
15.8.1973	1.77	Very High Flood
27.8.1974	0.17	No Flood

21.9.1975	0.49	No Flood
Date / Year	**Maximum Discharge In Lac CS.**	**Condition**
7.9.1976	1.18	Medium Flood
24.9.1977	0.53	Low Flood
26.8.1978	1.70	High Flood
8.10.1979	0.14	No Flood
19.7.1980	0.78	Low Flood
22.7.1981	0.11	No Flood
14.8.1982	0.17	No Flood
15.9.1983	0.67	Low Flood
6.9.1984	0.54	Low Flood
26.7.1985	0.36	No Flood
11.8.1986	0.21	No Flood
1987	-	-
1988	**4.99**	**Exceptionally High Flood**
1989	-	-
13.9.1990	1.62	High Flood
19.9.1991	0.36	No Flood
09.1992	1.97	Very High Flood
01.07.1993	1.60	High Flood
27.08.1994	1.38	High Flood
11.09.1995	**3.018**	**Exceptionally high Flood**
27.08.1996	0.625	Low Flood
31.08.1997	0.448	No Flood
27.08.1998.	0.91	Low Flood
16.08.1999	0.23	No Flood
05.08.2000	0.15	No Flood
04.08.2001	0.06	No Flood
17.08.2002	0.01	No Flood
02.10.2003	0.20	No Flood
16.10.2004	0.19	No Flood
13.08.2005	0.18	No Flood
10.09.2006	0.23	No Flood
09.09.2007	0.04	No Flood
19.08.2008	1.02	Medium Flood
27-08-2009	0.05	No Flood
30.09.2010	0.58	Low Flood
29.08.2011	0.70	Low Flood
23.09.2012	0.21	No Flood
22.08.2013	0.78	Low Flood
07.09.2014	0.21	No Flood
18.08.2015	0.49	No Flood
29.08.2016	0.24	No Flood
15.08.2017	0.21	No Flood
28.09.2018	0.35	No Flood
24.08.2019	0.67	Low Flood
24.07.2020	0.12	No Flood
15.09.2021	0.072	No Flood
20.07.2022	0.178	No Flood
22.08.2023	1.911	Very High Flood

15.08.2024	0.013	No Flood

udin*Haseeb*

XEN Suleimanki

CHAPTER – 4

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

1	Design discharge of main weir.	2.10	Lac Cs
2	Design discharge of under sluices.	1.15	Lac Cs
3	Total design capacity of Head works.	3.25	Lac Cs
4	Design discharge of Pakpattan Canals.	6594	Cusecs.
5	Design discharge of Sadiqia Canals.	6327	Cusecs.
6	Design discharge of Fordwah Canals.	3447	Cusecs.
8	Highest flood level of 1988.	575.0	Feet.
9	Floor level of under sluices.	552.00	Feet.
10	Crest level of Head Regulator of Pakpattan Canal.	559.50	Feet.
11	Downstream floor level of weir.	549.00	Feet.
12	Upstream floor level of weir.	552.00	Feet.
13	Crest level of weir.	560.00	Feet.
14	Length of floor Upstream	20.00	Feet.
15	Length of Floor Downstream	33.25	Feet.
16	Crest level of head Regulator of Eastern Sadiqia Canal.	559.50	Feet.
17	Crest level of head Regulator of Fordwah Canal.	561.50	Feet.
18	Total width of the Head works between abutments.	2223	Feet.
19	Water Way.	1920	Feet.
20	Number of bays of main weir.	24	Nos.
21	Width of each bay.	60	Feet.
22	Numbers of bays of under sluices (Left & Right).	16	Nos.
23	Type of Gate (Vertical Stony Gates)	--	--
24	Width of Pier of Under Sluice	5	Feet.
25	Width of Pier of Main Weir.	7	Feet.
26	Divide Wall Width	5	Feet.
27	Divide Wall Length.	700	Feet.

4.1 FLOOD LIMITS

Flood limits of Suleimanki Head works as approved by the technical committee during meeting held on 15.05.1989 are tabulated as under:-

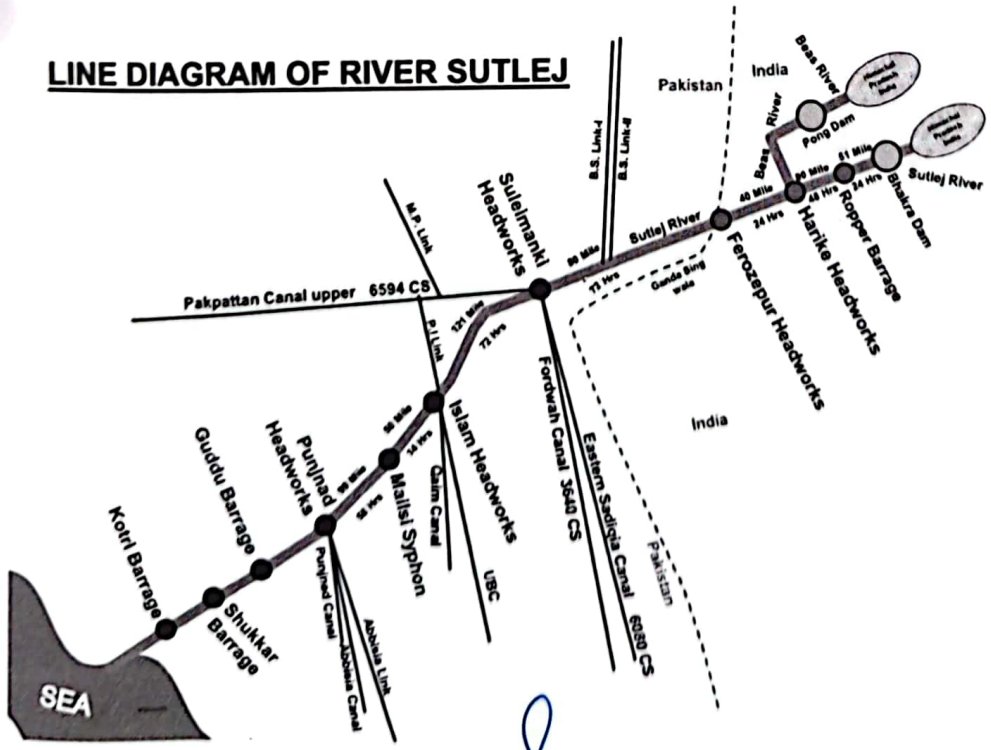
Up to 50000 Cs	Normal
50000 Cs to 80000 Cs	Low Flood.
80000 Cs to 120000 Cs	Medium Flood.
120000 Cs to 175000 Cs	High Flood.
175000 Cs to 225000 Cs	Very High Flood.
225000 Cs and above	Exceptionally High Flood.

4.2 TIME LAGS OF RIVER SUTLEJ

The time lag depends on many factors such as flood intensity; weather conditions etc. however approximate time lags for the main stations on River Sutlej which experienced in past are given as below.

REACH	DISTANCE (Mile/Km)	TIME LAG (Hour)
Bhakra Dam to Ropper Barrage	51/82	24
Ropper Barrage to Harike Barrage	80/128	48
Harike Headworks to Feroze Pur Headworks	40/64	24
Feroze Pur Headworks to Suleimanki Headworks	79/127	72
Suleimanki Headworks to Islam Headworks	121/193	72
Islam Headworks to Punjnad Headworks	149/238	72

LINE DIAGRAM OF RIVER SUTLEJ



din*Haseeb*

XEN Suleimanki

4.3 HIGHEST FLOODS

Year	Through Weir (Cusecs)	Through Breaches in flood embankments (Cusecs)	Total (Cusecs)
1955	422000	175000	597000
1988	400000	100000	500000
1947	360000	NIL	360000
1950	332000	NIL	332000
1942	325000	NIL	325000
1943	309000	NIL	309000
1995	302000	NIL	302000

4.4 PEAK DISCHARGE (LAST FIVE YEARS)

Sr.	Year	Discharge in Cusecs.
1	2020	11897
2	2021	7212
3	2022	17876
4	**2023**	**191053**
5	**2024**	**12578**

CHAPTER – 5

FLOOD FIGHTING STRATEGY

Flood Fighting Strategy is framed for Suleimanki Headworks by keeping in view basic principles mentioned in "*RULES & REGULATION OF SULEIMANKI HEADWORKS*" with main aim / object to pass any quantum of flood safely through barrage. Following flood fighting strategy will be adopted at Suleimanki Headworks.

In low flood, river water remains within the deep channel and does not cause any problem, if regulation of gates is done as per rules. Watching establishment employed for this purpose will remain busy in removing jungle, filling gharas and porcupine holes, if any.

When water increases beyond 80,000 cusecs, it will start spreading on adjoining area. Then it becomes necessary to be vigilant and watching of bunds will be started to avoid any leakage from bunds. Sub Engineers will shift their camps to sites as per duty roaster. Hourly gages and discharges will be conveyed to Civil Administration and Flood Warning Centers to inform public accordingly

When river water enters into high flood range (1,20,000 CS – 1,75,000 CS) Sub Divisional Officer Headworks will shift his camp at Suleimanki Headworks to supervise staff working on LMB and downstream spurs. In whole period, regulation will be done in such a way that silt deposit in front of canals may be washed downstream of the river. Silt contents in water will be checked thrice a day and if it exceeds the permissible limit, canals will be closed accordingly.

Gauges of different sites especially gauge at Nose of LGB will be noted regularly and recorded. Executive Engineer will inform all agencies especially civil administration as well as Army about flood situation in rising position. In case of very high flood or exceptionally high flood (Beyond 1,75,000 CS), meetings will be held in Executive Engineer's office with Pak Army and Civil Administration to face the situation.

Two dozers will be kept ready at RD 18000 to 18500 RMB for making cuts and closing breaches as and when required according to the circumstances .When gauge at Nose of LGB touches level 575.00 and is found in rising position it will be the duty of Executive Engineer to request Army for operation of breaching section for the safety of Headworks. When water subsides the breaching sections will be closed (If operated) as soon as possible.

The flood water gushing out of the breaching section will immediately start rushing towards South-West and will follow the route marked on the inundation plan. It will over top

the Mehtab Gharh Minor which is under the jurisdiction of Executive Engineer Khanwah Canal Division who would be intimated accordingly. Then the flood water will over top. Suleimanki – Haveli road (Dehli Multan road) from about 3-KM Suleimanki Headworks up to Jawaya Blouch (16 Km) which will carefully be repaired by Executive Engineer C&W Department. The flood water will flow towards South West and will hit Pakpattan Canal between RD.15000 to 60000 and will move downward. Currently Pakpattan Canal (upper) is under jurisdiction of Executive Engineer, Eastern Bar Division, Pakpattan. Executive Engineer Eastern Bar Division Pakpattan will be intimated about the breach and he will supervise the passage of flood water at over through Pakpattan Canal. The flood water will also enter into the Pakpattan Canal at various place. This Canal will be cut between RD.24-25, RD.29-30 and RD.46-47 to divert the water into the River, along with plugging the Canal at RD.52000 to stop excessive supply following downstream fall RD.52000. If the flood water along right bank of Pakpattan Canal below RD.52000 rises and enters into it. 3-No. additional cuts will be made between Rd.62-63, 67-68 and 99-100 of Pakpattan Canal. For the purpose of breaching Pakpattan Canal three No. dozers will be arranged by the district administration from the Agriculture Department.

There is densely populated area just downstream side of the Breaching Section. The operation of Breaching Section has to be done very carefully with prior warning to the inhabitants of the area. The breach will severely affect the population and infrastructure coming in way of the water. It will affect village abadies comprising of village and scattered abadies. The cultivated land likely to effect is 80000 acres (approximately).

The main infrastructure coming in the way and likely to be effected is as under:-

- Main Suleimanki – Haveli (Dehli –Multan) road in 3 Km to 16 Km from Suleimanki Headworks.
- District Roads Networks.
- School.
- Basic Health Unit.
- Telephone Network Nikki Maneki Exchange).
- Pakpattan canal in Reach 5000 to 100000.
- 10-No. Disty / Minor network of Khanwah Canal Division.

CHAPTER – 6

FLOOD DAMAGES RESTORATION WORKS

Flood magnitude of 12578 Cusecs (No Flood) passed during Flood 2024 on 15-08-2024. No damages of any kind happened to any structure of Suleimanki Headwork Division Consequently, no major work for restoration of Flood damages was carried out.

din*Haseeb*

XEN Suleimanki

CHAPTER – 7

FLOOD FIGHTING WATCHING ARRANGEMENTS

7.1 PRE FLOOD ARRANGEMENTS

A flood control center will be established in canal telegraph office Suleimanki and responsible staff will be available round the clock. One base high range wireless set will be installed at canal Telegraph Office, Suleimanki by the Police Department. 2 Nos. mobile Motorola sets of 30 kilometer range will be provided for installing in the vehicles of Executive Engineer, Suleimanki Division NBC, Sub Divisional Officer, Headworks Sub Division, Pakpattan to keep them vigilant all the time.

Three number Mobile wirelesses set (hand set) will be provided under acute emergency during very high flood at different vulnerable points. These arrangements should be made well in time by the telecommunication of Wing Police Department.

All the flood protection and river training works are required to be inspected during the month of May so as to identify weak points and if necessary after repairing such sites, the certificate regarding hydraulic fitness of bunds is to be submitted. The Flood embankments are inspected by a Committee constituted by the Secretary Irrigation Department in May every year. Fitness / health of bunds is ensured before the flood season; keeping in view the priorities are fixed according to resources.

FLOOD WARNING SYSTEM

The flood warning at Suleimanki Headworks is received from Ganda Singh Wala downstream Ferozepur Headworks through wireless installed or other wise on telephone etc. The flood condition of the dams and Headworks on Sutlej in India is also received through Flood Warning Center Lahore. On receipt of flood warning about the stages of flow below Ferozepur Headworks, the District Coordination Officer Okara and Army Engineer Battalion will be informed by the Executive Engineer / SDO Suleimanki Headworks to cope with the flood situation close liaison will be kept by the committee members during the flood emergency. The Chief Engineer Irrigation Sahiwal Zone will also be kept informed about the flood constantly.

The flood warning gauges will be received from the following centers:-

- Flood warning center Lahore
- Ganda sing wala

Police wireless control is responsible to collect these gauges 3 hourly in case of high flood and above and 6 hourly in case of low flood to medium flood. These gauges will be conveyed to Irrigation flood warning center at Suleimanki Canal Office and will be supplied promptly to Executive Engineer, Suleimanki.

During rainy / monsoon season, the organization of Suleimanki Division will remain very vigilant throughout the monsoon season. Staff of the Division will be set on alert during day and night from 15th June to 15th October. The flood / watching camps will be established at vulnerable points.

7.2 WATCHING ESTABLISHMENT

The normal strength of patrolling for the Right Marginal Bunds (RMB) and its allied spurs consists of 8 Beldars and 1 Mate from 16th April to 15th June, which will be enhanced during the flood season to 16 Beldars and 2 Mates from 16th June to 15th October. Similarly the normal strength of patrol for the Left Marginal Bund (LMB) and its allied spurs consists of 8 Beldars and 2 Mates during the flood season.

The normal patrolling with the help of this additional labour will be able to fill up rain cuts gharas and holes of burrowing animals for ensuring the safety against floods.

In addition to above patrol, 2 Beldars for the guide bunds are regularly posted. During the flood season 2 extra Beldars and 1 Mate will be employed on the guide bunds, during flood season only, 6 Nos. Beldars on Jamlera flood bund and 3 Nos. Beldars for Ferozepur & Mari Amb Flood embankment will be employed for maintenance.

LABOR ARRANGEMENT DURING EMERGENCY (VULNERABLE SITES).

7.3

Sr. No.	Working Site R.D	Length	River / Canal	Labour	
				Beldar	Mate
1	RMB 000+000 to 63+000	63000	Sutlej	8	1
2	LMB 000+000 to 47+500	47500	Sutlej	8	1

ARRANGEMENT AT SENSITIVE SITES

i. The normal strength for watching at sensitive sites along flood protection and River training works will be doubled during high flood / exceptionally high flood.

ii. The establishment can be increased after consultation with Executive Engineer, Suleimanki Division / Director Technical (Suleimanki) PMO for Punjab Barrages, Lahore in emergency & in accordance with site requirements.

The same establishment will be responsible for maintenance of flood bunds and Spurs Shank. It will arrange Minor repairs to bank top, side slopes, removal of Sarkanda etc. as shanks and on pitched part of spurs. Establishment will also be responsible for filling ghares / porcupine holes / rain cuts etc. as occurred due to rains during the monsoon season.

XEN Suleimanki

A. POSITION OF RESERVE STOCK OF STONE ON EACH RIVER TRAINING COMPONENTS

Quantity in Lac Cft

Sr.	Name Of Structure	Reserve Stock Limit (as per Yard Stick)	Minimum Required 70%	Quantity Available	Balance Quantity Required
1	Dharanga Spur	1.000	0.700	0.360	0.640
2	Station Spur	1.000	0.700	0.580	0.420
3	Suleimanki Spur	0.500	0.350	0.530	0.000
4	Malleki Spur	0.500	0.350	0.262	0.260
5	Jodheki Spur	0.000	0.000	0.040	0.000
6	Sujeki Spur	0.500	0.350	0.355	0.180
7	Tulleki Spur	1.500	1.050	0.710	0.700
8	Left Guide Bund Upstream	1.500	1.050	0.990	0.510
9	Left Guide Bund Downstream	1.000	0.700	1.030	0.000
10	Right Guide Bund Upstream & UPC Right	1.500	1.050	1.010	0.490
11	Right Guide Bund Downstream	1.000	0.700	0.870	0.135
Total		**10.00**	**7.00**	**6.737**	**3.335**

B. CONSOLIDATED STATUS OF RESERVE STOCK OF STONE.

Quantity in Lac Cft

Sanctioned Reserve Stock Limit	Minimum Quantity Required 70%	Available Quantity of Stone	Balance Quantity Required	Remarks
10.0	7.0	6.737	3.335	Balance quantity of reserve stock of stone will be procured before start of flood 20255.

XEN Suleimanki

7.4 WATCHING MATERIAL SITE NO. 2 LMB RD. 8+000 TO 10+000

Sr.	Item	Unit	Required Qty	Qty Available	Balance to be arranged	Remarks
1.	G.I Buckets.	No.	40	0	40	Balance quantity of flood fighting material will be procured before the start of flood season 20254 and material stored in flood fighting store Suleimanki
2.	Empty Gunny Bags	No.	2000	500	1500	
3.	Swiss cottage Tent	No.	1	1	--	
4.	Chouldaries	No.	4	2	2	
5.	Sutli	Kg.	5	3	2	
6.	Needles.	No.	12	3	9	
7.	Torches	No.	16	14	2	
8.	Kassaies	No.	1000	45	955	
9.	Axes	No.	20	0	20	
10.	Manila Rope	Kg	200	100	100	
11.	Generator	No	1	1	--	
12.	Energy Saver 23-W	No.	50	--	50	
13.	Bamboos 8'o 10' long (For Lighting arrangements)	No.	100	--	100	
14.	Petrol for Running Generator	Ltr	2000	--	2000	
15.	Steel Charpoy	No.	12	12	--	
16.	Folding Table	No.	1	1	--	
17.	Folding Chair	No.	6	6	--	
18.	Khaji Mates	No.	2000	500	1500	
19.	Life Jackets	No.	25	20	5	
20.	Wheel Barrow	No.	3	3	--	

XEN Suleimanki

7.5 ARRANGEMENT OF SOUNDING AND PROBING

In case of any situation on flood protection and River training works, sounding and probing arrangement will be made for which proper equipment are already available in of Division.

7.6 LIGHTING ARRANGEMENT

All the gates of the barrage and off-taking canals have electrically operated Local Control Panels in addition to the Provision of Mechanically operation which is provided under the Rehabilitation and Up gradation Project. The 11 KVA Transmission line have been laid to energize the installation provided at barrage. LESCO – WAPDA will ensure proper power supply to the headwork. A well-equipped squad of electrician will be directed to be present at Headworks for maintaining the proper lighting arrangement and to deal with any emergency related to the eclectic supply at the barrage.

Lighting arrangement is in good condition, 2 No. 50 KVA generators are also available to cope with the load shedding problem. Revolving lights are installed and lights are fixed on the gauge wells.

7.7 RATION ARRANGEMENT

The area along right side of River Sutlej entering from Ganda Sing wala to Suleimanki Barrage falls in two District, i – Kasur, ii- Okara. In case of high flood in River Sutlej a separate plan will be prepared by the concerned Distract Administration and Food department will mobilize their sources for supplying food for Human and cattle population.

7.8 POL ARRANGEMENT FOR VEHICLE

P.O.L facilities / arrangement will be made by the Irrigation Department through Civil Administration.

7.9 TRANSPORTATION

Transportation facilities will be provided by the Civil Authorities

7.10 LAW AND ORDER

Law and order situation will be tackled by the Civil Administration with the help of Police Department.

7.11 MEDICAL ARRANGEMENT FOR LABOUR

Health Department will responsible for mobilizing their sources for carrying out necessary operation for providing medical facilities to the labour.

7.12 LIAISON WITH OTHER DEPARTMENT

The Executive Engineer, Suleimanki Division, Suleimanki will perform following functions within his administration jurisdiction.

- Periodic review of structural integrity of flood infrastructure over river Sutlej in order to ensure that no breach occurs in the event of heavy discharge of water. The Executive Engineer will share his observation with his supervisory officer as well as District Administration, well before on set of Flood season for necessary action to be taken accordingly.
- Identification of vulnerable points on river training works and flood protection works where breach may occur and specification of locations for positioning of requisite machinery / material near the vulnerable points.
- Maintenance and repair to flood protection and river training works infrastructures.
- Joint inspection of Flood protection infrastructure with District Administration.
- Collection and sharing of information regarding discharge in Sutlej, with the Military Authorities as well as District Administration on daily basis.
- Collection of information on discharge, from monitoring check points on River Sutlej as well as control centre at Suleimanki.
- Improvement of existing instruction / gauges used for determination of water discharge (Cusecs) in Sutlej.
- Development of more effective early warning system.
- Liaison with flood forecasting centre Lahore for collection of flood related information.
- Briefing of authorities concerned on Flood protection arrangements and development of an integrated departmental strategy, to be able to combat any situation during Floods.

- Stock piling of essential articles to combat any flood related contingency and arrangements of sufficient funds beforehand, for such purposes.
- Arrangements of labour along with machinery / equipments for proper maintenance of the vulnerable pints on flood protections arrangements.
- Identification of points on road or otherwise, where breaches / cuts are required to be made to further facilitate discharge of water in order to avert larger catastrophe.
- Ascertainment of extent of damage caused to the protection bunds and other installation after flood water subsides.
- Initiation of criminal proceeding against elements involved in will full breach in flood protection arrangements on any canal, with consent of competent authority.
- Assistance and coordination with other departments for providing early relief to the public in emergency situation.

7.13 ROLE OF ARMY

During flood emergency, Deputy Commissioner, Okara in consultation with Executive Engineer, Suleimanki will inform 4-Corp Engineer Regiment Lahore about flood situation. Upon intimation, 4-Corp Engineer Regiment Lahore along with District Administration will perform activities to flood fight ~~flood~~ emergency during flood 20254.

7.14 DUTIES OF TELEPHONE ATTENDANT

The duty of telephone attendant is to apprise the Department / Civil Administration about the flood situation during the rain / flood season i.e. 15.06.20254 to 15.10.20254.

7.15 WIRELESS ARRANGEMENTS

Wireless system / arrangement will be made for the vehicles under use of Officers of Suleimanki Division of Nili Bar Circle during the period of 15 June 20254 to 15 October 20254.

CHAPTER – 8

DETAIL OF ENCROACHMENT

There is no encroachment on flood protection works and river training works as well as water ways in the jurisdiction of Suleimanki Headworks Division to hinder the movement of flood fighting machinery on or along the flood protection structures during any flood emergency.

Type of Encroachments	Total No of Encroachments	Encroachments Removed	Balance to be Removed	Action to be taken
Ordinary	NIL			
Critical	NIL			

CHAPTER – 9

DUTY ROSTER / FLOOD FIGHTING PROGRAMME

Duty establishment required for watching arrangements in 3 shifts round the clock will be under the control of in-charge Sub Engineer Headworks Section & Sub Engineer Mechanical Section. Sub Divisional Officer Headworks and Pakpattan will be overall in-charge and will exercise surprise check in their respective jurisdiction.

A. HEADWORKS UPSTREAM/DOWNSTREAM PROTECTION BUND

Camp Location	Name of Officer / Designation and Cell No.	Duty of Official	No of Shifts / Time	Flood Situation.
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=2 No Mate = 1 No. Beldar = 4 No & Regulation staff.	1/ 08-16 hrs	Medium Flood
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3 No Mate = 1No. Beldar = 4No & Regulation staff.	2/ 08-16 hrs 16-24 hrs	High Flood
Control Room at L/S of Barrages	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3 No Mate = 1No. Beldar = 4No & Regulation staff.	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Very High Flood
Control Room at L/S of Barrages	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3 No Mate = 1No. Beldar = 4No & Regulation staff.	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Exceptionally Flood

XEN Suleimanki

B. LEFT MARGINAL BUND AND ITS ALLIED SPURS

Camp Location	Name of Officer / Designation and Cell No.	Duty of Official	No of Shifts / Time	Flood Situation.
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=1 No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	Medium
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=1 No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	High
RD: 10 of LMB	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=4 No Mate =7 Beldar =56	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Very High
RD: 10 of LMB	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=4 No Mate =10 Beldar =80	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Exceptionally

C. RIGHT MARGINAL BUND AND ITS ALLIED SPURS

Camp Location	Name of Officer / Designation & Cell No.	Duty of Official	No of Shifts / Time	Flood Situation.
Canal Colony Suleimanki RD: 10 of RMB	Iftikhar Ahmad Siddiqui Sub Divisional officer 0336-4446653	Sub Engr=1 No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	Medium
RD 16 – 34 of R.M.B	Iftikhar Ahmad Siddiqui Sub Divisional officer 0336-4446653	Sub Engr=1 No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	High
RD 16 – 34 of R.M.B	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Iftikhar Ahmad Siddiqui Sub Divisional officer 0336-4446653	Sub Engr=4 No Mate =7 Beldar =54	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Very High
RD 16 – 34 of R.M.B	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Iftikhar Ahmad Siddiqui Sub Divisional officer 0336-4446653	Sub Engr=4 No Mate = 10 Beldar =84	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Exceptionally

Note:-

* Executive Engineer Suleimanki is over all In-charge of the whole operation during very high and exceptionally high flood.
* All the Sub Engineer will perform their duties assigned above along with their establishment with necessary T & P.
* However the duties of remaining Sub Engineers with their establishment would be called any time any where and at any point as desired and required by the SDO's In-charge under intimation to Executive Engineer Suleimanki the In-charge of whole operation.
* Payment for work charge employees subject to verification by Third Party Monitoring / Departmental Committee.

n*Haseeb*

XEN Suleimanki

CHAPTER – 10

EMERGENCY TELEPHONE NUMBERS

Sr. #	Name of Officers	Office	Residence
1	Secretary Irrigation Department Lahore	042-99212117 042-99212118 Fax-042-99212116	042-99200954
2	Deputy Secretary Operation Irrigation Lahore.	042-99112127	042-9212129
3	Chief Monitoring (PMIU) Lahore.	042-99213595 042-99213597	Toll Free No. 0800-11333
4	Chief Engineer Drainage & Flood Lahore	042-99230602	
5	Head / Project Director, PMO Punjab Barrages, Lahore.	042-99250351-52	-
6	Chief Engineer Irrigation Sahiwal.	040-9200221	-
7	Chief Engineer Irrigation Multan.	061-9200144	
8	Chief Engineer Irrigation Bahawalpur	0621-9250333	0621-9250334
9	Director Technical, PMO-Punjab Barrages, Lahore.	042-99250343	
10	Superintending Engineer Nili Bar Circle, Sahiwal.	040-9200217	040-9200216
11	Director Flood Lahore	042-99231614	
12	Deputy Director Flood Lahore	042-99230282	
13	Flood Warning Center Lahore.	042-99205157	042-99205158
14	Flood Control Center Okara.	044-9200251	044-9200251
15	Executive Engineer Suleimanki. (Muhammad Riaz)	0333-8082206	0302-3750100
16	Executive Engineer Balloki	049-4610300	
17	Executive Engineer Eastern Bar Division Pakpattan.	0457-373878	
18	Executive Engineer Western Bar Division Thingi.	067-3788114	
19	Executive Engineer Sadiqia Division	0631-9240223	
20	Executive Engineer Fordwah Division Bahawalnagar:	0631-9240225	
21	Sub Divisional Officer Suleimanki Headworks. (Syed Qasim Raza)		0313-3356484 0311-3356484
22	Sub Divisional Officer Pakpattan.(Iftikhar Ahmad Siddiqui)	045-7373178	0336-4446653
23	Sub Engineer, Headworks.(Soahaib Mushtaq)		0346-4880096
24	Sub Engineer, Station. (Shoaib Anwar)		0301-7998773

DISTRICTS ADMINISTRATION

Sr.#	Address	Office	Residence
1	Commissioner Sahiwal Division	040-9200491 Fax-040-9200492	
2	Deputy Commissioner Okara	044-9200025 044-2521925	044-9200144
3	Deputy Commissioner Pakpattan	0457-374198	0457-373033
4	District Officer Revenue Okara	044-9200025	044-9200027 044-9200028
5	Deputy District Officer Revenue Depalpur.	044-4540425	044-4542601
6	District Police Officer Okara.	044-9200351	044-9200352
7	District Police Officer Pakpattan.	0457-374016	0457-374265
8	District Police Officer Bahawalnagar	0631-73723	0631-74724 0631-73723
9	Deputy Commissioner Vehari	067-3363488	067-3362122
10	Deputy Commissioner Bahawal Nagar	0631-9240201-02	0631-9240203
11	NTO Dealing Official D.C Office Okara	0322-6943840	
12	RESCUE	1122	

CHAPTER – 11

STANDARD OPERATING PROCEDURE (SOP) FOR BREACHING SECTION

11.1 HISTORY OF THE BREACHING SECTION

During 1955 an unprecedented flood was experienced when 4.22 Lac Cusecs passed through the weir at R.L. 572.50 against a designed H.F.L of 572.0. Flood levels along marginal bunds exceeded the designed limits and the Bunds failed and caused huge devastation. During 1955 flood the RMB. Breached at RD 20 and the area pocketed by Shahamad disty, Pakpattan Canal and RMB was inundated. About 14 No. breaches / cuts occurred on Pakpattan Canal and the water was disposed off into the Sutlej River. During 1973 only a medium flood was experienced which did not cause any damage to the Headworks and other river training works except that the reach RD 17-25 of RMB was hit as usual. In case of higher floods, RMB breach in reach RD 30-63, the inundation is expected up to the left bank of lower Sohag Branch.

To keep the damages due to inundation minimum the breaching section is required to be relocated for passing extra discharge. For this purpose the site at R.D. 18+000-18+500 R.M.B has been finally approved. It is decided that a cut will be made at R.D 18+000 of R.M.B when water level attained the value of R.L 575.00 and river is rising at up stream nose of LGB or discharge through the weir exceeds 3.25 Lac Cusecs which ever occurs earlier.

About 500 ft. Length of bund will have to be cut for releasing discharge of about 50,000 Cfs as per calculation given below:

N.S.L. at RD 16	572.00
N.S.L. at RD 18	571.00
N.S.L. at RD 20	568.00
N.S.L. at RD 22	570.00
Average N.S.L.	569.00
H.F.L. at RD 18	580.60
Depth of water	-11.60

Mean velocity of flow in high flood-6.0 ft. per second
Q = A x V or 50000 = A x 6
A = 50000/6 = 8333

Area of Flow	=8333 ft^2
Average Depth of Breach	=11.6 ft
Width of Breaching Section required	=8333/11.6
	=720 ft

The water will go back to the river along the route shown on the plan. Pakpattan Canal will be cut between R.D 25-50 to lead the water to Sutlej River. Every 1000 ft. of cut in Pakpattan Canal will pass 2000 Cfs. Suitable heading up will be arranged in Pakpattan Canal at bridge R.D 34100, 43000 and 52000 to minimize the damages to Pakpattan Canal of the main line R.D.18 R.MB, and U/s nose of LGB will be connected with Headwork by telephone for prompt: communication of information about water levels and action regarding mark a cut. The possibility of connecting Jawaya Baloch or Shahamad disty with Pakpattan Canal to avoid large scale inundation needs to be explained.

The following in addition that will be strictly observed by all concerned that are connected with the maintenance and operation of the Headworks and the marginal bunds.

* The Executive or the Sub Division Officer whoever is present at site will be required to make the cut at the proposed site as soon as the flood level reaches the approved critical level at specified control site along the L.G.B. provided the river is expected to raise future.

* The deputy Commissioner or his representative is to be informed about the intended relief cut for the timely evacuation of people from the area to be affected.

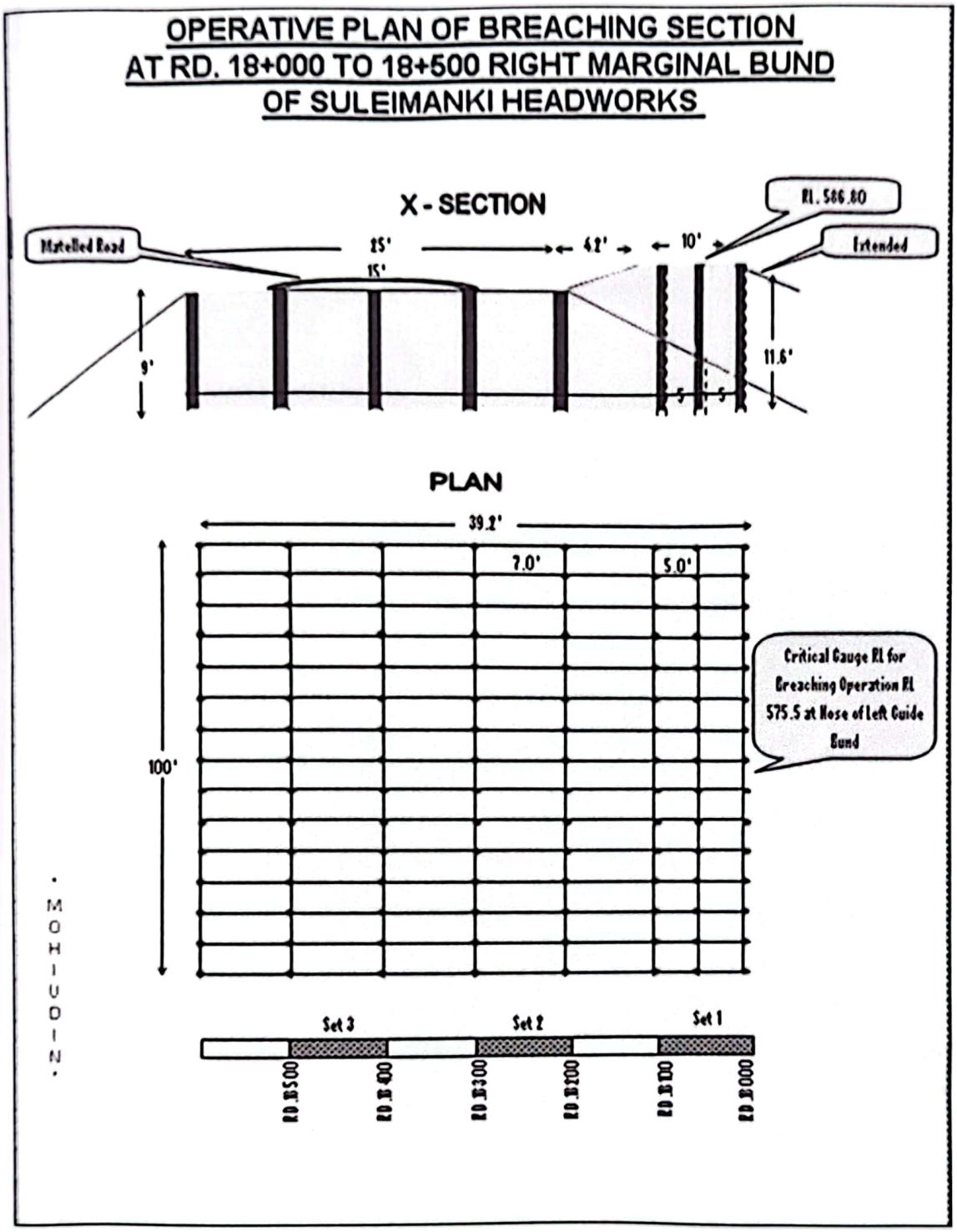
* The Executive Engineer and his higher Officers will have the discretion to make relief cuts anywhere if so required for the safety of the Barrage and the Marginal Bunds. Particularly the L.M.B. but in all cases, the Deputy Commissioner or his representative in to be informed about intended relief cut/cuts/for the purpose of evacuation.

* The length of cuts proposed to be made in R.M.B. should cater for the extra discharge to be passed through them.

* Explosives should be made for the maximum length of the cuts that may have to be made if the record flood was to repeat itself. For this the concerned Army authorities are being approached to arrange the requisite amount of explosive and keep the same ready for blowing up the bund at the appropriate moment.

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

Location of breaching section is located at RD.18000-18500 of Right Marginal Bund of Suleimanki Head Works.



din*Haseeb*

XEN Suleimanki

QUANTITY AND VARIETY OF THE EXPLOSIVE REQUIRED FOR DETONATION

The explosive store is situated in canal colony Suleimanki near by Pak Army cantonment at distance of 5-Km from breaching section. The explosive articles lying in the explosive store of Suleimanki Headworks are as under:-

Sr.	Article	Unit	Required Qty	Available Qty	Balance Qty	Location
1.	Wabox 80%(23+32mm)	Kg	4416	4416	--	As discussed during inspection of Army Officers, some items of explosive have become expired. So after clearance of Survey Report detail may change.
2.	Wobonite	Kg	7481	7481	--	
3.	Wabo Card	Meter	6850	6850	--	
4.	DET No 8 Electric	No.	53	53	--	
5.	M.S Electric Delay D.T	No.	12	12	--	
6.	Safety fuse	Meter	322	322	--	
7.	Det No 8 plan I & II	No.	53	53	--	
8.	Det No. 8/33 Elec	No.	12	12	--	
9.	E-I Cable	Meter	1980	1980	--	
10.	Electric Detonator 25 Millisecond	No.	10	10	--	
11.	Det instant	No	158	158	--	
12.	Det 25 Micro	No.	80	80	--	
13.	Explosive PE 3A	Kg.	10133	9981	-152	

NOTE:

As discussed with the Army Officers, There is already sufficient quantity of explosive material and accessories available at Suleimanki and there is o further need of explosive to be procured for purpose of breaching operation.

11.3 ARRANGEMENTS OF EXPLOSIVE AND SECURITY OF EXPLOSIVE STORES

The explosive material for activation of breaching section of Suleimanki Headworks is lying in the explosive store in Canal Colony Suleimanki. At the time of activation of breaching section, 4-Core Regiment Lahore. Pak Army is responsible to mobilize the explosive from explosive store to breaching section site and fix in the boring holes of breaching section according to their procedure. 2-No. security guards are employed (on work charge basis) as requirement of Pak Army Authorities and 2-No regular departmental persons are deputed on the explosive store for security purpose round the clock.

XEN Suleimanki

11.4 LIST OF THE SECURITY STAFF ALONG WITH DETAIL OF THEIR TRAINING etc.

The explosive store is being watched round the clock through regular/work charge establishment and they are trained as per instructions received from time to time in this behalf. The explosive store is situated in the boundary of Pak Army Cantt: Suleimanki and the departmental staff is also deployed at explosive store for watching under the supervision of Army Formations.

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

Two No. Dozers will be kept ready as stand by arrangement for breaching Right Marginal Bund at the breaching site. 50-No. Kassi Labours will also help for speedy operation and activation of the breaching section. The Dozers will be arranged through requisition from the Agriculture Department Distt: Okara and labour will be hired locally. In addition 3-No. Dozers will be kept ready for breaching of Pakpattan Canal at different sites from RD. 24 to 25.

11.6 DUTY ROSTER IN CASE OF CRITICAL SITUATION

A. HEADWORKS UPSTREAM/DOWNSTREAM PROTECTION BUND

Camp Location	Name of Officer / Designation and Cell No.	Duty of Official	No of Shifts / Time	Flood Situation.
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=2 No Mate = 1 No. Beldar = 4 No & Regulation staff.	1/ 08-16 hrs	Medium Flood
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3 No Mate = 1No. Beldar = 4No & Regulation staff.	2/ 08-16 hrs 16-24 hrs	High Flood
Control Room at L/S of Barrages	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3 No Mate = 1No. Beldar = 4No & Regulation staff.	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Very High Flood
Control Room at L/S of Barrages	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3 No Mate = 1No. Beldar = 4No & Regulation staff.	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Exceptionally Flood

B. LEFT MARGINAL BUND AND ITS ALLIED SPURS

Camp Location	Name of Officer / Designation and Cell No.	Duty of Official	No of Shifts / Time	Flood Situation.
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=1 No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	Medium
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=1 No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	High
RD: 10 of LMB	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=4 No Mate =7 Beldar =56	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Very High
RD: 10 of LMB	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=4 No Mate =10 Beldar =80	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Exceptionally

C. RIGHT MARGINAL BUND AND ITS ALLIED SPURS

Camp Location	Name of Officer / Designation & Cell No.	Duty of Official	No of Shifts / Time	Flood Situation.
Canal Colony Suleimanki RD: 10 of RMB	Iftikhar Ahmad Siddiqui Sub Divisional officer 0336-4446653	Sub Engr=1 No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	Medium
RD 16 – 34 of R.M.B	Iftikhar Ahmad Siddiqui Sub Divisional officer 0336-4446653	Sub Engr=1 No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	High
RD 16 – 34 of R.M.B	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Iftikhar Ahmad Siddiqui Sub Divisional officer 0336-4446653	Sub Engr=4 No Mate =7 Beldar =54	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Very High
RD 16 – 34 of R.M.B	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Iftikhar Ahmad Siddiqui Sub Divisional officer 0336-4446653	Sub Engr=4 No Mate = 10 Beldar =84	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Exceptionally

XEN Suleimanki

11.7 BREACHING COMMITTEE WITH THEIR ACTION PLAN

The breaching committee notified by the Secretary Irrigation (Section Officer Floods), Notification No. SO (FLOODS) VI-33/97 dated 15th July 2015. Comprising of the following persons:

a. Responsibility for the maintenance and operation section shall rest upon the department owning the structure at which the breaching section is located.

b. Breaching section shall be operated on the orders of following committee:-

i.	Deputy Commissioner, Okara	Convener
ii.	Deputy Commissioner, Bahawalnagar & Pakpattan	Member
iii.	Executive Engineer Suleimanki Division	Member
iv.	Executive Engineer C&W Department	Member
v.	Executive Engineer Eastern Bar Division Pakpattan	Member
vi.	L.T. Colonel Pak Army	Member

c. The decision to operate a breaching section shall be taken by the committee keeping in view the technical advice of the Executive Engineer concerned of the Irrigation department. In case of any difference of opinion among the members, the final decision shall rest with the Deputy Commissioner.

d. In case of unavailability of the Deputy Commissioner or his inability to take decision, or in case of a difference of opinion between the Deputy Commissioner of the district in which the breaching section is located and the district which is likely to be affected by the operation of the breaching section, the decision to operate a breaching section shall be taken by the respective Commissioner.

e. Breaching section shall be operated when one or more of the following conditions are met:-

i. The discharge capacity of the structure for which breaching section is located is exceeded and the safety of structure is threatened.

ii. The critical gauge as indicated in the relevant Flood Fighting Plan is achieved or exceeded and is rising.

iii. The safety of major population center-(s) is threatened due to high flood levels and in view of the Executive Engineer concerned of the Irrigation Department, operation of breaching section can help in reduction of flood levels.

f. Where, in view of the Executive Engineer concerned of the Irrigation department or the representative of the department owning the structure at which the breaching section is located, the aforesaid criteria is expected to be met after due consideration of all available technical and hydrological conditions, the aforesaid committee may operate the breaching section before the critical gauge is achieved or exceeded. In

every such case, the view of the Executive Engineer concerned of the department or the representative of the department owning the structure shall be expressed in writing and shall be based on flood forecast by Pakistan Meteorological Department or other reliable sources, the trend of discharge in the relevant river at upstream locations, the lag times, estimated attenuation and expected inflows form tributaries, nullahs and streams en-route. Where advance breaching is planned, the committee may also consult professional experts and seek advice from the Superintending Engineer or Chief Engineer concerned of the Irrigation Department.

g. Breaching section shall be operated by the 4-Corp Engineer Regiment Lahore deputed by the Engineering-in-Chief Pakistan Army as indicated in the Flood Fighting Plan. Explosive method shall be preferred method for operation of breaching section. However, the department owning the structure on which the breaching section is located and in case of their failure to do so, Irrigation Department shall make available, in advance, necessary earth moving machinery and other equipment for affecting the breach through mechanical means in the shortest possible time.

h. The Deputy Commissioner concerned and all other relevant agencies shall ensure all necessary arrangements for the safety and if required evacuation of population likely to be effected by the operation of breaching section.

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

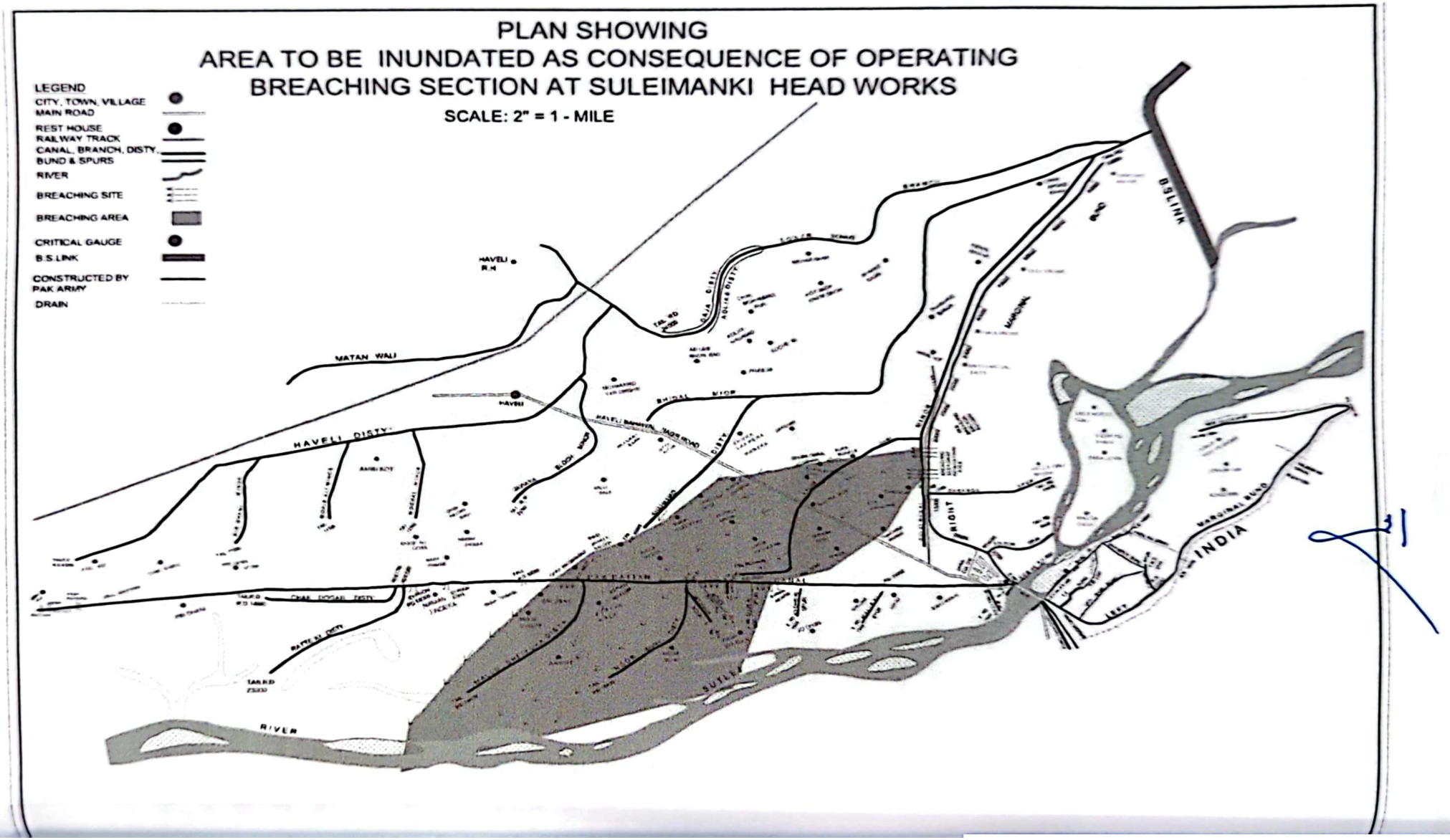
Sr.#	Name of village	Population	Detail of Infrastructure		
			Boys School	Girls School	Health Center
1	Waso Salam Ka	1121	-	1	-
2	Sujeke	1300	1	1	-
3	Mallay Kay	898	-	-	-
4	Judhe ke	921	-	-	-
5	Dona Mathela Salam Ka	735	-	-	-
6	Kutab Saru	535	1	1	-
7	Qila Bhagela	315	-	-	-
8	Nathu Kay Abdal	1300	1	1	-
9	Kund Sardar Propia	325	-	-	-
10	Walla Sheikhu Ka	540	1	-	-
11	Tali Jamal	920	1	-	-
12	Sharin Rohela	950	-	-	-
13	Rakh Abdal kay	530	-	-	-
14	Abdal Kay	510	1	-	-
15	Daraz Kay	450	-	-	-
16	Nama Jinde Ka	1600	1	1	1
17	Kund Ameer Singh	300	-	-	-

18	Qaim Jinde Ka	1100	1	1	1
19	Rakh Thakra	1325	1	1	1
20	Mallu Sheikhu Ka	1112	1	-	-
21	Ezzat Kay Kala	750	-	-	-
22	Molia Chisti	1120	1	1	1
23	Noor Shah	840	-	-	-
24	Mohib Ali Utaar	1525	1	1	1
25	Ratte Kay	850	1	1	-
26	Chor Mahtam	450	-	-	-
27	Sojan Singh Wala	500	-	-	-
28	Lalu Guddar	560	1	-	-
29	Chak Lalu	360	-	-	-
30	Mahar Sona	300	-	-	-
31	Mohammad Yar Chisti	200	-	-	-
32	Gunj Bukhsh Sani	220	-	-	-
33	Thakar Kay Manga	320	1	-	-
34	Kund Thakar Kay Jagvera	370	1	-	-
35	Dara	340	1	-	-
36	Chak Dara	320	-	-	-
37	Kandar Kay	150	1	-	-
38	Jhangar	120	-	-	-
39	Pana Mahar	1200	1	1	-
40	Jamsher Mahar	750	-	-	-
41	Ali Kay	850	1	1	-
42	Dullay Kay Mahar	750	1	-	-
43	Qasim Kay Mahar	620	-	-	-
44	Nehal Mahar	525	1	1	-
45	Ali Kay Rohela	630	-	-	-
46	Moazzam	300	-	-	-
47	Menay Wali	350	-	-	-
48	Sattia Jhangar	150	-	-	-
49	Bhai Khan	480	-	-	-
50	Gunj Bukhsh Bodla	150	-	-	-
51	Ameera Tejay Ka	160	1	-	-
52	Thakar Kay Banda	600	1	-	-
53	Dharanga	5500	3	1	--
54	Nikki Maneki	980	1	1	1
55	Mehtab Garh	1200	1	1	--

53	Dharanga	5500	3	1	--
54	Nikki Maneki	980	1	1	1
55	Mehtab Garh	1200	1	1	--
56	Rakh Bholewal	300	--	--	--
57	Bholewal	1100	1	1	Union council
58	Churra Maneka	1500	1	1	--
59	Mahnant Darshan	1183	1	1	1
60	Mathela Bhidal	1551	1	1	--
61	Bukan Guddar Ka	738	1	1	--
62	Bhidal Uttar	2829	1	1	--
63	Chak Devi Datta	200	--	--	--
64	Rakh Jawaya Blouch	335	--	--	--
65	Bula Chisti	933	1	1	--
66	Kalu Wah	915	1	1	--
67	Noor Shah	833	1	1	--
68	Wan Nama Jindeka	448	--	--	--
69	Mohib Ali Uttar	2763	1	1	--
70	Pir Ghani	8038	1	1	1
71	39/Sp	3365	1	1	--
72	Frid Kot	3100	1	1	--
73	Rakh Abdal Ky	709	1	1	--
74	Izzat ky kala	763	1	1	--
75	Molia Chisti	965	1	1	--
76	Nama Jindeka	523	1	1	--
77	Billi Mar	908	1	1	--
78	Chak Dogar	818	1	1	--
79	Jalil Maneka	1500	1	1	--
	Total	**77594**	**49**	**36**	**8**

PLAN SHOWING
AREA TO BE INUNDATED AS CONSEQUENCE OF OPERATING BREACHING SECTION AT SULEIMANKI HEAD WORKS

SCALE: 2" = 1 - MILE



11.9 ANNOUNCEMENT AND DETAIL OF EVACUATION ARRANGEMENTS

Announcement for activation of breaching section will be made through siren installed in Canal Colony Suleimanki. Announcement will also be made through loud Speakers, Mega Phones etc in the villages likely to be inundated by flood water. Evacuation will be made though local arrangements by the respective District Government, Army Units & Civil Defense persons. This task will mainly be accomplished by the District Government & Army authorities as the Irrigation staff will be busy in regulation of Headworks and watching of Bunds.

11.10 DETAILS OF COORDINATION WITH CIVIL / PAK ARMY AUTHORITIES

Flood monitoring cell will be maintained in the Executive Engineer office and in DCO office Pakpattan / Okara and the police staff will perform the duty to intimate daily gauges to all concerned authorities and related persons. Now the information through SMS on mobiles will be given to all concerned corner on every critical movement, Irrigation Department Suleimanki Division has a liaison with Army Authorities and Rangers. Engineer Corps of Army also will inform about the bridges and infrastructure condition of bunds / spurs. Meeting with Civil Authorities will be arranged as required and according to flood situation.

11.11 PARALLEL COMMUNICATION ARRANGEMENTS

The communication arrangements will be supplemented through police wireless network installation at various Headworks linked up with flood warning center, Lahore. The communication will help to receive the latest flood situation of all the respective sites. The information will be communicated to the District formation and Army authorities.

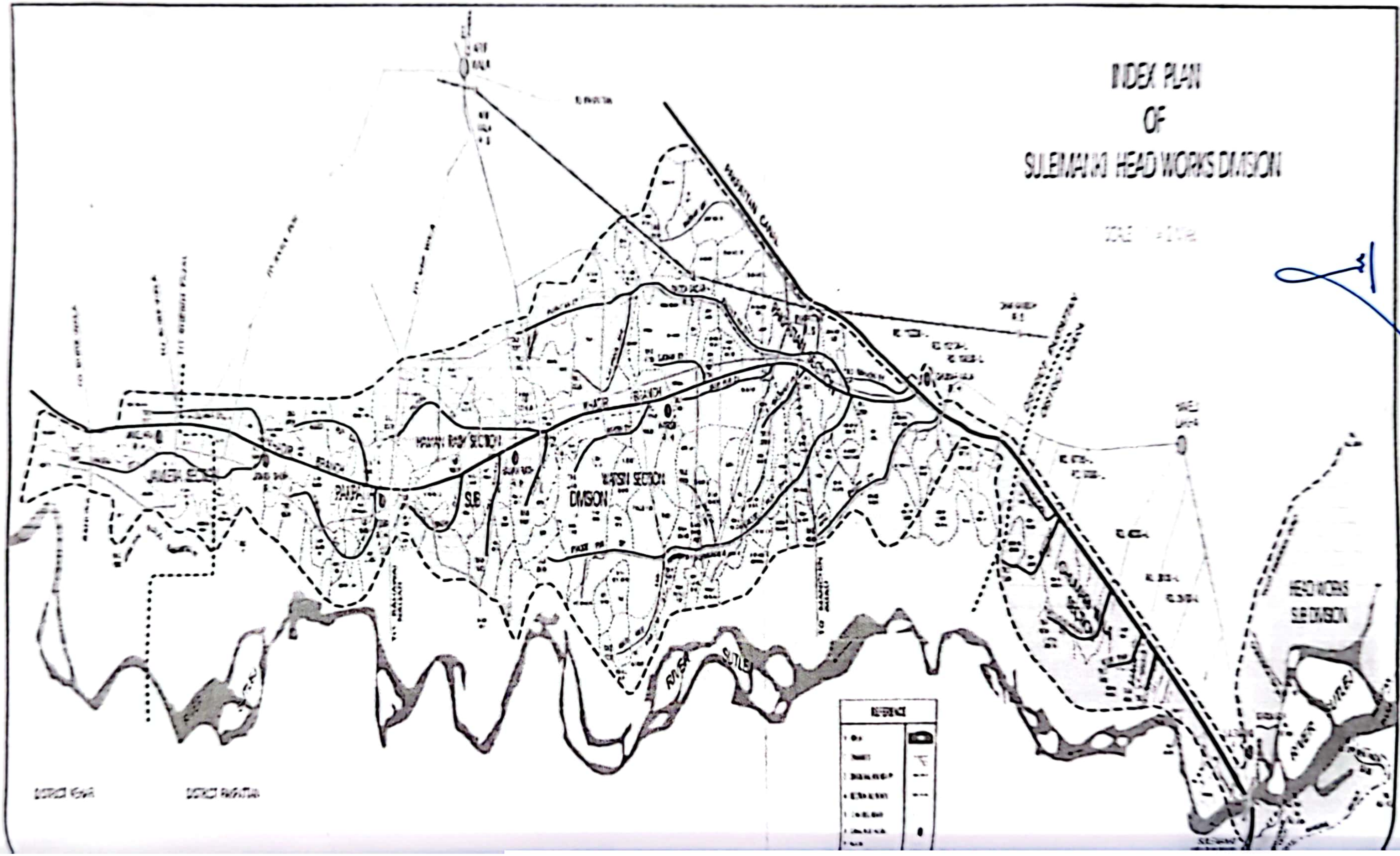
Executive Engineer
Suleimanki Headworks Division
Suleimanki

Superintending Engineer
Nili Bar Circle Sahiwal

Chief Engineer
Sahiwal Irrigation Zone
Sahiwal

XEN Suleimanki

INDEX PLAN
OF
SULEMANKI HEAD WORKS DIVISION



CHAPTER - 12

VULNERABLE SITES ON FLOOD BUNDS / STRUCTURE

12.1 APPREHENDED BREACHES IN FLOOD BUNDS / STRUCTURES.

1. Right Marginal Bund from RD: 33000-35000
2. Left Marginal Bund from RD:8000-10000

} Vulnerable Sites

12.2 OPERATION OF BREACHING SECTION.

Operation of breaching section has been discussed in detail in Chapter No.11.

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

Very High Flood experienced during Flood 2023 i.e. 191,053 CS but there is no breach occurred from flood water. The flood water safely passed from Headworks and all the infrastructures i.e. Flood Bunds as well as Headworks were safe during flood 2023 at Suleimanki Headworks Barrage River Sutlej.

CHAPTER - 13

EMERGENCY CONTINGENCY / PLAN FOR VULNERABLE SITES

PLAN
A

EMERGENCY CONTINGENCY PLAN FOR VULNERABLE REACH RD. 33000-35000 RIGHT MARGINAL BUND

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

PLAN 1

REACH RD.33000 TO 35000 RMB

"Haseeb"

XEN Suleimanki

13.2 DETAIL OF VILLAGE ABADIES LIKELY TO BE AFFECTED AND THIS ALSO BE SHOWN ON THE PLAN

Pana Mahar, Jamal Kot, Jamal Kot, Bulleh Wal, Gudderke, Kili piran wali, Thakarka Maneki, Stia Jhangha, Dharanga, Alika Rohals, Rakh Bulewal, Mehtab Garh, Meneka Nikki, Gurwala Mehtab Garh, Mathila, Bhidal, Mahant darshan, Maneki, Ghura Ismail Maneki, Ghura Mehtab Rai, Chak Davi Ditta, Bukkan Guddar Ka, Boola Chishti, Rakh Jawaya Baluch, Kaluwah, Noor Shah, Chak Haiderabad, Bareet,

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

In case of breach occur in Right Marginal Bund of Suleimanki Headworks alert will be issued to Assistant Commissioner, Depalpur and Executive Engineer, Khanwah Division cuts will be made in road from Haveli to Suleimanki Headworks and Pakpattan Canal Upper to route flood water that to River Downstream of Suleimanki Headworks.

13.3.1 ARRANGEMENTS,

A flood control center will be established in canal telegraph office Suleimanki and responsible staff will be available round the clock. One base high range wireless set will be installed at canal Telegraph Office, Suleimanki by the Police Department. 2 Nos. mobile Motorola sets of 30 kilometer range will be provided for installing in the vehicles of Executive Engineer, Suleimanki Division NBC, Sub Divisional Officer, Headworks Sub Division, Pakpattan to keep them vigilant all the time.

Three No. Mobile wirelesses set (hand set) will be provided under acute emergency during very high flood at different vulnerable points. These arrangements will be made by the telecommunication of Wing Police Department.

13.3.2 ESTABLISHMENT OF FLOOD FIGHTING CAMPS

The Flood Fighting camps will be arranged at RD.33+000 of Right Marginal Bund as per requirements according to flood situation.

13.3.3 DUTIES OF OFFICER / OFFICIALS AND THEIR CAMP SITES

Camp Location	Duty of Officer	Duty of Official	No of Shifts / Time	Flood Situation.
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=2-No. Mate = 1No. Beldar = 4No & Regulation staff.	1/ 08-16 hrs	Medium Flood
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3-No. Mate = 1No. Beldar = 4No & Regulation staff.	2/ 08-16 hrs 16-24 hrs	High Flood
Control Room at L/S of Barrages	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3-No. Mate = 1No. Beldar = 4No & Regulation staff.	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Very High Flood
Control Room at L/S of Barrages	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr=3-No. Mate = 1No. Beldar = 4No & Regulation staff.	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Exceptionally Flood

Note:-

* Executive Engineer Suleimanki will be the over all In-charge of the whole operation during very high and exceptionally high flood.
* All the Sub Engineer will perform their duties assigned above along with their establishment with necessary T & P.
* However the duties of remaining Sub Engineers with their establishment would be called any time any where and at any point as desired and required by the Sub Divisional Officer In-charge under intimation to Executive Engineer Suleimanki the In-charge of whole operation.

13.3.4 DEPARTMENTAL MACHINERY AVAILABLE

One number Tractor with hydraulic Trolley & One number Tractor with Boozer, 1-No. Hooper-funnel, and 1-No. sand filling machine available.

13.3.5 MACHINERY AVAILABLE FROM PRIVATE SOURCE.

Machinery will be arranged if required from enlisted Government Contractors.
Machinery will be arranged if required from Government Contractors.

Name of Govt. Contractor	Contact Number	Remarks
Naveed Ali Amir	0301-7252664	
Muhammad Iqbal	0300-6940867	
MS Ramzan Interprises	0300-6896737	

M/S ABDUL WAHEED

GOVERNMENT CONTRACTOR

Ref #.....

Date.....

ایکسین سلیمانکی ہیڈ ورکس ڈویژن سلیمانکی

ایگریمنٹ برائے فلڈ ایمرجنسی سلیمانکی بیراج مہیا کی جانے مشینری و دیگر سازوسامان

جناب عالی

گزاش ہے کہ بندہ گورنمنٹ کلاس کنٹریکٹر ہے میرے پاس ہر قسم کی مشینری اور دیگر سازوسامان موجود ہے۔ایمرجنسی کی صورت میں جب بھی کال کی جائے گی بندہ ایمرجنسی کی صورت میں آپ کی ڈویژن کا فلڈ کے متعلقہ ایمرجنسی ورک کرنے کا پابند ہوں گا۔اور ایمرجنسی کی صورت میں ہر قسم کی مشینری مہیا کرنے کا پابند ہوں گا۔

العارض

عبدالوحید گورنمنٹ کنٹریکٹر گلی بابا کرم شاہ والی حویلی لکھا تحصیل دیپالپور ضلع اوکاڑہ

0309-4032020

M/S RAMZAN ENTERPRISES

ایکسین سلیمانکی ہیڈ ورکس ڈویژن سلیمانکی

ایگریمنٹ برائے فلڈ ایمرجنسی سلیمانکی بیراج مہیا کی جانے مشینری و دیگر سازوسامان

جناب عالی

گزاش ہے کہ بندہ گورنمنٹ کلاس کنٹریکٹر ہے میرے پاس ہر قسم کی مشینری اور دیگر سازوسامان موجود ہے۔ ایمرجنسی کی صورت میں جب بھی کال کی جائے گی بندہ ایمرجنسی کی صورت میں آپ کی ڈویژن کا فلڈ کے متعلقہ ایمرجنسی ورک کرنے کا پابند ہوں گا۔ اور ایمرجنسی کی صورت میں ہر قسم کی مشینری مہیا کرنے کا پابند ہوں گا۔

العارض

رمضان انٹرپرائز گورنمنٹ کنٹریکٹر قطب پور روڈ ٹبہ سلطان پور ڈسٹرکٹ وہاڑی

0300-7380431

Branch Office:
Itafaaq Traders Qutab Pur Road
Tibba Sultan Pur Distt. Vehari
Mob: 0300-7380431, 0300-6896737

Head Office:
Flat No. 07 Block No. 25
Abdul Sattar Edhi Road,
Shabeer Town D Type, Lahore.

E-mail: mosa.pakco@gmail.com

Naveed Ali Amir

Govt. Contractor

H # 132-S/E Green Town Pakpattan. 0301-7252664

Ref: _____ Date: _____

ایکسین سلیمانکی ہیڈ ورکس ڈویژن سلیمانکی

ایگریمنٹ برائے فلڈ ایمرجنسی سلیمانکی بیراج مہیا کی جانے مشینری و دیگر ساز و سامان

جناب عالی

گزاش ہے کہ بندہ گورنمنٹ کلاس کنٹریکٹر ہے میرے پاس ہر قسم کی مشینری اور دیگر ساز و سامان موجود ہے۔ ایمرجنسی کی صورت میں جب بھی کال کی جائے گی بندہ ایمرجنسی کی صورت میں آپ کی ڈویژن کا فلڈ کے متعلقہ ایمرجنسی ورک کرنے کا پابند ہوں گا۔ اور ایمرجنسی کی صورت میں ہر قسم کی مشینری مہیا کرنے کا پابند ہوں گا۔

العارض

نوید علی عامر گورنمنٹ کنٹریکٹر گرین ٹاؤن تحصیل و ضلع پاکپتن

0301-7252664

M/S Muhammad Iqbal

Government Contractor

Karam Shah Road Haveli Lakha Tehsil Depalpur District Okara

Ph: 044-4774306, Mob: 0333-6974306, 0300-8695608

ef: _____ Date: _____

ایکسین سلیمانکی ہیڈورکس ڈویژن سلیمانکی

ایگریمنٹ برائے فلڈ ایمرجنسی سلیمانکی بیراج مہیا کی جانے مشینری و دیگر سازوسامان

جناب عالی

گزاش ہے کہ بندہ گورنمنٹ کلاس کنٹریکٹر ہے میرے پاس ہر قسم کی مشینری اور دیگر سازوسامان موجود ہے۔ ایمرجنسی کی صورت میں جب بھی کال کی جائے گی بندہ ایمرجنسی کی صورت میں آپ کی ڈویژن کا فلڈ کے متعلقہ ایمرجنسی ورک کرنے کا پابند ہوں گا۔ اور ایمرجنسی کی صورت میں ہر قسم کی مشینری مہیا کرنے کا پابند ہوں گا۔

العارض

محمد اقبال گورنمنٹ کنٹریکٹر کرم شاہ روڈ حویلی لکھا تحصیل دیپالپور ضلع اوکاڑہ

0333-6974306

13.3.6 & 13.3.7 DETAIL OF FLOOD FIGHTING MATERIAL FOR VULNERABLE SITE NO.1 (R.M.B)

Sr.	Item	Unit	Qty Required	Qty Available	Balance Quantity	Remarks
1.	G.I Buckets.	No.	40	--	40	Balance quantity of flood fighting material will be procured before the start of flood season 20254
2.	Empty Gunny Bags	No.	2000	500	1500	
3.	Swiss cottage Tent	No.	1	1	--	
4.	Chouldaries.	No.	4	1	3	
5.	Sutli	Kg	5	3	2	
6.	Needles.	No.	12	3	9	
7.	Killas	No.	1000	150	850	
8.	Torches	No.	16	14	2	
9.	Kassaies	No.	1000	45	955	
10.	Axes	No.	20	0	20	
11.	Manila Rope	Kg	200	100	100	
12.	Generator	No.	1	1	--	
13.	Energy Saver 23 W	No.	50	--	50	
14.	Bamboos 8'o 10' long	No.	100	--	100	
15.	Petrol for Running Generator	Ltr	2000	--	2000	
16.	Steel Charpoy	No.	12	12	--	
17.	Folding Table	No.	1	1	--	
18.	Folding Chair	No.	6	6	--	
19.	Khaji Mates	No	2000	500	1500	
20.	Life Jackets	No.	25	20	5	
21.	Wheel Barrow	No.	3	3	--	

n*Haseeb*

XEN Suleimanki

13.4 DETAIL OF OTHER INFRASTRUCTURE LIKE ELECTRICITY, SUI GAS, TELEPHONE INSTALLATION, ROAD NETWORK, OTHER BUILDING, CANAL AND DRAINAGE NETWORK

RIGHT MARGINAL BUND

The following Irrigation and roads networks shall be affected in case of breach on Right Marginal Bund.

DETAIL OF IRRIGATION NETWORK ON RIGHT SIDE

Sr.#	Name of Channel	From RD.	To RD.
1	Shahamid Disty	39000	88868
2	Matab Garh Minor	25000	68458
3	Suleimanki Sub Minor	0	16000
4	Bhidal Minor	0	13000
5	Haveli Disty	18000	65000
6	Jawaya Blouch Minor	8000	23750
7	Mughal Minor	6000	12745
8	Mohib Ali Minor	3000	11765
9	Pir Ghani Minor	2000	11290
10	Musewal Disty		Tail Reach
11	Noor Shah I Disty	0	1500 Tail
12	Noor Shah II Disty	0	15500 Tail
13	Mallushekuka Disty	0	19700 Tail
14	Ratteki Disty	7000	23000 Tail
15	Chack Dogar Disty	5000	14840 Tail

DETAIL OF ROAD NETWORK

Sr.#	Name of Village	Popul ation	Detail of Infrastructure					
			Boys school	Girl school	Health Centers	Tel: Excha nge	Misc:	Road
1	Dharanga	5500	3	1	--	--	--	1
2	Nikki Maneki	980	1	1	1	1	--	1
3	Mehtab Garh	1200	1	1	--	--	--	1
4	Rakh Bholewal	300	--	--	--	--	--	1
5	Bholewal	1100	1	1	--	--	U.C.	1
6	Churra Maneka	1500	1	1	--	--	--	1
7	Mahnant Darshan	1183	1	1	1	--	--	1
8	Mathela Bhidal	1551	1	1	--	--	--	1
9	Bukan Guddar Ka	738	1	1	--	--	--	1
10	Bhidal Uttar	2829	1	1	--	--	--	1
11	Chak Devi Datta	200	--	--	--	--	--	1
12	Rakh Jawaya Blouch	335	--	--	--	--	--	1
13	Bula Chisti	933	1	1	--	--	--	1
14	Kalu Wah	915	1	1	--	--	--	1
15	Noor Shah	833	1	1	--	--	--	1
16	Wan Nama Jindeka	448	--	--	--	--	--	1
17	Mohib Ali Uttar	2763	1	1	--	--	--	1
18	Pir Ghani	8038	1	1	1	1	--	1
19	39/Sp	3365	1	1	--	--	--	1
20	Frid Kot	3100	1	1	--	--	--	--
21	Rakh Abdal Ky	709	1	1	--	--	--	1
22	Izzat ky kala	763	1	1	--	--	--	1
23	Molia Chisti	965	1	1	--	--	--	1
24	Nama Jindeka	523	1	1	--	--	--	1
25	Billi Mar	908	1	1	--	--	--	1
26	Chak Dogar	818	1	1	--	--	--	1
27	Jalil Maneka	1500	1	1	--	--	--	--
Total		**43997**	**25**	**23**	**3**	**2**	**0**	**25**

n*Haseeb*

XEN Sulelmanki

CHAPTER - 13

EMERGENCY CONTINGENCY / PLAN FOR VULNERABLE SITES

PLAN

B

EMERGENCY CONTINGENCY PLAN FOR VULNERABLE REACH RD. 8000-10000 LEFT MARGINAL BUND

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

PLAN 2

REACH RD.8000 TO 10000 LMB

n*Haseeb*

XEN Suleimanki

13.2 DETAIL OF VILLAGE ABADIES LIKELY TO BE AFFECTED AND THIS ALSO BE SHOWN ON THE PLAN

Gung bukhsh sani, Jhanger, Ahmad yar Chisti, Suleimanki, Avanah wali Bhani, Hasal Saru, Kutab Saru, Dona, Chak Pataka, Tibhu, Amruke, Bary ke

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

In case Left Marginal Bund Breaches flood water will rush toward Eastern Sadiqia Canal and Fordwah Canal and may enter in canals by breaching their banks. In this situation alert will be issued to Executive Engineers, Sadiqia & Fordwah Canal Division. These both sister divisions will make necessary arrangements for the safety of canals and to drain flood water back to river downstream of Suleimanki Headworks.

13.3.1 ARRANGEMENTS.

A flood control center will be established in canal telegraph office Suleimanki and responsible staff will be available round the clock. One base high range wireless set will be installed at canal Telegraph Office, Suleimanki by the Police Department. 2 Nos. mobile Motorola sets of 30 kilometer range will be provided for installing in the vehicles of Executive Engineer, Suleimanki Division NBC, Sub Divisional Officer, Headworks Sub Division, Pakpattan to keep them vigilant all the time.

Three number Mobile wirelesses set (hand set) will be provided under acute emergency during very high flood at different vulnerable points. These arrangements will be made by the telecommunication of Wing Police Department.

13.3.2 ESTABLISHMENT OF FLOOD FIGHTING CAMPS

The Flood Fighting camps will be arranged at RD.8+000 of Left Marginal Bund as per requirements according to flood situation.

13.3.3 DUTIES OF OFFICER / OFFICIALS AND THEIR CAMP SITES

Camp Location	Duty of Officer	Duty of Official	No of Shifts / Time	Flood Situation.
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr =2-No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	Medium
Control Room at L/S of Barrages	Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr =2-No Mate =3 Beldar =24	2/ 08-16 hrs 16-24 hrs	High
RD: 10 of LMB	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr =4-No Mate =7 Beldar =56	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Very High
RD: 10 of LMB	1. Muhammad Riaz Executive Engineer 0302-3750100 2. Syed Qasim Raza Sub Divisional officer 0311-3356484	Sub Engr =4-No Mate =10 Beldar =80	3/ 08-16 hrs 16-24 hrs 00-08 hrs	Exceptionally

13.3.4 DEPARTMENTAL MACHINERY AVAILABLE

One number Tractor with hydraulic trolley & Boozer is available.

13.3.5 MACHINERY AVAILABLE FROM PRIVATE SOURCE.

Machinery will be arranged if required from Government Contractors.

Name of Govt. Contractor	Contact Number	Remarks
Naveed Ali Amir	0301-7252664	
Muhammad Iqbal	0300-6940867	
MS Ramzan Interprises	0300-6896737	

13.3.6 & 13.3.7 FLOOD FIGHTING MATERIAL REQUITED & AVAILABLE FOR VENERABLE SITE NO. 2. LMB RD. 8+000 TO 10+000

Sr.	Item	Unit	Qty Required	Qty Available	Balance Quantity	Remarks
1.	G.I Buckets.	No.	40	--	40	Balance quantity of flood fighting material will be procured before the start of flood season 20254 and material is stored old building of Division al Office in canal colony Suleima nki
2.	Empty Gunny Bags	No.	2000	500	1500	
3.	Swiss cottage Tent	No.	1	1	--	
4.	Chouldaries.	No.	4	1	3	
5.	Sutli	Kg	5	3	2	
6.	Needles.	No.	12	3	9	
7.	Killas	No.	1000	150	850	
8.	Torches	No.	16	14	2	
9.	Kassaies	No.	1000	45	955	
10.	Axes	No.	20	0	20	
11.	Manila Rope	Kg	200	100	100	
12.	Generator	No.	1	0	1	
13.	Energy Saver 23 W	No.	50	--	50	
14.	Bamboos 8'o 10' long	No.	100	--	100	
15.	Petrol for Running Generator	Ltr	2000	--	2000	
16.	Steel Charpoy	No.	12	8	4	
17.	Folding Table	No.	1	1	--	
18.	Folding Chair	No.	6	6	--	
19.	Khaji Mates	No	2000	500	1500	
20.	Life Jackets	No.	25	20	5	
21.	Wheel Barrow	No.	3	3	--	

Haseeb

XEN Suleimanki

13.4 DETAIL OF OTHER INFRASTRUCTURE LIKE ELECTRICITY, SUI GAS, TELEPHONE INSTALLATION, ROAD NETWORK, OTHER BUILDING, CANAL AND DRAINAGE NETWORK.

LEFT MARGINAL BUND

The following Irrigation and roads networks shall be affected in case of breach on Left Marginal Bund.

DETAIL OF IRRIGATION NETWORK ON RIGHT SIDE

Sr	Name of Channel	From RD.	To RD.
1	Fordwah Canal	4000	6000
2	Sadiqia Canal	4000	6000
3	Saru Minor	0000	Tail
4	Awami Canal	2000	4000

DETAIL OF ROAD NETWORK

Sr	Name of Village	Population	Detail of Infrastructure					
			Boys school	Girl school	Health Centers	Tel: Exchange	Misc:	Road
1	Bareke	5500	2	1	1	1	--	-
2	Hasal Saru	980	1	1	--	--	--	-
3	Kutab Saru	1200	1	--	--	--	--	-
4	Dona	300	1	--	--	--	--	-
5	Amru ke	1800	1	1	1	--	Union Council	-
6	Chak Pataka	950	1	1	--	--	--	-
7	Ahmad yar Chisti	800	--	--	--	--	--	-
8	Ganj Bukhsh Sani	500	--	--	--	--	--	-
9	Suleimanki	738	1	--	--	--	--	-
10	Awana wali Bhani	2829	1	1	--	--	--	-
Total		**15597**	**9**	**5**	**2**	**1**	--	--

Note:-

These villages fall in district Bahawalnagar as well as canal network falls in Bahawalnagar Canal Circle of Bahawalpur Zone. Sister Division Sadiqia & Fordwah of Bahawalnagar Circle will assist in case of emergency on Left side.

In*Haseeb*

XEN Suleimanki

CHAPTER - 14

ACTION PLAN

14.1 RE-SHUFFLING / RECOUPING PLAN OF RESERVE STOCK OF STONE DEPARTMENTALLY.

Shifting / Recouping of stone as and when required will be done through Government Contractor.

14.2 DETAIL OF INLET AND OUTLET CROSSING ALONGWITH CLOSING METHODOLOGY.

Sr.	Name of Bund / Spur	RD	Outlet / Inlet	Existing position	Closing Methodology
1	Left Marginal Bund	1+575	Inlet	Feeding pondage scheme by Pak Army	Will be closed on receipt of Flood Emergency with regulation karries, groves are provided in the structure
2	Left Marginal Bund	4+500	Inlet	Feeding pondage scheme by Pak Army	Will be closed on receipt of Flood Emergency with regulation karries, groves are provided in the structure
3	Right Marginal Bund	2+500	Tube well Water course crossing	18" dia pipe fixed by Pak Army for feeding fish pond	Will be closed on receipt of Flood Emergency with gunny bags which are available on stock for Flood Fighting Purpose.
4	Right Marginal Bund	4+500	Tube well Water course crossing	12" dia pipe fixed for irrigate to flower garden / grassy plot of rest house, residence of SDO, XEN & Divisional Office.	Will be closed on receipt of Flood Emergency with gunny bags which are available on stock for Flood Fighting Purpose.
5	Right Marginal Bund	6+500	Tube well Water course crossing	18" dia pipe fixed by Pak Army for feeding fish pond	Will be closed on receipt of Flood Emergency with gunny bags which are available on stock for Flood Fighting Purpose.

RKS DIVISION SULEIMANKI
URE WORKS 2024-25

Target Major Items			Achieved Major Items		%age achieved	Remarks
Item	Qty	Unit	Qty	Unit		
7	8	9	10	11	12	13

Sr.	Name of Bund / Spur	RD	Outlet / Inlet	Existing position	Closing Methodology
6	Right Marginal Bund	12+390	Tube well Water course crossing	12" dia pipe fixed for irrigate to land of land owners.	Closed with earth.
7	Right Marginal Bund	12+500	Tube well Water course crossing	12" dia pipe fixed for irrigate to land of land owners.	Closed with earth.
8	Right Marginal Bund	13+593	Nikki Nalah culverts	As per departmental design parameters	Closed by force.
9	Right Marginal Bund	14+610	Outlet Water course crossing	12" dia pipe fixed for irrigate to land of land owners.	Closed with earth.
10	Right Marginal Bund	28+050 Shifted from original 27+935	Outlet Water course crossing	12" dia pipe fixed for irrigate to land of land owners.	Closed with earth.
11	Right Marginal Bund	40+390	Outlet Water course crossing	12" dia pipe illegally fixed for irrigate to land of land owners.	Closed with earth.
12	Right Marginal Bund	46+150	Outlet Water course crossing	12" dia pipe illegally fixed for irrigate to land of land owners.	Closed with earth.
13	Right Marginal Bund	50+340	Outlet Water course crossing	12" dia pipe fixed for irrigate to land of land owners.	Closed with earth.
14	Right Marginal Bund	57+500	Outlet Water course crossing	12" dia pipe fixed for irrigate to land of land owners.	Closed with earth.
15	Dharanga Spur	1+040	Nikki Nalah culverts	As per departmental design parameters	Closed by force.

14.3 DEPLOYMENT OF MACHINERY (Medium to High Flood)

Name of Structure	Length in Mile	Vulnerable Reach	Camp Location	Site In-charge by name & Cell No.	Machinery Deployed					Availability of Stone Cft
					Excavator	Dozer	Trolleys/Dumpers	Tractor with front blade	Labour (Beldar + Mate)	
2	3	4	5	6	7	8	9	10	11	12
RMB RD 0+000 to 63+000 (and allied spur)	12.6	RD.33+000 to 35+000 of RMB	RD.33+000 of RMB	Sub Engineer Station Section	2	--	4	1	24+3	0.68 Cft (RD.0+000 to 11+525 Dharanga Spur) 0.26 Cft (RD.0+000 to 6+000 of Station Spur)
LMB RD.0+000 to 47+500 (and allied spur)	9.5	RD.8+000 to 10+000 of LMB	RD.8+000 of LMB	Sub Engineer Headworks Section	1	--	2	1	24+3	1.63 Lac Cft LGB U/S & D/S
Total	**22.1**				**3**	**--**	**6**	**2**	**48+6**	

14.4 DEPLOYMENT OF MACHINERY (High to Very High Flood).

Name of Structure	Length in Mile	Vulnerable Reach	Camp Location	Site In-charge by name & Cell No.	Machinery Deployed					Availability of Stone Cft
					Excavator	Dozer	Trolleys/Dumpers	Tractor with front blade	Labour (Beldar + Mate)	
2	3	4	5	6	7	8	9	10	11	12

RMB RD 0+000 to 63+000 (and allied spur)	12.6	RD.33+000 to 35+000 of RMB	RD.33+000 of RMB	Sub Engineer Station Section	2	--	4	1	56+7	0.68 Cft (RD.0+000 to 11+525 Dharanga Spur) 0.26 Cft (RD.0+000 to 6+000 of Station Spur)
LMB RD.0+000 to 47+500 (and allied spur)	9.5	RD.8+000 to 10+000 of LMB	RD.8+000 of LMB	Sub Engineer Headworks Section	1	--	2	1	56+7	1.63 Lac Cft LGB U/S & D/S
Total	**22.1**				**3**	**--**	**6**	**2**	**112+14**	

Haseeb

XEN Suleimanki

14.5 DEPLOYMENT OF MACHINERY (High to Exceptionally High Flood).

Name of Structure	Length in Mile	Vulnerable Reach	Camp Location	Site In-charge by name & Cell No.	Machinery Deployed					Availability of Stone Cft
					Excavator	Dozer	Trolleys/Dumpers	Tractor with front blade	Labour (Beldar + Mate)	
2	3	4	5	6	7	8	9	10	11	12
RMB RD 0+000 to 63+000 (and allied spur)	12.6	RD.33+000 to 35+000 of RMB	RD.33+000 of RMB	Sub Engineer Station Section	2	1	6	2	80+10	038 Cft (RD.0+000 to 11+525 Dharanga Spur) 0.26 Cft (RD.0+000 to 6+000 of Station Spur)
LMB RD.0+000 to 47+500 (and allied spur)	9.5	RD.8+000 to 10+000 of LMB	RD.8+000 of LMB	Sub Engineer Headworks Section	2	1	4	2	80+10	1.63 Lac Cft LGB U/S & D/S
Total	**22.1**				**4**	**2**	**10**	**4**	**160+20**	

Note:-

Payment for machinery and work charge employees subject to verification by Third Party Monitoring / Departmental Committee

14.6 POLICE DEPLOYMENT PLAN

Proforma – 1

Sr.	Site of Breaching Section	Concerned Canal Division	Concerned Police Station and District	Police Persons Deployed		Remarks (if any)
				Inspector / Sub Inspector / A.S.I	Constable	

Haseeb*

XEN Suleimanki

1	RMB RD.18+000 to 18+500	Suleimanki	Haveli Lakha Police Station Distt: Okara	ASI=1	2	--

XEN Suleimanki

Proforma – 2

Sr.	Vulnerable sites used for illegal cuts during floods	Concerned Canal Division	Concerned Police Station and District	Police Persons Deployed		Remarks (if any)
				Inspector / Sub Inspector / A.S.I	Constable	
1	RMB RD.35-36 36-37	Suleimanki	Haveli Lakha Police Station Distt: Okara	ASI=1	2	--

Proforma – 3

Sr.	Name of Barrage	Concerned Canal Division	Concerned Police Station and District	Police Persons Deployed		Remarks (if any)
				Inspector / Sub Inspector / A.S.I	Constable	
1	Suleimanki	Suleimanki	Haveli Lakha Police Station Distt: Okara	ASI=1	4	--

14.7. DETAIL OF SYNTHETIC BAGS WITH CAPACITY OF 500 KG AND 1000 KG.

Sr.	Synthetic Bags	Quantity Required	Available Quantity	Balance Quantity	Remarks
1	Capacity 500 KG	3000 No.	--	3000 No.	Will be procured before onset of Flood Season 20254
2	Capacity 1000 Kg	1500 No.	--	1500 No.	

14.8 DETAIL OF POLYTHENE SHEETS OF BLACK COLOUR TO PROTECT upstream SLOPE AGAINST WAVE ACTION AND TO CONTROL SEEPAGE THROUGH EMBANKMENT.

Sr.	Polythene Sheet	Quantity Required	Available Quantity	Balance Quantity	Remarks
1	Average 20 ft width	196647 Rft	--	196647 Rft	Will be procured before onset of Flood Season 20254

XEN Suleimanki

CHAPTER - 15

BACK UP DIVISIONS
(IN CASE OF BREACH)

In case of emergency Easter Bar Canal Division of Nili Bar Canal Circle and Khanwah Canal Division of Sukhrawa Canal Circle will be back-up divisions for Right Flank of River Sutlej at Suleimanki Headworks while Eastern Sadiqia Canal Division and Fordwah Canal Division of Bahawalnagar Canal Circle will be back-up divisions for Left Flank of River Sutlej at Suleimanki Headworks.

Executive Engineer
Suleimanki Headworks Division
Suleimanki

Superintending Engineer
Nili Bar Circle Sahiwal

Chief Engineer
Sahiwal Irrigation Zone
Sahiwal

XEN Suleimanki