GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)

Water Sector Capacity Building and Advisory Services Project (WCAP)

Development of National Flood Protection Plan-IV (NFPP-IV) and Related Studies to Enhance the Capacity of Federal Flood Commission-FFC

FLOOD PLAIN AND FLOOD RISK MAPPING

RIVER SUTLEJ

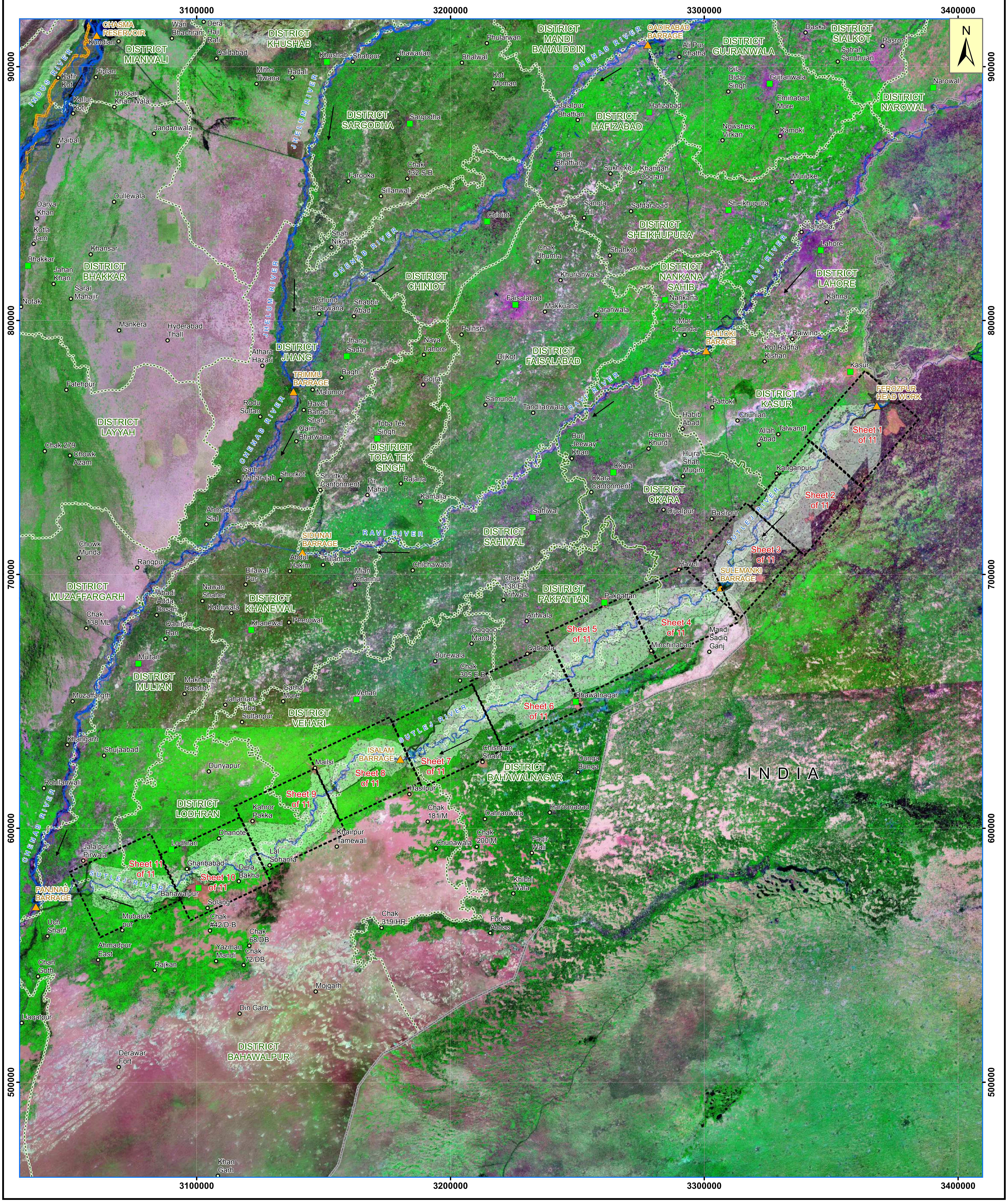
JANUARY 2016

NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C, BLOCK-N, MODEL TOWN EXTENSION,
LAHORE - PAKISTAN

in association with

DELTARES
THE NETHERLANDS
P.O. BOX 177, 2600 MH DELFT, ROTTERDAMSEWEG
185, 2629 HD DELFT, THE NETHERLANDS

SUTLEJ RIVER INDEX MAP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CHASMA RESERVOIR
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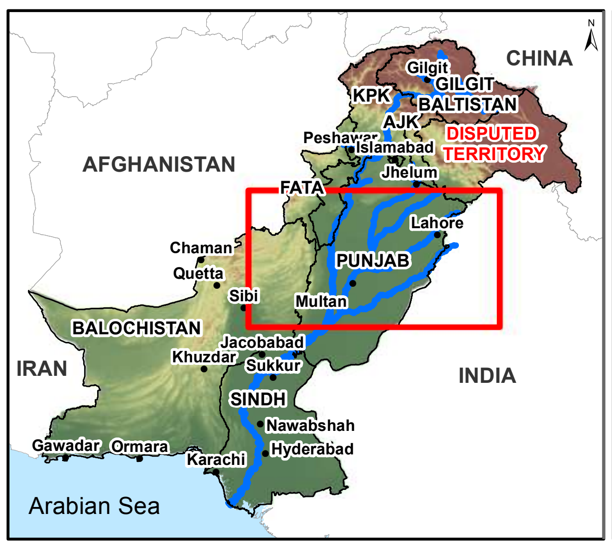
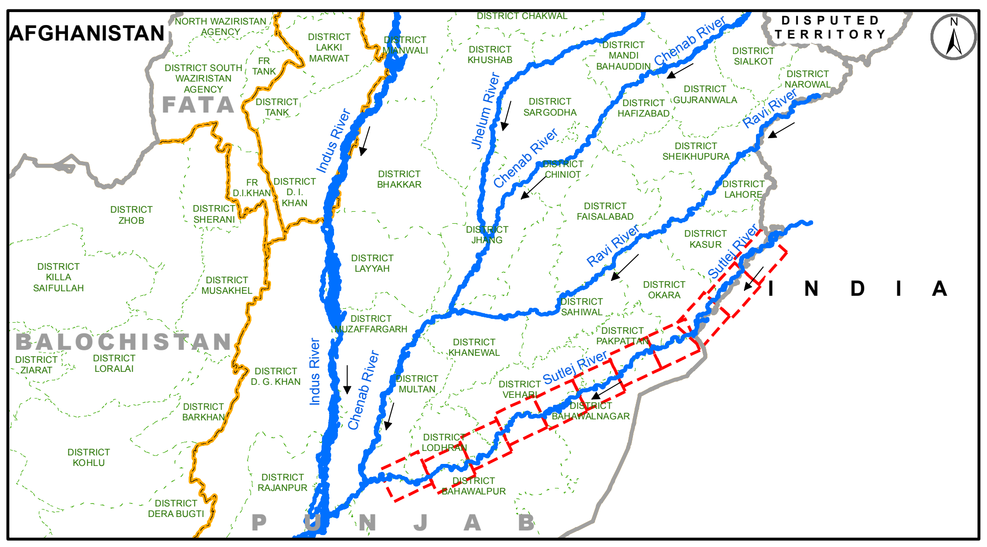
TRIMMU BARRAGE
SIDHNAI BARRAGE
BALLOKI BARAGE
SULEMANKI BARRAGE
FEROZPUR HEAD WORK
ISALAM BARRAGE
PANJNAD BARRAGE
INDUS RIVER
JHELUM RIVER
CHENAB RIVER
RAVI RIVER
SUTLEJ RIVER
DISTRICT MIANWALI
DISTRICT KHUSHAB
DISTRICT MANDI BAHAUDDIN
DISTRICT GUJRANWALA
DISTRICT SIALKOT
DISTRICT NAROWAL
DISTRICT SARGODHA
DISTRICT HAFIZABAD
DISTRICT SHEIKHUPURA
DISTRICT LAHORE
DISTRICT NANKANA SAHIB
DISTRICT CHINIOT
DISTRICT BHAKKAR
DISTRICT JHANG
DISTRICT FAISALABAD
DISTRICT KASUR
DISTRICT LAYYAH
DISTRICT TOBA TEK SINGH
DISTRICT OKARA
DISTRICT SAHIWAL
DISTRICT PAKPATTAN
DISTRICT MUZAFFARGARH
DISTRICT KHANEWAL
DISTRICT MULTAN
DISTRICT VEHARI
DISTRICT BAHAWALNAGAR
DISTRICT LODHRAN
DISTRICT BAHAWALPUR
INDIA
Sheet 1 of 11
Sheet 2 of 11
Sheet 3 of 11
Sheet 4 of 11
Sheet 5 of 11
Sheet 6 of 11
Sheet 7 of 11
Sheet 8 of 11
Sheet 9 of 11
Sheet 10 of 11
Sheet 11 of 11
Kundian
Wan Bhachran
Dera Haji Rati
Qaidabad
Khushab
Shahpur
Jhawarian
Phularwan
Bhalwal
Ali Pur Chatha
Daska
Pasror
Satrah Sandhuan
Narowal
Kalir Kot
Piplan
Mitha Tiwana
Hadali
Kot Moman
Qila Didar Singh
Gujranwala
Kallur Kot
Hassan Khan Wala
Sargodha
Jalalpur Bhattian
Hafizabad
Eminabad More
Jandanwala
Nowshera Virkan
Kamoki
Maibal
Farooka
Chak 132 S.B
Pindi Bhattian
Sukheke
Khangah Dogran
Muridke
Sillanwali
Dullewala
Darya Khan
Chiniot
Sangla Hill
Safdarabad
Sheikhupura
Shahdara
Kotla Jam
Shah Nikdar
Lahore
Khansar
Chak Jhumra
Shahkot
Bhakkar
Jahan Khan
Sarai Mahajir
Khurianwala
Nankana Sahib
Kahna
Notak
Chund Bharwana
Shabbir Abad
Faisalabad
Makkuana
Jaranwala
Mankera
Hyderabad Thall
Painsra
Mor Khunda
Raiwind
Jhang Sadar
Naya Lahore
Kot Radha Kishan
Athara Hazari
Dijkot
Kasur
Bagh
Gojra
Fatehpur
Malumor
Samundri
Tandlianwala
Pattoki
Rodu Sultan
Haveli Bahadur Shah
Chunian
Qaim Bharwana
Habib Abad
Allah Abad
Talwandi
Toba Tek Singh
Burj Jeeway Khan
Renala Khurd
Chak 279
Chowk Azam
Hujra Shah Muqim
Garh Maharajah
Shorkot
Okara
Kanganpur
Shorkot Cantonment
Pir Mahal
Rajana
Okara Cantonment
Kamalia
Dipalpur
Ahmadpur Sial
Sahiwal
Basirpur
Chowk Munda
Abdul Hakim
Tulamba
Chichawatni
Haveli
Rangpur
Bilawal Pur
Mian Channu
Chak 136/EB Arifwala
Nawan Shaher
Abadi Adda Bosan
Kabirwala
Pakpattan
Chak 138 ML
Khanewal
Peerowal
Arifwala
Mandi Sadiq Ganj
Qadirpur Ran
Gaggoo Mandi
Qaboola
Minchinabad
Multan
Burewala
Makhdum Rashid
Chak 305 E.B
Muzaffargarh
Jahanian
Garha More
Vehari
Bhawalnagar
Tiba Sultanpur
Khangarh
Shujaabad
Chishtian Sharif
Dunga Bunga
Dunyapur
Mailsi
Hasilpur
Rohilanwali
Kahror Pakka
Chak 181/M
Dahranwala
Haroonabad
Dhanote
Khairpur Tamewali
Chak 200/M
Jalalpur Pirwala
Lodhran
Lal Sohanra
Chunawala
Faqir Wali
Gharibabad
Dera Bakha
Bahawalpur
Khichi Wala
Solang
Mubarak pur
Chak #42/D.B
Uch Sharif
Chak 319/HR
Fort Abbas
Ahmadpur East
Chak 68/DB
Yazman Mandi
Chak 72/DB
Chan Goth
Rajkan
Mojgarh
Din Garh
Liaqatpur
Derawar Fort
Khan Garh


CHINA
Gilgit
GILGIT BALTISTAN
KPK
AJK
Peshawar
Islamabad
DISPUTED TERRITORY
Jhelum
AFGHANISTAN
FATA
Lahore
Chaman
Quetta
PUNJAB
Sibi
Multan
BALOCHISTAN
Jacobabad
IRAN
Khuzdar
Sukkur
INDIA
SINDH
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
Arabian Sea


AFGHANISTAN
DISPUTED TERRITORY
FATA
BALOCHISTAN
INDIA
P U N J A B
Indus River
Jhelum River
Chenab River
Ravi River
Sutlej River
DISTRICT ZIARAT
DISTRICT LORALAI
DISTRICT D. G. KHAN
DISTRICT BARKHAN
DISTRICT KOHLU
DISTRICT RAJANPUR
DISTRICT DERA BUGTI
DISTRICT MUZAFFARGARH
DISTRICT KHANEWAL
DISTRICT MULTAN
DISTRICT VEHARI
DISTRICT SAHIWAL
DISTRICT PAKPATTAN
DISTRICT BAHAWALNAGAR
DISTRICT LODHRAN
DISTRICT BAHAWALPUR

0 5 10 20 30 40 50
Kilometers

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

SUTLEJ RIVER INDEX MAP

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with

DELTARES,THE NETHERLANDS

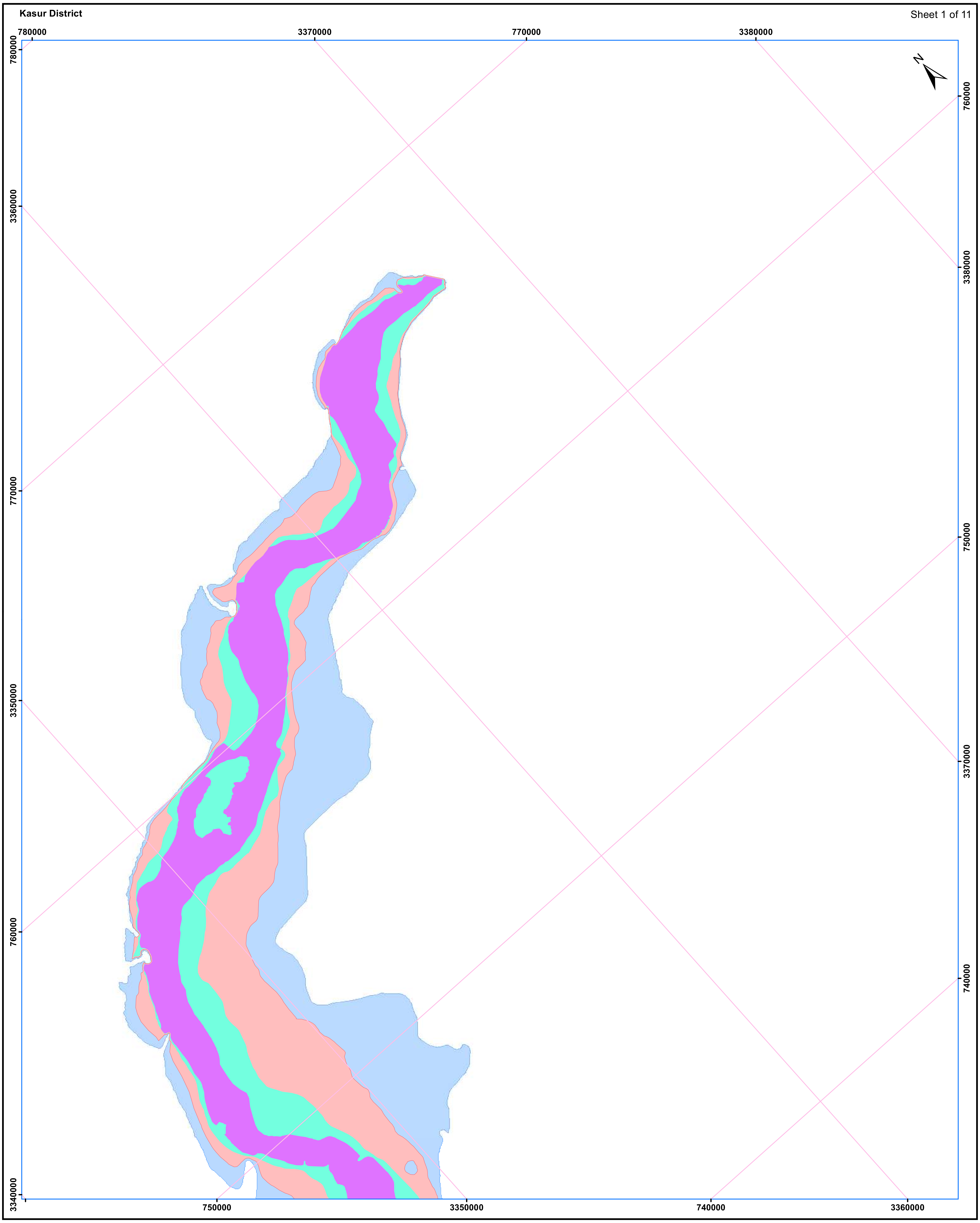
Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-II) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016

Kasur District

Sheet 1 of 11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Scale 1:75,000

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Kilometers

LEGEND

(Flood Risk Zones)

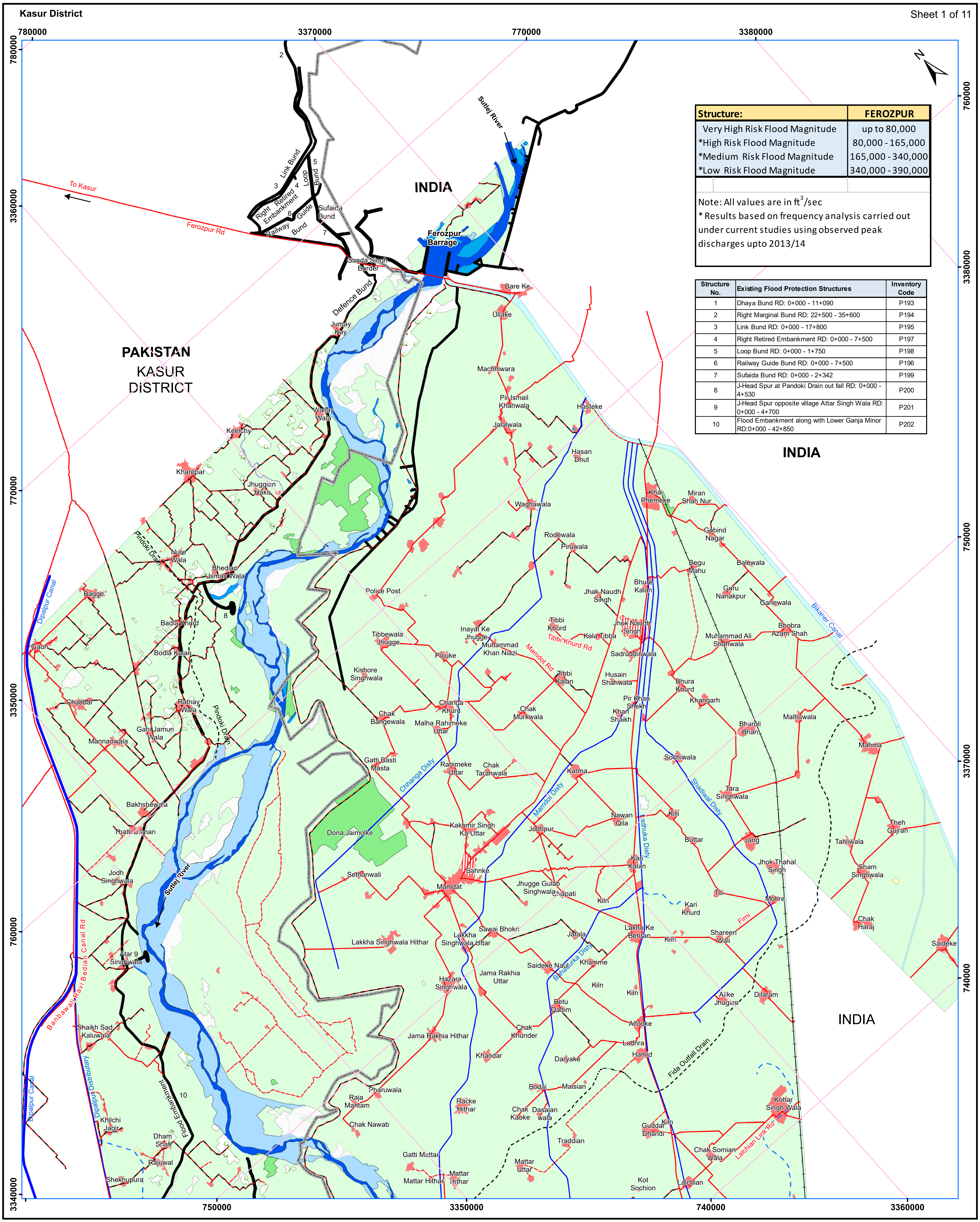
- 🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 165,000 cusecs in Ferozepur-Suleimanki reach)
- 🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 165,000 to 340,000 cusecs in Ferozepur-Suleimanki reach)
- 🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 340,000 to 390,000 cusecs in Ferozepur-Suleimanki reach)

LEGEND

(Inundation Extent Corresponding to Provincial Irrigation Department)

- 🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Ferozepur-Suleimanki reach

Note: All flood extents are based on breachless conditions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INDIA
PAKISTAN
KASUR
DISTRICT
To Kasur
Ferozpur Rd
Ferozpur Barrage
Ganda Singh Border
Defence Bund
Link Bund
Right Retired Embankment
Loop Bund
Railway Guide Bund
Sufaida Bund
Sutlej River
Bare Ke
Ullake
Jumay Kay
Machhiwara
Pir Ismail Khanwala
Hasteke
Jalalwala
Walay Wala
Keelchy
Kharepar
Jhuggian Haku
Hasan Dhut
Khai Phemeke
Miran Shah Nur
Waghawala
Gobind Nagar
Rodewala
Piruwala
Pindoki Drain
Nure Wala
Bhedian Usman Wala
Bagge
Police Post
Begu Mahu
Balewala
Bhure Kalan
Jhak Naudh Singh
Guru Nanakpur
Ganewala
Dipalpur Canal
Badla Khurd
Tibbi Khurd
Tibbi Khurd Rd
Kala Tibba
Jhok Naudh Singh
Bhobra Azam Shah
Bikaner Canal
Gauri
Tibbewala Jhugge
Inayat Ke Jhugge
Muhammad Khan Niazi
Mamdot Rd
Muhammad Ali Shahwala
Bodla Kalan
Pojuke
Sadruddinwala
Kishore Singhwala
Tibbi Kalan
Husain Shahwala
Bhura Khurd
Khangarh
Ratnay Wala
Chabbar
Changa Khurd
Pir Khan Shekh
Khan Shaikh
Chak Bangewala
Chak Murkwala
Malhuwala
Gahi Jamun Wala
Malha Rahimeke Uttar
Bharoli Bhan
Mannanwala
Mahma
Sochiwala
Gatti Basti Masta
Rahimeke Uttar
Chak Taranwala
Chhanga Disty
Karma
Mamdot Disty
Shadiwal Disty
Tara Singhwala
Bakhshewala
Nawan Qila
Kili
Dona Jaimolke
Kashmir Singh Ka Uttar
Jodhpur
Ladhuka Disty
Theh Gujran
Thatti Usman
Butter
Jang
Tahliwala
Kari Kalan
Jhok Thahal Singh
Sham Singhwala
Jodh Singhwala
Sethonwali
Sahnke
Mamdat
Jhugge Gulab Singhwala
Chapati
Kiln
Tui
Mohre
Kari Khurd
Chak Haraj
Firni
Lakkha Singhwala Hithar
Sawai Bhokri
Lakkha Singhwala Uttar
Jatala
Lakho Ke Behran
Shareen Wali
Saideke
Atar 9 Singhwala
Banbawali Ravi Bedian Canal Rd
Saideke Naul
Khamme
Banbarka Disty
Jama Rakhia Uttar
Hazara Singhwala
Betu Qadim
Aike Jhugian
Dilaram
Shaikh Sad Kaluwala
Alfooke
Jama Rakhia Hithar
Chak Khunder
Khandar
Daryake
Lodhra Hamd
Fida Outfall Drain
Dipalpur Distributary
Flood Embankment
Pharuwala
Bodai
Maisian
Raja Mahtam
Racke Hithar
Chak Dasaian Kaoke wala
Kohar Singh Wala
Khilchi Jagir
Chak Nawab
Guddar Dhandi
Dham Shah
Traddian
Lalchian Link Rd
Rajuwal
Gatti Mattar
Mattar Uttar
Chak Somian Wala
Shekhupura
Mattar Hithar
Mattar Hithar
Kot Sochion
Lalchian
1
2
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6
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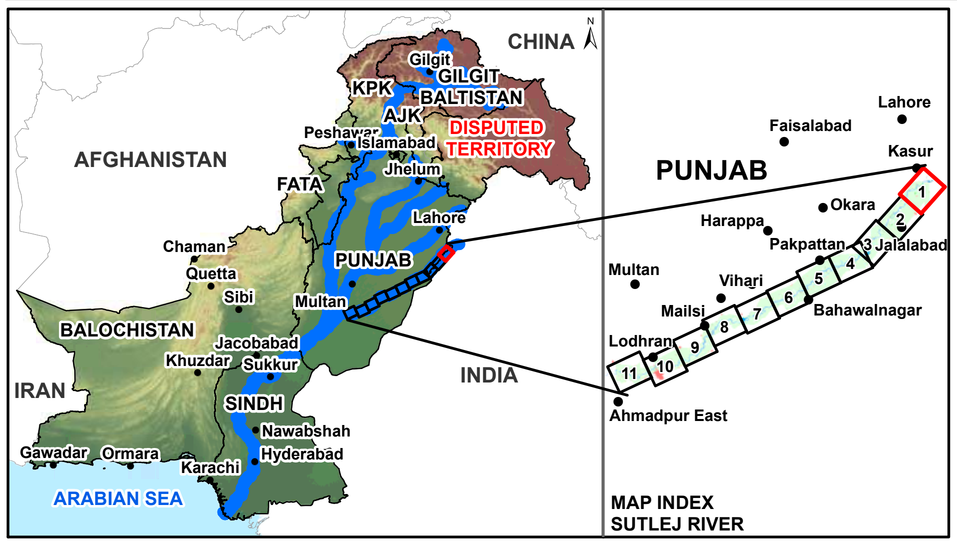
10

Structure:	FEROZPUR
Very High Risk Flood Magnitude	up to 80,000
*High Risk Flood Magnitude	80,000 - 165,000
*Medium Risk Flood Magnitude	165,000 - 340,000
*Low Risk Flood Magnitude	340,000 - 390,000

Note: All values are in ft^3/sec
* Results based on frequency analysis carried out under current studies using observed peak discharges upto 2013/14

Structure No.	Existing Flood Protection Structures	Inventory Code
1	Dhaya Bund RD: 0+000 - 11+090	P193
2	Right Marginal Bund RD: 22+500 - 35+600	P194
3	Link Bund RD: 0+000 - 17+800	P195
4	Right Retired Embankment RD: 0+000 - 7+500	P197
5	Loop Bund RD: 0+000 - 1+750	P198
6	Railway Guide Bund RD: 0+000 - 7+500	P196
7	Sufaida Bund RD: 0+000 - 2+342	P199
8	J-Head Spur at Pandoki Drain out fall RD: 0+000 - 4+530	P200
9	J-Head Spur opposite village Attar Singh Wala RD: 0+000 - 4+700	P201
10	Flood Embankment along with Lower Ganja Minor RD:0+000 - 42+850	P202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Islamabad
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Jhelum
FATA
Lahore
Chaman
Quetta
Sibi
PUNJAB
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
SINDH
Nawabshah
Gawadar
Ormara
Hyderabad
Karachi
ARABIAN SEA
INDIA
PUNJAB
Faisalabad
Lahore
Kasur
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
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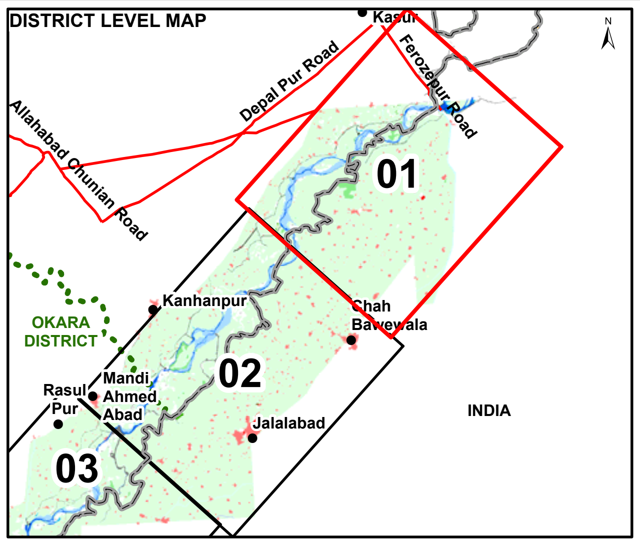
11

MAP INDEX
SUTLEJ RIVER


DISTRICT LEVEL MAP
Kasur
Depal Pur Road
Ferozpur Road
Allahabad Chunian Road
01
OKARA DISTRICT
Kanhanpur
Chah Bawewala
02
Rasul Pur
Mandi Ahmed Abad
Jalalabad
03
INDIA

Source of Information:	Coordinate System	Date: Jan 29, 2016 By Safder Hussain
1. Topographic sheets of Survey of Pakistan 2. Freely available satellite imagery 3. FPSP-II GIS data 4. Shuttle Radar Topographic Mission Data (Resolution:90 m) 5. Survey data of Flood protection embankments and structures	**PROJECTION:** Lambert Conformal Conic (LMPAK-I) , **DATUM:** WGS84 Grid Reference is in meters	

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

- National Highway
- Metalled Road
- Un-metalled Road
- Track
- Railway Line
- Canal
- Branch
- Drain
- Distributary
- Minor
- Nallah
- Wah
- District Boundary
- Provincial Boundary
- International Boundary
- Barren Area
- Bund / Spur
- Cultivated Area
- Flood Plain
- Grass
- Graveyard
- Hill
- Main/Link Canal, Escape, Spillway
- Motorway
- Mud
- Nallah (Perennial)
- Nallah (Non Perennial)
- Orchard
- Planned Urban Area
- Range Forest
- River
- Sand Dunes
- Town/Village/Settlement
- Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

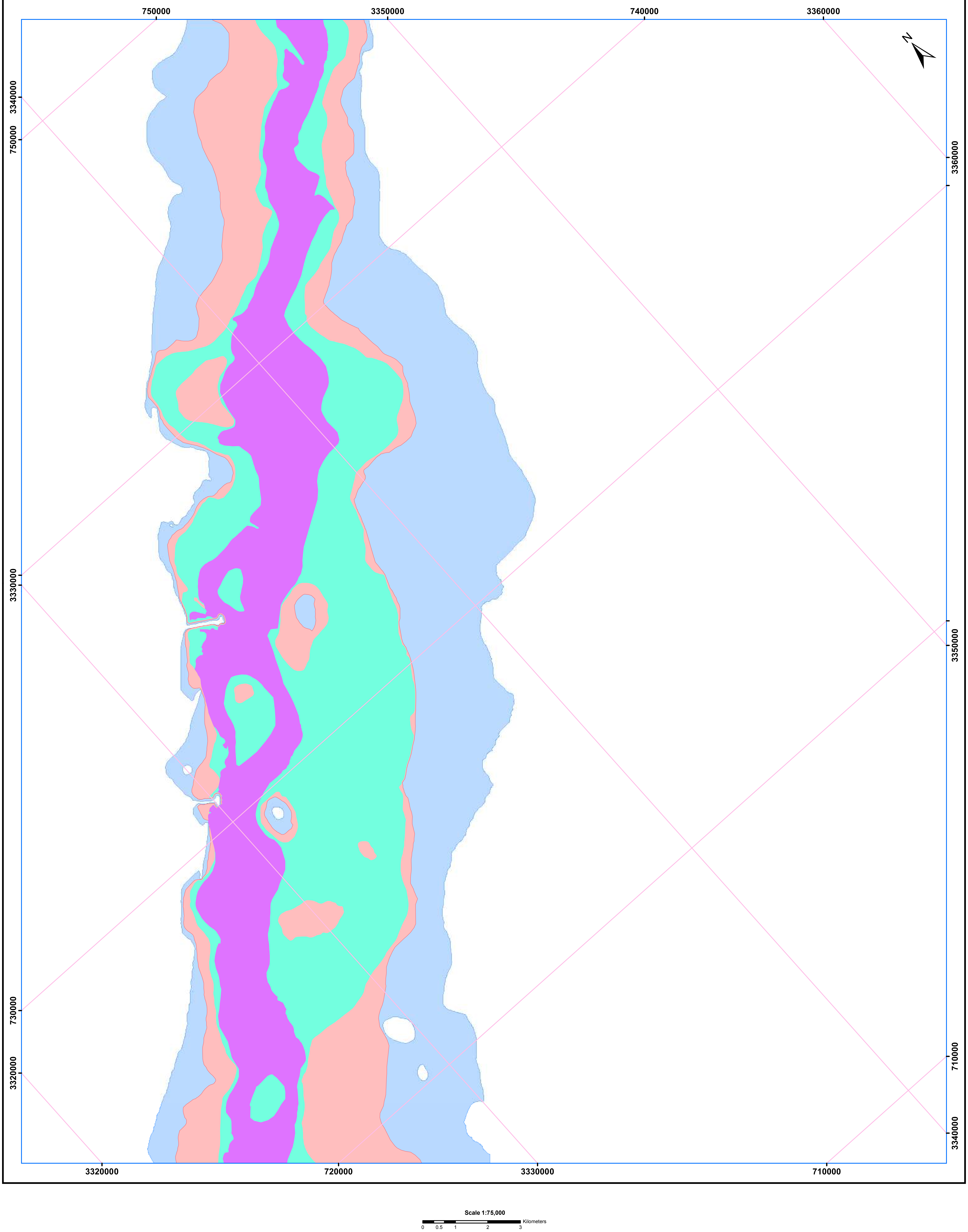
Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with

DELTARES,THE NETHERLANDS

Kasur and Okara Districts

Sheet 2 of 11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Kilometers

LEGEND

(Flood Risk Zones)

- 🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 165,000 cusecs in Ferozepur-Suleimanki reach)
- 🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 165,000 to 340,000 cusecs in Ferozepur-Suleimanki reach)
- 🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 340,000 to 390,000 cusecs in Ferozepur-Suleimanki reach)

LEGEND

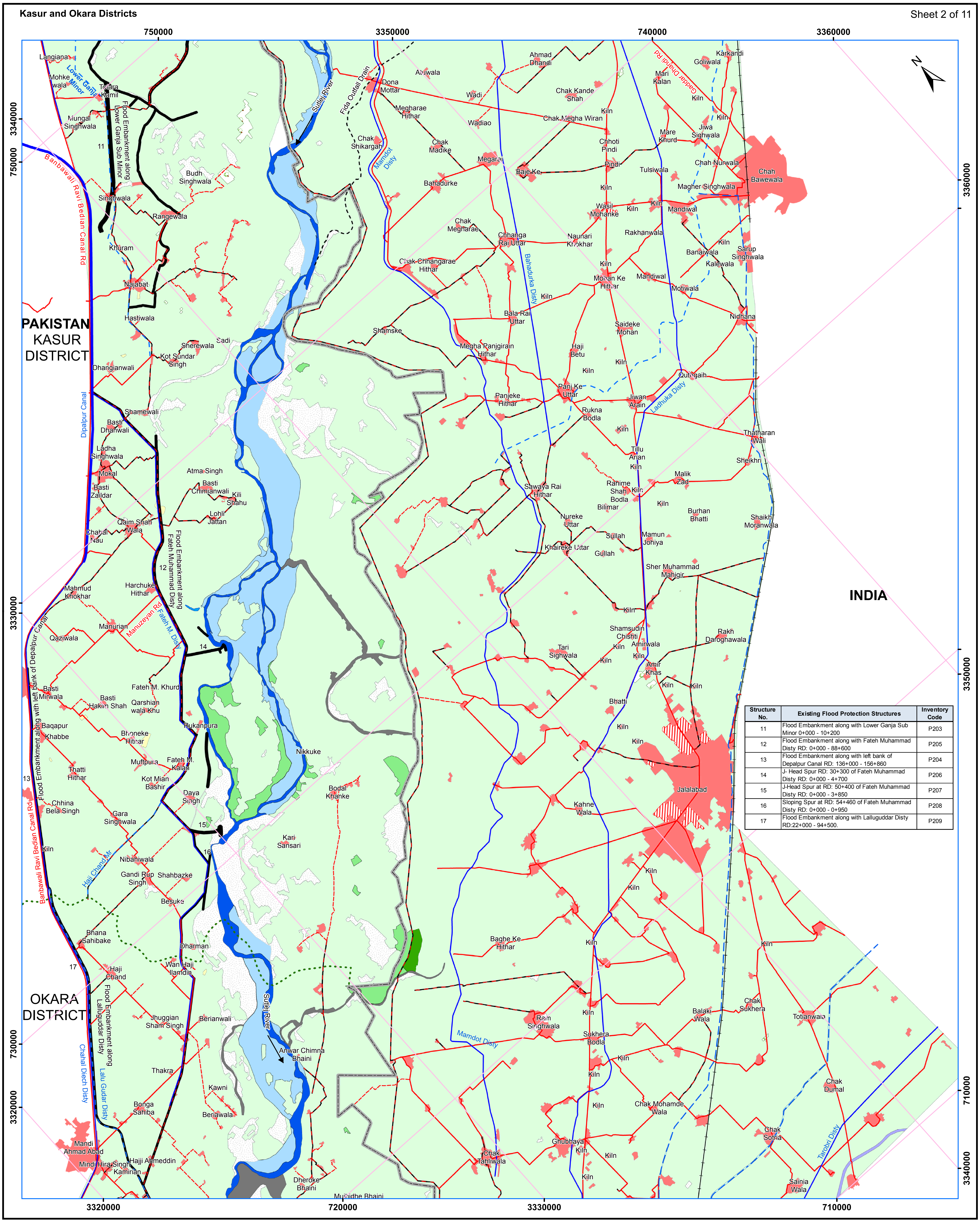
(Inundation Extent Corresponding to Provincial Irrigation Department)

- 🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Ferozepur-Suleimanki reach

Note: All flood extents are based on breachless conditions

Kasur and Okara Districts

Sheet 2 of 11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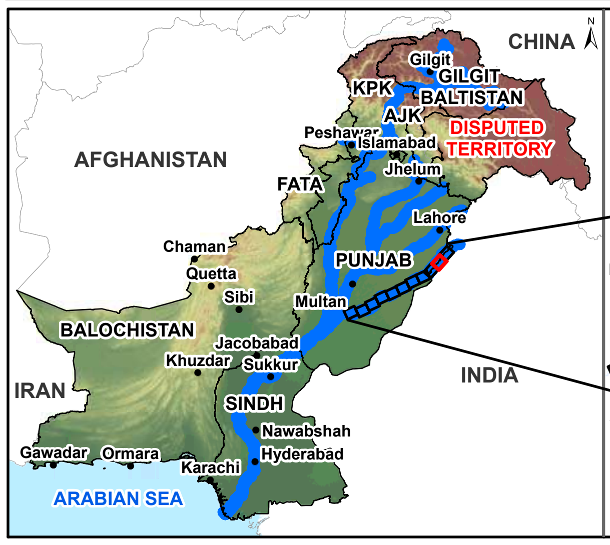
Langiana
Mohke wala
Lower Ganja Minor
Tolara Kamil
Mungal Singhwala
Flood Embankment along Lower Ganja Sub Minor
11
Budh Singhwala
Banbawali Ravi Bedian Canal Rd
Singhwala
Rangewala
Khuram
Najabat
Hastiwala
PAKISTAN
KASUR
DISTRICT
Sherewala
Sadi
Kot Sundar Singh
Dhangianwali
Dipalpur Canal
Shamewali
Basti Dhanwali
Ladha Singhwala
Mokal
Basti Zaildar
Atma Singh
Basti Chimanwali
Kili Shahu
Lohli Jattan
Qaim Shah Wala
Chahal Nau
Flood Embankment along Fateh Muhammad Disty
12
Mahmud Khokhar
Harchuke Hithar
Manuzeyan Rd
Fateh M. Disty
Manurian
Qaziwala
14
Flood Embankment along with left bank of Depalpur Canal
Basti Mirwala
Basti Hakim Shah
Fateh M. Khurd
Qarshian wala Khu
Baqapur Khabbe
Rukanpura
Bhoneke Hithar
Muftpura
Fateh M. Kalan
Thatti Hithar
Kot Mian Bashir
Daya Singh
13
Chhina Bela Singh
Gara Singhwala
15
16
Kiln
Haji Chand Mr
Nibahiwala
Gandi Rup Singh
Shahbazke
Besuke
Bhana Sahibake
Dharman
17
Haji Chand
Wan Haji Ilamdin
OKARA
DISTRICT
Flood Embankment along Lalluguddar Disty
Jhuggian Sham Singh
Berianwali
Chahal Diech Disty
Lalu Gudar Disty
Thakra
Kawni
Bonga Sahiba
Beriawala
Mandi Ahmad Abad
Mindi Hira Singh
Hajji Ahmeddin Kamirian
Dheroke Bhaini
Muhidhe Bhaini
Sutlej River
Fida Outfall Drain
Dona Mottar
Chak Shikargah
Mamdot Disty
Anwar Chimna Bhaini
Shamske
Nikkuke
Bodal Khanke
Kari Sansari
Ahmad Dhandi
Aliwala
Wadi
Wadiao
Megharae Hithar
Chak Madike
Megara
Bahadurke
Chak Kande Shah
Chak Megha Wiran
Baje Ke
Chak Megharae
Chhanga Rai Uttar
Chak Chhangarae Hithar
Bahadurka Disty
Naunari Khokhar
Bala Rai Uttar
Megha Ranjgirain Hithar
Haji Betu
Panjeke Hithar
Panj Ke Uttar
Rukna Bodla
Sawaya Rai Hithar
Nureke Uttar
Khaireke Uttar
Sullah
Gullah
Tari Sighwala
Bhatti
Kahne Wala
Baghe Ke Hithar
Ram Singhwala
Mamdot Disty
Sukhera Bodla
Ghubtraya
Chak Tahliwala
Karkandi
Goliwala
Mari Kalan
Gaddar Dhandi Rd
Jiwa Singhwala
Mare Khurd
Chhoti Pindi
Pindi
Tulsiwala
Chah Nurwala
Chah Bawewala
Magher Singhwala
Wasil Mohanke
Mandiwal
Rakhanwala
Banaiwala
Sarup Singhwala
Kalewala
Mohan Ke Hithar
Motiwala
Nidhana
Saideke Mohan
Qutbgarh
Jiwan Arain
Ladhuka Disty
Thatharan Wali
Sheikhri
Tillu Arian
Malik Zad
Rahime Shah Bodla
Bilimar
Burhan Bhatti
Shaikh Moranwala
Mamun Johiya
Sher Muhammad Mahigir
INDIA
Shamsudin Chishti
Amirwala
Rakh Daroghawala
Amir Khas
Jalalabad
Balaki Wala
Chak Sukhera
Totianwala
Chak Mohamde Wala
Chak Dumal
Chak Sotra
Tarobri Disty
Sainia Wala
Kiln

Structure No.	Existing Flood Protection Structures	Inventory Code
11	Flood Embankment along with Lower Ganja Sub Minor 0+000 - 10+200	P203
12	Flood Embankment along with Fateh Muhammad Disty RD: 0+000 - 88+600	P205
13	Flood Embankment along with left bank of Depalpur Canal RD: 136+000 - 156+860	P204
14	J- Head Spur RD: 30+300 of Fateh Muhammad Disty RD: 0+000 - 4+700	P206
15	J-Head Spur at RD: 50+400 of Fateh Muhammad Disty RD: 0+000 - 3+850	P207
16	Sloping Spur at RD: 54+460 of Fateh Muhammad Disty RD: 0+000 - 0+950	P208
17	Flood Embankment along with Lalluguddar Disty RD:22+000 - 94+500.	P209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Gilgit
KPK
AJK
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Jhelum
FATA
Lahore
Chaman
Quetta
PUNJAB
Sibi
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
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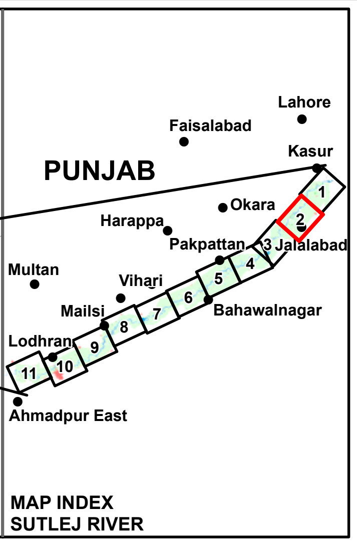
INDIA
SINDH
Nawabshah
Gawadar
Ormara
Hyderabad
Karachi
ARABIAN SEA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Lahore
Kasur
PUNJAB
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
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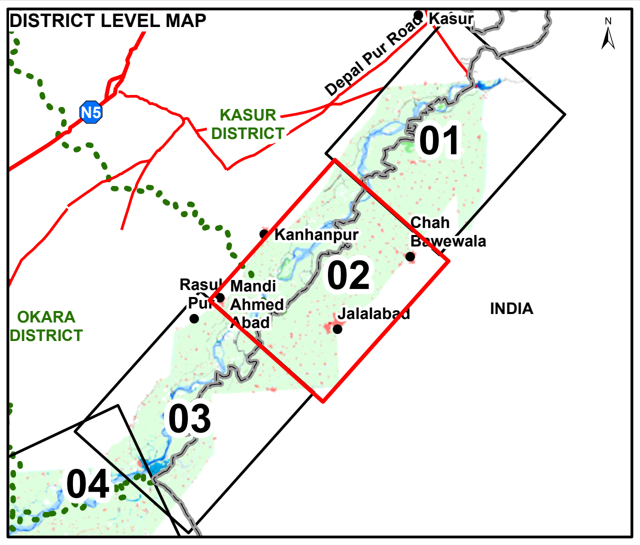
11

MAP INDEX
SUTLEJ RIVER

DISTRICT LEVEL MAP


Depal Pur Road
Kasur
N5
KASUR DISTRICT
01
Kanhanpur
Chah Bawewala
02
Rasul Pur
Mandi Ahmed Abad
Jalalabad
INDIA
OKARA DISTRICT
03
04

Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

National Highway	Barren Area
Metalled Road	Bund / Spur
Un-metalled Road	Cultivated Area
Track	Flood Plain
Railway Line	Grass
Canal	Graveyard
Branch	Hill
Drain	Main/Link Canal, Escape, Spillway
Distributary	Motorway
Minor	Mud
Nallah	Nallah (Perennial)
Wah	Nallah (Non Perennial)
District Boundary	Orchard
Provincial Boundary	Planned Urban Area
International Boundary	Range Forest
	River
	Sand Dunes
	Town/Village/Settlement
	Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV) AND RELATED STUDIES TO ENHANCE THE CAPACITY OF FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

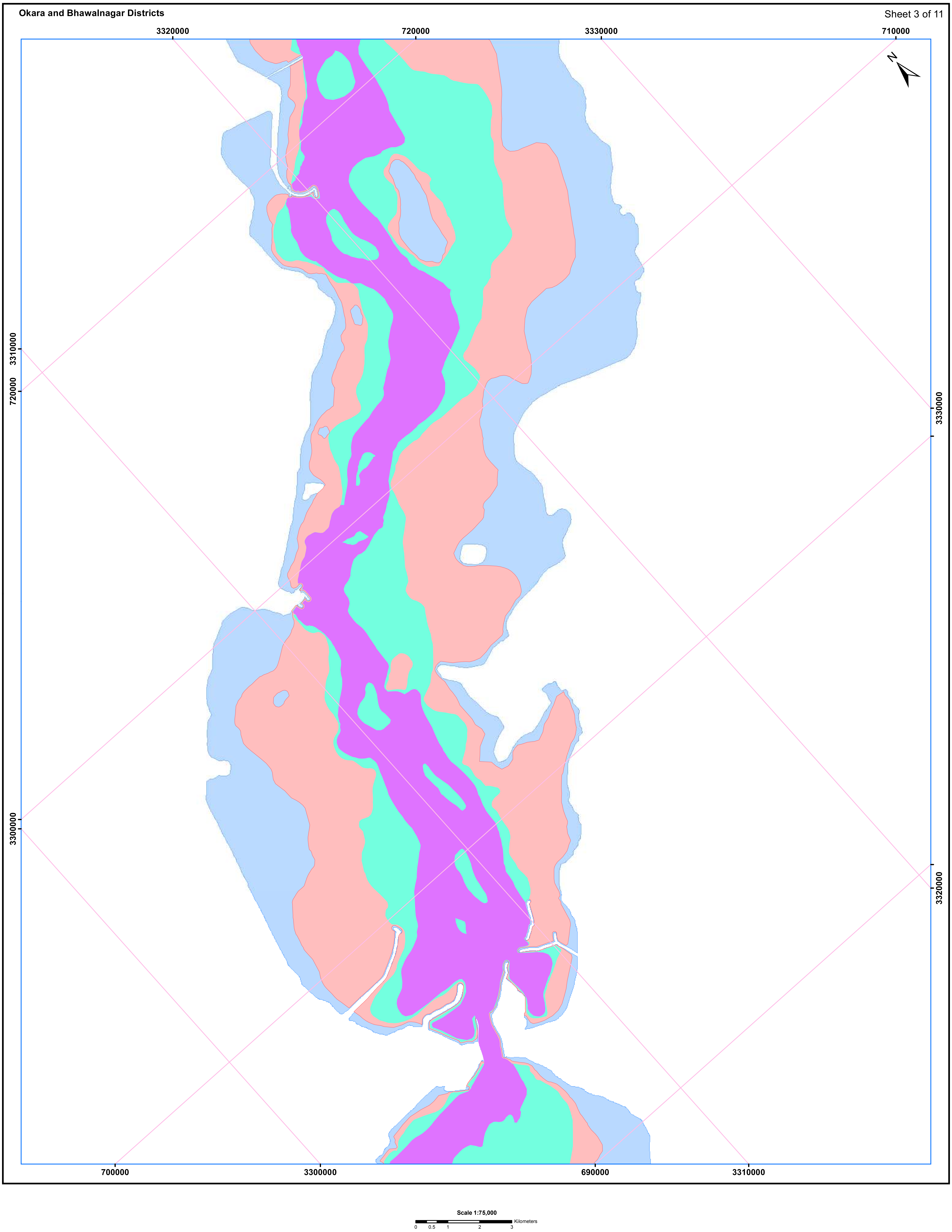
Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with

DELTARES,THE NETHERLANDS

Okara and Bhawalnagar Districts

Sheet 3 of 11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Scale 1:75,000
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2
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Kilometers

LEGEND

(Flood Risk Zones)

🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 165,000 cusecs in Ferozepur-Suleimanki reach)

🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 165,000 to 340,000 cusecs in Ferozepur-Suleimanki reach)

🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 340,000 to 390,000 cusecs in Ferozepur-Suleimanki reach)

LEGEND

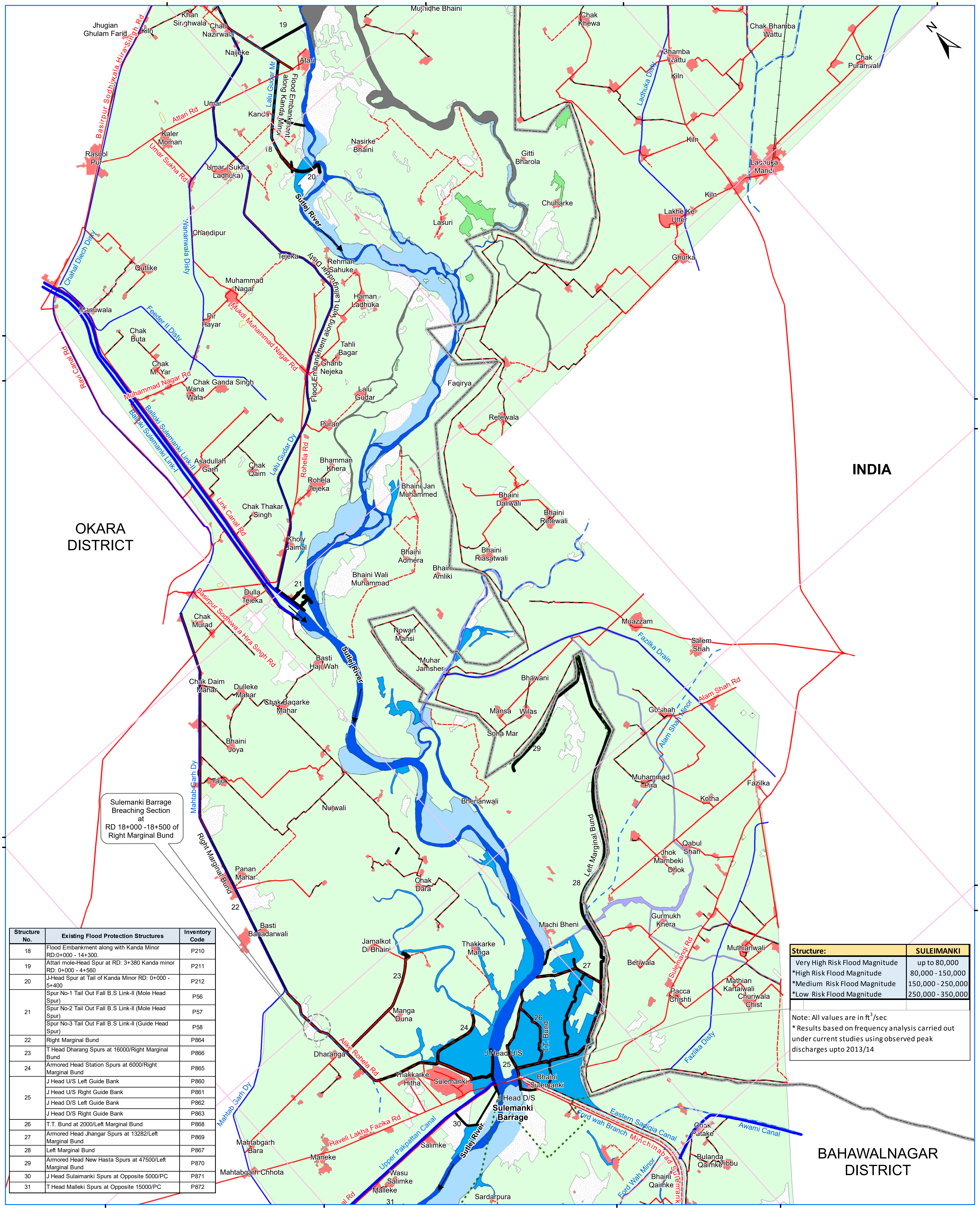
(Inundation Extent Corresponding to Provincial Irrigation Department)

🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Ferozepur-Suleimanki reach

Note: All flood extents are based on breachless conditions

Okara and Bhawalnagar Districts

Sheet 3 of 11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OKARA DISTRICT
INDIA
BAHAWALNAGAR DISTRICT
Sutlej River
Sulemanki Barrage
J Head D/S
J Head U/S
T.T. Bund
Left Marginal Bund
Right Marginal Bund
Flood Embankment along Kanda Minor
Flood Embankment along with Lalu Gudar Disty
Balloki Sulemanki Link-II
Balloki Sulemanki Link-I
Link Canal Rd
Ravi Canal Rd
Basirpur Sodhiwala Hira Singh Rd
Muhammad Nagar Rd
Mukdi Muhammad Nagar Rd
Umar Sukha Rd
Attari Rd
Rohella Rd
Alike Rohela Rd
Haveli Lakha Fazika Rd
Upper Pakpattan Canal
Eastern Sadiqia Canal
Fordwah Branch
Awami Canal
Fazilka Drain
Fazilka Disty
Alam Shah Minor
Alam Shah Rd
Sulemanki Rd
Minchinabad Sulemanki
Ford Wah Minor
Mahtab Garh Dy
Lalu Gudar Dy
Lalu Gudar Mr
Feeder II Disty
Chahal Diech Disty
Wanarwala Disty
Ladhuka Disty
Jhugian Ghulam Farid
Khan Singhwala
Chak Nazirwala
Najjeke
Atari
Kanda
Umar
Kaler Moman
Rasool Pur
Umar (Sukha Ladhuka)
Chandipur
Qutlike
Manuwala
Chak Buta
Chak M. Yar
Chak Ganda Singh Wana Wala
Pir Hayar
Muhammad Nagar
Tejeka
Rehman Sahuke
Haman Ladhuka
Tahli Bagar
Gharib Nejeka
Lalu Gudar
Puran
Faqirya
Retewala
Asadullah Garh
Chak Qaim
Bhamman Khera
Rohela Tejeka
Chak Thakar Singh
Bhaini Jan Muhammad
Bhaini Daliwali
Bhaini Retewali
Kholy Jaimal
Bhaini Admera
Bhaini Riasatwali
Bhaini Amliki
Bhaini Wali Muhammad
Dulla Tejeka
Chak Murad
Basti Haji Wah
Nowan Mansi
Muhar Jamsher
Muazzam
Salem Shah
Bhawani
Mansa
Wilas
Sona Mar
Gulshah
Chak Daim Mahar
Dulleke Mahar
Chak Baqarke Mahar
Bhaini Joya
Tajo
Nurwali
Bhenanwali
Muhammad Pira
Kotha
Fazilka
Qabul Shah
Jhok Mambeki Dhok
Panan Mahar
Chak Dara
Machi Bheni
Gurmukh Khera
Muthianwali
Basti Bahadarwali
Jamalkot Di Bhaini
Thakkarke Manga
Beriwala
Mathian Kartaiwali
Churiwala Chist
Pacca Chishti
Manga Duna
Dharanga
Thakkarke Hitha
Sulemanki
Bhaini Sulemanki
Mahtabgarh Bara
Mahtabgarh Chhota
Maneke
Salimke
Wasu Salimke
Malleke
Sardarpura
Chak Patake
Bulanda Qaimke Tibbu
Bhaini Qaimke
Muhidhe Bhaini
Chak Khewa
Chak Bhamba Wattu
Chak Puranwali
Bhamba Wattu
Kiln
Ladhuka Mandi
Lakhe Ke Utter
Ghurka
Nasirke Bhaini
Gitti Bharola
Chuharke
Lasuri
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31

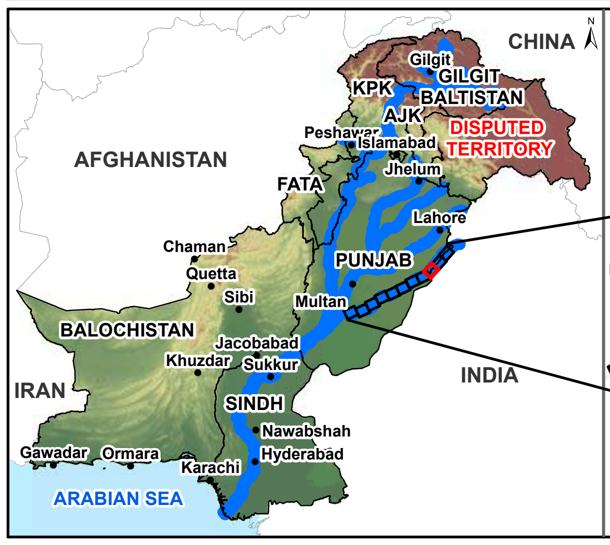
Sulemanki Barrage Breaching Section at RD 18+000 -18+500 of Right Marginal Bund

Structure No.	Existing Flood Protection Structures	Inventory Code
18	Flood Embankment along with Kanda Minor RD:0+000 - 14+300.	P210
19	Attari mole-Head Spur at RD: 3+380 Kanda minor RD: 0+000 - 4+560	P211
20	J-Head Spur at Tail of Kanda Minor RD: 0+000 - 5+400	P212
21	Spur No-1 Tail Out Fall B.S Link-II (Mole Head Spur)	P56
	Spur No-2 Tail Out Fall B.S Link-II (Mole Head Spur)	P57
	Spur No-3 Tail Out Fall B.S Link-II (Guide Head Spur)	P58
22	Right Marginal Bund	P864
23	T Head Dharang Spurs at 16000/Right Marginal Bund	P866
24	Armored Head Station Spurs at 6000/Right Marginal Bund	P865
25	J Head U/S Left Guide Bank	P860
	J Head U/S Right Guide Bank	P861
	J Head D/S Left Guide Bank	P862
	J Head D/S Right Guide Bank	P863
26	T.T. Bund at 2000/Left Marginal Bund	P868
27	Armored Head Jhangar Spurs at 13282/Left Marginal Bund	P869
28	Left Marginal Bund	P867
29	Armored Head New Hasta Spurs at 47500/Left Marginal Bund	P870
30	J Head Sulaimanki Spurs at Opposite 5000/PC	P871
31	T Head Malleki Spurs at Opposite 15000/PC	P872

Structure:	SULEIMANKI
Very High Risk Flood Magnitude	up to 80,000
*High Risk Flood Magnitude	80,000 - 150,000
*Medium Risk Flood Magnitude	150,000 - 250,000
*Low Risk Flood Magnitude	250,000 - 350,000

Note: All values are in ft^3/sec

* Results based on frequency analysis carried out under current studies using observed peak discharges upto 2013/14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Islamabad
DISPUTED TERRITORY
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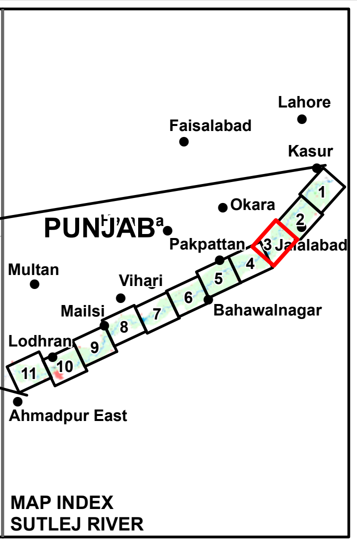
FATA
Lahore
Chaman
Quetta
PUNJAB
Sibi
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
SINDH
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
ARABIAN SEA
INDIA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Lahore
Kasur
Okara
PUNJAB
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
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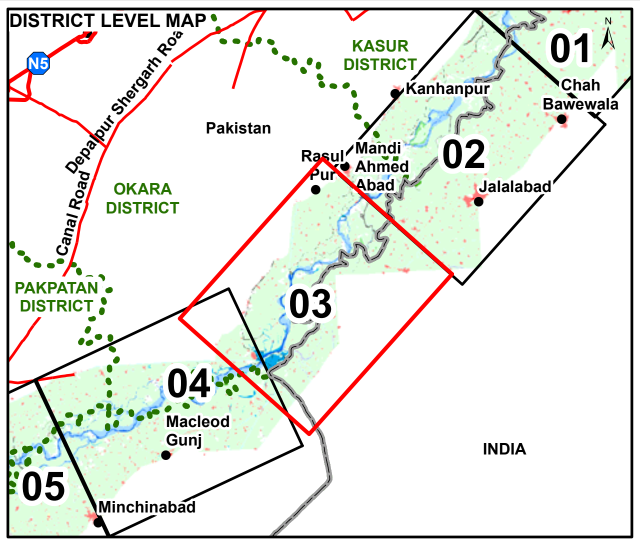
MAP INDEX
SUTLEJ RIVER


DISTRICT LEVEL MAP
N5
Sharqpur Sheikhupura Road
KASUR DISTRICT
Kanhanpur
Chah Bawewala
Pakistan
Depalpur Road
Canal Road
Rasul Pur
Mandi Ahmed Abad
Jalalabad
OKARA DISTRICT
PAKPATAN DISTRICT
01
02
03
04
05
Macleod Gunj
Minchinabad
INDIA

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

N5 National Highway	▨ Barren Area
Metalled Road	■ Bund / Spur
Un-metalled Road	🟩 Cultivated Area
Track	🟦 Flood Plain
Railway Line	🟩 Grass
Canal	🟨 Graveyard
Branch	🟫 Hill
Drain	🟦 Main/Link Canal, Escape, Spillway
Distributary	🟥 Motorway
Minor	🟫 Mud
Nallah	🟪 Nallah (Perennial)
Wah	■ Nallah (Non Perennial)
District Boundary	☐ Orchard
Provincial Boundary	▨ Planned Urban Area
International Boundary	🟩 Range Forest
	🟦 River
	🟧 Sand Dunes
	🟥 Town/Village/Settlement
	🟦 Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
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DELTARES,THE NETHERLANDS

Source of Information:
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3. FPSP-II GIS data
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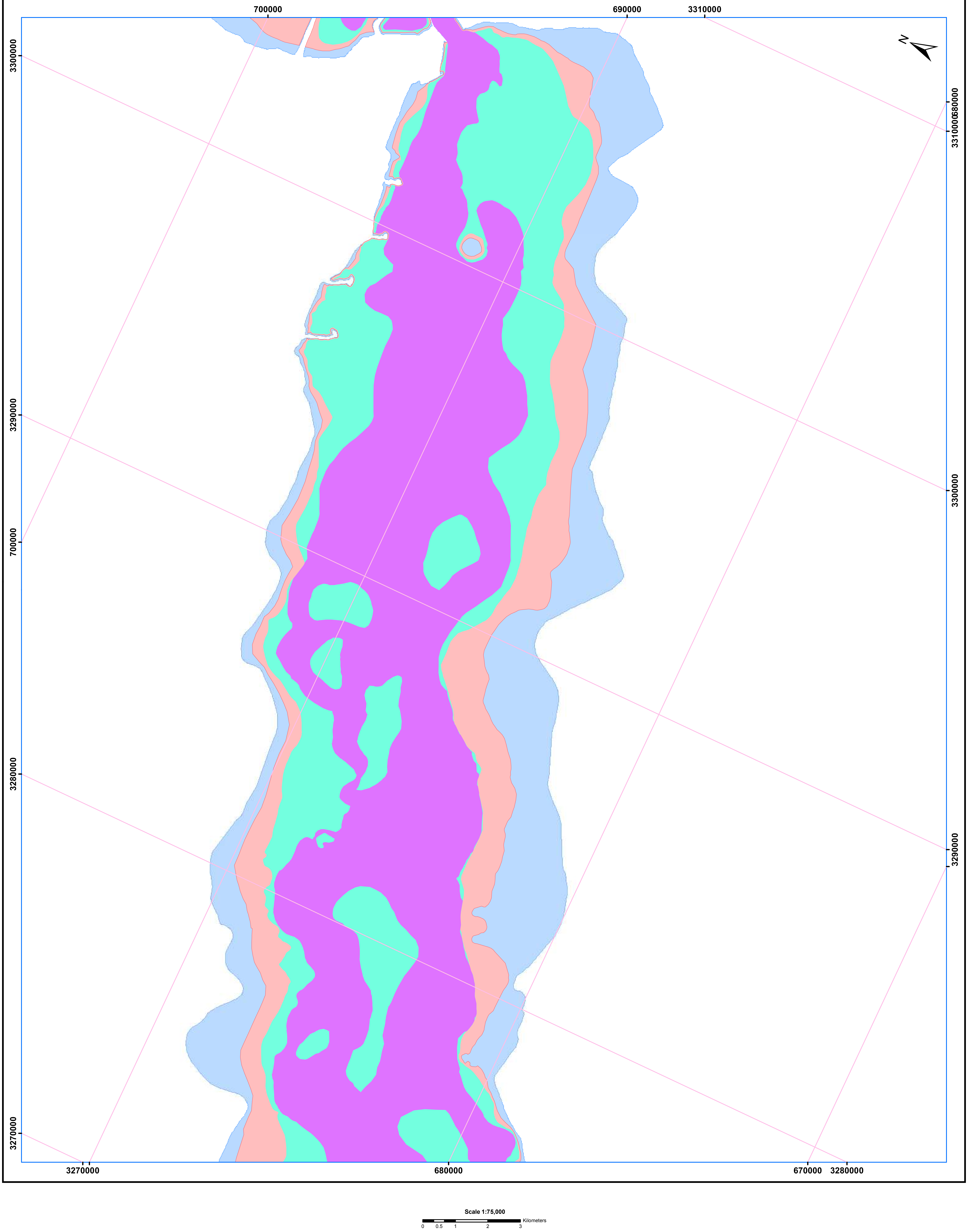
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain

Okara, Pakpattan and Bhawalnagar Districts

Sheet 4 of 11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Scale 1:75,000
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3
Kilometers

LEGEND

(Flood Risk Zones)

🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 150,000 cusecs in Suleimanki-Islam reach)

🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 150,000 to 250,000 cusecs in Suleimanki-Islam reach)

🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 250,000 to 350,000 cusecs in Suleimanki-Islam reach)

LEGEND

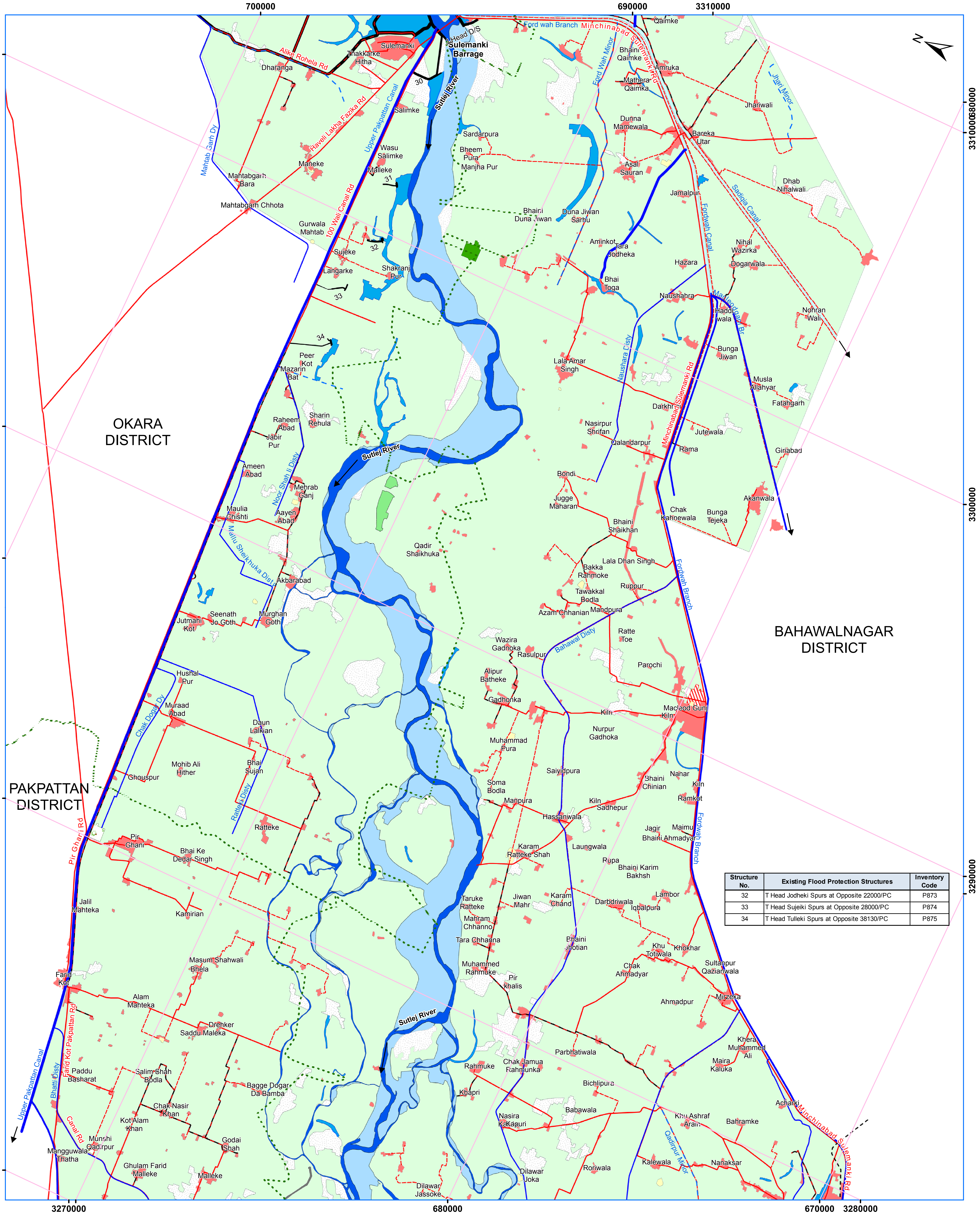
(Inundation Extent Corresponding to Provincial Irrigation Department)

🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Suleimanki-Islam reach

Note: All flood extents are based on breachless conditions

Okara, Pakpattan and Bhawalnagar Districts

Sheet 4 of 11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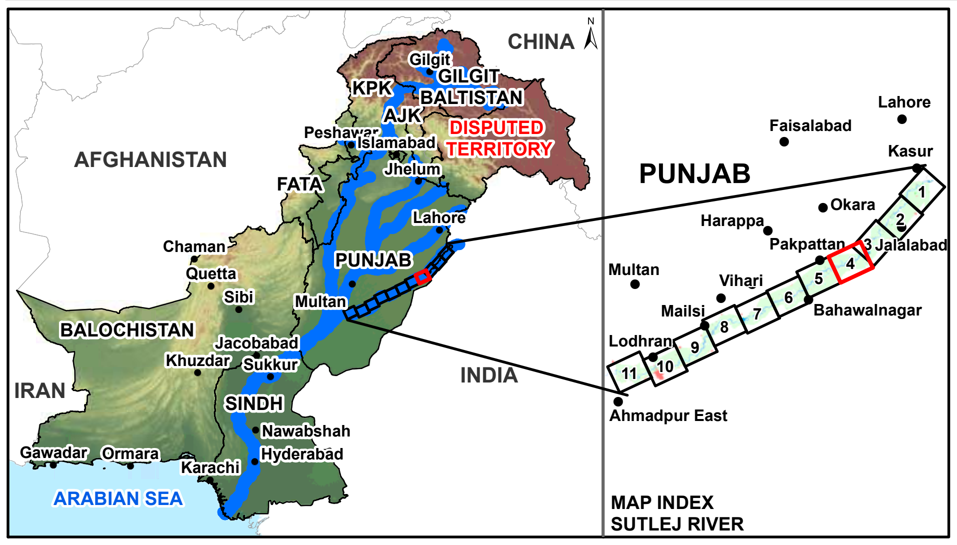
OKARA
DISTRICT
PAKPATTAN
DISTRICT
BAHAWALNAGAR
DISTRICT
Head D/S
Sulemanki
Barrage
Sulemanki
Sutlej River
Ford wah Branch
Minchinabad Sulemanki Rd
Fordwah Minor
Qaimke
Bhaini Qaimke
Amruka
Mathera Qaimka
Jhari Minor
Jhariwali
Alike Rohela Rd
Thakkarke Hitha
Dharanga
Salimke
30
Havali Lakha Fazika Rd
Upper Pakpattan Canal
Mahtab Garh Dy
Wasu Salimke
Sardarpura
Dunna Mamewala
Bareka Utar
Maneke
Malleke
31
Bheem Pura
Manjha Pur
Asal Sauran
Mahtabgarh Bara
Mahtabgarh Chhota
Dhab Nihalwali
Jamalpur
Sadiqia Canal
100 Wall Canal Rd
Gurwala Mahtab
Bhaini Duna Jiwan
Duna Jiwan Sarhu
Fordwah Canal
Sujeke
32
Aminkot
Tara Jodheka
Nihal Wazirka
Dogarwala
Hazara
Langarke
Shakranj Pur
Bhai Toga
33
Naushahra
Macleod Gunj Br
Haddi Wala
Nohran Wali
34
Peer Kot
Mazarin Bat
Lala Amar Singh
Naushara Disty
Bunga Jiwan
Musla Allahyar
Fatahgarh
Sharin Rehula
Raheem Abad
Jabir Pur
Darkhi
Nasirpur Shrifan
Qalandarpur
Jutewala
Minchinabad Sulemanki Rd
Rama
Giriabad
Ameen Abad
Noor Shah II Disty
Mehrab Ganj
Bondi
Jugge Maharan
Akanwala
Maulia Chishti
Aayen Abad
Chak Kahnewala
Bunga Tejeka
Bhaini Shaikhan
Mallu Sheikhuka Disty
Qadir Shaikhuka
Lala Dhan Singh
Bakka Rahmoke
Akbarabad
Ruppur
Fordwah Branch
Tawakkal Bodla
Azam Chhanian
Mandpura
Jutmahi Kot
Seenath Jo Goth
Murghan Goth
Ratte Toe
Bahawal Disty
Wazira Gadhoka
Rasulpur
Hushal Pur
Alipur Batheke
Parochi
Chak Doral Dy
Muraad Abad
Gadhonka
Kiln
Macleod Gunj
Daun Lakkan
Nurpur Gadhoka
Muhammad Pura
Mohib Ali Hither
Bhai Sujan
Ghouspur
Saiyidpura
Bhaini Chinian
Nanar
Kiln
Ratteke Disty
Soma Bodla
Manpura
Ramkot
Kiln Sadhepur
Ratteke
Hassanwala
Pir Ghani
Bhai Ke Dedar Singh
Karam Ratteke Shah
Laungwala
Jagir Bhaini
Maimu Ahmadyar
Pir Ghari Rd
Rupa
Bhaini Karim Bakhsh
Jalil Mahteka
Jiwan Mahr
Karam Chand
Darbdriwala
Iqbalpura
Lambor
Kamirian
Taruke Ratteke
Mahram Chhanno
Tara Chhanna
Bhaini Jhotian
Khu Totiwala
Khokhar
Masum Shahwali Bhela
Muhammed Rahmuke
Pir Khalis
Chak Ahmadyar
Sultanpur Qazianwala
Farid Kot
Ahmadpur
Mirzeka
Alam Manteka
Farid Kot Pakpattan Rd
Drenker
Saddu Maleka
Parbhatiwala
Khera Muhammed Ali
Maira Kaluka
Paddu Basharat
Salim Shah Bodla
Rahmuke
Chak Jamua Rahmunka
Upper Pakpattan Canal
Bhatti Disty
Bagge Dogar Da Bamba
Khapri
Bichlipura
Achariki
Chak Nasir Khan
Babawala
Canal Rd
Kot Alam Khan
Nasira Kakapuri
Khu Ashraf Arain
Bahramke
Munshi Qadirpur
Godai Shah
Qadirpur Minor
Mangguwala Thatha
Ghulam Farid Malleke
Malleke
Dilawar Jassoke
Dilawar Joka
Roriwala
Kalewala
Nanaksar
Minchinabad Sulemanki Rd

Structure No.	Existing Flood Protection Structures	Inventory Code
32	T Head Jodheki Spurs at Opposite 22000/PC	P873
33	T Head Sujeiki Spurs at Opposite 28000/PC	P874
34	T Head Tulleki Spurs at Opposite 38130/PC	P875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Quetta
PUNJAB
Sibi
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
SINDH
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
ARABIAN SEA
INDIA
PUNJAB
Faisalabad
Lahore
Kasur
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
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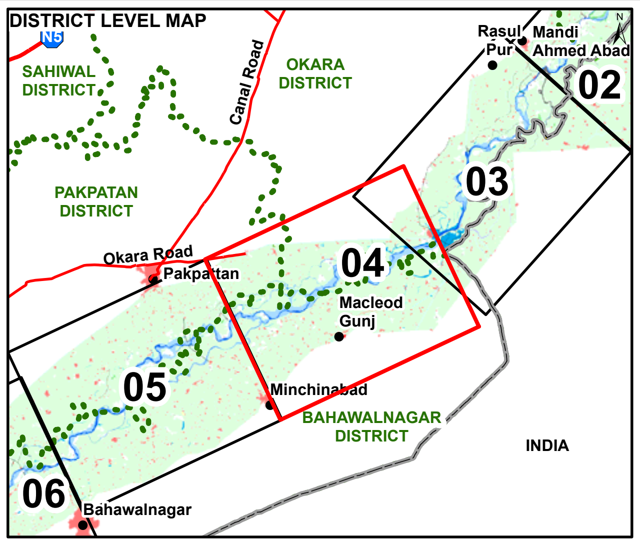
MAP INDEX
SUTLEJ RIVER


DISTRICT LEVEL MAP
N5
SAHIWAL DISTRICT
Canal Road
OKARA DISTRICT
Rasul Pur
Mandi Ahmed Abad
02
PAKPATTAN DISTRICT
03
Okara Road
Pakpattan
04
Macleod Gunj
05
Minchinabad
BAHAWALNAGAR DISTRICT
INDIA
06
Bahawalnagar

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

N5 National Highway	Barren Area
Metalled Road	Bund / Spur
Un-metalled Road	Cultivated Area
Track	Flood Plain
Railway Line	Grass
Canal	Graveyard
Branch	Hill
Drain	Main/Link Canal, Escape, Spillway
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Minor	Mud
Nallah	Nallah (Perennial)
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District Boundary	Orchard
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	Town/Village/Settlement
	Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
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FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

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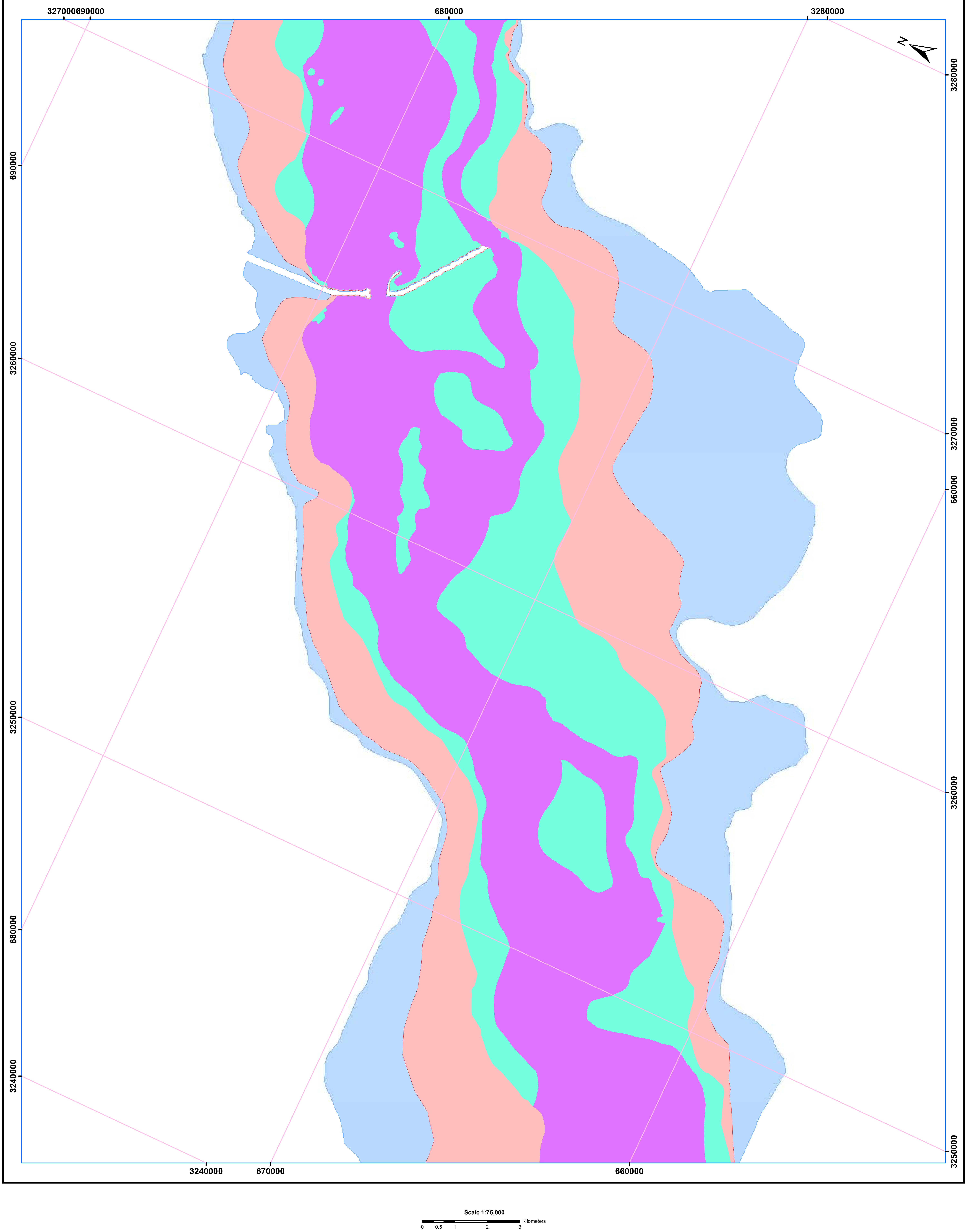
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain

Bahawalnagar and Pakpatan Districts

Sheet 5 of 11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Scale 1:75,000
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3
Kilometers

LEGEND

(Flood Risk Zones)

- 🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 150,000 cusecs in Suleimanki-Islam reach)
- 🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 150,000 to 250,000 cusecs in Suleimanki-Islam reach)
- 🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 250,000 to 350,000 cusecs in Suleimanki-Islam reach)

LEGEND

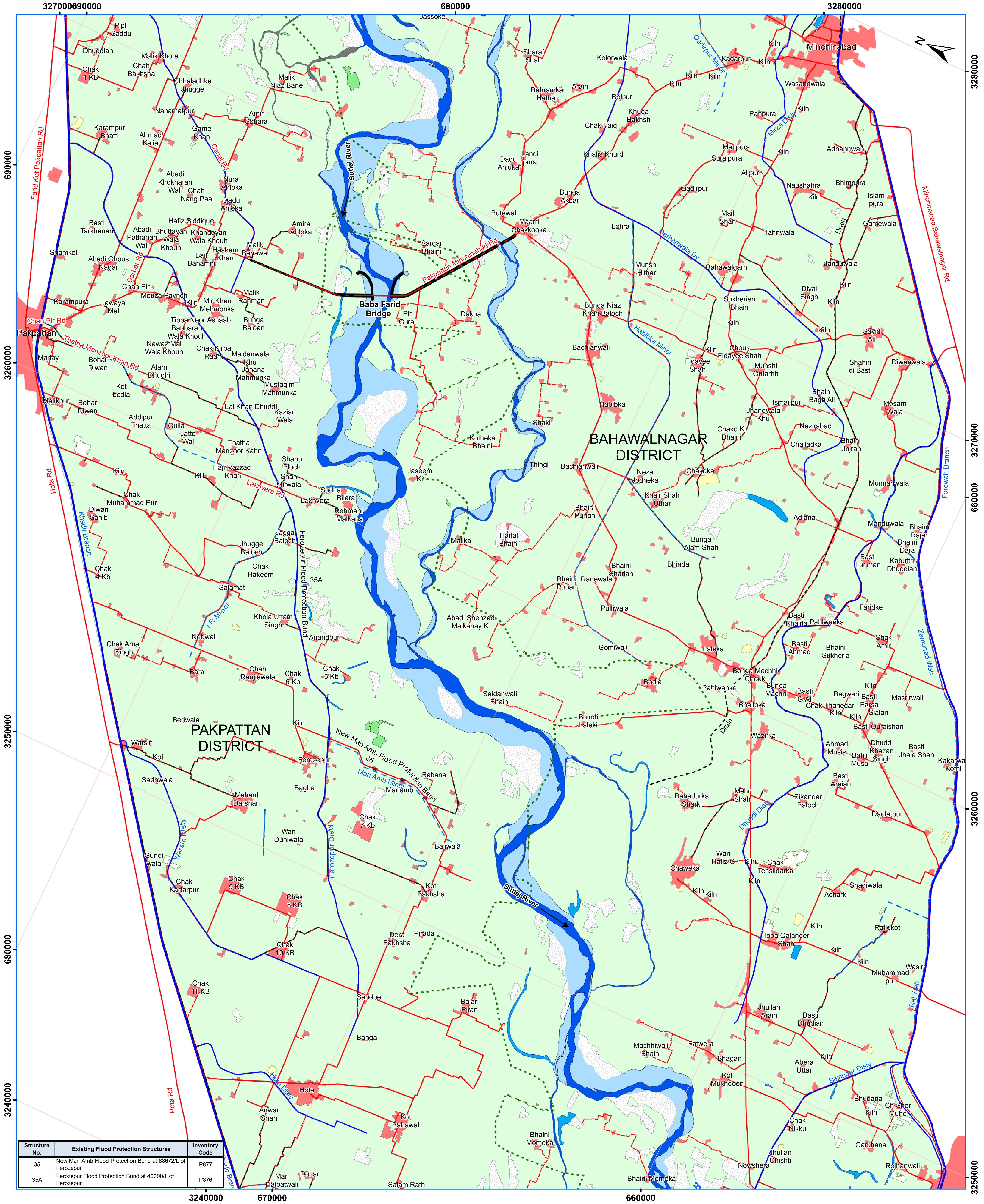
(Inundation Extent Corresponding to Provincial Irrigation Department)

- 🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Suleimanki-Islam reach

Note: All flood extents are based on breachless conditions

Bahawalnagar and Pakpattan Districts

Sheet 5 of 11



3270000
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3250000
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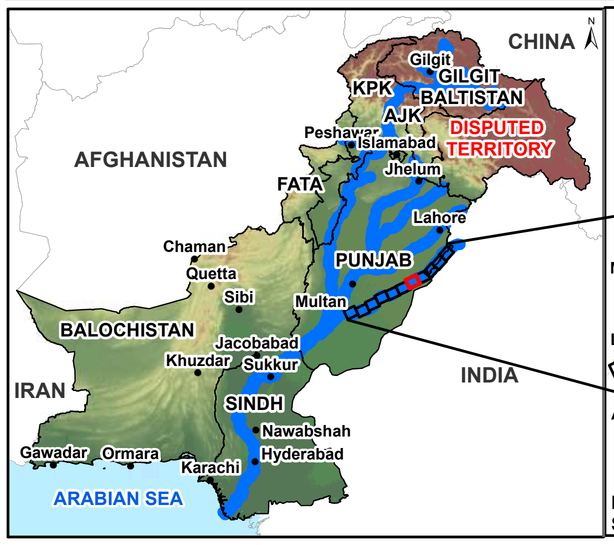
Minchinabad
Pakpattan
Baba Farid Bridge
Pakpattan Minchinabad Rd
Sutlej River
BAHAWALNAGAR DISTRICT
PAKPATTAN DISTRICT
Farid Kot Pakpattan Rd
Minchinabad Bahawalnagar Rd
Hota Rd
Khadir Branch
Fordwah Branch
Ferozepur Flood Protection Bund
New Mari Amb Flood Protection Bund
Mari Amb Minor
Ferozepur Disty
Warsin Disty
Hota Disty
Darbariwala Dy
Habibka Minor
Qadirpur Minor
Mirza Disty
Dhuddi Disty
Zamurrad Wah
Raj Wah
Sikandar Disty
Lakhvera Rd
Thatha Manzoor Khan Rd
Chan Pir Rd
Darbar Rd
Canal Rd
1 R Minor
Drain
35
35A
Ferozepur
Chak 6 Kb
Chak 5 Kb
Chak 7 Kb
Chak 8 KB
Chak 9 KB
Chak 10 KB
Chak 11 KB
Chak 4 Kb
Chak 1 KB
Kiln
Hota
Kot Bahawal
Salam Rath
Bhaini Momeka
Nowshera
Rojhanwali
Garkhana
Jhullan Chishti
Chak Nikku
Kot Mukhdoon
Bhagan
Fatwera
Macchhiwali Bhaini
Banga
Sandhe
Balari Piran
Dera Bakhsha
Pirada
Kot Bakhsha
Baliwala
Mariamb
Babana
Bagha
Wan Duniwala
Mahant Darshan
Sadhwala
Warsin
Kot
Beriwala
Gundi wala
Chak Kartarpur
Anwar Shah
Mari Haibatwali
Dohar
Chaweka
Bahadurka Sharki
Sikandar Baloch
Daulatpur
Shadiwala
Acharki
Toba Qalander Shah
Rafiqkot
Muhammad pur
Jhullan Arain
Basti Dhudian
Abera Uttar
Bhudana
Ch Sher Muhd
Saidanwali Bhaini
Bhindi Laleki
Bhailoka
Pahlwanke
Bonga Machhi Chouk
Wazirka
Laleka
Gomiwali
Pulliwala
Bodia
Abadi Shehzad Malkanay Ki
Anandpur
Khola Uttam Singh
Nebwali
Bara
Chah Ranjiewala
Chak Amar Singh
Salamat
Chak Hakeem
Jhugge Baloch
Jagga Baloch
Rehmani Malkana
Sudha Bilara
Lakhvera
Shahu Bloch
Shah Mirwala
Thatha Manzoor Kahn
Haji Razzaq Khan
Gulla Jatto Wal
Addipur Thatta
Lal Khan Dhuddi
Kazian Wala
Mustaqim Mahmunka
Maidanwala Khu
Jahana Mahmunka
Chak Kirpa Raam
Nawaz Mal Wala Khouh
Alam Dhudhi
Tibba Noor Ashaab
Babbaran Wala Khouh
Bunga Baloan
Mir Khan Mehmonka
Malik Rahman
Mouza Paynch
Chan Pir
Karampura
Jawaya Mal
Marjay
Bohar Diwan
Kot bodla
Malikpur
Chak Muhammad Pur
Diwan Sahib
Abadi Ghous Nagar
Shamkot
Basti Tarkhanan
Abadi Pathanan Wali
Bhuttayan Wala Khouh
Hafiz Siddique
Khandoyan Wala Khouh
Hasham Khan
Bait Bahamni
Malik Bahawal
Amira Ahloka
Sardar Bhaini
Abadi Khokharan Wali
Chah Nang Paal
Nura Ahloka
Dadu Ahloka
Karampur Bhatti
Ahmad Kalia
Game Khan
Amir Sohara
Nahamatpur
Chhaladhke Jhugge
Malik Niaz Bane
Malik Khora
Chah Bakhsha
Dhudian
Pipli Saddu
Jassoke
Sharaf Shah
Kolorwala
Bahramka Hathar
Arain
Bolpur
Khuda Bakhsh
Chak Faiq
Khalis Khurd
Landi pura
Dadu Ahluka
Bunga Akbar
Butewali
Maarri Chakkooka
Lohra
Qadirpur
Mail Shah
Tahnwala
Munshi Hithar
Bahawalgarh
Sukherien Bhain
Bunga Niaz Khan Baloch
Dakua
Pir Gurai
Bachianwali
Fidayee Shah
Chouk Fidayee Shah
Munshi Outarhh
Habibka
Shaki
Kotheka Bhaini
Thingi
Jaseem Ki
Malika
Harlal Bhaini
Bhaini Purian
Bhaini Sharian
Bhinda
Ranewala
Neza Jodheka
Chakoka
Khair Shah Uthar
Bunga Alam Shah
Adlana
Challadka
Nazirabad
Jhandwala Khu
Chako Ki Bhaini
Ismailpur
Bhaini Bagh Ali
Wasandwala
Kadarpur
Panpura
Matipura
Suralpura
Alipur
Adhannwali
Naushahra
Bhimpura
Islam pura
Gamewala
Janduwala
Diyal Singh
Sayid Ali
Shahin di Basti
Diwanwala
Mosam Wala
Bhaini Jinjran
Munnanwala
Manduwala
Bhaini Rajar
Bhaini Dara
Basti Luqman
Kabutri Dhuddian
Faridke
Basti Khalifa
Pahlwanka
Chak Amir
Basti Ahmad
Bhaini Sukheria
Bunga Machi
Basti G Ali
Chak Thanedar
Bagwari
Basti Parsa
Sialan
Masrirwali
Basti Quraishan
Ahmad Musa
Bahli Musa
Dhuddi Khazan Singh
Basti Jhale Shah
Kakarwa Kothi
Basti Araian
Mehr Shah
Wan Hafiz G
Chak Tensildarka

Structure No.	Existing Flood Protection Structures	Inventory Code
35	New Mari Amb Flood Protection Bund at 68672/L of Ferozepur	P877
35A	Ferozepur Flood Protection Bund at 40000/L of Ferozepur	P876



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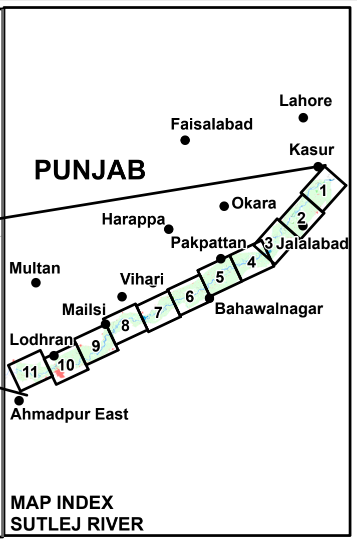
AFGHANISTAN
KPK
Gilgit
GILGIT BALTISTAN
AJK
DISPUTED TERRITORY
Peshawar
Islamabad
Jhelum
FATA
Lahore
Chaman
Quetta
Sibi
PUNJAB
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
SINDH
INDIA
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
ARABIAN SEA



PUNJAB
Faisalabad
Lahore
Kasur
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
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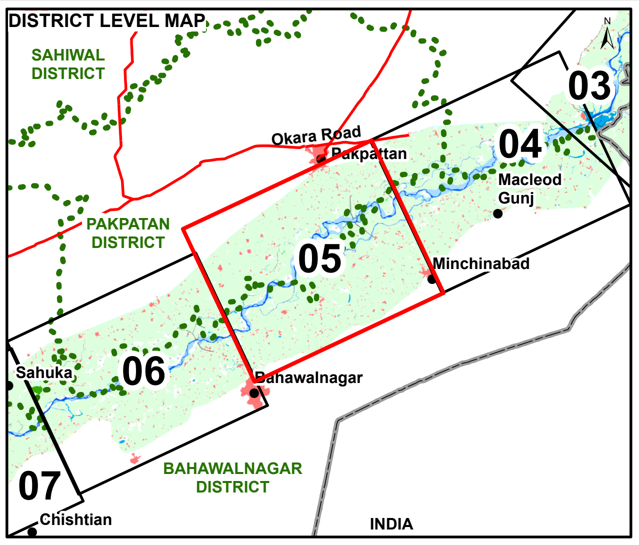
MAP INDEX
SUTLEJ RIVER



DISTRICT LEVEL MAP
SAHIWAL DISTRICT
03
Okara Road
Pakpattan
04
Macleod Gunj
PAKPATAN DISTRICT
05
Minchinabad
Sahuka
06
Bahawalnagar
07
Chishtian
BAHAWALNAGAR DISTRICT
INDIA

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

- National Highway
- Metalled Road
- Un-metalled Road
- Track
- Railway Line
- Canal
- Branch
- Drain
- Distributary
- Minor
- Nallah
- Wah
- District Boundary
- Provincial Boundary
- International Boundary
- Barren Area
- Bund / Spur
- Cultivated Area
- Flood Plain
- Grass
- Graveyard
- Hill
- Main/Link Canal, Escape, Spillway
- Motorway
- Mud
- Nallah (Perennial)
- Nallah (Non Perennial)
- Orchard
- Planned Urban Area
- Range Forest
- River
- Sand Dunes
- Town/Village/Settlement
- Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

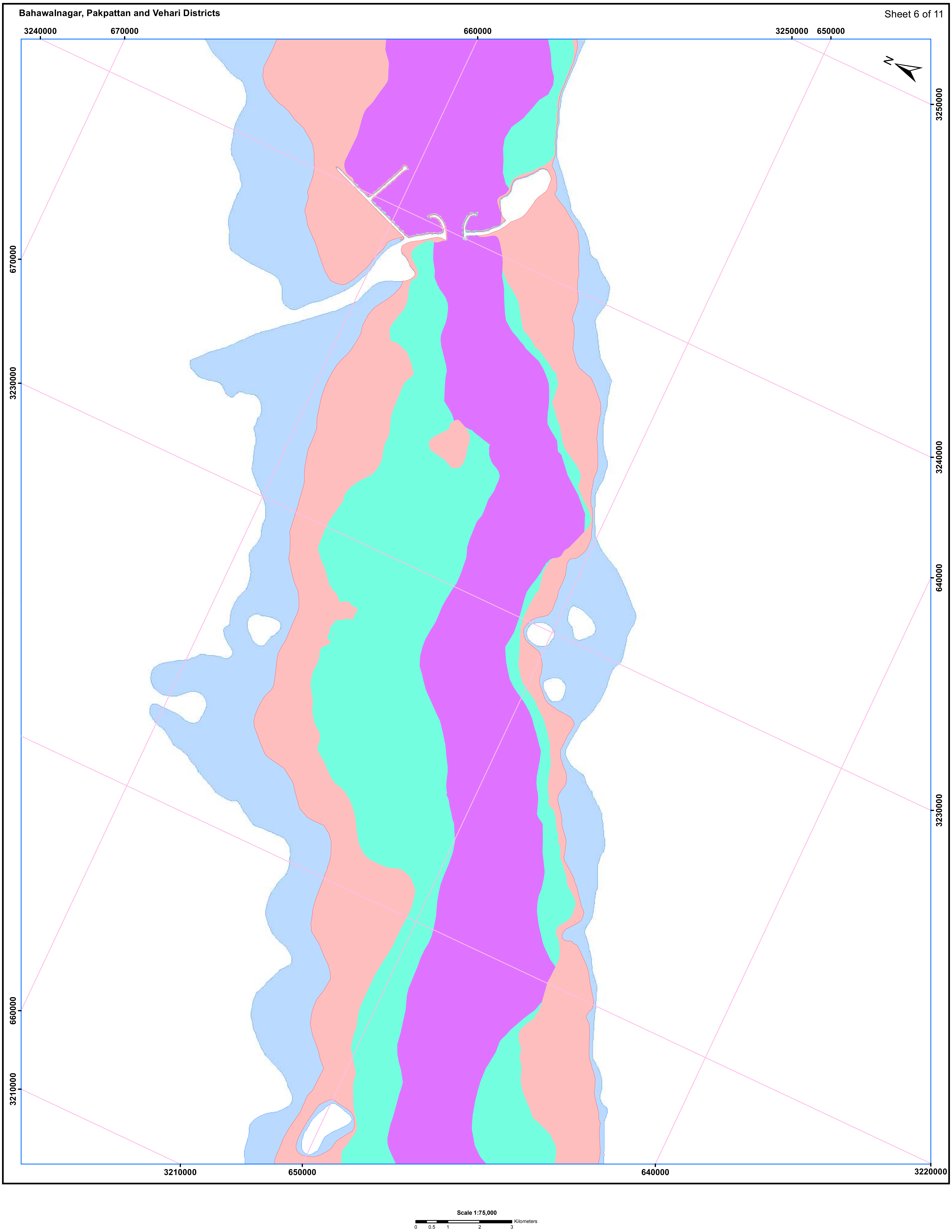
in association with

DELTARES,THE NETHERLANDS

Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain


Bahawalnagar, Pakpattan and Vehari Districts
Sheet 6 of 11
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Scale 1:75,000
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Kilometers

LEGEND

(Flood Risk Zones)

🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 150,000 cusecs in Suleimanki-Islam reach)

🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 150,000 to 250,000 cusecs in Suleimanki-Islam reach)

🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 250,000 to 350,000 cusecs in Suleimanki-Islam reach)

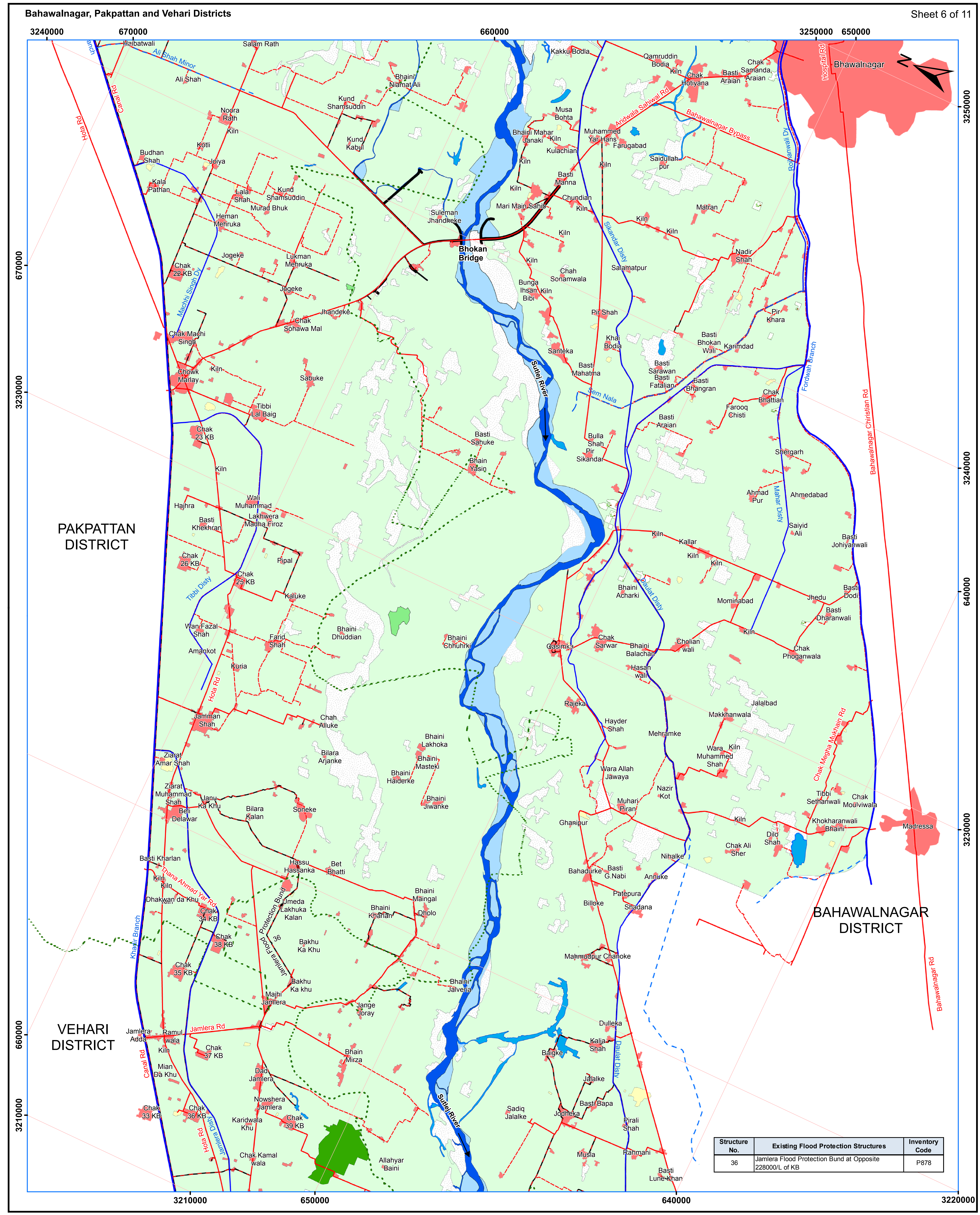
LEGEND

(Inundation Extent Corresponding to Provincial Irrigation Department)

🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Suleimanki-Islam reach

Note: All flood extents are based on breachless conditions

Bahawalnagar, Pakpattan and Vehari Districts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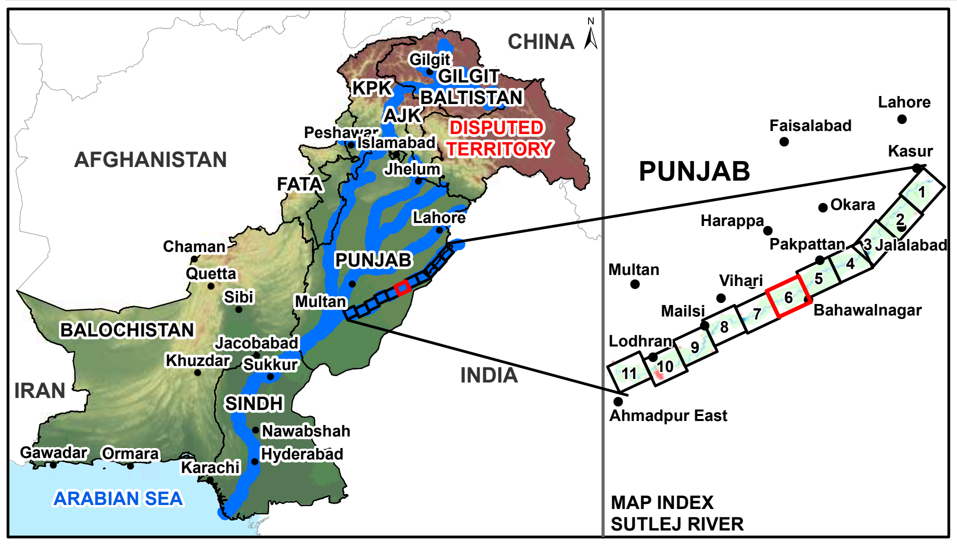
3220000
Bhawalnagar
Hospital Rd
Haibatwali
Salam Rath
Ali Shah Minor
Ali Shah
Canal Rd
Hota Rd
Noora Rath
Kiln
Kotli
Budhan Shah
Joiya
Kala Pathan
Lala Shah
Kund Shamsuddin
Murad Bhuk
Heman Mehruka
Jogeke
Lukman Mehruka
Chak 22 KB
Machi Singh Dy
Jogeke
Chak Sohawa Mal
Jhandeke
Chak Machi Singh
Chowk Marlay
Sabuke
Tibbi Lal Baig
Chak 23 KB
Bhaini Niamat Ali
Kund Shamsuddin
Kund Kabul
Suleman Jhandeke
Bhokan Bridge
Kakku Bodla
Musa Bohta
Bhaini Mahar Janaki
Kulachian
Basti Manna
Chundian
Mari Main Sahib
Chah Sonamwala
Bunga Ihsan Bibi
Muhammed Yar Jans
Farugabad
Arifwala Sahiwal Rd
Qamruddin Bodla
Chak Hotiyana
Basti Araian
Chak Samanda Araian
Bahawalnagar Bypass
Saidullah pur
Matran
Rohanwali Dy
Sikandar Disty
Salamatpur
Nadir Shah
Pir Shah
Khai Bodla
Santeka
Basti Mahatma
Basti Sarawan
Basti Fatalian
Basti Bhokan Wali
Karimdad
Basti Bhangran
Pir Khara
Fordwah Branch
Sem Nala
Chak Bhattian
Farooq Chisti
Basti Araian
Bahawalnagar Christian Rd
Bulla Shah
Pir Sikandar
Sutlej River
Basti Sahuke
Bhain Yasin
Shergarh
Ahmad Pur
Ahmedabad
Mahar Disty
Saiyid Ali
Basti Johiyanwali
Kallar
Kiln
PAKPATTAN DISTRICT
Hajhra
Wali Muhammad
Lakhwera Madha Firoz
Basti Khekhran
Chak 26 KB
Pipal
Chak 25 KB
Tibbi Disty
Kaluke
Wan Fazal Shah
Amankot
Farid Shah
Bhaini Dhuddian
Bhaini Chhuhrki
Bhaini Acharki
Daulat Disty
Mominabad
Jhedu
Basti Dodi
Basti Dharanwali
Qasimke
Chak Sarwar
Bhaini Balachar
Cholian wali
Chak Phoganwala
Hasan wali
Kuria
Hota Rd
Rajeka
Hayder Shah
Jalalbad
Makkhanwala
Mehramke
Chak Megha Mukhain Rd
Wara Muhammed Shah
Jamman Shah
Chah Alluke
Bhaini Lakhoka
Bhaini Masteki
Bilara Arjanke
Bhaini Haiderke
Bhaini Jiwanke
Ziarat Amar Shah
Ziarat Muhammad Shah
Janu Ka Khu
Beli Delawar
Bilara Kalan
Soneke
Wara Allah Jawaya
Nazir Kot
Muhari Piran
Ghanipur
Tibbi Sethanwali
Chak Moulviwala
Khokharanwali Bhaini
Madressa
Dilo Shah
Chak Ali Sher
Nihalke
Annuke
Basti G.Nabi
Bahadurke
Patepura
Shadana
Billoke
Basti Kharlan
Thana Ahmad Yar Rd
Dhakwan da Khu
Chak 34 KB
Hassu Hassanka
Bet Bhatti
Umeda Lakhuka Kalan
Jamlera Flood Protection Bund
36
Bhaini Maingal
Bhaini Khanan
Dholo
Khadir Branch
Chak 38 KB
Bakhu Ka Khu
Chak 35 KB
Bakhu Ka khu
Majhi Jamlera
Bhaini Jalvera
Jange Joray
Mahmudpur Chanoke
BAHAWALNAGAR DISTRICT
Bahawalnagar Rd
VEHARI DISTRICT
Jamlera Adda
Ramul wala
Jamlera Rd
Chak 37 KB
Bhain Mirza
Mian Da Khu
Dad Jamlera
Dulleka
Kalia Shah
Baigke
Daulat Disty
Jalalke
Basti Bapa
Nowshera Jamlera
Chak 33 KB
Chak 36 KB
Karidwala Khu
Chak 39 KB
Jamlera Disty
Sadiq Jalalke
Jodheka
Pirali Shah
Chak Kamal wala
Allahyar Baini
Musla
Rahmani
Basti Lune Khan

Structure No.	Existing Flood Protection Structures	Inventory Code
36	Jamlera Flood Protection Bund at Opposite 228000/L of KB	P878


CHINA
GILGIT BALTISTAN
Gilgit
KPK
AJK
Peshawar
Islamabad
DISPUTED TERRITORY
Jhelum
AFGHANISTAN
FATA
Lahore
Chaman
Quetta
PUNJAB
Sibi
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
SINDH
INDIA
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
ARABIAN SEA
PUNJAB
Faisalabad
Lahore
Kasur
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
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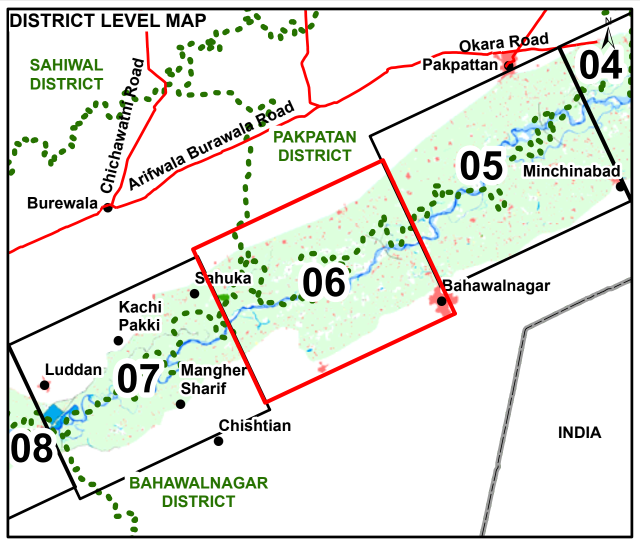
MAP INDEX
SUTLEJ RIVER


DISTRICT LEVEL MAP
SAHIWAL DISTRICT
Chichawatni Road
Arifwala Burawala Road
Burewala
Okara Road
Pakpattan
PAKPATTAN DISTRICT
04
05
Minchinabad
06
Bahawalnagar
Sahuka
Kachi Pakki
Luddan
07
Mangher Sharif
Chishtian
08
BAHAWALNAGAR DISTRICT
INDIA

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

- National Highway
- Metalled Road
- Un-metalled Road
- Track
- Railway Line
- Canal
- Branch
- Drain
- Distributary
- Minor
- Nallah
- Wah
- District Boundary
- Provincial Boundary
- International Boundary
- Barren Area
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- Cultivated Area
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- Grass
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AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
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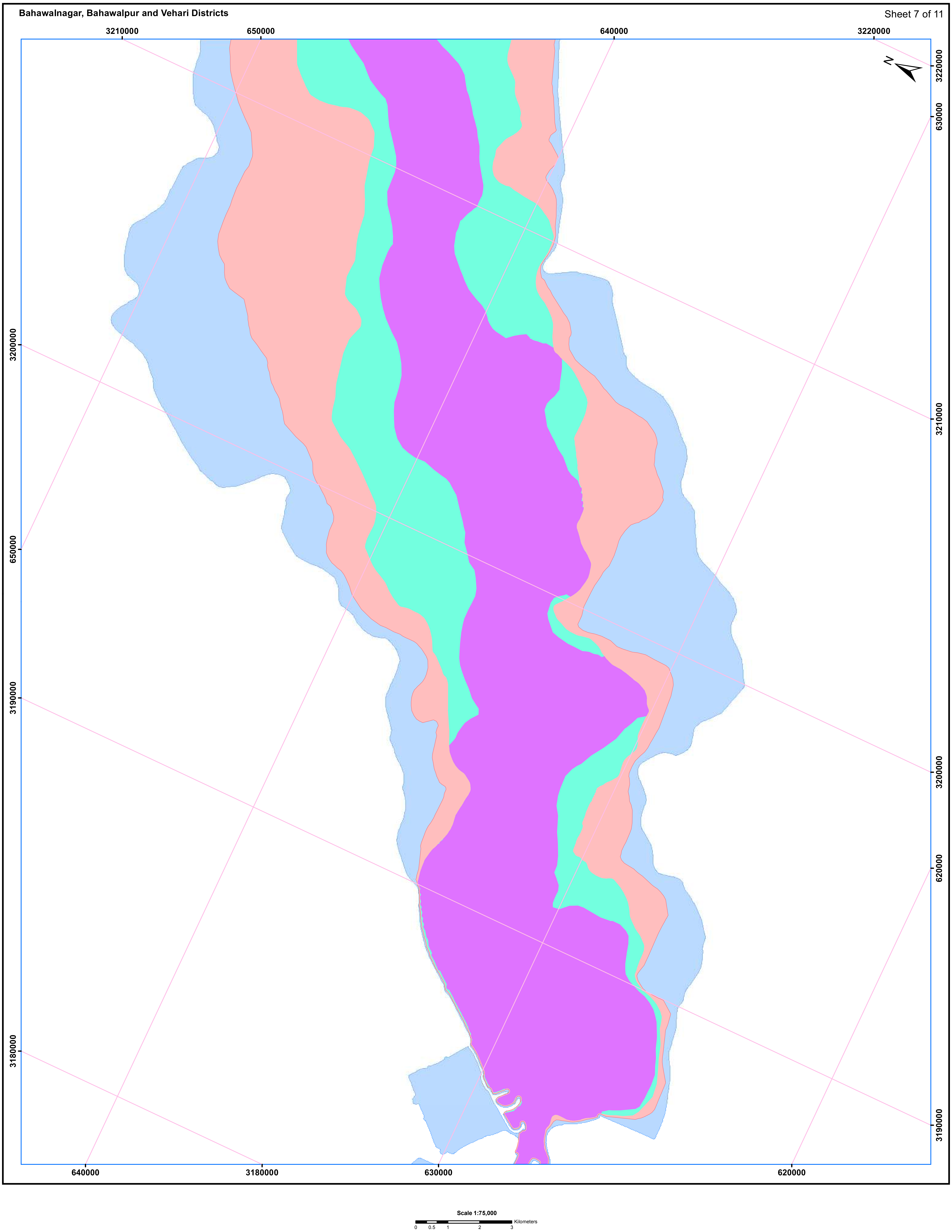
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain

Bahawalnagar, Bahawalpur and Vehari Districts

Sheet 7 of 11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Scale 1:75,000
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Kilometers

LEGEND

(Flood Risk Zones)

- 🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 150,000 cusecs in Suleimanki-Islam reach)
- 🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 150,000 to 250,000 cusecs in Suleimanki-Islam reach)
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LEGEND

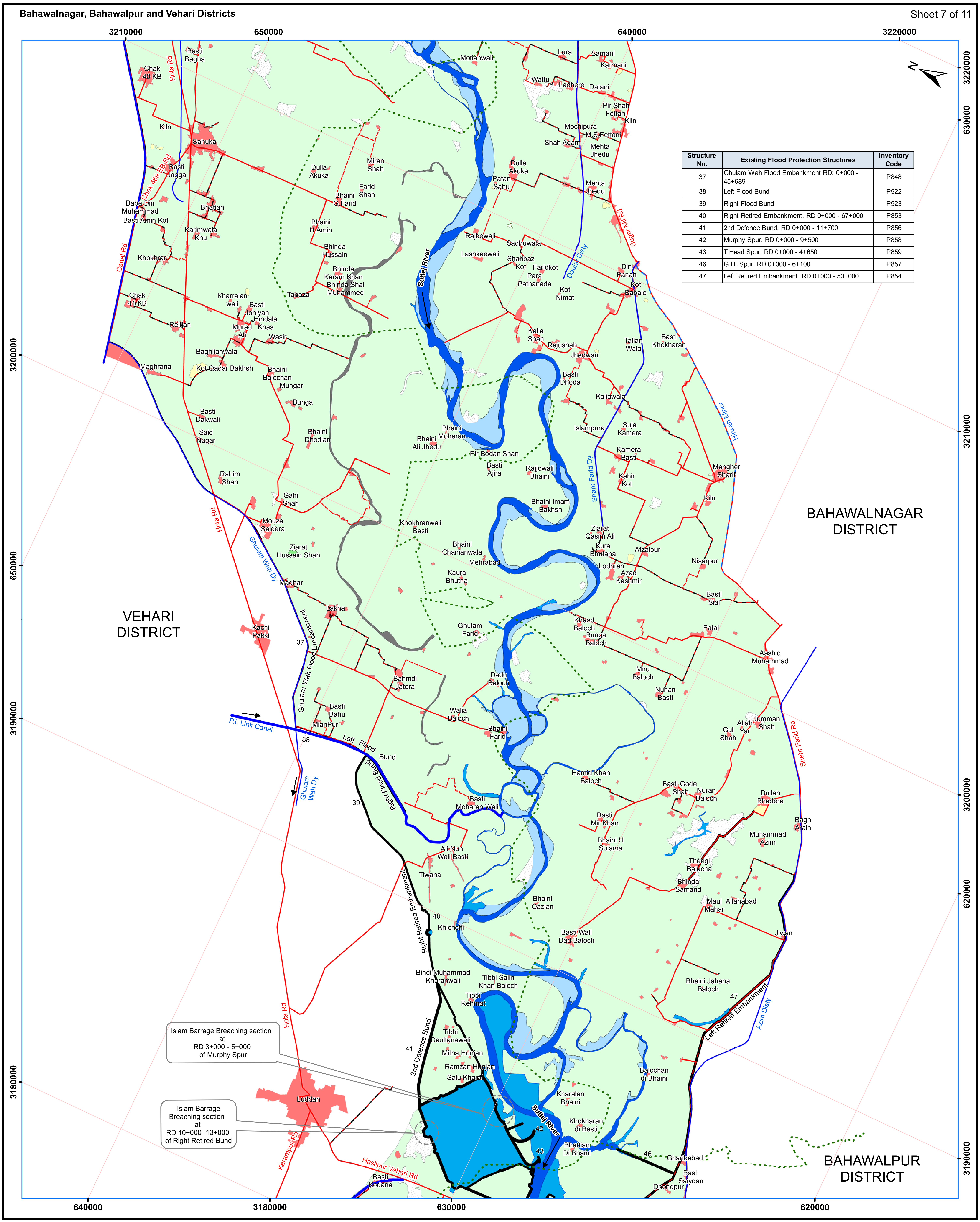
(Inundation Extent Corresponding to Provincial Irrigation Department)

- 🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Suleimanki-Islam reach

Note: All flood extents are based on breachless conditions

Bahawalnagar, Bahawalpur and Vehari Districts

Sheet 7 of 11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VEHARI DISTRICT
BAHAWALNAGAR DISTRICT
BAHAWALPUR DISTRICT
Sutlej River
Ghulam Wah Flood Embankment
Right Flood Bund
Left Flood Bund
Right Retired Embankment
2nd Defence Bund
Left Retired Embankment
P.I. Link Canal
Ghulam Wah Dy
Daula Disty
Shahr Farid Dy
Hinwan Minor
Azim Disty
Hota Rd
Canal Rd
Chak 469 EB Rd
Sugar Mill Rd
Shehr Farid Rd
Karampur Rd
Hasilpur Vehari Rd
Luddan
Sahuka
Motianwali
Lura
Samani Karmani
Maghrana
Kachi Pakki
Ghulam Farid
Khichi
Tiwana
Gharibabad
Basti Saiydan
Dhondpur
Basti Kodana
37
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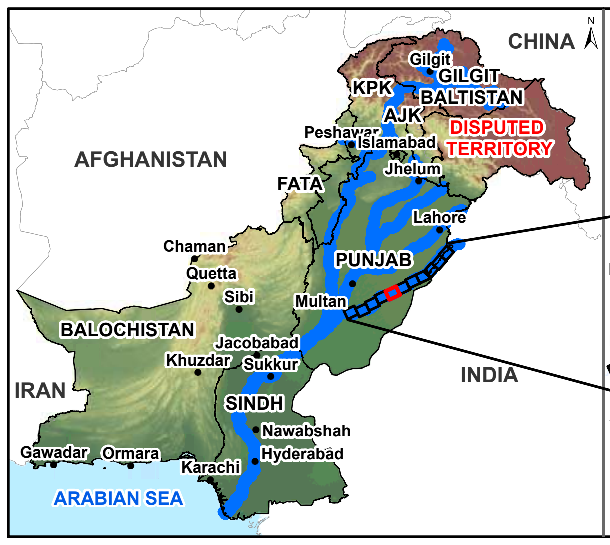
47

Islam Barrage Breaching section at RD 3+000 - 5+000 of Murphy Spur

Islam Barrage Breaching section at RD 10+000 -13+000 of Right Retired Bund

Structure No.	Existing Flood Protection Structures	Inventory Code
37	Ghulam Wah Flood Embankment RD: 0+000 - 45+689	P848
38	Left Flood Bund	P922
39	Right Flood Bund	P923
40	Right Retired Embankment. RD 0+000 - 67+000	P853
41	2nd Defence Bund. RD 0+000 - 11+700	P856
42	Murphy Spur. RD 0+000 - 9+500	P858
43	T Head Spur. RD 0+000 - 4+650	P859
46	G.H. Spur. RD 0+000 - 6+100	P857
47	Left Retired Embankment. RD 0+000 - 50+000	P854


CHINA
GILGIT BALTISTAN
KPK
AJK
DISPUTED TERRITORY
AFGHANISTAN
FATA
Peshawar
Islamabad
Jhelum
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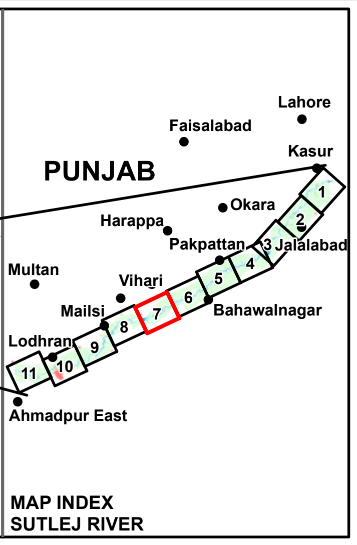
PUNJAB
Chaman
Quetta
Sibi
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
SINDH
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
ARABIAN SEA
INDIA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Lahore
Faisalabad
Kasur
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
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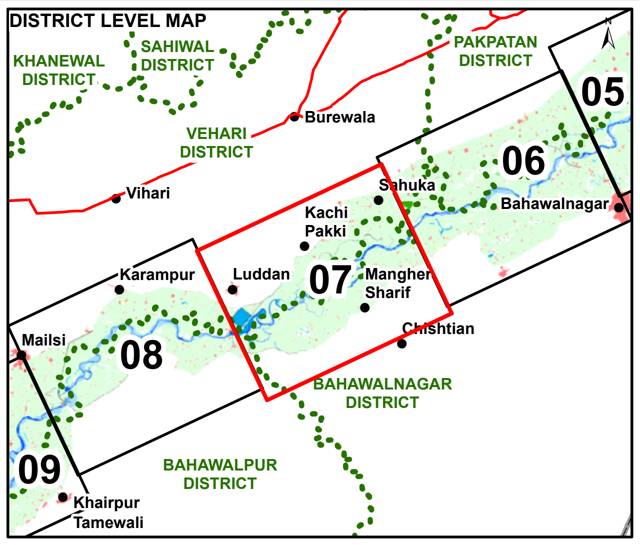
MAP INDEX
SUTLEJ RIVER


DISTRICT LEVEL MAP
KHANEWAL DISTRICT
SAHIWAL DISTRICT
PAKPATAN DISTRICT
VEHARI DISTRICT
Burewala
Vihari
Sahuka
Bahawalnagar
Kachi Pakki
Karampur
Luddan
Mangher Sharif
Chishtian
Mailsi
Khairpur Tamewali
BAHAWALNAGAR DISTRICT
BAHAWALPUR DISTRICT
05
06
07
08
09

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

- N5 National Highway
- Metalled Road
- Un-metalled Road
- Track
- Railway Line
- Canal
- Branch
- Drain
- Distributary
- Minor
- Nallah
- Wah
- District Boundary
- Provincial Boundary
- International Boundary
- Barren Area
- Bund / Spur
- Cultivated Area
- Flood Plain
- Grass
- Graveyard
- Hill
- Main/Link Canal, Escape, Spillway
- Motorway
- Mud
- Nallah (Perennial)
- Nallah (Non Perennial)
- Orchard
- Planned Urban Area
- Range Forest
- River
- Sand Dunes
- Town/Village/Settlement
- Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

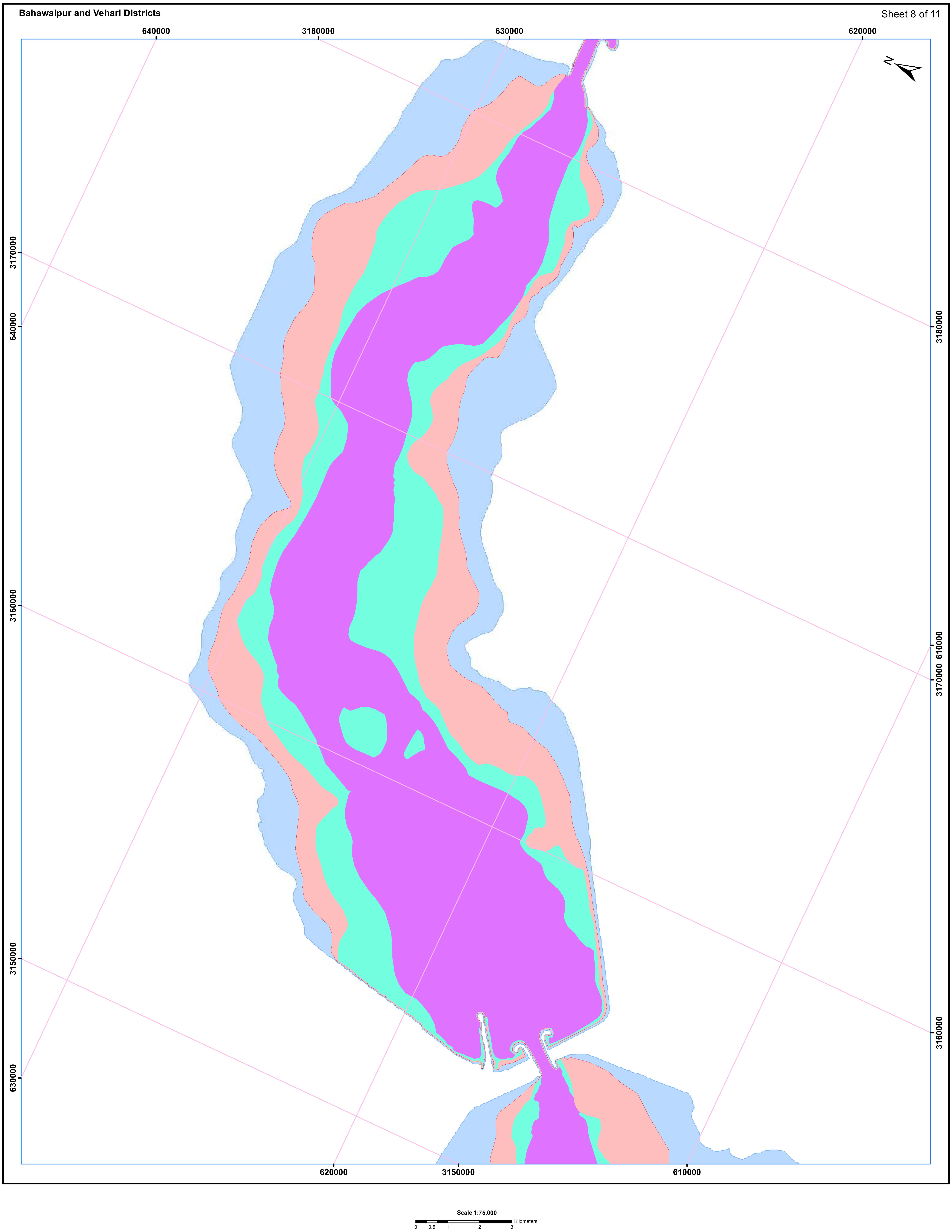
in association with

DELTARES,THE NETHERLANDS

Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain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Scale 1:75,000
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LEGEND

(Flood Risk Zones)

- 🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 115,000 cusecs in Islam-Punjnad reach)
- 🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 115,000 to 190,000 cusecs in Islam-Punjnad reach)
- 🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 190,000 to 265,000 cusecs in Islam-Punjnad reach)

LEGEND

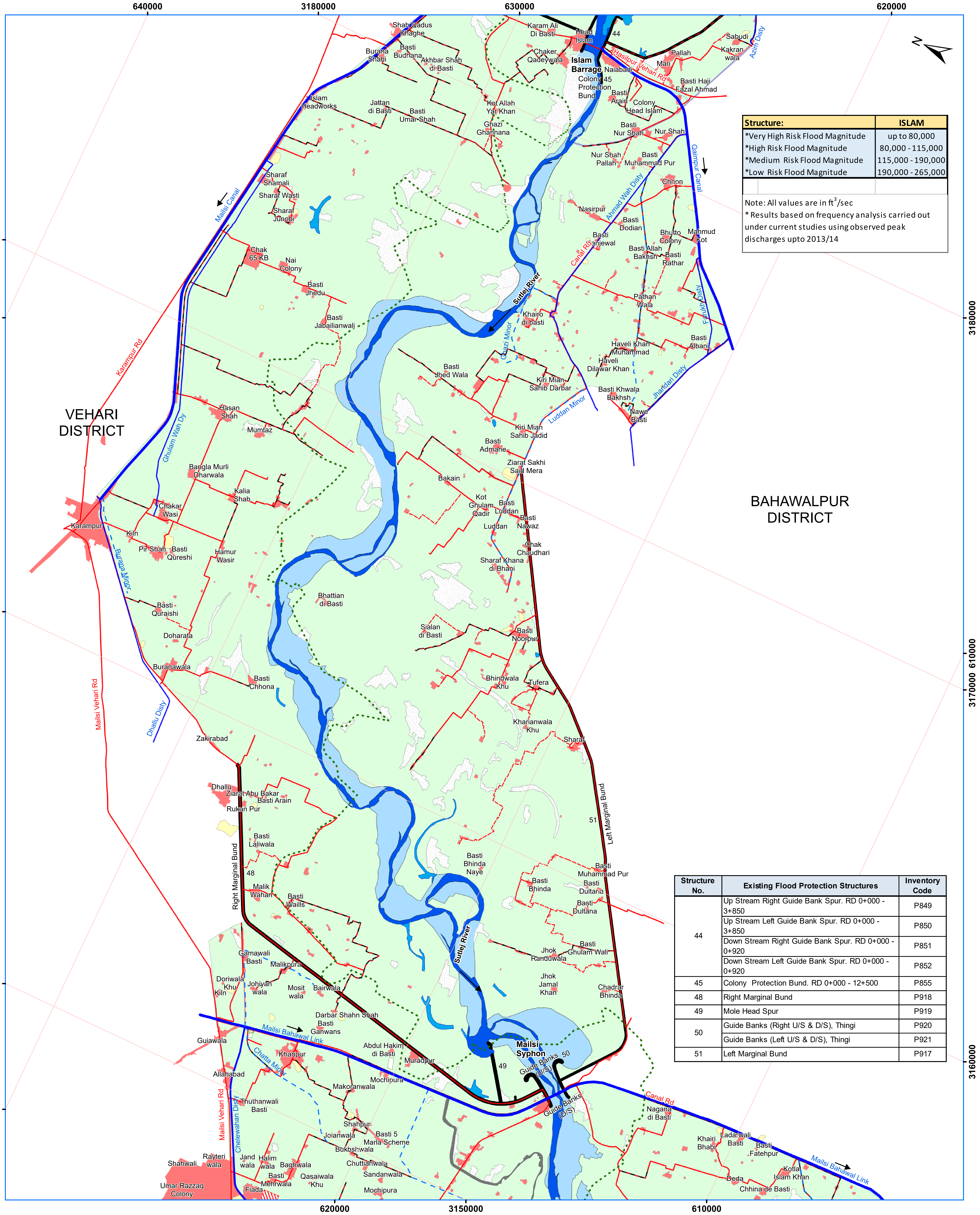
(Inundation Extent Corresponding to Provincial Irrigation Department)

- 🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Islam-Punjnad reach

Note: All flood extents are based on breachless conditions

Bahawalpur and Vehari Districts

Sheet 8 of 11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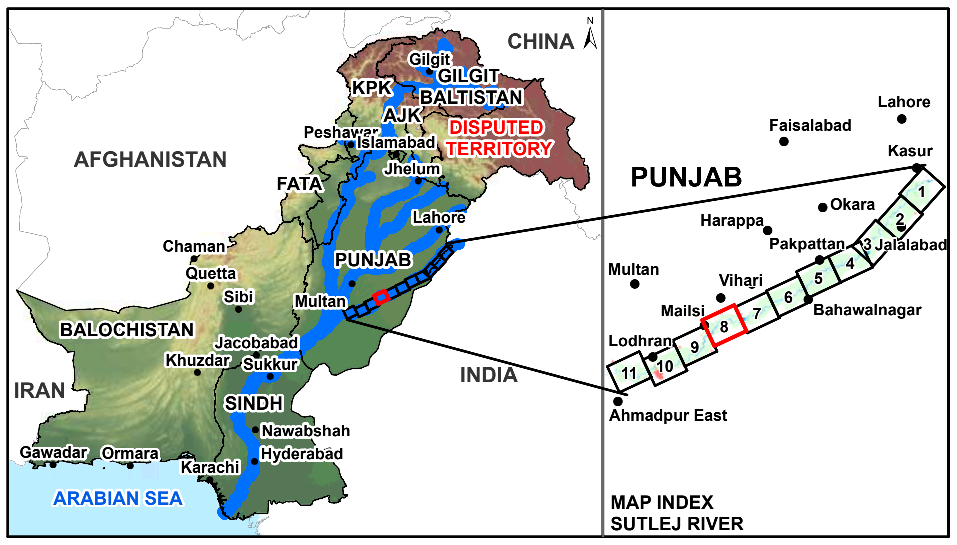
VEHARI DISTRICT
BAHAWALPUR DISTRICT
Sutlej River
Islam Barrage
Islam Headworks
Head Islam
Mailsi Canal
Qaimpur Canal
Ahmad Wah Disty
Azim Disty
Hasilpur Vehari Rd
Karampur Rd
Ghulam Wah Dy
Burapa Minor
Dhallu Disty
Mailsi Vehari Rd
Chelewahan Disty
Chatta Minor
Mailsi Bahawal Link
Canal Rd
Luddan Minor
Ghazi Minor
Jhandari Disty
Faruk Disty
Right Marginal Bund
Left Marginal Bund
Mailsi Syphon
Guide Banks 50 (U/S)
Guide Banks (D/S)
44
45
48
49
51
Karampur
Mailsi
Luddan
Karam Ali Di Basti
Chaker Qadeywala
Colony 45 Protection Bund
Shah Qadus Khaghe
Burana Shahi
Basti Budhana
Akbar Shah di Basti
Jattan di Basti
Basti Umar Shah
Kot Allah Yar Khan
Ghazi Ghannana
Sharaf Shamali
Sharaf Wasti
Sharaf Junobi
Chak 65 KB
Nai Colony
Basti Jhedu
Basti Jabailianwali
Basti Jhed Wala
Kiri Mian Sahib Darbar
Kiri Mian Sahib Jadid
Basti Admane
Ziarat Sakhi Said Mera
Bakain
Kot Ghulam Qadir
Basti Luddan
Basti Nawaz
Chak Chaudhari
Sharaf Khana di Bhani
Bhattian di Basti
Sialan di Basti
Basti Noorpur
Bhindwala Khu
Tufera
Kharianwala Khu
Sharaf
Hasan Shah
Mumtaz
Bangla Murli Dharwala
Kalia Shah
Chakar Wasi
Kiln
Pir Shah
Basti Qureshi
Hamur Wasir
Basti Quraishi
Doharata
Buranawala
Basti Chhona
Zakirabad
Dhallu
Ziarat Abu Bakar
Basti Arain
Rukan Pur
Basti Laliwala
Malik Wahan
Basti Wallis
Gamawali Basti
Malikpura
Doriwala Khu
Kiln
Johiyan wala
Mosit wala
Bairwala
Darbar Shahn Shah
Basti Ganwans
Guiawala
Khanpur
Abdul Hakim di Basti
Muradpur
Allahabad
Makoranwala
Mochipura
Thuthanwali Basti
Shahpur
Joianwala
Basti 5 Marla Scheme
Bukhshwala
Rayteri wala
Shahwali
Jand wala
Halim wala
Baghwala
Basti Mehrwala
Qasaiwala Khu
Chuttianwala
Sandanwala
Mochipura
Umar Razzaq Colony
Fiada
Basti Bhinda Naye
Basti Bhinda
Basti Muhammad Pur
Basti Dultana
Basti Dultana
Jhok Randuwala
Basti Ghulam Wali
Jhok Jamal Khan
Chadrar Bhinda
Nagana di Basti
Khairi Bhabi
Ladarwali Basti
Basti Fatehpur
Deda
Kotla Islam Khan
Chhina de Basti
Sabudi
Kakran wala
Pallah
Mari
Basti Haji Fazal Ahmad
Basti Arain
Colony Head Islam
Basti Nur Shah
Nur Shah
Nur Shah Pallah
Basti Muhammad Pur
Chhon
Nasirpur
Basti Dodian
Basti Sanjewal
Basti Allah Bakhsh
Bhutto Colony
Mahmud Kot
Basti Rathar
Pathan Wala
Khairo di Basti
Haveli Khan Muhammad
Haveli Dilawar Khan
Basti Albani
Basti Khwala Bakhsh
Nawe Basti
Naiabadi

Structure:	ISLAM
*Very High Risk Flood Magnitude	up to 80,000
*High Risk Flood Magnitude	80,000 - 115,000
*Medium Risk Flood Magnitude	115,000 - 190,000
*Low Risk Flood Magnitude	190,000 - 265,000

Note: All values are in ft^3/sec
* Results based on frequency analysis carried out under current studies using observed peak discharges upto 2013/14

Structure No.	Existing Flood Protection Structures	Inventory Code
44	Up Stream Right Guide Bank Spur. RD 0+000 - 3+850	P849
	Up Stream Left Guide Bank Spur. RD 0+000 - 3+850	P850
	Down Stream Right Guide Bank Spur. RD 0+000 - 0+920	P851
	Down Stream Left Guide Bank Spur. RD 0+000 - 0+920	P852
45	Colony Protection Bund. RD 0+000 - 12+500	P855
48	Right Marginal Bund	P918
49	Mole Head Spur	P919
50	Guide Banks (Right U/S & D/S), Thingi	P920
	Guide Banks (Left U/S & D/S), Thingi	P921
51	Left Marginal Bund	P917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AFGHANISTAN
Gilgit
GILGIT BALTISTAN
KPK
AJK
Peshawar
Islamabad
DISPUTED TERRITORY
Jhelum
FATA
Lahore
Chaman
Quetta
Sibi
PUNJAB
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
INDIA
SINDH
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
ARABIAN SEA
PUNJAB
Lahore
Faisalabad
Kasur
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Bahawalnagar
Mailsi
Lodhran
Ahmadpur East
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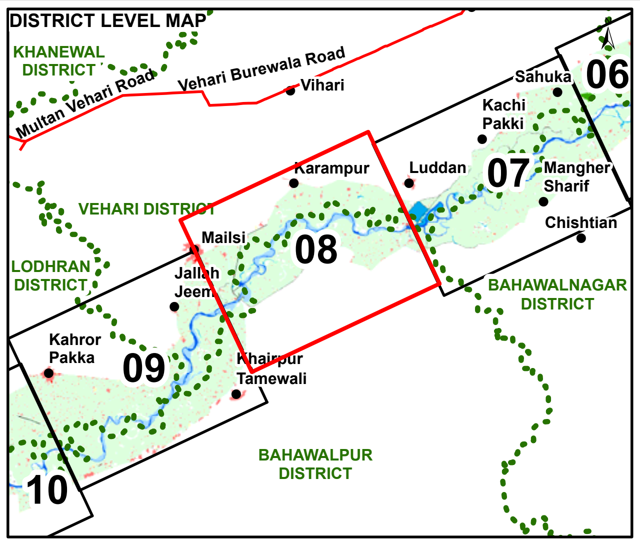
MAP INDEX
SUTLEJ RIVER



DISTRICT LEVEL MAP

KHANEWAL DISTRICT
Multan Vehari Road
Vehari Burewala Road
Vihari
Sahuka
06
Kachi Pakki
Karampur
Luddan
07
Mangher Sharif
Chishtian
VEHARI DISTRICT
Mailsi
08
LODHRAN DISTRICT
Jallah Jeem
BAHAWALNAGAR DISTRICT
Kahror Pakka
09
Khairpur Tamewali
BAHAWALPUR DISTRICT
10

Source of Information:
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DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

N5	National Highway	▨	Barren Area
━	Metalled Road	■	Bund / Spur
━	Un-metalled Road	■	Cultivated Area
- - -	Track	■	Flood Plain
┼	Railway Line	■	Grass
━	Canal	■	Graveyard
━	Branch	■	Hill
- - -	Drain	■	Main/Link Canal, Escape, Spillway
━	Distributary	■	Motorway
- -	Minor	■	Mud
- -	Nallah	■	Nallah (Perennial)
- - -	Wah	■	Nallah (Non Perennial)
•••••	District Boundary	▨	Orchard
- - -	Provincial Boundary	▨	Planned Urban Area
- - -	International Boundary	■	Range Forest
		■	River
		■	Sand Dunes
		■	Town/Village/Settlement
		■	Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

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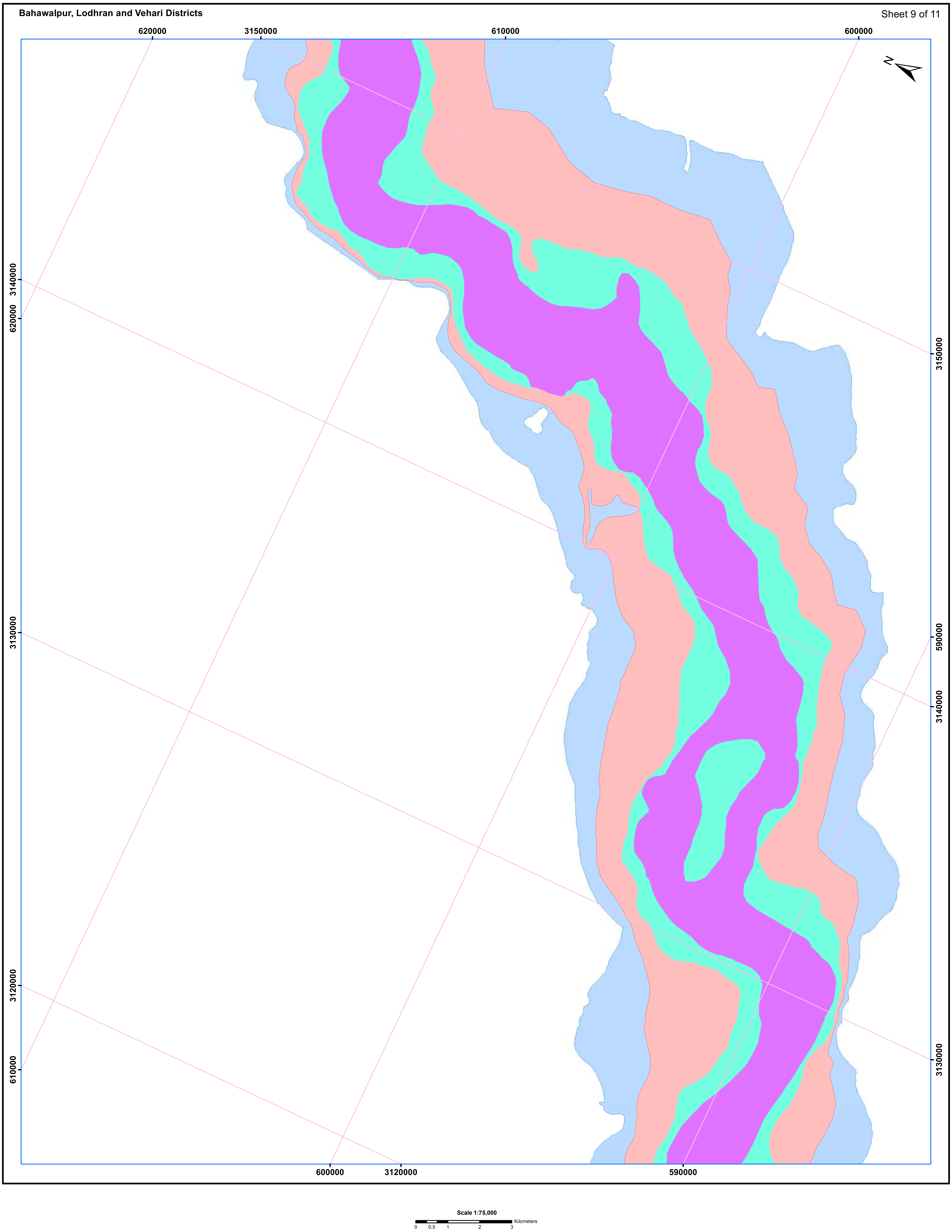
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Scale 1:75,000
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Kilometers

LEGEND

(Flood Risk Zones)

🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 115,000 cusecs in Islam-Punjnad reach)

🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 115,000 to 190,000 cusecs in Islam-Punjnad reach)

🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 190,000 to 265,000 cusecs in Islam-Punjnad reach)

LEGEND

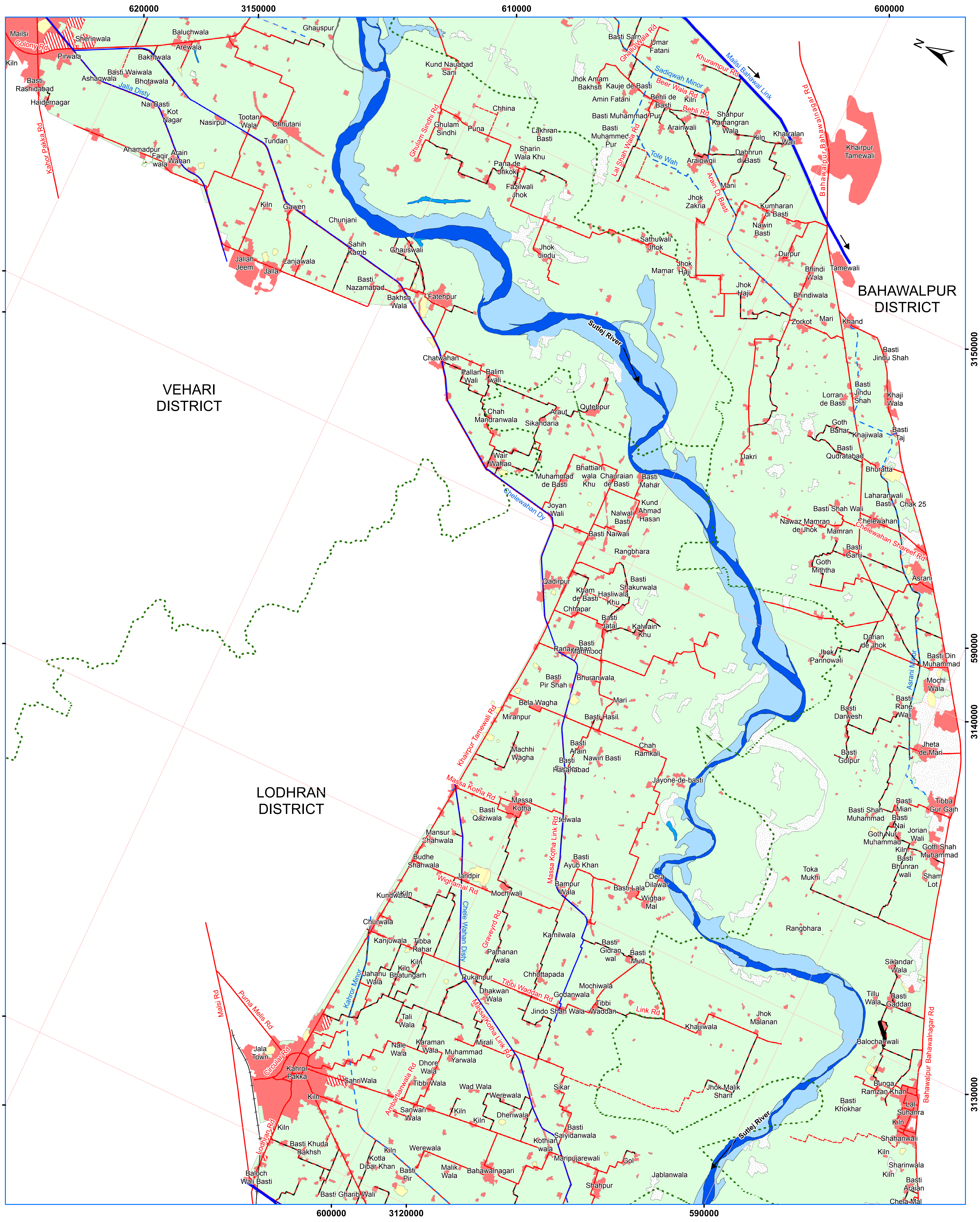
(Inundation Extent Corresponding to Provincial Irrigation Department)

🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Islam-Punjnad reach

Note: All flood extents are based on breachless conditions

Bahawalpur, Lodhran and Vehari Districts

Sheet 9 of 11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VEHARI DISTRICT
LODHRAN DISTRICT
BAHAWALPUR DISTRICT
Sutlej River
Mailsi
Colony Rd
Kiln
Sherinwala
Baluchwala
Arewala
Ghauspur
Pirwala
Bakhtwala
Basti Rashidabad
Ashaqwala
Basti Waiwala
Bhotawala
Jalla Disty
Haidernagar
Nai Basti
Kot Nagar
Nasirpur
Tootan Wala
Chhutani
Tundan
Kahor Pakka Rd
Ahamadpur
Fagir wala
Arain Wahan
Kiln
Gawen
Chunjani
Sahih Kamb
Chauswali
Jallan Jeem
Jalla
Lanjawala
Basti Nazamabad
Bakhsu Wala
Fatehpur
Kund Naubad Sani
Chhina
Ghulam Sindhi Rd
Ghulam Sindhi
Puna
Lakhran Basti
Sharin Wala Khu
Pana de Jhok
Fazilwali Jhok
Jhok Jindu
Basti Sarn
Ghallu Wala Rd
Umar Fatani
Jhok Aman Bakhsh
Kauje de Basti
Amin Fatani
Basti Muhammad Pur
Basti Muhammad Pur
Lal Shah Wala Rd
Sadiqwah Minor
Beer Wala Rd
Behli de Basti
Behli Rd
Kiln
Khurampur Rd
Mailsi Bahawal Link
Shahpur Kamangran Wala
Arainwali
Kiln
Kharalan Wali
Tole Wah
Araiowali
Dahrun di Basti
Arain Di Basti
Mani
Jhok Zakria
Kumharan di Basti
Nawin Basti
Sathuwali Jhok
Durpur
Jhok Haji
Mamar
Jhok Haji
Bhindi Wala
Tamewali
Bhindiwala
Bahawalpur Bahawalnagar Rd
Khairpur Tamewali
Zorkot
Mari
Khand
Basti Jindu Shah
Basti Jindu Shah
Lorran de Basti
Khaji Wala
Goth Bahar
Khajiwala
Basti Taj
Basti Qudratabad
Jakri
Bhuratta
Chatwahan
Pallan Wali
Balim wali
Chah Mandranwala
Araut
Sikandaria
Qutabpur
Wair Wahan
Muhammad de Basti
Bhattian wala Khu
Chauraian de Basti
Basti Mahar
Chelewahan Dy
Joyan Wali
Nalwali Basti
Kund Ahmad Hasan
Basti Naiwali
Rangbhara
Laharanwali Basti
Chak 25
Basti Shah Wali
Nawaz Mamran de Jhok
Mamran
Chelewahan
Chelewahan Shareef Rd
Basti Ganji
Goth Miththa
Asrani
Qadirpur
Kham de Basti
Hasliwala Khu
Basti Shakurwala
Chhapar
Basti Jatai
Kalwain Khu
Ranawahan
Basti Mahmood
Darian de Jhok
Jhok Pannowali
Basti Din Muhammad
Asrani Minor
Basti Pir Shah
Bhuranwala
Mochi Wala
Mari
Basti Rane Wali
Basti Darwesh
Khairpur Tamewali Rd
Bela Wagha
Miranpur
Basti Hasil
Chah Ramkali
Machhi Wagha
Basti Arain
Basti Hasanabad
Nawin Basti
Jheta de Mari
Basti Gulpur
Jayone-de-basti
Massa Kotha Rd
Massa Kotha
Basti Qaziwala
Jelwala
Basti Shah Muhammad
Basti Mian
Tibba Gur Gaih
Basti Nai
Jorian Wali
Goth Nur Muhammad
Kiln
Goth Shah Muhammad
Massa Kotha Link Rd
Mansur Shahwala
Budhe Shahwala
Basti Ayub Khan
Basti Bhunran wali
Toka Mukhi
Sham Lot
Jandpir
Wighamal Rd
Mochiwala
Bampur Wala
Dera Dilawar
Basti Lala
Wigha Mal
Kundwala
Kiln
Chele Wahan Disty
Churwala
Graveyrd Rd
Rangbhara
Kanjuwala
Tibba Rahar
Kamilwala
Basti Gidran wal
Basti Mud
Kiln
Jahanu Wala
Bhatungarh
Kiln
Pathanan wala
Chhottapada
Sikandar Wala
Kahror Minor
Rukanpur
Mochiwala
Dhakwan Wala
Tibbi Waddan Rd
Godanwala
Tibbi Waddan
Tillu Wala
Basti Gaddan
Maisi Rd
Purna Melsi Rd
Jindo Shah Wala
Link Rd
Jhok Malanan
Tali Wala
Khajjiwala
Bahawalpur Bahawalnagar Rd
Jala Town
Circular Rd
Nale Wala
Karaman Wala
Mirali
Muhammad Yarwala
Massa Kotha Link Rd
Balochanwali
Kahror Pakka
Dhore Wala
Sahri Wala
Kiln
Ambarhanwala Rd
Tibbi Wala
Wad Wala
Werewala
Sikar
Jhok Malik Shani
Bunga Ramzan Khan
Basti Khokhar
Lal Suhanra
Sanwari Wala
Kiln
Kiln
Dheriwala
Kiln
Kiln
Basti Saiyidanwala
Kotnian wala
Sutlej River
Shahanwali
Kiln
Basti Khuda Bakhsh
Lodhran Rd
Kiln
Werewala
Maripujarewali
Gol
Sharinwala
Kiln
Kotla Dibar Khan
Basti Pir
Malik Wala
Bahawalnagari
Jablanwala
Basti Araian
Baloch Wali Basti
Basti Gharib Wali
Shahpur
Chela Mal
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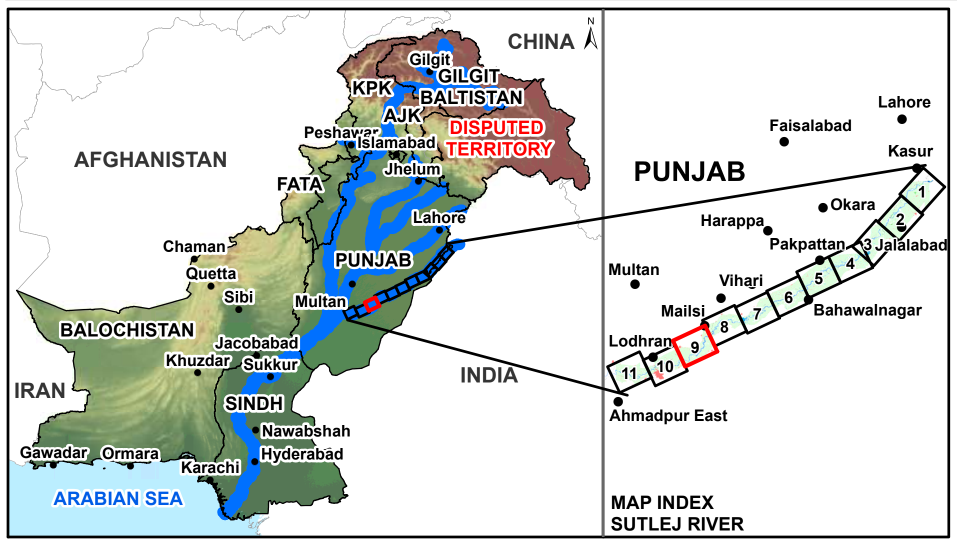
CHINA
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GILGIT BALTISTAN
Gilgit
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AJK
DISPUTED TERRITORY
Peshawar
Islamabad
Jhelum
AFGHANISTAN
FATA
Lahore
Chaman
Quetta
Sibi
PUNJAB
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
INDIA
SINDH
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
ARABIAN SEA
PUNJAB
Faisalabad
Lahore
Kasur
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
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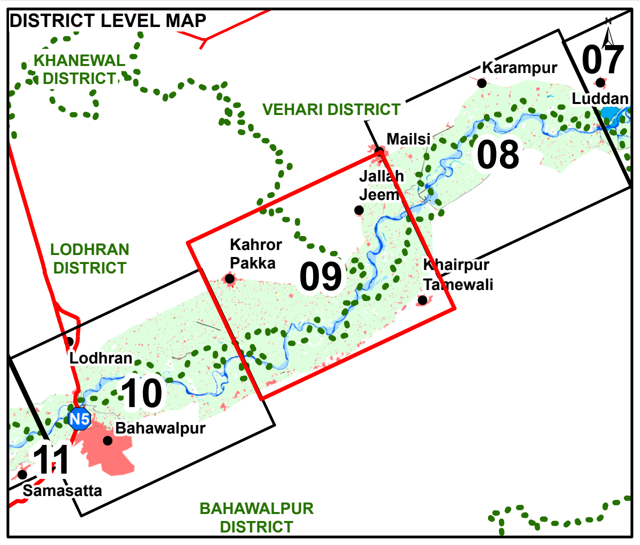
11

MAP INDEX
SUTLEJ RIVER

DISTRICT LEVEL MAP


KHANEWAL DISTRICT
VEHARI DISTRICT
Karampur
07
Luddan
Mailsi
08
Jallan Jeem
LODHRAN DISTRICT
Kahror Pakka
09
Khairpur Tamewali
Lodhran
10
N5
Bahawalpur
11
Samasatta
BAHAWALPUR DISTRICT

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

National Highway
Metalled Road
Un-metalled Road
Track
Railway Line
Canal
Branch
Drain
Distributary
Minor
Nallah
Wah
District Boundary
Provincial Boundary
International Boundary

Barren Area
Bund / Spur
Cultivated Area
Flood Plain
Grass
Graveyard
Hill
Main/Link Canal, Escape, Spillway
Motorway
Mud
Nallah (Perennial)
Nallah (Non Perennial)
Orchard
▨ Planned Urban Area
Range Forest
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Sand Dunes
Town/Village/Settlement
Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV) AND RELATED STUDIES TO ENHANCE THE CAPACITY OF FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
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WATER SECTOR CAPACITY
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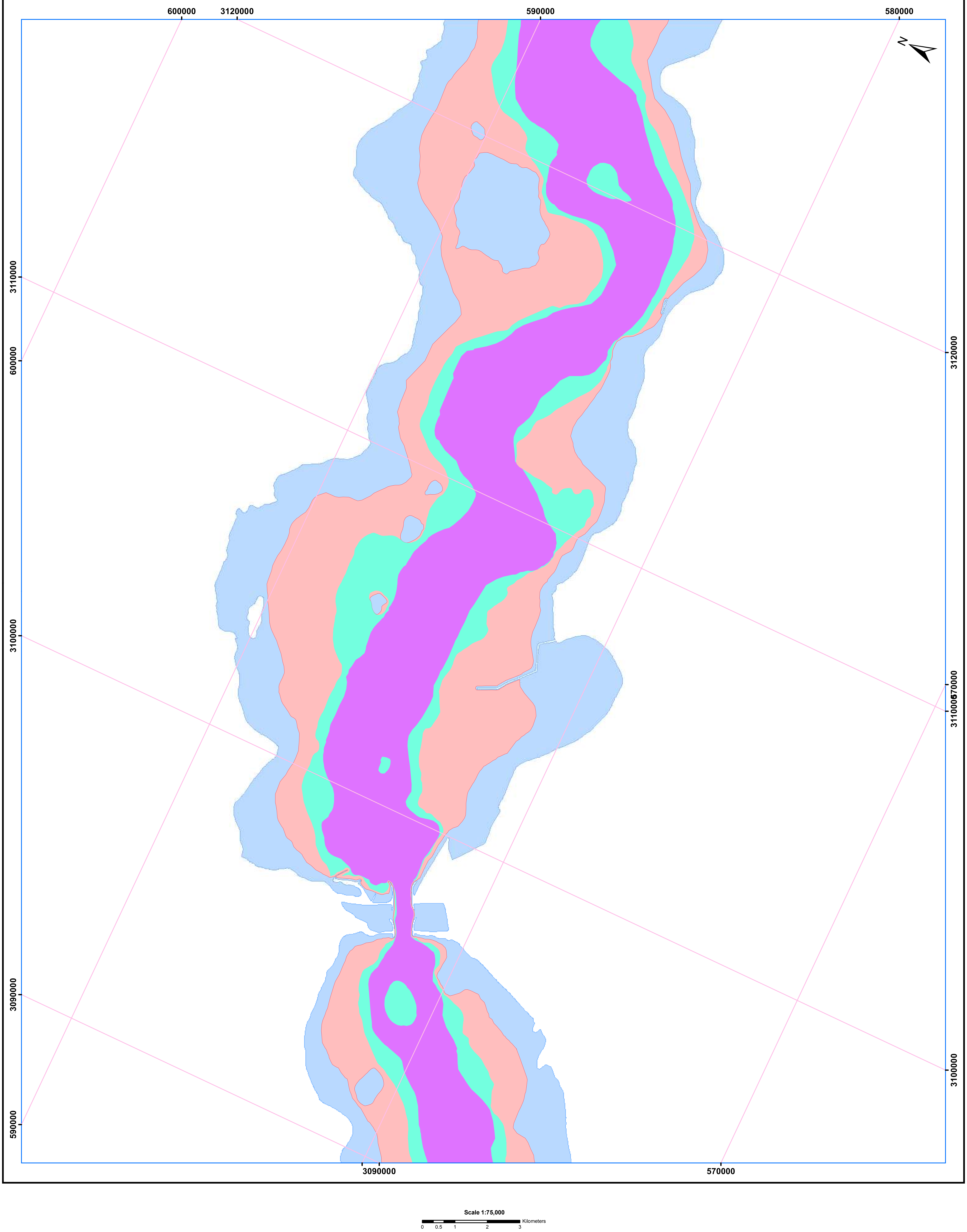
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain

Bahawalpur and Lodhran Districts

Sheet 10 of 11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Scale 1:75,000
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Kilometers

LEGEND

(Flood Risk Zones)

🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 115,000 cusecs in Islam-Punjnad reach)

🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 115,000 to 190,000 cusecs in Islam-Punjnad reach)

🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 190,000 to 265,000 cusecs in Islam-Punjnad reach)

LEGEND

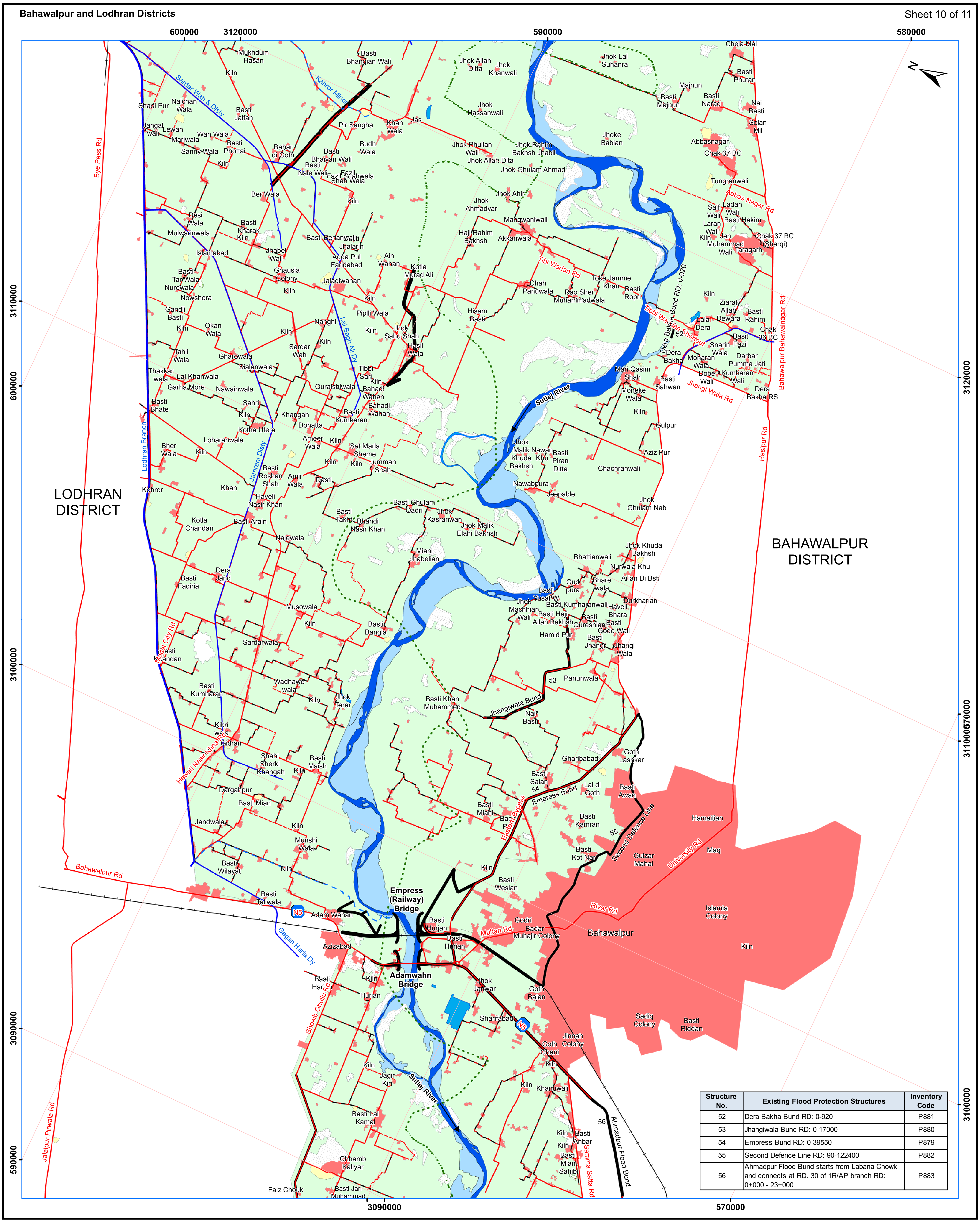
(Inundation Extent Corresponding to Provincial Irrigation Department)

🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Islam-Punjnad reach

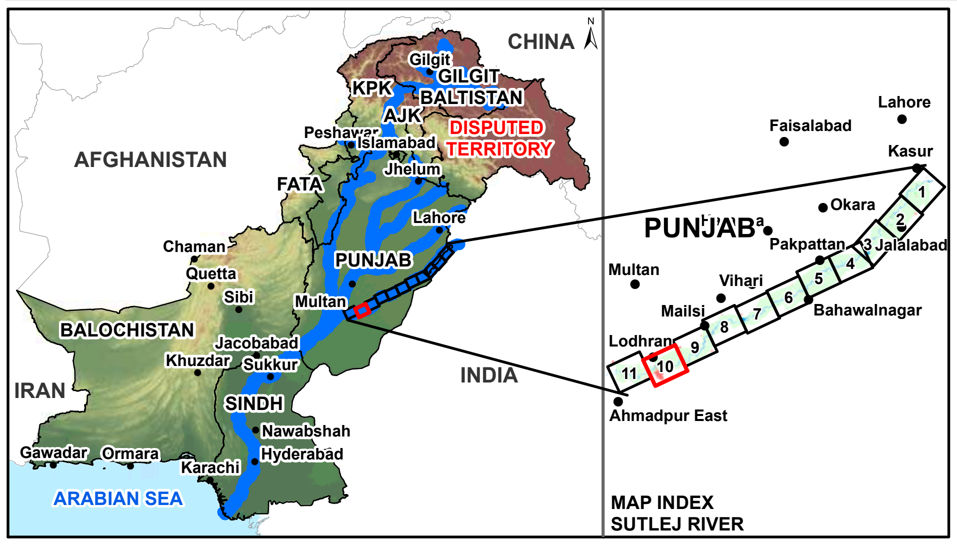
Note: All flood extents are based on breachless conditions

Bahawalpur and Lodhran Districts

Sheet 10 of 11


600000
3120000
590000
580000
570000
3090000
3110000
3100000
LODHRAN DISTRICT
BAHAWALPUR DISTRICT
Sutlej River
Bahawalpur
Empress (Railway) Bridge
Adamwahn Bridge
Dera Bakha Bund RD: 0-920
Jhangiwala Bund
Empress Bund
Second Defence Line
Ahmadpur Flood Bund
52
53
54
55
56
Lodhran Branch
Jamrani Disty
Lal Bagh Ali Dy
Sardar Wah & Disty
Kahror Minor
Gagan Harta Dy
Bye Pass Rd
Bahawalpur Rd
Jalalpur Pirwala Rd
Model City Rd
Hawali Nasir Khan Rd
Shoaib Ghullu Rd
Multan Rd
Eastern Bypass
River Rd
University Rd
Tibi Wadan Rd
Tibbi Wadan Shortcut
Jhangi Wala Rd
Abbas Nagar Rd
Bahawalpur Bahawalnagar Rd
Hasilpur Rd
Samma Satta Rd
N5
Kahror
Adam Wahan
Azizabad
Basti Taliwala
Basti Hurjan
Basti Hunan
Godri
Badar
Muhajir Colony
Hamaitian
Maq
Gulzar Mahal
Islamia Colony
Sadiq Colony
Basti Riddan
Jinnah Colony
Goth Ghani
Sharifabad
Jhok Janvar
Khanuwali
Basti Anbar
Basti Mian Sahib
Chhamb Kallyar
Faiz Chouk
Basti Jan Muhammad
Jagir Kiri
Basti Lal Kamal
Chela Mal
Majnun
Jhok Lal Suhanra
Jhok Allah Ditta
Jhok Khanwali
Jhok Hassanwali
Mukhdum Hasan
Basti Bhangian Wali
Shadi Pur
Naichan Wala
Jhoke Babian
Abbasnagar
Chak 37 BC
Tungranwali
Chak 37 BC (Sharqi)
Chak 36 BC
Dera Bakha RS
Mari Qasim Shah
Basti Sahwan
Gulpur
Aziz Pur
Chachranwali
Jhok Ghulam Nab
Jhok Khuda Bakhsh
Bhattianwali
Nurwala Khu
Arian Di Bsti
Durkhanan
Panunwala
Hamid Pur
Basti Khan Muhammed
Gharibabad
Goth Lashkar
Basti Awan
Basti Kamran
Basti Kot Nar
Basti Weslan
Lal di Goth
Nawabpura
Jeepable
Kotla Chandan
Basti Faqiria
Sardarwala
Musowala
Basti Bangla
Nalewala
Basti Kumharan
Dargahpur
Basti Mian
Jandwala
Munshi Wala
Basti Wilayat
Kiln

Structure No.	Existing Flood Protection Structures	Inventory Code
52	Dera Bakha Bund RD: 0-920	P881
53	Jhangiwala Bund RD: 0-17000	P880
54	Empress Bund RD: 0-39550	P879
55	Second Defence Line RD: 90-122400	P882
56	Ahmadpur Flood Bund starts from Labana Chowk and connects at RD. 30 of 1R/AP branch RD: 0+000 - 23+000	P883


CHINA
AFGHANISTAN
IRAN
INDIA
GILGIT BALTISTAN
DISPUTED TERRITORY
KPK
AJK
FATA
PUNJAB
BALOCHISTAN
SINDH
ARABIAN SEA
Gilgit
Peshawar
Islamabad
Jhelum
Lahore
Chaman
Quetta
Sibi
Multan
Jacobabad
Khuzdar
Sukkur
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
Faisalabad
Kasur
Okara
Pakpattan
Jalalabad
Bahawalnagar
Mailsi
Vihari
Lodhran
Ahmadpur East
1
2
3
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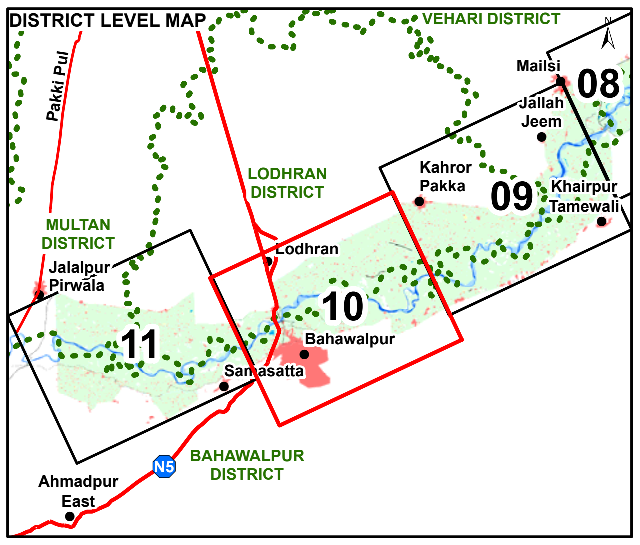
10
11

MAP INDEX
SUTLEJ RIVER


DISTRICT LEVEL MAP
VEHARI DISTRICT
Pakki Pul
Mailsi
Jallah Jeem
08
Kahror Pakka
09
Khairpur Tamewali
LODHRAN DISTRICT
MULTAN DISTRICT
Jalalpur Pirwala
Lodhran
10
11
Bahawalpur
Samasatta
Ahmadpur East
N5
BAHAWALPUR DISTRICT

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

National Highway	Barren Area
Metalled Road	Bund / Spur
Un-metalled Road	Cultivated Area
Track	Flood Plain
Railway Line	Grass
Canal	Graveyard
Branch	Hill
Drain	Main/Link Canal, Escape, Spillway
Distributary	Motorway
Minor	Mud
Nallah	Nallah (Perennial)
Wah	Nallah (Non Perennial)
District Boundary	Orchard
Provincial Boundary	Planned Urban Area
International Boundary	Range Forest
	River
	Sand Dunes
	Town/Village/Settlement
	Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with

DELTARES,THE NETHERLANDS

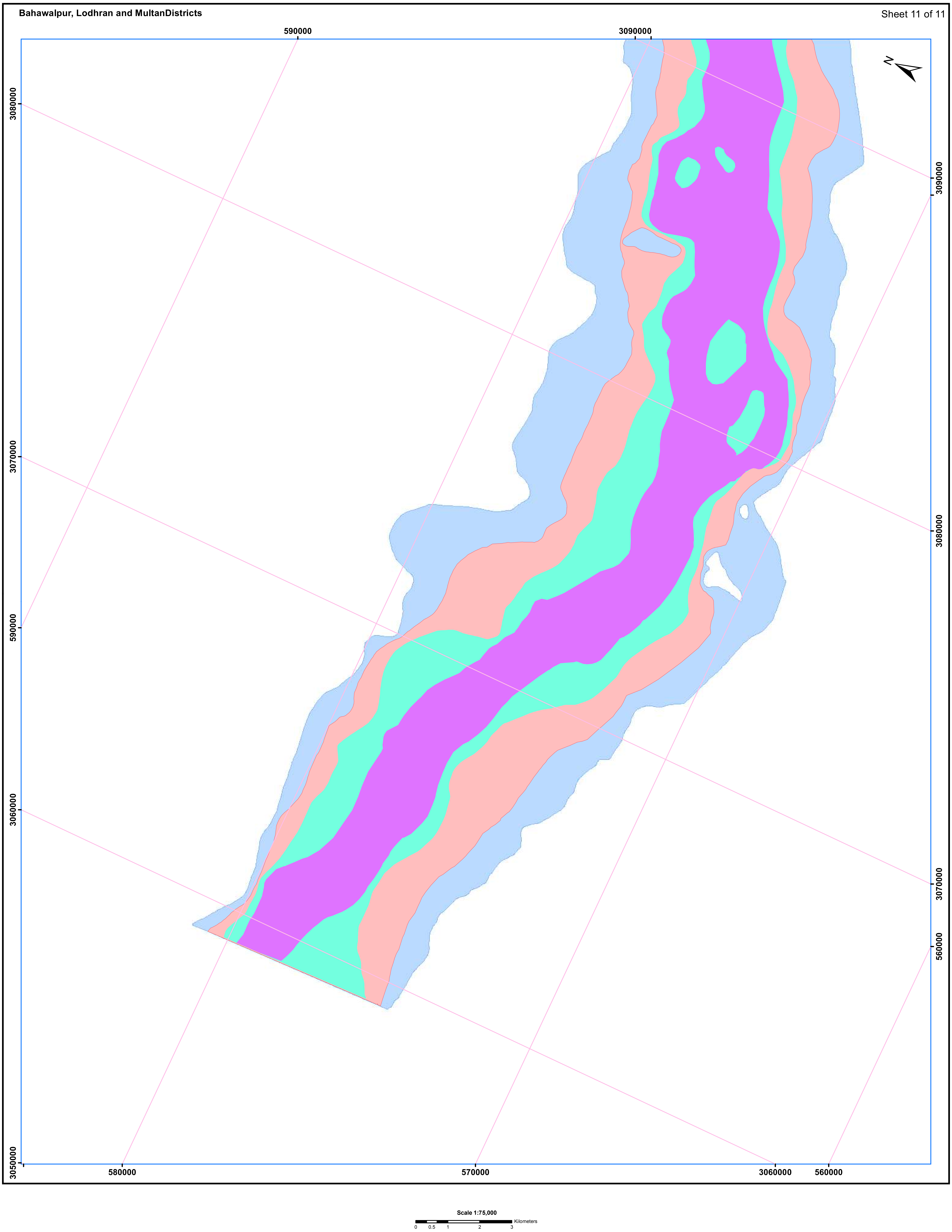
Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain

Bahawalpur, Lodhran and MultanDistricts

Sheet 11 of 11


590000
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560000
N
Scale 1:75,000
0
0.5
1
2
3
Kilometers

LEGEND

(Flood Risk Zones)

🟩 High Risk Zone (Inundation Extent corresponding to discharge from 80,000 to 115,000 cusecs in Islam-Punjnad reach)

🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 115,000 to 190,000 cusecs in Islam-Punjnad reach)

🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 190,000 to 265,000 cusecs in Islam-Punjnad reach)

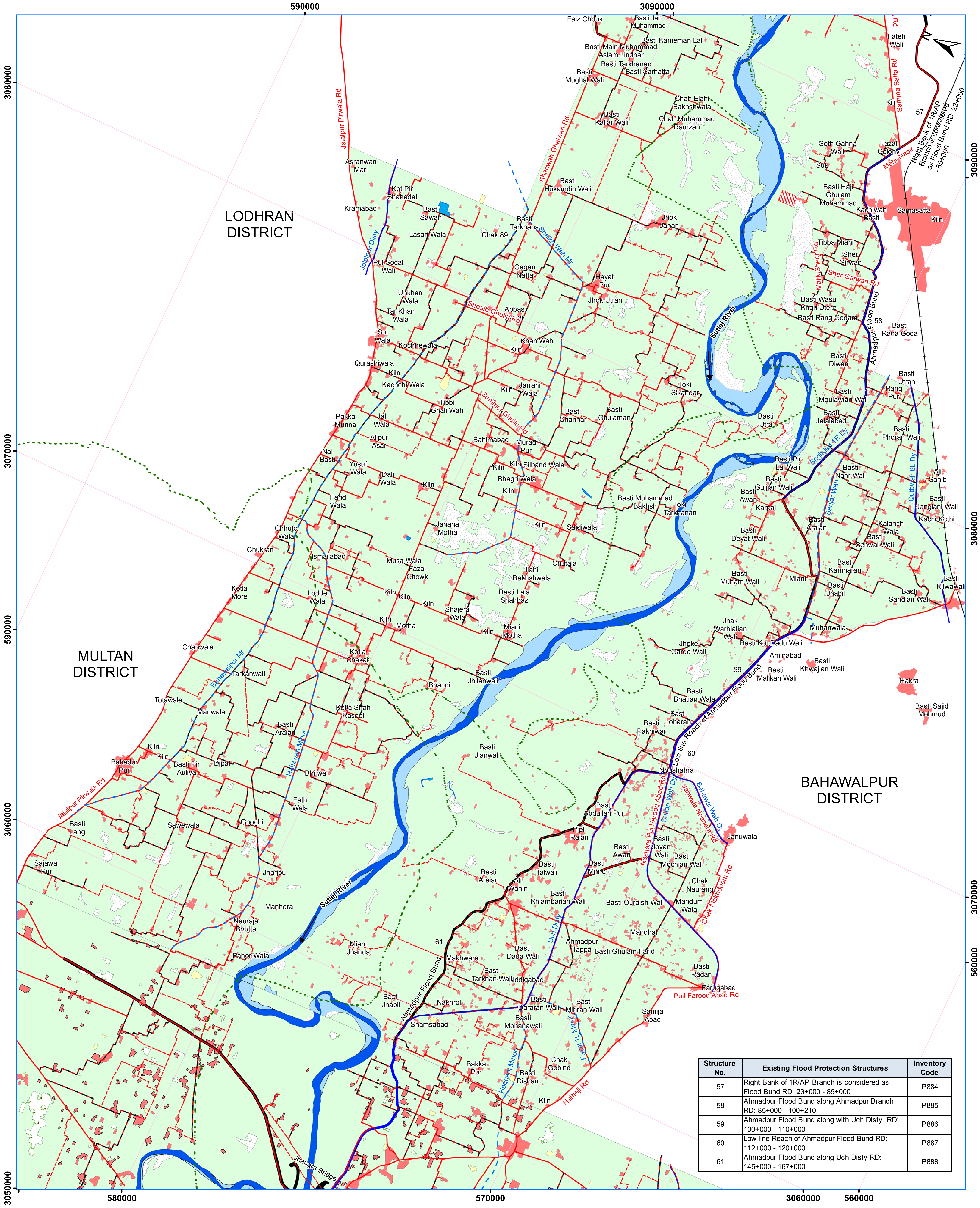
LEGEND

(Inundation Extent Corresponding to Provincial Irrigation Department)

🟪 Medium Flood Extent corresponding to discharge upto 80,000 cusecs in Islam-Punjnad reach

Note: All flood extents are based on breachless conditions

Bahawalpur, Lodhran and MultanDistricts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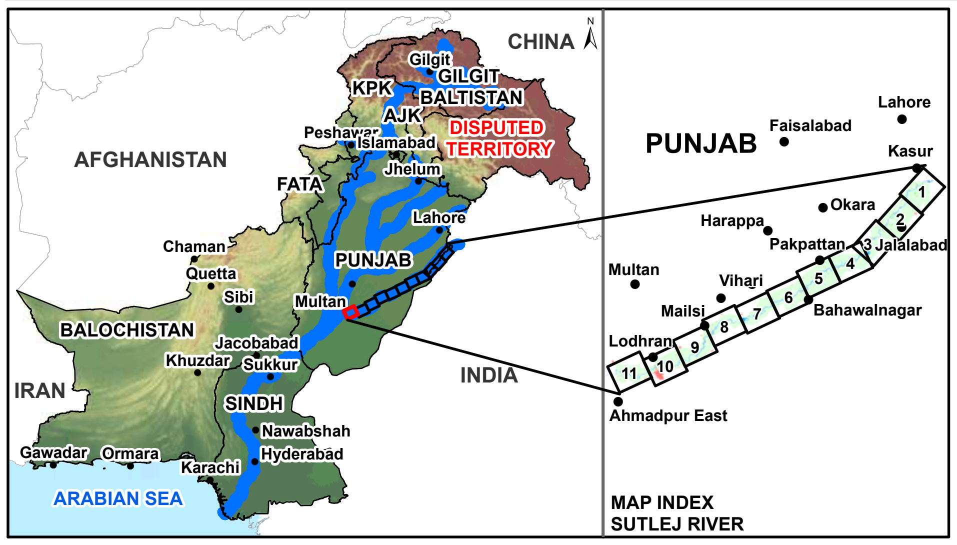
570000
3060000
560000
3090000
3080000
3070000
560000
LODHRAN
DISTRICT
MULTAN
DISTRICT
BAHAWALPUR
DISTRICT
Sutlej River
Sutlej River
Faiz Chouk
Basti Jan Muhammad
Basti Kameman Lal
Basti Main Muhammad Aslam Lindhar
Basti Tarkhanan
Basti Sarhatta
Basti Mughal Wali
Fateh Wali
Samma Satta Rd
Kiln
57
Right Bank of 1R/AP Branch is considered as Flood Bund RD: 23+000 - 85+000
Chah Elahi Bakhshwala
Chah Muhammad Ramzan
Basti Kallar Wali
Goth Gahna Wali
Fazal Colony
Suk
Mehr Nadir
Jalalpur Pirwala Rd
Asranwan Mari
Kot Pir Shahadat
Kramabad
Basti Sawan
Khanwah Ghalwan Rd
Basti Hukamdin Wali
Basti Haji Ghulam Muhammad
Kachiwah Basti
Samasatta
Kiln
Jalalpur Disty
Lasari Wala
Chak 89
Basti Tarkhana
Sheikh Wah Mr
Jhok Janan
Tibba Miani
Sher Girwan
Malik Sheer Rd
Sher Garwan Rd
Pul Sodal Wali
Gagan Natta
Hayat Pur
Jhok Utran
Unkhan Wala
Tar Khan Wala
Shoaib Ghulla Rd
Abbas Pur
Basti Wasu Khan Utere
Basti Rang Godani
Ahmadpur Flood Bund
58
Basti Rana Goda
Sui Wala
Kochhewala
Khan Wah
Kiln
Basti Diwan
Qurashiwala
Kiln
Kachchi Wala
Kiln
Jarrahi Wala
Toki Sikandar
Basti Utran
Rang Pur
Basti Moulawian Wali
Pakka Munna
Tibbi Ghali Wah
Sunmer Ghulla Rd
Basti Channar
Basti Ghulaman
Basti Utra
Basti Jalalabad
Basti Phoran Wali
Jal Wala
Alipur Asar
Nai Basti
Bahimabad
Murad Pur
Kiln
Kiln Silband Wala
Basti Pir Lal Wali
Begran 1R Dy
Basti Nahr Wali
Ali Sahib
Qutbwah 6L Dy
Yusuf Wala
Dali Wala
Bhagri Wala
Kiln
Kiln
Basti Gujjan Wali
Basti Awan
Karpal
Sanjar Wah
Basti Janglani Wali
Kachi Kothi
Farid Wala
Basti Muhammad Bakhsh
Toki Tarkhanan
Chhuto Wala
Jahana Motha
Kiln
Saidiwala
Basti Araian
Kalanch Wala
Basti Sehwal Wali
Basti Deyat Wali
Chukran
Ismailabad
Musa Wala
Fazal Chowk
Chutala
Ilahi Bakhshwala
Basti Kamharan
Basti Muham Wali
Miani
Basti Kilwawali
Kotla More
Lodde Wala
Kiln
Kiln
Kiln
Shajera Wala
Basti Lala Shahbaz
Basti Jhabil
Basti Sandian Wali
Kiln
Motha
Kiln
Miani Motha
Jhak Warhialian Wali
Muhanwala
Chanwala
Kotla Chakar
Jhoke Garde Wali
Basti Kot Dadu Wali
Bahawalpur Mr
Tarkanwali
Basti Jhilanwali
Aminabad
Basti Khwajian Wali
59
Basti Malikan Wali
Hakra
Bhandi
Totawala
Mariwala
Kotla Shah Rasool
Basti Bhatian Wala
Basti Sajid Mohmud
Basti Araian
Basti Loharan
Basti Pakhiwar
Low line Reach of Ahmadpur Flood Bund
60
Kiln
Kiln
Basti Jianwali
Bahadur Pur
Basti Pir Auliya
Dipal
Hafizwali Minor
Bhitwai
Noushahra
Jalalpur Pirwala Rd
Fath Wala
Basti Abdullah Pur
Pull Farooq Abad Rd
Sultan Wah Dy
Janwala Noshera Rd
Bahawal Wah Dy
Basti Lang
Sawewala
Ghoghi
Pipli Rajan
Januwala
Sajawal Pur
Basti Joyan Wali
Basti Awan
Noshera Pul Farooq Abad Rd
Jharibu
Basti Talwali
Basti Mitro
Basti Mochian Wali
Basti Araian
Ali Wahin
Chak Naurang
Manhora
Basti Khiambarian Wali
Basti Quraish Wali
Mahdum Wala
Chak Makhdoom Rd
Nauraja Bhutta
Mandhal
Uch Disty
Ahmadpur Tappa
Basti Ghulam Farid
61
Pahor Wala
Miani Jhanda
Makhwara
Basti Dada Wali
Basti Radan
Basti Tarkhan Wali
Siddiqabad
Faruqabad
Pull Farooq Abad Rd
Ahmadpur Flood Bund
Basti Jhabil
Nakhrol
Basti Dararan Wali
Basti Mihran Wali
Samija Abad
Shamsabad
Basti Mohanawali
Fazal 1L Minor
Chak Gobind
Bakka Pur
Haqqani Minor
Basti Dishan
Hatheji Rd
Kiln
Jhangra Bridge

Structure No.	Existing Flood Protection Structures	Inventory Code
57	Right Bank of 1R/AP Branch is considered as Flood Bund RD: 23+000 - 85+000	P884
58	Ahmadpur Flood Bund along Ahmadpur Branch RD: 85+000 - 100+210	P885
59	Ahmadpur Flood Bund along with Uch Disty. RD: 100+000 - 110+000	P886
60	Low line Reach of Ahmadpur Flood Bund RD: 112+000 - 120+000	P887
61	Ahmadpur Flood Bund along Uch Disty RD: 145+000 - 167+000	P888


CHINA
GILGIT
Gilgit
KPK
AJK
BALTISTAN
DISPUTED TERRITORY
Peshawar
Islamabad
Jhelum
AFGHANISTAN
FATA
Lahore
Chaman
Quetta
Sibi
PUNJAB
Multan
BALOCHISTAN
Jacobabad
Khuzdar
Sukkur
IRAN
SINDH
Nawabshah
Hyderabad
Gawadar
Ormara
Karachi
ARABIAN SEA
INDIA
PUNJAB
Faisalabad
Lahore
Kasur
Okara
Harappa
Pakpattan
Jalalabad
Multan
Vihari
Mailsi
Bahawalnagar
Lodhran
Ahmadpur East
1
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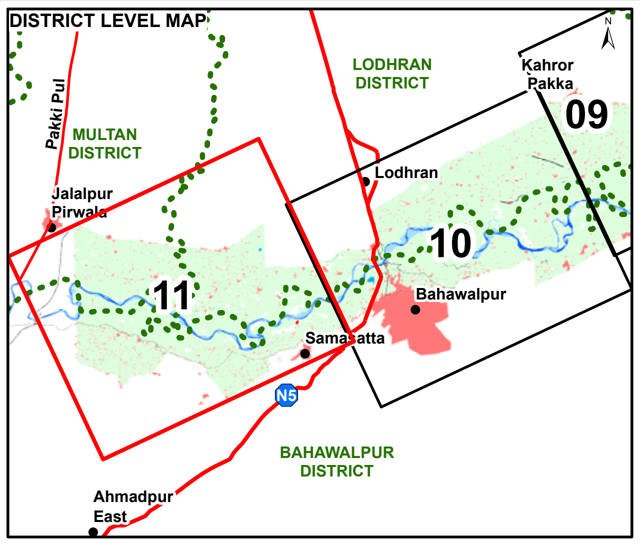
11

MAP INDEX
SUTLEJ RIVER


DISTRICT LEVEL MAP
Pakki Pul
MULTAN DISTRICT
Jalalpur Pirwala
LODHRAN DISTRICT
Kahror Pakka
09
Lodhran
10
11
Bahawalpur
Samasatta
N5
BAHAWALPUR DISTRICT
Ahmadpur East

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

N5	National Highway	⬚	Barren Area
━	Metalled Road	■	Bund / Spur
━	Un-metalled Road	■	Cultivated Area
- - -	Track	■	Flood Plain
─┼─	Railway Line	■	Grass
━	Canal	■	Graveyard
━	Branch	■	Hill
- - -	Drain	■	Main/Link Canal, Escape, Spillway
─	Distributary	■	Motorway
— —	Minor	■	Mud
— -	Nallah	■	Nallah (Perennial)
- - -	Wah	■	Nallah (Non Perennial)
• • • •	District Boundary	⬚	Orchard
- - - -	Provincial Boundary	▨	Planned Urban Area
- - -	International Boundary	■	Range Forest
		■	River
		■	Sand Dunes
		■	Town/Village/Settlement
		■	Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
SUTLEJ RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with

DELTARES,THE NETHERLANDS

Source of Information:
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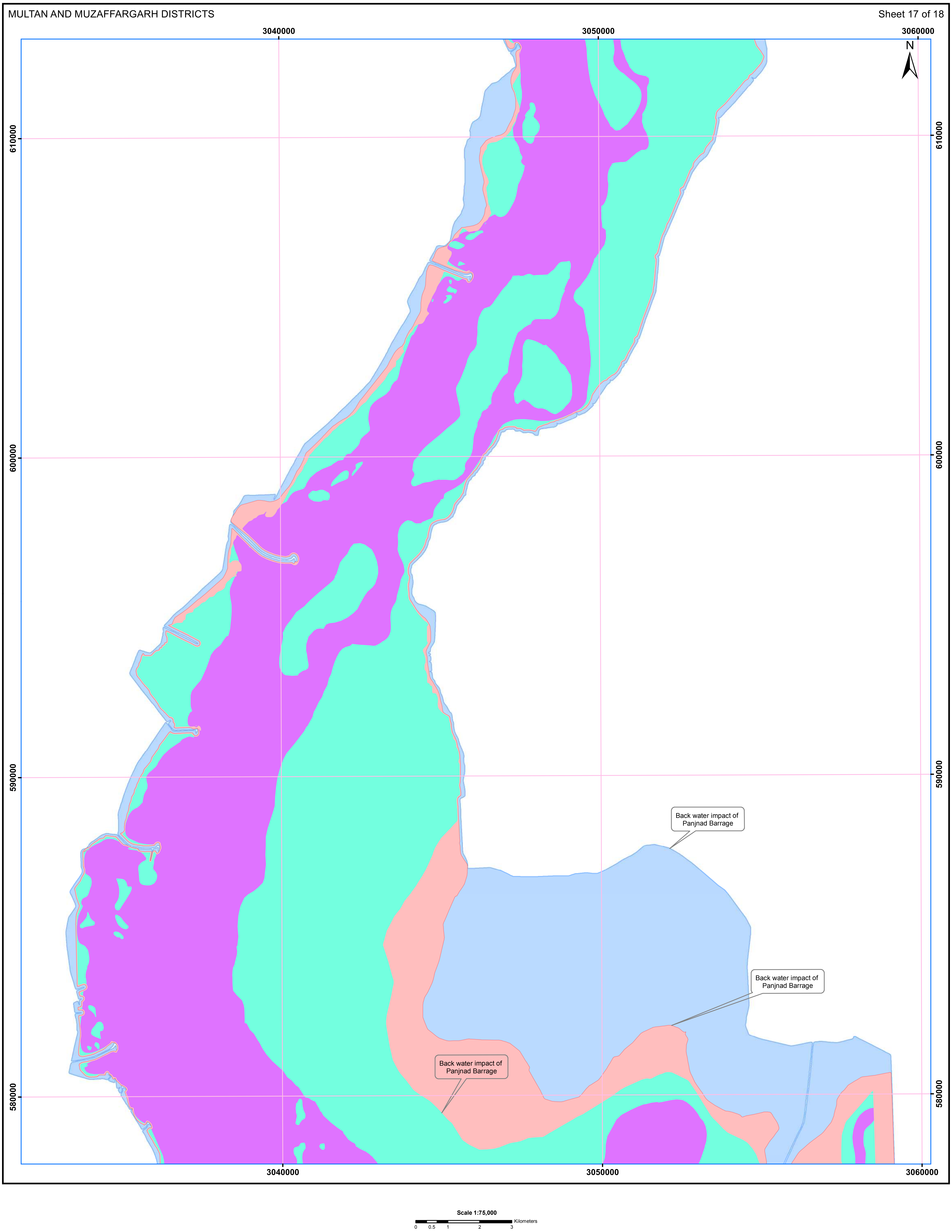
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016 By Safder Hussain


3040000
3050000
3060000
N
610000
600000
590000
580000
Back water impact of Panjnad Barrage
Back water impact of Panjnad Barrage
Back water impact of Panjnad Barrage
3040000
3050000
3060000
Scale 1:75,000
Kilometers
0
0.5
1
2
3

LEGEND

(Flood Risk Zones)

🟩 High Risk Zone (Inundation Extent corresponding to discharge from 200,000 to 425,000 cusecs in Trimmu-Punjnad reach)

🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 425,000 to 615,000 cusecs in Trimmu-Punjnad reach)

🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 615,000 to 820,000 cusecs in Trimmu-Punjnad reach)

LEGEND

(Inundation Extent Corresponding to Provincial Irrigation Department)

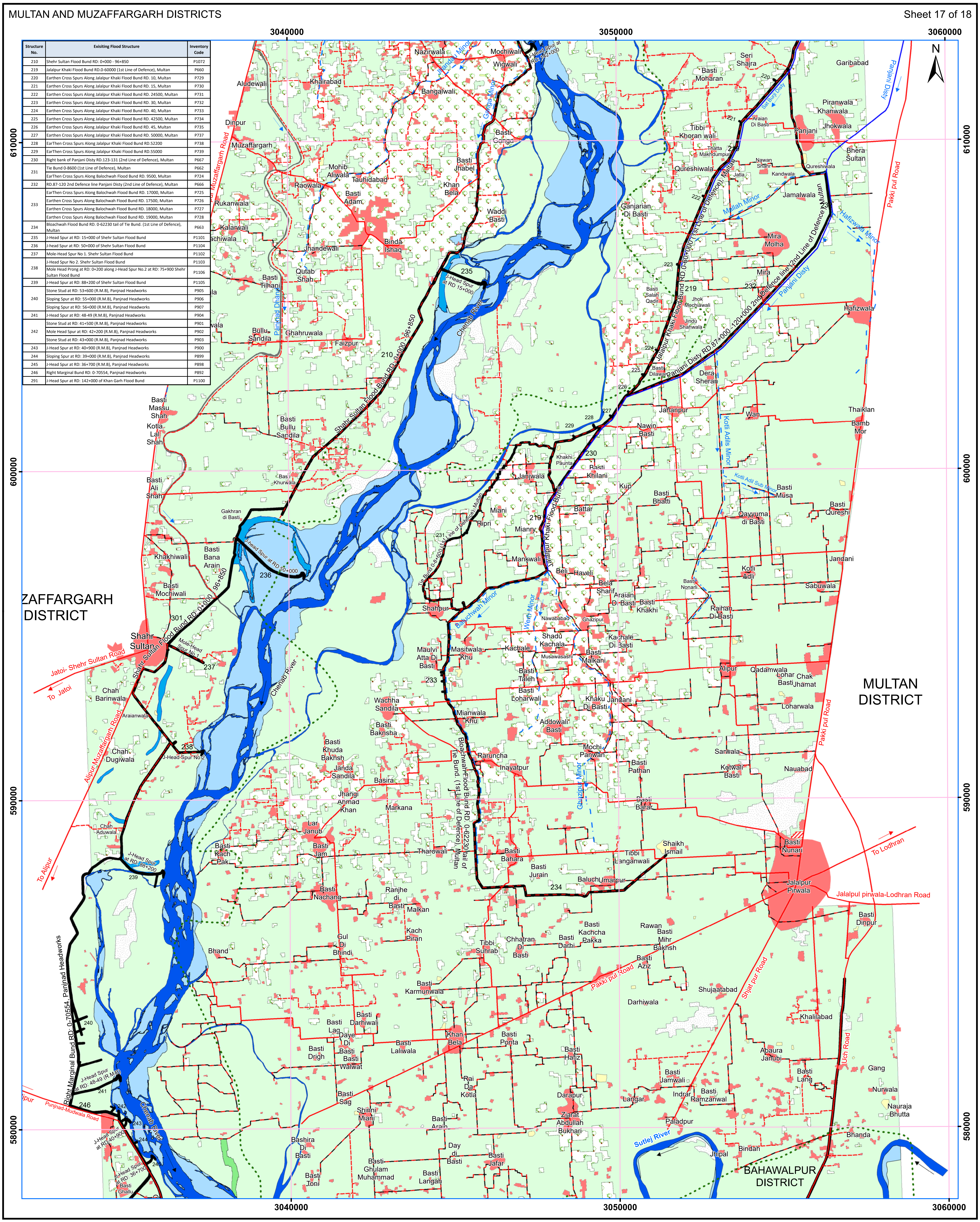
🟪 Medium Flood Extent corresponding to discharge upto 200,000 cusecs in Trimmu-Punjnad reach

Note: All flood extents are based on breachless conditions

MULTAN AND MUZAFFARGARH DISTRICTS

Sheet 17 of 18

Structure No.	Exisiting Flood Structure	Inventory Code
210	Shehr Sultan Flood Bund RD: 0+000 - 96+850	P1072
219	Jalalpur Khaki Flood Bund RD.0-60000 (1st Line of Defence), Multan	P660
220	Earthen Cross Spurs Along Jalalpur Khaki Flood Bund RD. 10, Multan	P729
221	Earthen Cross Spurs Along Jalalpur Khaki Flood Bund RD. 15, Multan	P730
222	Earthen Cross Spurs Along Jalalpur Khaki Flood Bund RD. 24500, Multan	P731
223	Earthen Cross Spurs Along Jalalpur Khaki Flood Bund RD. 30, Multan	P732
224	Earthen Cross Spurs Along Jalalpur Khaki Flood Bund RD. 40, Multan	P733
225	Earthen Cross Spurs Along Jalalpur Khaki Flood Bund RD. 42500, Multan	P734
226	Earthen Cross Spurs Along Jalalpur Khaki Flood Bund RD. 45, Multan	P735
227	Earthen Cross Spurs Along Jalalpur Khaki Flood Bund RD. 50000, Multan	P737
228	EarThen Cross Spurs Along Jalalpur Khaki Flood Bund RD.52200	P738
229	EarThen Cross Spurs Along Jalalpur Khaki Flood Bund RD.55000	P739
230	Right bank of Panjani Disty RD.123-131 (2nd Line of Defence), Multan	P667
231	Tie Bund 0-8600 (1st Line of Defence), Multan	P662
	EarThen Cross Spurs Along Balochwah Flood Bund RD. 9500, Multan	P724
232	RD.87-120 2nd Defence line Panjani Disty (2nd Line of Defence), Multan	P666
233	EarThen Cross Spurs Along Balochwah Flood Bund RD. 17000, Multan	P725
	Earthen Cross Spurs Along Balochwah Flood Bund RD. 17500, Multan	P726
	Earthen Cross Spurs Along Balochwah Flood Bund RD. 18000, Multan	P727
	Earthen Cross Spurs Along Balochwah Flood Bund RD. 19000, Multan	P728
234	Bloachwah Flood Bund RD. 0-62230 tail of Tie Bund. (1st Line of Defence), Multan	P663
235	J-Head Spur at RD: 15+000 of Shehr Sultan Flood Bund	P1101
236	J-head Spur at RD: 50+000 of Shehr Sultan Flood Bund	P1104
237	Mole-Head Spur No 1. Shehr Sultan Flood Bund	P1102
238	J-Head Spur No 2. Shehr Sultan Flood Bund	P1103
	Mole Head Prong at RD: 0+200 along J-Head Spur No.2 at RD: 75+900 Shehr Sultan Flood Bund	P1106
239	J-Head Spur at RD: 88+200 of Shehr Sultan Flood Bund	P1105
240	Stone Stud at RD: 53+600 (R.M.B), Panjnad Headworks	P905
	Sloping Spur at RD: 55+000 (R.M.B), Panjnad Headworks	P906
	Sloping Spur at RD: 56+000 (R.M.B), Panjnad Headworks	P907
241	J-Head Spur at RD: 48-49 (R.M.B), Panjnad Headworks	P904
242	Stone Stud at RD: 41+500 (R.M.B), Panjnad Headworks	P901
	Mole Head Spur at RD: 42+200 (R.M.B), Panjnad Headworks	P902
	Stone Stud at RD: 43+000 (R.M.B), Panjnad Headworks	P903
243	J-Head Spur at RD: 40+900 (R.M.B), Panjnad Headworks	P900
244	Sloping Spur at RD: 39+000 (R.M.B), Panjnad Headworks	P899
245	J-Head Spur at RD: 36+700 (R.M.B), Panjnad Headworks	P898
246	Right Marginal Bund RD: 0-70554, Panjnad Headworks	P892
291	J-Head Spur at RD: 142+000 of Khan Garh Flood Bund	P1100


3040000
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580000
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ZAFFARGARH DISTRICT
MULTAN DISTRICT
BAHAWALPUR DISTRICT
Chenab River
Sutlej River
Shahr Sultan Flood Bund RD: 0+000 - 96+850
Jalalpur Khaki Flood Bund RD 0-60000 (1st Line of Defence) Multan
Panjani Disty RD 87+000 - 120+000 2nd Defence line (2nd Line of Defence) Multan
Bloachwah Flood Bund RD. 0-62230 tail of Tie Bund. (1st Line of Defence) Multan
Right Marginal Bund RD: 0-70554, Panjnad Headworks
Jatoi- Shehr Sultan Road
To Jatoi
Alipur-Muzaffargarh Road
To Alipur
Pakki pul Road
Jalalpul pirwala-Lodhran Road
To Lodhran
Shjat pur Road
Uch Road
Punjnad-Mudwala Road
Panjani Disty
Hafizwala Minor
Kotli Adlis Minor
Mallah Minor
Baluchwah Minor
Werri Minor
Ghazipur Minor
Jhandi Minor
Ganga Minor
Pamrad Dhand
Nazirwala
Mochiwali
Wigwali
Khairabad
Bangalwali
Aludewali
Dinpur
Muzaffargarh
Mohib Aliwala
Tauhidabad
Raowala
Basti Adam
Khan Bela
Basti Jhabel
Basti Conga
Waddi Basti
Rukanwala
Kalanwali
Binda Ishaq
Jhandewali
Qutab Shah
Basti Tilhani
Bullu Sandila
Ghahruwala
Faizpur
Basti Massu Shah
Kotla Lal Shah
Basti Bullu Sandila
Basti Ali Shah
Gakhran di Basti
Khakhiwali
Basti Bana Arain
Basti Mochiwali
Shahr Sultan
Chah Barinwala
Araianwala
Chah Dugiwala
Chah Aduwala
Basti Kach Pak
Bhand
Seri Shajra
Basti Moharan
Garibabad
Tibbi Khoran wali
Qureshiwala
Jamalwala
Piranwala Khanwala
Jhokwala
Panjani
Bhera Sultan
Ganjarian Di Basti
Mira Molha
Mira
Hafizwala
Dera Sheran
Jahanpur
Nawin Basti
Wan
Thaiklan
Bamb Mor
Janjwala
Basti Khilani
Kup
Basti Bhatti
Basti Musa
Basti Qureshi
Qayyuma di Basti
Miani
Mianry
Ripri
Battar
Mankwali
Beli
Haveli
Bela Sharif
Arajan Di Basti
Basti Khakhi
Kotli Adli
Jandani
Sabuwala
Raihan Di Basti
Shahpur
Masitwala Khu
Maulvi Atta Di Basti
Kachale
Shadu Kachala
Kachale Di Basti
Basti Malkani
Alipur
Qadamwala
Lohar Chak
Basti Jhamat
Loharwala
Wachha Sandila
Basti Taleb
Basti Loharwali
Khaku Jandani Di Basti
Mianwala Khu
Addowali Basti
Basti Baknsha
Basti Khuda Bakhsh
Janda Sandila
Raruncha
Inayatpur
Mochi Panwan
Basti Pathan
Sarwala
Kotwali Basti
Nauabad
Jhangi Ahmad Khan
Basira
Markana
Lar Janub
Basti Jam
Tharowali
Basti Bahara
Basti Jurain
Tibbi Langanwali
Shaikh Ismail
Basti Nunari
Jalalpur Pirwala
Baluch Umarpur
Basti Nachang
Ranjhe di Basti
Malkan
Kach Piran
Gul Di Bhindi
Tibbi Suhrab
Chhatran Di Basti
Basti Darbi
Basti Kachcha Pakka
Rawan Basti
Mihr Bakhsh
Basti Aziz
Basti Dinpur
Shujaatabad
Darhiwala
Basti Karmunwala
Khalilabad
Basti Lag
Basti Darhiwali
Daye Di
Basti Walwat
Basti Laliwala
Basti Drigh
Khan Bela
Basti Ponta
Basti Hafiz
Abaura Janubi
Gang
Basti Lang
Basti Jamwali
Indrar
Basti Ramzanwal
Nurwala
Nauraja Bhutta
Basti Sag
Rai Da Kotla
Darapur
Langar
Shinni Miani
Basti Arain
Ziarat Abdullah Bukhari
Paladpur
Bhanda
Bashira Di Basti
Day di Basti
Basti Jafar
Basti Ghulam Muhammad
Basti Langah
Basti Toni
Bindan
Jhipal
J-Head Spur at RD 15+000
J-Head Spur at RD 50+000
Mole-Head Spur No 1
J-Head Spur No 2
J-Head Spur at RD 88+200
J-Head Spur at RD: 48-49 (R.M.B)
J-Head Spur at RD 40+900
J-Head Spur at RD 36+700
Tie Bund 0-8600 (1st Line of Defence) Multan
210
219
220
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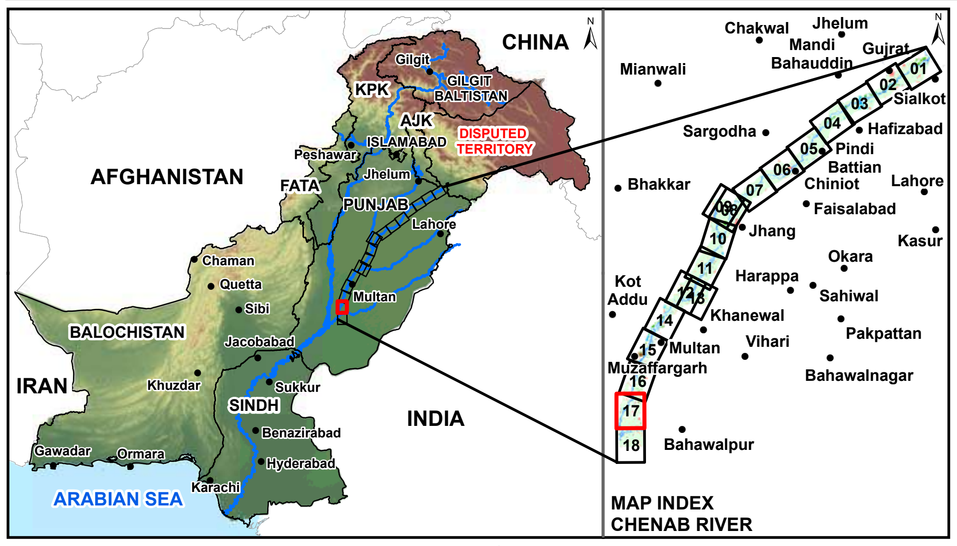
CHINA
AFGHANISTAN
IRAN
INDIA
ARABIAN SEA
Gilgit
GILGIT BALTISTAN
KPK
AJK
DISPUTED TERRITORY
Peshawar
ISLAMABAD
Jhelum
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PUNJAB
Lahore
Chaman
Quetta
Sibi
BALOCHISTAN
Multan
Jacobabad
Khuzdar
Sukkur
SINDH
Benazirabad
Hyderabad
Gawadar
Ormara
Karachi
Chakwal
Jhelum
Mandi Bahauddin
Gujrat
Sialkot
Mianwali
Sargodha
Hafizabad
Pindi Battian
Chiniot
Faisalabad
Lahore
Bhakkar
Jhang
Kasur
Okara
Kot Addu
Harappa
Sahiwal
Khanewal
Multan
Vihari
Pakpattan
Muzaffargarh
Bahawalnagar
Bahawalpur
01
02
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04
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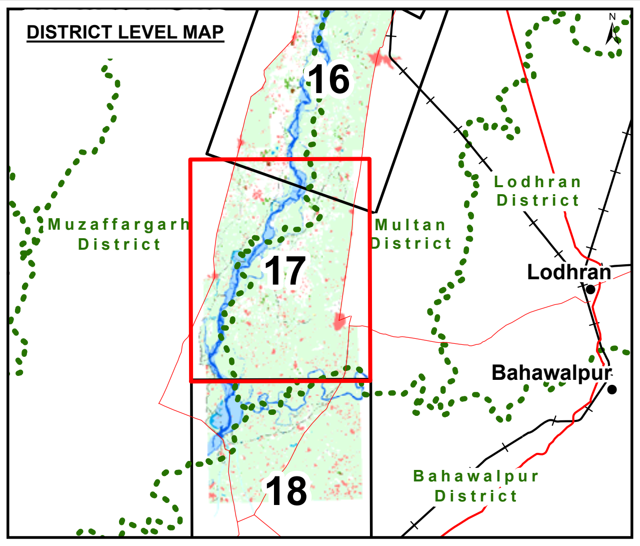
18

MAP INDEX
CHENAB RIVER

DISTRICT LEVEL MAP


16
17
18
Muzaffargarh District
Multan District
Lodhran District
Lodhran
Bahawalpur
Bahawalpur District

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

- National Highway
- Metalled Road
- Un-metalled Road
- Track
- Railway Line
- Canal
- Branch
- Drain
- Distributary
- Minor
- Nallah
- Wah
- District Boundary
- Provincial Boundary
- International Boundary
- Barren Area
- Bund / Spur
- Cultivated Area
- Flood Plain
- Grass
- Graveyard
- Hill
- Main/Link Canal, Escape, Spillway
- Motorway
- Mud
- Nallah (Perennial)
- Nallah (Non Perennial)
- Orchard
- Planned Urban Area
- Range Forest
- River
- Sand Dunes
- Town/Village/Settlement
- Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV) AND RELATED STUDIES TO ENHANCE THE CAPACITY OF FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
CHENAB RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

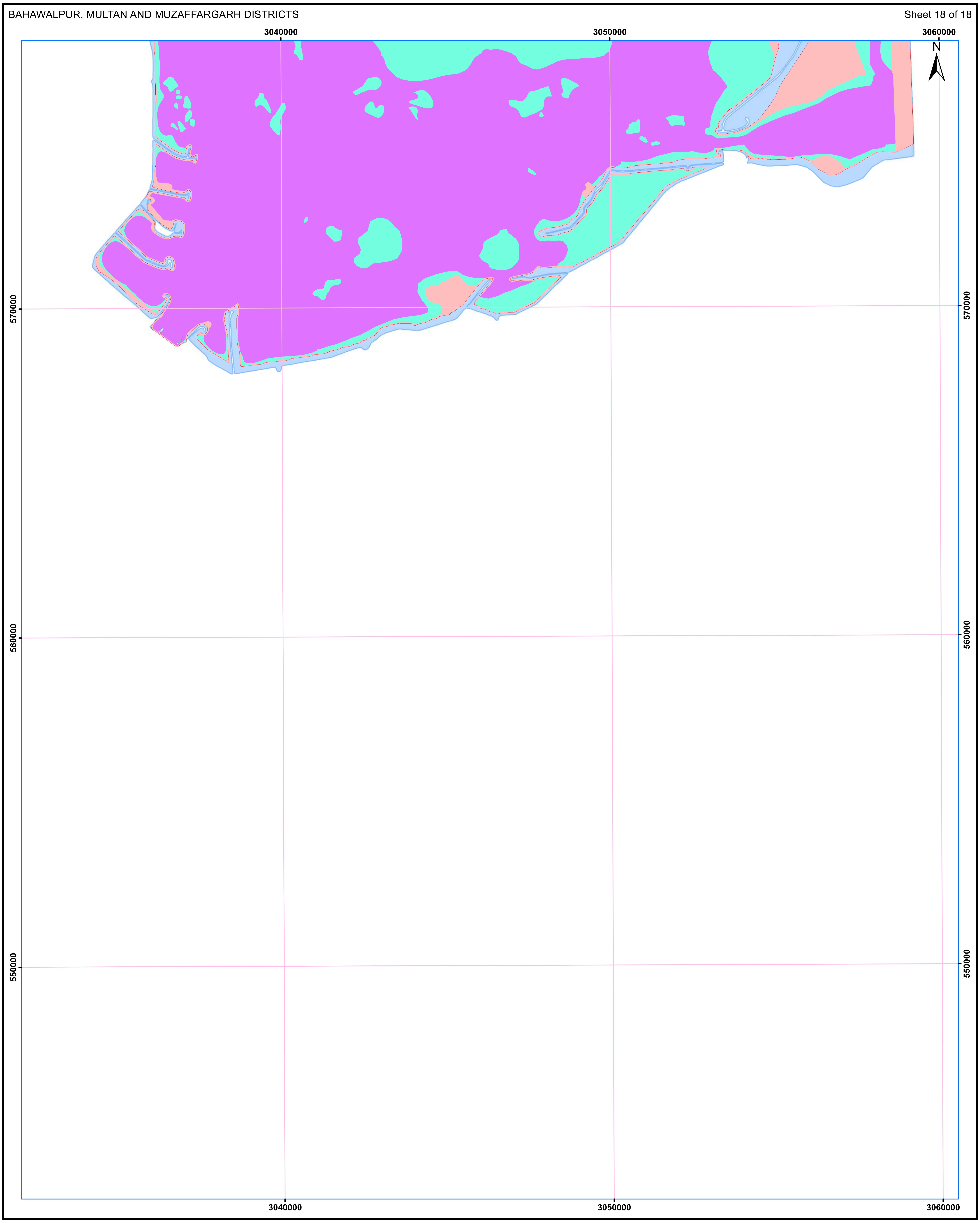
in association with

DELTARES,THE NETHERLANDS

Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: January 29, 2016 By M.Waseem Saeed



Scale 1:75,000

LEGEND

(Flood Risk Zones)

- 🟩 High Risk Zone (Inundation Extent corresponding to discharge from 200,000 to 425,000 cusecs in Trimmu-Punjnad reach)
- 🟥 Medium Risk Zone (Inundation Extent corresponding to discharge from 425,000 to 615,000 cusecs in Trimmu-Punjnad reach)
- 🟦 Low Risk Zone (Inundation Extent corresponding to discharge from 615,000 to 820,000 cusecs in Trimmu-Punjnad reach)

LEGEND

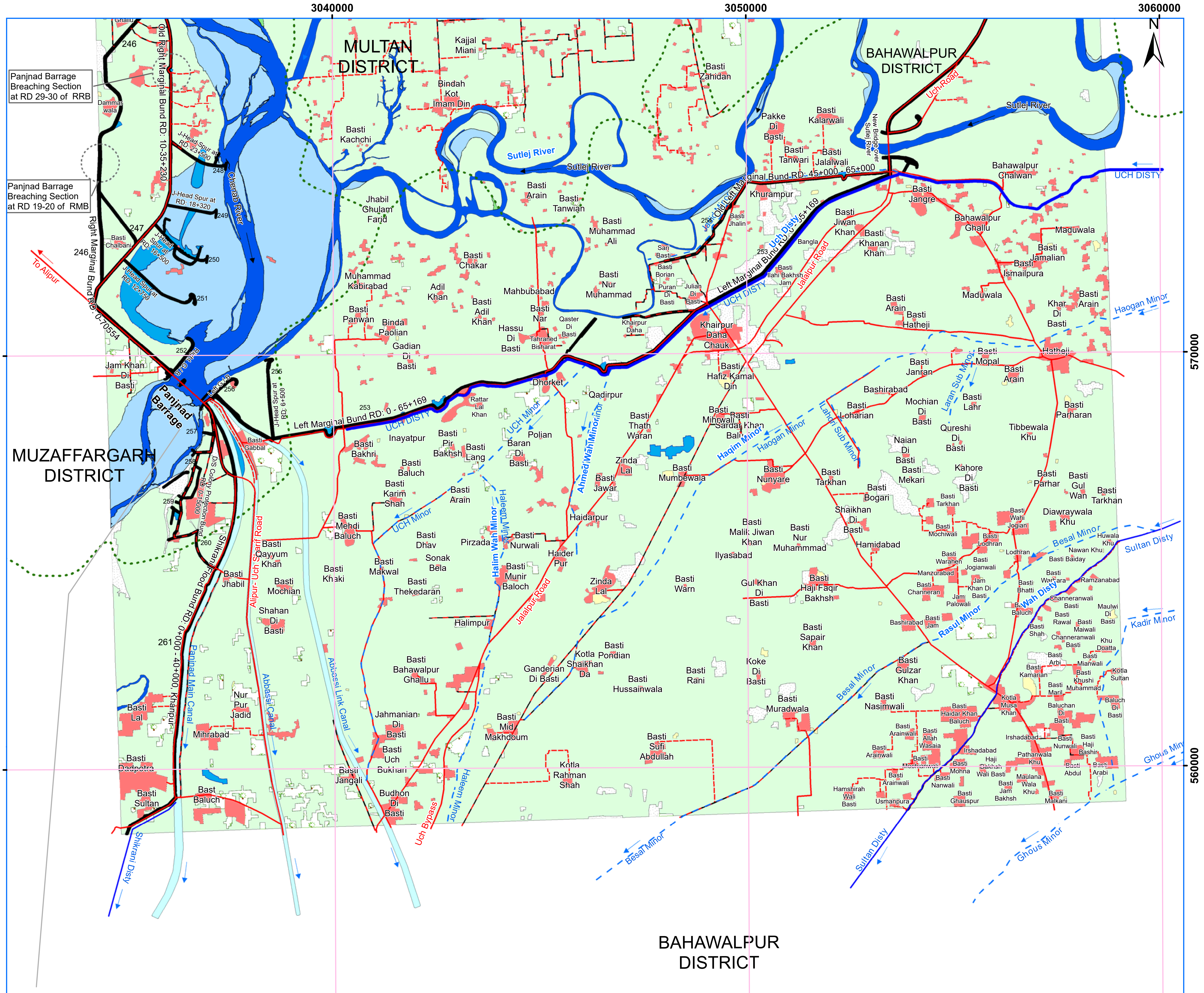
(Inundation Extent Corresponding to Provincial Irrigation Department)

- 🟪 Medium Flood Extent corresponding to discharge upto 200,000 cusecs in Trimmu-Punjnad reach

Note: All flood extents are based on breachless conditions

BAHAWALPUR, MULTAN AND MUZAFFARGARH DISTRICTS

Sheet 18 of 18


3040000
3050000
3060000
570000
560000
550000
MULTAN DISTRICT
BAHAWALPUR DISTRICT
MUZAFFARGARH DISTRICT
Panjnad Barrage
Panjnad Barrage Breaching Section at RD 29-30 of RRB
Panjnad Barrage Breaching Section at RD 19-20 of RMB
Chenab River
Sutlej River
Old Right Marginal Bund RD: 10-35+230
Right Marginal Bund RD: 0-70554
Left Marginal Bund RD: 0 - 65+169
Old Left Marginal Bund RD: 45+000 - 65+000
Shikrani Flood Bund RD 0+000 - 40+000 Khanpur
Panjnad Main Canal
Abbasia Link Canal
Abbasia Canal
UCH DISTY
Uch Road
Uch Bypass
Jalalpur Road
Alipur- Uch Sharif Road
Shikrani Disty
Sultan Disty
Besal Minor
Ghous Minor
Haqim Minor
Haogan Minor
Halim Wah Minor
Haleem Minor
Ahmed Wah Minor
Kadir Minor
Rasul Minor
To Alipur
Khairpur Daha Chauk
Khurampur
Uch
Jam Khan Di Basti
Mihrabad
Basti Sultan
Dhorket
Qadirpur
Basti Bakhri
Kajjal Miani
Bindah Kot Imam Din
Basti Kachchi
Jhabil Ghulam Farid
Bahawalpur Chalwan
246
247
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261
N

Structure:	PANJNAD
Very High Risk Flood Magnitude	up to 200,000
*High Risk Flood Magnitude	200,000 - 420,000
*Medium Risk Flood Magnitude	420,000 - 640,000
*Low Risk Flood Magnitude	640,000 - 870,000

Note: All values are in ft^3/sec

* Results based on frequency analysis carried out under current studies using observed peak discharges upto

Structure No.	Exisiting Flood Structure	Inventory Code
246	Right Marginal Bund RD: 0-70554, Panjnad Headworks	P892
247	Old Right Marginal Bund RD: 10-35230, Panjnad Headworks	P893
248	J-Head Spur at RD: 23+500 (R.M.B), Panjnad Headworks	P897
249	J-Head Spur at RD: 18+320 (R.M.B), Panjnad Headworks	P896
250	J-Head Spur at RD: 16+500 (R.M.B), Panjnad Headworks	P895
251	J-Head Spur at RD: 12+750 (R.M.B) (Newly constructed), Panjnad Headworks	P894
252	Right Guide Bund of Panjnad Headworks	P889
253	Left Marginal Bund RD: 0 - 65169, Panjnad Headworks	P908
254	Old Left Marginal Bund RD: 45-65, Panjnad Headworks	P909
255	J-Head Spur at RD: 6+500 (L.M.B), Panjnad Headworks	P910
256	Left Guide Bund of Panjnad Headworks	P890
257	Sloping Spur at RD: 2+750 (C.P.B), Panjnad Headworks	P911
258	Mole Head Spur at RD: 5+500 (C.P.B), Panjnad Headworks	P912
	Sloping Spur at RD: 6+700 (C.P.B), Panjnad Headworks	P913
259	Sloping Spur at RD: 8+500 (C.P.B), Panjnad Headworks	P914
	Sloping Spur at RD: 9+500 (C.P.B), Panjnad Headworks	P915
	Sloping Spur at RD: 10+000 (C.P.B), Panjnad Headworks	P916
260	D/S Colony Protection Bund RD: 0-15000, Panjnad Headworks	P891
261	Shikrani Flood Bund RD: 0+000 - 40+000, Khanpur	P966

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CHINA
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ARABIAN SEA
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GILGIT BALTISTAN
AJK
ISLAMABAD
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PUNJAB
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SINDH
Gilgit
Peshawar
Jhelum
Lahore
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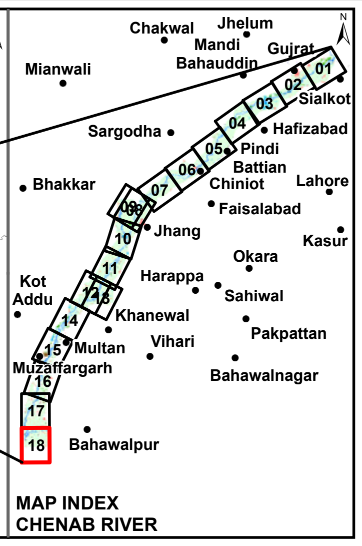
Quetta
Sibi
Multan
Jacobabad
Khuzdar
Sukkur
Benazirabad
Hyderabad
Gawadar
Ormara
Karachi


Chakwal
Jhelum
Mandi Bahauddin
Gujrat
Mianwali
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Sialkot
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Hafizabad
Sargodha
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Pindi Battian
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Lahore
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Chiniot
Bhakkar
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Faisalabad
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Jhang
Kasur
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Okara
Kot Addu
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Harappa
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Sahiwal
Khanewal
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Pakpattan
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Multan
Vihari
Muzaffargarh
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Bahawalnagar
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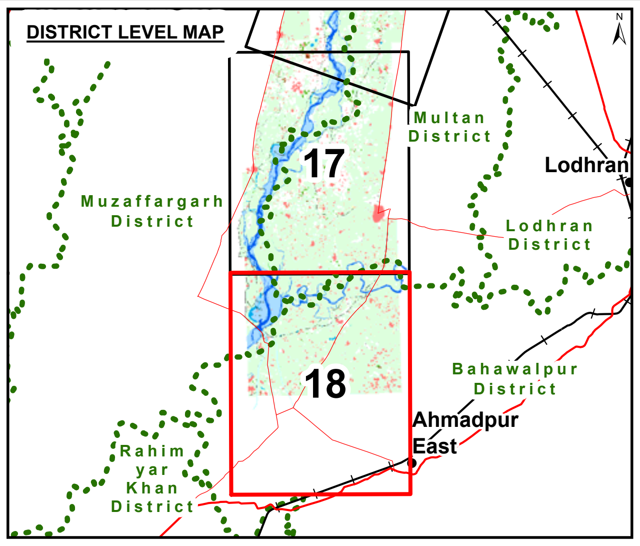
18
Bahawalpur
N

MAP INDEX
CHENAB RIVER

DISTRICT LEVEL MAP


17
18
Multan District
Muzaffargarh District
Lodhran
Lodhran District
Bahawalpur District
Ahmadpur East
Rahim yar Khan District
N

Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: June 30, 2015 By M.Waseem Saeed

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

National Highway
Metalled Road
Un-metalled Road
Track
Railway Line
Canal
Branch
Drain
Distributary
Minor
Nallah
Wah
District Boundary
Provincial Boundary
International Boundary

Barren Area
Bund / Spur
Cultivated Area
Flood Plain
Grass
Graveyard
Hill
Main/Link Canal, Escape, Spillway
Motorway
Mud
Nallah (Perennial)
Nallah (Non Perennial)
Orchard
Planned Urban Area
Range Forest
River
Sand Dunes
Town/Village/Settlement
Water Body

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

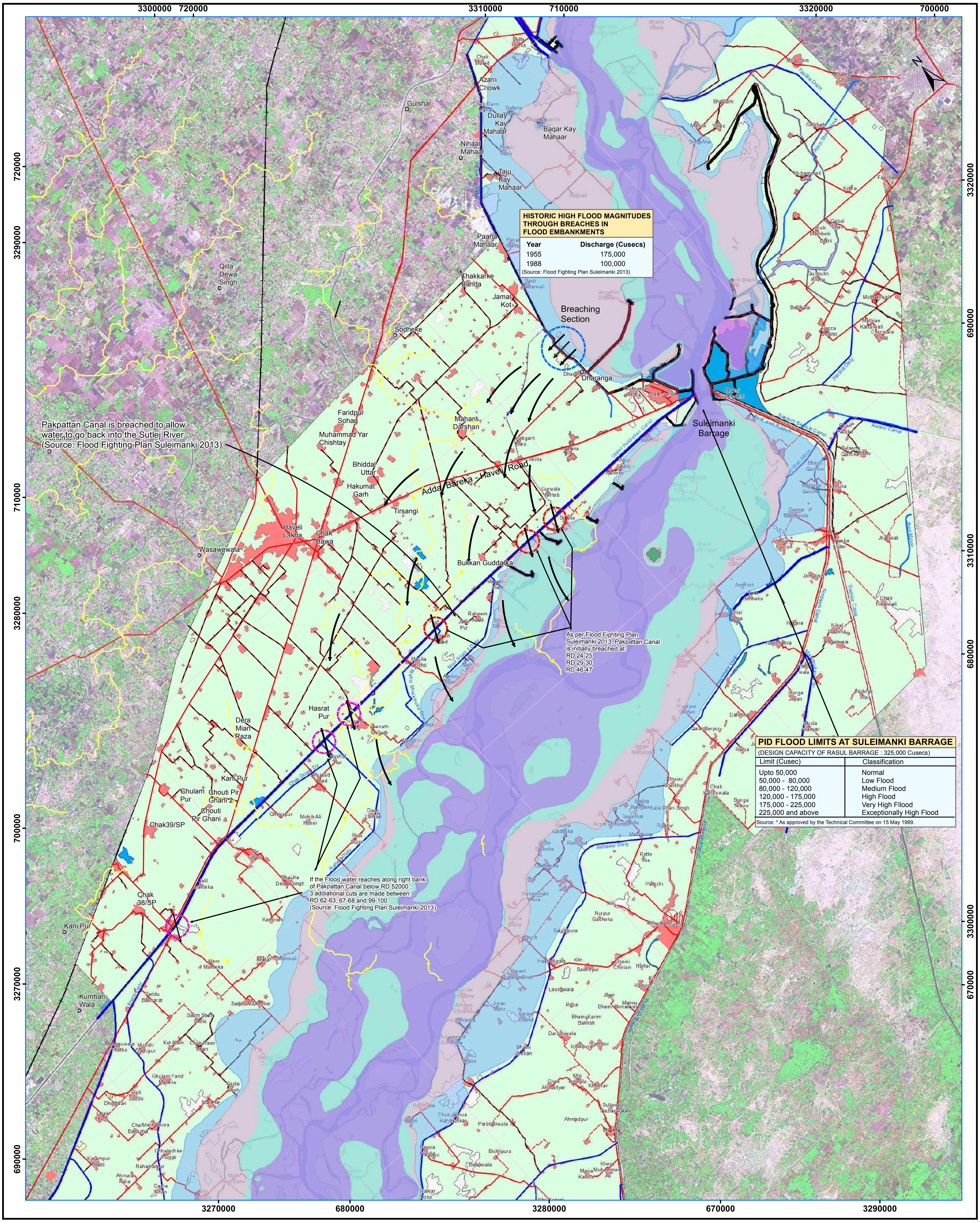
LANDUSE MAP
CHENAB RIVER

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with

DELTARES,THE NETHERLANDS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Azam Chowk
Gulshar
Dullay Kay Mahaar
Baqar Kay Mahaar
Nihal Mahaar
Taju Kay Mahaar
Paana Mahaar
Qilla Dewa Singh
Thakkarke Banda
Jamal Kot
Breaching Section
Sodheke
Dharanga
Faridpur Sohag
Muhammad Yar Chishtay
Mahant Darshan
Suleimanki Barrage
Bhiddal Uttar
Hakumat Garh
Adda Bareka - Haveli Road
Tirsangi
Haveli Lakha
Chak Bawa
Wasawewala
Bukkan Guddarka
Hasrat Pur
Dera Mian Raza
Kan Pur
Chulam Pur
Chouti Pir Ghani 2
Chouti Pir Ghani
Chak39/SP
Chak 38/SP
Kani Pur
Kumhari Wala
Fazilka
Upper Pakpattan Canal
Eastern Sadiqia Canal

HISTORIC HIGH FLOOD MAGNITUDES THROUGH BREACHES IN FLOOD EMBANKMENTS

Year	Discharge (Cusecs)
1955	175,000
1988	100,000

(Source: Flood Fighting Plan Suleimanki 2013)

Pakpattan Canal is breached to allow water to go back into the Sutlej River.
(Source: Flood Fighting Plan Suleimanki 2013)

As per Flood Fighting Plan Suleimanki 2013, Pakpattan Canal is initially breached at:
RD 24-25
RD 29-30
RD 46-47

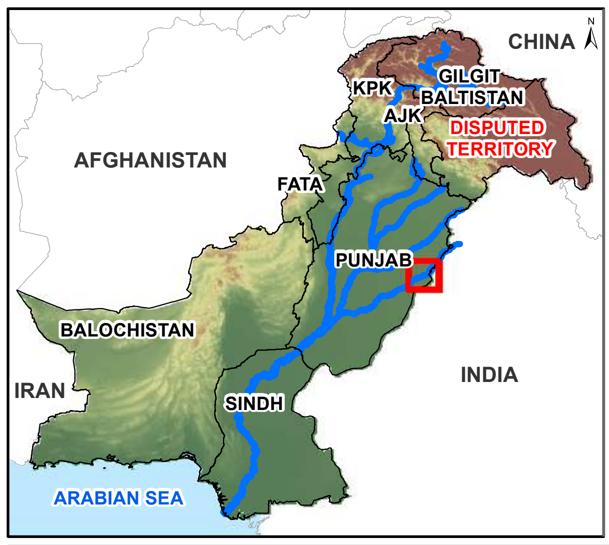
If the Flood water reaches along right bank of Pakpattan Canal below RD 52000 , 3 addiational cuts are made between:
RD 62-63, 67-68 and 99-100.
(Source: Flood Fighting Plan Suleimanki 2013)

PID FLOOD LIMITS AT SULEIMANKI BARRAGE

(DESIGN CAPACITY OF RASUL BARRAGE : 325,000 Cusecs)

Limit (Cusec)	Classification
Upto 50,000	Normal
50,000 - 80,000	Low Flood
80,000 - 120,000	Medium Flood
120,000 - 175,000	High Flood
175,000 - 225,000	Very High Fllood
225,000 and above	Exceptionally High Flood

Source: * As approved by the Technical Committee on 15 May 1989.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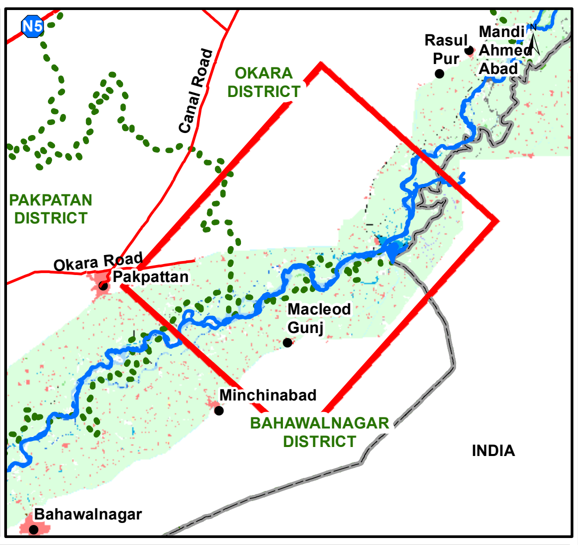
GILGIT
KPK
BALTISTAN
AJK
DISPUTED TERRITORY
AFGHANISTAN
FATA
PUNJAB
BALOCHISTAN
IRAN
SINDH
INDIA
ARABIAN SEA


N5
Canal Road
OKARA DISTRICT
Rasul Pur
Mandi Ahmed Abad
PAKPATTAN DISTRICT
Okara Road
Pakpattan
Macleod Gunj
Minchinabad
BAHAWALNAGAR DISTRICT
INDIA
Bahawalnagar

Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: January 29, 2016

Scale 1: 100,000

0 0.5 1 2 3 Kilometers

LEGEND

- Designated Breaching Section
- Designated Breach Location at Canal
- Flood Water Flow Direction
- Drainage (Based on SRTM Data)

Inundation Extent Corresponding to Provincial Irrigation Department

- Medium Flood Extent at discharge of 80,000 cusec in Ferozpur-Suleimanki Reach

Risk Zones

- High Risk Zone (Inundation Extent Corresponding to discharge of 165,000 cusecs below Ferozpur)
- Medium Risk Zone (Inundation Extent Corresponding to discharge of 340,000 cusecs below Ferozpur)
- Low Risk Zone (Inundation Extent Corresponding to discharge of 390,000 cusecs below Ferozpur)

- National Highway
- Metalled Road
- Un-metalled Road
- Track
- Railway Line
- Canal
- Branch
- Drain
- Distributary
- Minor
- Nallah
- Wah
- District Boundary
- Provincial Boundary
- International Boundary

- Barren Area
- Bund / Spur
- Cultivated Area
- Flood Plain
- Grass
- Graveyard
- Hill
- Main/Link Canal, Escape, Spillway
- Motorway
- Mud
- Nallah (Perennial)
- Nallah (Non Perennial)
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- Planned Urban Area
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- Sand Dunes
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DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
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SULEIMANKI BARRAGE
BREACHING SECTION MAP

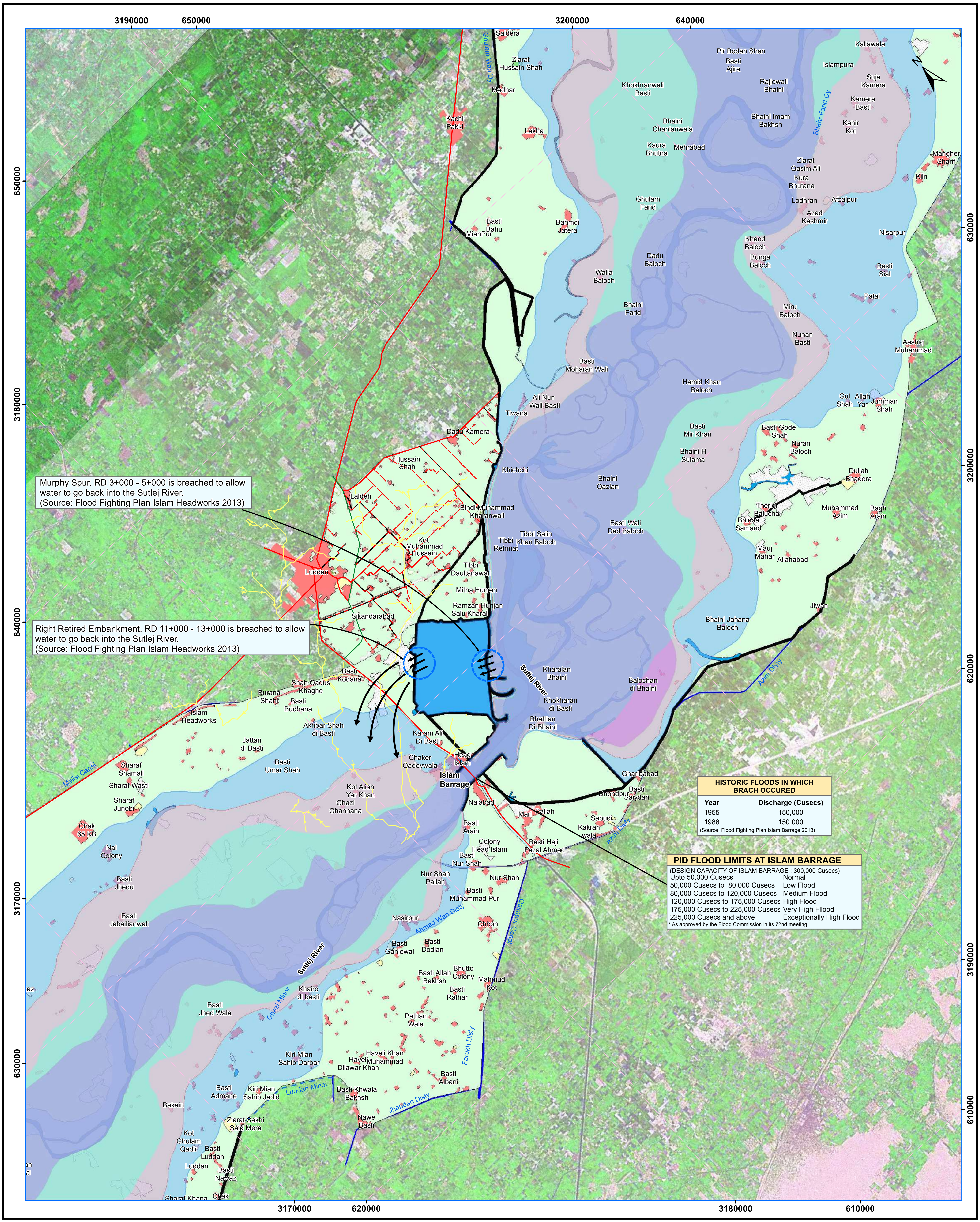
GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with

DELTARES,THE NETHERLANDS

Please Note:
1). Drainage calculations are based on SRTM (Shuttle Radar Topography Mission) data.
2). Background is Landsat Imagery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Sutlej River
Islam Barrage
Islam Headworks
Luddan
Laldeh
Sikandarabad
Mailsi Canal
Azim Disty
Ahmad Wah Disty
Ghazi Minor
Luddan Minor
Jhandari Disty
Farukh Disty
Qaimpur Canal
Shahr Farid Dy
Ghulam Wah Dy
Saldera
Madhar
Kachi Pakki
Lakha
Dadu Kamera
Hussain Shah
Khichchi
Tibbi Daultanawali
Mitha Hunjan
Ramzan Hunjan Salu Kharal
Basti Kodana
Shah Qadus Khaghe
Burana Shahi
Basti Budhana
Akhbar Shah di Basti
Karam Ali Di Basti
Head Islam
Chaker Qadeyewala
Naiababi
Colony Head Islam
Nur Shah Pallah
Basti Umar Shah
Kot Aliah Yar Khan
Ghazi Ghannana
Sharaf Shamali
Sharaf Wasti
Sharaf Junobi
Chak 65 KB
Nai Colony
Basti Jhedu
Basti Jabailianwali
Basti Jhed Wala
Kiri Mian Sahib Darbar
Haveli Khan Muhammad Dilawar Khan
Basti Albani
Basti Khwala Bakhsh
Nawe Basti
Ziarat Sakhi Said Mera
Kot Ghulam Qadir
Basti Luddan
Basti Nawaz
Sharaf Khana
Chak
Bakain
Basti Admane
Kiri Mian Sahib Jadid
Kharalan Bhaini
Khokharan di Basti
Bhattian Di Bhaini
Balochan di Bhaini
Gharibabad
Basti Saydan
Dhondpur
Sabudi
Kakran wala
Mari
Pallah
Basti Haji Fazal Ahmad
Basti Arain
Basti Nur Shah
Nur Shah
Basti Muhammad Pur
Nasirpur
Chhon
Basti Ganjewal
Basti Dodian
Basti Allah Bakhsh
Bhutto Colony
Basti Rathar
Mahmud Kot
Pathan Wala
Khairo di basti
Jiwan
Bhaini Jahana Baloch
Allahabad
Mauj Mahar
Basti Wali Dad Baloch
Tibbi Salin Khan Baloch
Bhaini Qazian
Bhaini H Sulama
Basti Mir Khan
Hamid Khan Baloch
Basti Moharan Wali
Ali Nun Wali Basti
Tiwana
Bindi Muhammad Kharanwali
Kot Muhammad Hussain
Tibbi Rehmat
Basti Bahu
MianPur
Bahmdi Jatera
Walia Baloch
Dadu Baloch
Bhaini Farid
Ghulam Farid
Kaura Bhutna
Mehrabad
Bhaini Chanianwala
Khokhranwali Basti
Ziarat Hussain Shah
Pir Bodan Shan
Basti Ajira
Rajjowali Bhaini
Bhaini Imam Bakhsh
Kaliawala
Islampura
Suja Kamera
Kamera Basti
Kahir Kot
Mangher Sharif
Kiln
Ziarat Qasim Ali
Kura Bhutana
Lodhran
Afzalpur
Azad Kashmir
Nisarpur
Khand Baloch
Bunga Baloch
Basti Sial
Patai
Miru Baloch
Nunan Basti
Aashiq Muhammad
Gul Shah
Allah Yar
Jumman Shah
Basti Gode Shah
Nuran Baloch
Dullah Bhadera
Therin Balucha
Bhinda Samand
Muhammad Azim
Bagh Arain
Jattan di Basti

Murphy Spur. RD 3+000 - 5+000 is breached to allow water to go back into the Sutlej River.
(Source: Flood Fighting Plan Islam Headworks 2013)

Right Retired Embankment. RD 11+000 - 13+000 is breached to allow water to go back into the Sutlej River.
(Source: Flood Fighting Plan Islam Headworks 2013)

HISTORIC FLOODS IN WHICH BRACH OCCURED

Year	Discharge (Cusecs)
1955	150,000
1988	150,000

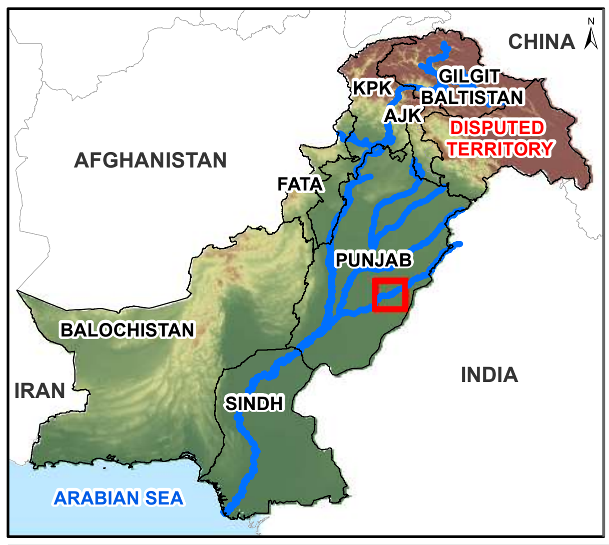
(Source: Flood Fighting Plan Islam Barrage 2013)

PID FLOOD LIMITS AT ISLAM BARRAGE

(DESIGN CAPACITY OF ISLAM BARRAGE : 300,000 Cusecs)

Upto 50,000 Cusecs	Normal
50,000 Cusecs to 80,000 Cusecs	Low Flood
80,000 Cusecs to 120,000 Cusecs	Medium Flood
120,000 Cusecs to 175,000 Cusecs	High Flood
175,000 Cusecs to 225,000 Cusecs	Very High Fllood
225,000 Cusecs and above	Exceptionally High Flood

* As approved by the Flood Commission in its 72nd meeting.


CHINA
GILGIT BALTISTAN
KPK
AJK
DISPUTED TERRITORY
AFGHANISTAN
FATA
PUNJAB
BALOCHISTAN
IRAN
INDIA
SINDH
ARABIAN SEA
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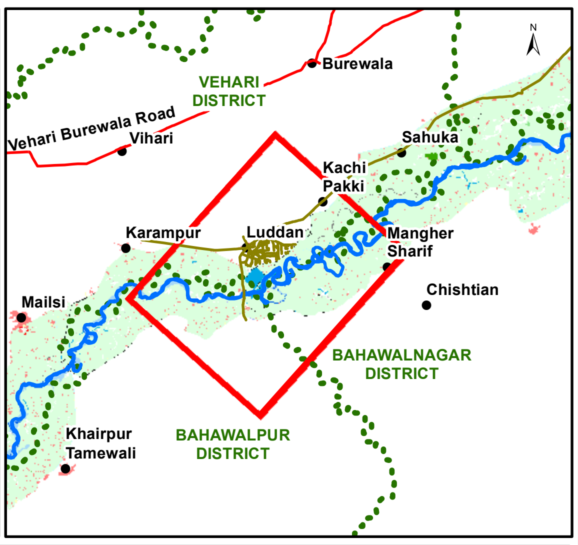
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VEHARI DISTRICT
Burewala
Vehari Burewala Road
Vihari
Sahuka
Kachi Pakki
Karampur
Luddan
Mangher Sharif
Chishtian
Mailsi
BAHAWALNAGAR DISTRICT
Khairpur Tamewali
BAHAWALPUR DISTRICT

Scale 1: 75,000

0 0.5 1 2 3 Kilometers

LEGEND

- Designated Breaching Section
- Designated Breach Location at Canal
- Flood Water Flow Direction
- Drainage (Based on SRTM Data)

INUNDATION EXTENT CORRESPONDING TO PROVINCIAL IRRIGATION DEPARTMENT

- Medium flood limit at discharge of 80,000 cusecs in Suleimanki-Islam Reach

RISK ZONES

- High Risk Zone (Inundation Extent Corresponding to discharge of 165,000 cusecs below Ferozpur)
- Medium Risk Zone (Inundation Extent Corresponding to discharge of 340,000 cusecs below Ferozpur)
- Low Risk Zone (Inundation Extent Corresponding to discharge of 390,000 cusecs below Ferozpur)

Please Note:
1). Drainage calculations are based on SRTM (Shuttle Radar Topography Mission) data.
2). Background is Landsat Imagery

LANDUSE FEATURES

- National Highway
- Metalled Road
- Un-metalled Road
- Track
- Railway Line
- Canal
- Branch
- Drain
- Distributary
- Minor
- Nallah
- Wah
- District Boundary
- Provincial Boundary
- International Boundary

- Barren Area
- Bund / Spur
- Cultivated Area
- Flood Plain
- Grass
- Graveyard
- Hill
- Main/Link Canal, Escape, Spillway
- Motorway
- Mud
- Nallah (Perennial)
- Nallah (Non Perennial)
- Orchard
- Planned Urban Area
- Range Forest
- River
- Sand Dunes
- Town/Village/Settlement
- Water Body

Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: January 29, 2016

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

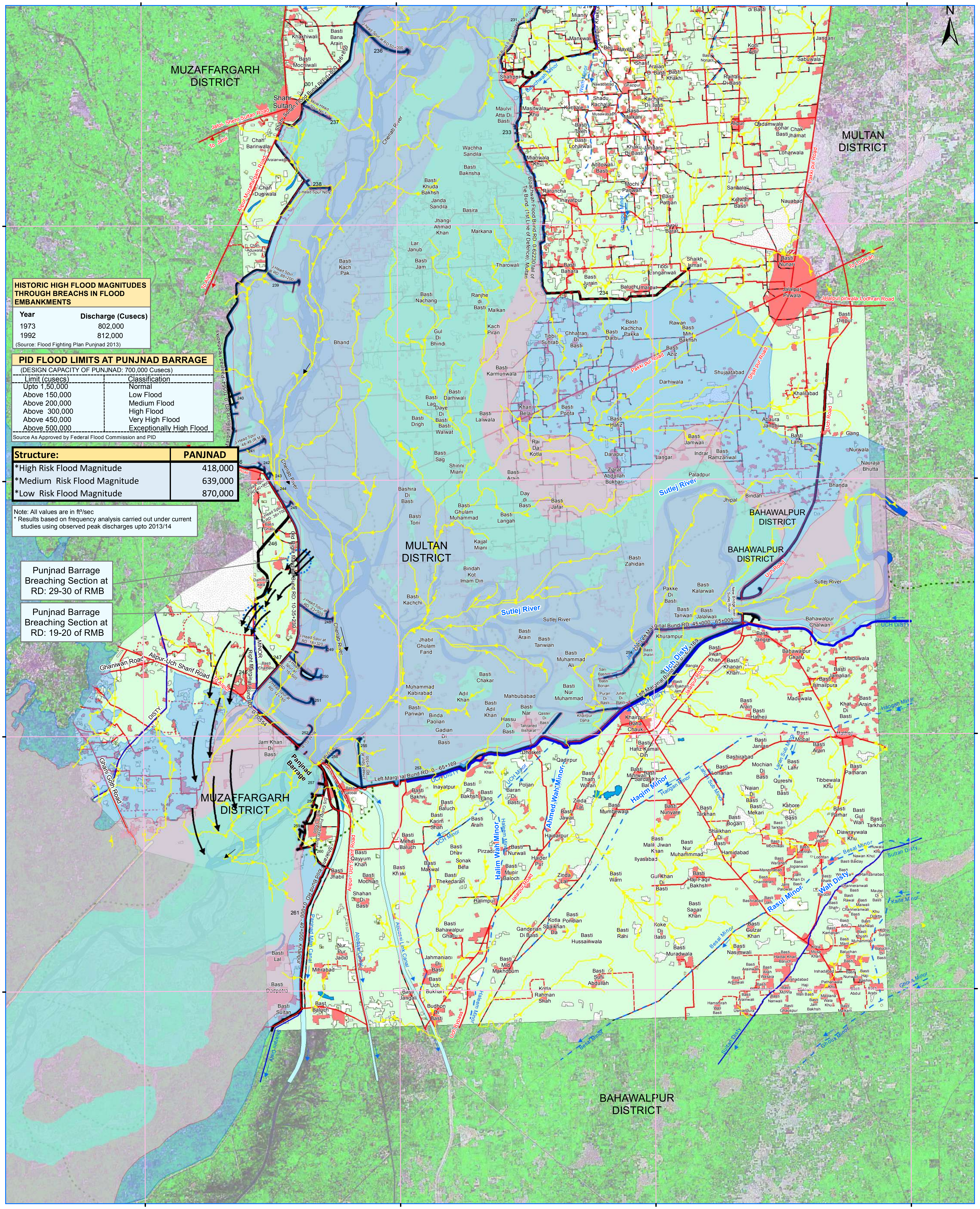
ISLAM BARRAGE
BREACHING SECTION MAP

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
BUILDING AND ADVISORY SERVICES PROJECT (WCAP)

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with

DELTARES,THE NETHERLANDS


3030000
3040000
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N
MUZAFFARGARH DISTRICT
MULTAN DISTRICT
MULTAN DISTRICT
BAHAWALPUR DISTRICT
BAHAWALPUR DISTRICT
BAHAWALPUR DISTRICT
MUZAFFARGARH DISTRICT
Chenab River
Sutlej River
Sutlej River
Punjnad Barrage
Jalalpur Pirwala
Jalalpur pirwala-Lodhran Road
Shujaabad
Shahr Sultan
Alipur-Uch Sharif Road
Ghaniwan Road
Left Marginal Bund RD: 0+000 - 65+169
Left Marginal Bund RD: 45+000 - 65+000
Uch Disty
Halim Wah Minor
Ahmed Wah Minor
Haqim Minor
Rasul Minor
Wah Disty
Abbasia Canal
Abbasia Link Canal
Panjnad Main Canal
Punjnad Barrage Breaching Section at RD: 29-30 of RMB
Punjnad Barrage Breaching Section at RD: 19-20 of RMB

HISTORIC HIGH FLOOD MAGNITUDES THROUGH BREACHS IN FLOOD EMBANKMENTS

Year	Discharge (Cusecs)
1973	802,000
1992	812,000

(Source: Flood Fighting Plan Punjnad 2013)

PID FLOOD LIMITS AT PUNJNAD BARRAGE

(DESIGN CAPACITY OF PUNJNAD: 700,000 Cusecs)

Limit (cusecs)	Classification
Upto 1,50,000	Normal
Above 150,000	Low Flood
Above 200,000	Medium Flood
Above 300,000	High Flood
Above 450,000	Very High Flood
Above 500,000	Exceptionally High Flood

Source As Approved by Federal Flood Commission and PID

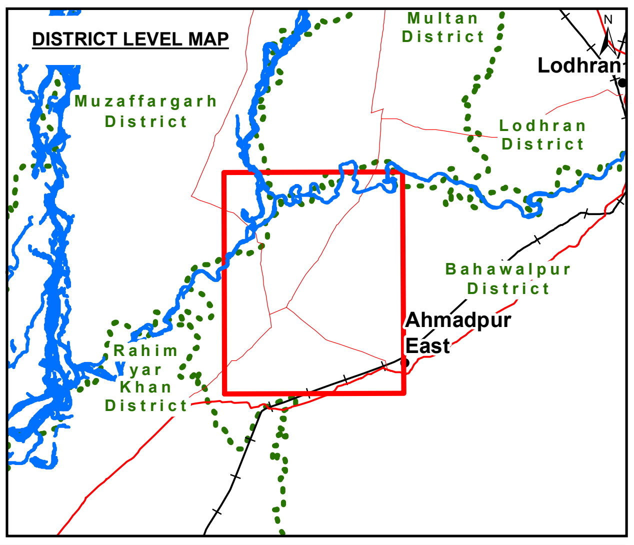
Structure:	PANJNAD
*High Risk Flood Magnitude	418,000
*Medium Risk Flood Magnitude	639,000
*Low Risk Flood Magnitude	870,000

Note: All values are in ft³/sec
* Results based on frequency analysis carried out under current studies using observed peak discharges upto 2013/14

Punjnad Barrage Breaching Section at RD: 29-30 of RMB

Punjnad Barrage Breaching Section at RD: 19-20 of RMB

CHINA
AFGHANISTAN
IRAN
INDIA
ARABIAN SEA
BALOCHISTAN
SINDH
PUNJAB
KPK
FATA
AJK
GILGIT BALTISTAN
DISPUTED TERRITORY
ISLAMABAD
Gilgit
Peshawar
Jhelum
Lahore
Chaman
Quetta
Sibi
Multan
Jacobabad
Khuzdar
Sukkur
Benazirabad
Hyderabad
Gawadar
Ormara
Karachi
N


DISTRICT LEVEL MAP
Multan District
Lodhran
Muzaffargarh District
Lodhran District
Bahawalpur District
Ahmadpur East
Rahim Yar Khan District
N

Scale 1: 100,000

0 0.5 1 2 3 Kilometers

LEGEND

◌	Designated Breaching Section	—	National Highway	▨	Barren Area
◌	Designated Breach Location at Canal/Minor	—	Metalled Road	■	Bund / Spur
⇙	Flood Water Flow Direction	—	Un-metalled Road	■	Cultivated Area
←	Drainage (Based on SRTM Data)	- - -	Track	■	Flood Plain
		—+—	Railway Line	■	Grass
		—	Canal	■	Graveyard
		—	Branch	■	Hill
		- - -	Drain	■	Main/Link Canal, Escape, Spillway
		—	Distributary	■	Motorway
		- -	Minor	■	Mud
		- -	Nallah	■	Nallah (Perennial)
		- - -	Wah	■	Nallah (Non Perennial)
		•••••	District Boundary	■	Orchard
		- - -	Provincial Boundary	▨	Planned Urban Area
		- - -	International Boundary	■	Range Forest
				■	River
				■	Sand Dunes
				■	Town/Village/Settlement
				■	Water Body

Inundation Extent corresponding to Provincial Irrigation Department

■	Medium Flood Limit at discharge of 200,000 cusec in Trimmu-Punjnad Reach

Risk Zones

■	High Risk Zone (Inundation Extent Corresponding to discharge of 200,000 to 418,000 cusecs in Trimmu-Punjnad Reach)
■	Medium Risk Zone (Inundation Extent Corresponding to discharge of 418,000 to 639,000 cusecs in rimmu-Punjnad Reach)
■	Low Risk Zone (Inundation Extent Corresponding to discharge of 639,000 to 870,000 cusecs in Trimmu-Punjnad Reach)

DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV)
AND RELATED STUDIES TO ENHANCE THE CAPACITY OF
FEDERAL FLOOD COMMISSION-FFC

PUNJNAD BARRAGE BREACHING SECTION MAP

GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)
WATER SECTOR CAPACITY
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Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-I) ,
DATUM: WGS84
Grid Reference is in meters

Date: Jan 29, 2016
By Maria Yameen

Inundation Depth of Settlements along Sutlej River

Sutlej River - Sheet No. 1

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Ferozpur		Inundation Depth at Discharge of 165,000 Cusec below Ferozpur		Inundation Depth at Discharge of 340,000 Cusec below Ferozpur		Inundation Depth at Discharge of 390,000 Cusec below Ferozpur	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	6 Settlements nearby Atar Singhwala	M,L	KASUR	0.00	0.00	0.00	0.00	0.00	0.50	0.00	1.15
2	Mambeke	M,L	KASUR	0.00	0.00	0.00	0.00	2.20	2.69	2.51	2.98
3	Ratnay Wala	M,L	KASUR	0.00	0.00	0.00	0.00	0.00	2.04	0.00	2.59
4	Bagge and nearby 1 Settlement	M,L	KASUR	0.00	0.00	0.00	0.00	0.08	1.17	0.13	2.12
5	Chabba and nearby 4 Settlements	M,L	KASUR	0.00	0.00	0.00	0.00	0.14	2.17	0.64	2.35
6	Hardo Ban(Bodla Kalan) and nearby 2 Settlements	M,L	KASUR	0.00	0.00	0.00	0.00	0.57	3.94	1.35	4.04
7	Hardo Ban(Bodla Khurd)	M,L	KASUR	0.00	0.00	0.00	0.00	0.20	3.02	0.35	3.55
8	Mammanwala and nearby 1 Settlement	M,L	KASUR	0.00	0.00	0.00	0.00	0.00	1.02	0.00	1.85
9	Thatti Farid and nearby 1 Settlement	M,L	KASUR	0.00	0.00	0.00	0.00	0.00	1.60	0.00	2.45
10	Bakhshewala	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
11	Bhedian Usman	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12
12	Gahi Jamun Wala andnearby 1 Settlement	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
13	Jhuggian Haku and nearby 1 Settlement	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.94
14	2 Settlements nearby Jodh Singhwala	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72
15	Jumay Kay	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01
16	Keelchy	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.58
17	Kharepar	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.23
18	Nure Wala and nearby 3 Settlements	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.06
19	Shaikh Ammad Nou	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10
20	Thatti Usman	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96
21	Wallay Wala and nearby 3 Settlements	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05

Sutlej River - Sheet No. 2

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Ferozpur		Inundation Depth at Discharge of 165,000 Cusec below Ferozpur		Inundation Depth at Discharge of 340,000 Cusec below Ferozpur		Inundation Depth at Discharge of 390,000 Cusec below Ferozpur	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Ahmun Chimna	H,M,L	OKARA	0.00	0.00	0.30	0.55	1.24	1.49	1.50	1.74
2	Anwar Chimna Bhaini	H,M,L	OKARA	0.00	0.00	0.68	1.43	1.63	2.38	1.90	2.64
3	Atma Singh	H,M,L	KASUR	0.00	0.00	0.00	0.13	0.00	0.46	0.32	1.24
4	Bhani Piru	H,M,L	KASUR	0.00	0.00	0.24	0.90	1.20	1.84	1.38	2.05
5	Bodal Khanke	H,M,L	KASUR	0.00	0.00	0.25	0.78	1.22	1.75	1.40	1.93
6	Burj Shahbazke	H,M,L	KASUR	0.00	0.00	0.53	1.21	1.56	2.23	1.71	2.39
7	3 Settlements nearby Dheroke Bhaini	H,M,L	OKARA	0.00	0.00	0.00	0.10	0.75	1.18	0.95	1.36
8	Nikkuke	H,M,L	KASUR	0.00	0.00	1.22	1.96	2.08	2.82	2.36	3.10
9	Besuke	H,M,L	KASUR	0.00	0.00	0.22	0.95	0.35	1.20	0.50	1.60
10	Dharman	H,M,L	KASUR	0.00	0.00	0.18	0.85	0.65	1.35	0.82	1.80
11	Kari Sansari and nearby 1 Settlement	H,M,L	KASUR	0.00	0.00	0.11	0.72	0.83	1.35	1.45	2.20
12	Sadr Bala Bhani and nearby 4 Settlements	H,M,L	OKARA	0.00	0.00	0.09	0.50	0.62	1.05	1.15	1.86
13	2 Settlements nearby Duniwala Chah	M,L	OKARA	0.00	0.00	0.00	0.00	0.45	1.23	0.62	1.27
14	Rukanpura	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
15	Berianwali and nearby 1 Settlement	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
16	Beriawala and nearby 3 Settlements	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.01
17	Bonga Amir Singh	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.39
18	4 Settlements nearby Haji Ahmaddin	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.88
19	Kawni and nearby 1 Settlement	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32
20	Kili Shahu	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
21	Lohli Jattan	L	KASUR	0.00	0.00	0.00	0.00	0.00	0.00	0.33	1.03

Sutlej River - Sheet No. 3

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Ferozpur		Inundation Depth at Discharge of 165,000 Cusec below Ferozpur		Inundation Depth at Discharge of 340,000 Cusec below Ferozpur		Inundation Depth at Discharge of 390,000 Cusec below Ferozpur	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Atari	VH,H,M,L	OKARA	0.00	1.20	0.00	1.50	0.00	1.85	0.00	2.10
2	Rehman Sahuke and nearby 2 Settlements	VH,H,M,L	OKARA	0.00	0.55	0.00	1.13	0.20	1.52	0.40	2.18
3	Thakkarke Manga and nearby 2 Settlements	VH,H,M,L	OKARA	0.00	0.35	0.00	1.06	0.48	1.73	1.02	2.05
4	Baqarke Mahar and nearby 2 Settlements	VH,H,M,L	OKARA	0.00	0.52	0.00	0.95	0.00	1.56	0.00	1.88
5	Chuharke	VH,H,M,L	OKARA	0.00	0.85	0.84	1.19	1.42	2.16	2.25	2.59
6	Gitti Bharola	VH,H,M,L	OKARA	0.00	0.72	0.62	1.41	1.18	2.20	1.98	2.50
7	Muhar Jamsher	VH,H,M,L	OKARA	0.00	0.31	0.00	0.68	1.03	1.57	1.42	2.32
8	Mujhidhe Bhaini and nearby 2 Settlements	VH,H,M,L	OKARA	0.00	0.24	0.00	0.92	0.06	1.56	0.87	1.64
9	Nasirke Bhaini	VH,H,M,L	OKARA	0.00	0.15	0.00	0.87	0.19	1.54	0.98	2.34
10	Chak Baqarke Mahar	H,M,L	OKARA	0.00	0.00	0.00	0.71	0.00	1.12	1.33	1.49
11	Chak Dara and nearby 2 Settlements	H,M,L	OKARA	0.00	0.00	0.00	0.58	0.00	1.14	0.73	1.52
12	Dulleke Mahar and nearby 2 Settlements	H,M,L	OKARA	0.00	0.00	0.00	0.09	0.00	0.44	0.38	1.53
13	Duniwala Chah	H,M,L	OKARA	0.00	0.00	0.00	0.02	0.00	0.21	0.16	0.62
14	Faqirya	H,M,L	OKARA	0.00	0.00	0.00	0.01	0.00	0.13	0.00	0.46
15	1 Settlement nearby Haman Ladhuka	H,M,L	OKARA	0.00	0.00	0.00	0.10	0.00	0.27	0.00	0.63
16	Jamalkot Di Bhaini	H,M,L	OKARA	0.00	0.00	0.00	0.52	0.00	0.96	1.18	1.44
17	Kanda and nearby 3 Settlements	H,M,L	OKARA	0.00	0.00	0.00	0.83	0.00	1.03	0.00	1.65
18	Kandorke	H,M,L	OKARA	0.00	0.00	0.00	0.06	0.00	0.24	0.00	0.86
19	Lalu Gudar and nearby 2 Settlements	H,M,L	OKARA	0.00	0.00	0.00	0.20	0.00	0.58	0.00	0.96
20	Nizamwali and nearby 3 Settlements	H,M,L	OKARA	0.00	0.00	0.00	0.23	0.00	0.59	0.85	1.58
21	Nurwali and nearby 1 Settlement	H,M,L	OKARA	0.00	0.00	0.00	0.18	0.00	0.48	0.38	0.92
22	Panan Mahar	H,M,L	OKARA	0.00	0.00	0.00	0.33	0.00	0.81	0.79	1.24
23	Tajo	H,M,L	OKARA	0.00	0.00	0.00	0.42	0.00	1.05	0.09	1.25
24	Bherianwali and nearby 1 Settlement	H,M,L	OKARA	0.00	0.00	0.02	1.13	0.87	1.56	1.31	2.00
25	Lasuri and nearby 1 Settlement	H,M,L	OKARA	0.00	0.00	0.00	0.73	0.48	1.14	0.78	1.94
26	Manga Duna	H,M,L	OKARA	0.00	0.00	0.00	1.08	1.10	1.39	1.23	1.81
27	Nowan Mansi	H,M,L	OKARA	0.00	0.00	0.00	0.68	0.50	1.06	0.92	1.47
28	Bhaini Bairianwali	H,M,L	OKARA	0.00	0.00	0.00	0.02	0.00	0.12	0.06	0.24
29	Bhaini Wali Muhammad and nearby 1 Settlement	H,M,L	OKARA	0.00	0.00	0.00	0.06	0.00	0.18	0.00	0.32
30	1 Settlement nearby Shabir	M,L	OKARA	0.00	0.00	0.00	0.36	1.10	1.51	1.31	1.71
31	3 Settlements nearby Umar (Sukha Ladhuka)	L	OKARA	0.00	0.00	0.00	0.18	0.00	1.58	0.00	2.56
32	Bhaina Ghulam Ali Wala	L	OKARA	0.00	0.00	0.00	0.00	0.51	1.20	0.96	1.66
33	Dheroke Bhaini	L	OKARA	0.00	0.00	0.00	0.00	0.78	1.24	0.99	2.13
34	Basti Bahadarwali	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13
35	Basti Haji Wah	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.64
36	Bhaina Yauyanwali	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.49	1.13
37	Bhaini Jan Muhammed and nearby 1 Settlement	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
38	Bhaini Yusufwala	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.96
39	Bhaini Amliki	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.60
40	Bhaini Joya	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.30	1.78
41	Chah Kakranwala and nearby 1 Settlement	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.89

Sutlej River - Sheet No. 4

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Suleimanki		Inundation Depth at Discharge of 150,000 Cusec below Suleimanki		Inundation Depth at Discharge of 250,000 Cusec below Suleimanki		Inundation Depth at Discharge of 350,000 Cusec below Suleimanki	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Akbarabad and nearby 1 Settlement	VH,H,M,L	OKARA	0.00	0.35	0.00	0.80	0.25	1.25	0.47	1.50
2	Bhaini Duna Jiwan and 2 Settlements	VH,H,M,L	OKARA	0.00	1.12	0.55	1.31	1.26	2.25	1.47	2.45
3	Daun Lalkian and nearby 3 Settlements	VH,H,M,L	OKARA	0.00	0.31	0.21	0.90	0.84	1.53	1.07	1.76
4	Dilawar Jassoke and nearby 10 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.28	0.00	1.61	0.43	2.18	0.59	2.50
5	Duna Mohar Singh and nearby 2 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	0.21	0.05	0.62	0.89	1.52	0.97	1.54
6	Fazal di Bhaini and nearby 2 Settlements	VH,H,M,L	OKARA	0.00	1.08	0.58	1.41	1.03	1.89	1.28	2.10
7	Kishan and nearby 3 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.10	0.30	1.42	1.08	2.17	1.94	2.21
8	Qadir Shaikhuka and nearby 4 Settlements	VH,H,M,L	OKARA	0.00	1.22	0.53	1.64	1.13	2.13	1.27	2.33
9	Ratteke and nearby 3 Settlements	VH,H,M,L	OKARA	0.00	1.01	0.00	1.49	0.11	2.12	0.35	2.36
10	Shakranj Pur	VH,H,M,L	OKARA	0.00	0.82	0.14	1.35	1.07	1.85	1.25	2.25
11	Malike Rarreke and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	0.52	0.00	1.08	0.00	1.57	1.15	2.30
12	Aminkot	H,M,L	BAHAWALNAGAR	0.00	0.00	0.23	1.24	1.11	1.60	1.16	2.43
13	Asal Sauran and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.46	0.00	1.06	0.00	1.42
14	Azam Chhanian and nearby 9 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.50	0.00	1.98	0.02	2.22
15	Babawala	H,M,L	BAHAWALNAGAR	0.00	0.00	0.03	0.52	0.75	1.25	0.88	1.38
16	Bagge Dogar Da Bamba and nearby 6 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.85	0.07	1.45	0.35	1.70
17	Bairo and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.62	1.23	1.46	2.03	1.54	2.13
18	1 Settlement nearby Bareka Utar	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.43	0.00	0.84	0.00	1.40
19	Bhai Ke Dedar Singh and nearby 2 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.44	0.02	1.08	0.26	1.31
20	Bhai Sujan and nearby 3 Settlements	H,M,L	OKARA	0.00	0.00	0.43	0.83	0.69	1.46	0.92	1.70
21	Bhai Sujan Singh	H,M,L	OKARA	0.00	0.00	0.47	0.57	1.11	1.20	1.34	1.44
22	Bhai Toga and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.65	1.09	1.49	1.93	1.57	2.01
23	Bhaina Sulaimanke and nearby 1 Settlement	H,M,L	OKARA	0.00	0.00	0.00	0.42	0.76	2.01	1.17	2.38
24	Bhaini	H,M,L	BAHAWALNAGAR	0.00	0.00	0.66	0.88	0.78	1.68	1.40	2.62
25	Bhaini Amananwali	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.02	0.48	1.59	0.68	1.99
26	Bhaini Bashqaya China and nearby 1 Settlement	H,M,L	OKARA	0.00	0.00	0.03	0.89	0.66	1.52	0.90	1.76
27	Bhaini Shaikhan	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.18	0.49	0.80	0.63	0.90
28	Bhini Jhablanwali and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.40	1.96	1.02	2.25	1.37	2.40
29	Bhini Nur Muhammad and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.64	0.99	2.12	1.89	2.50
30	Bichlipura and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.01	0.00	1.77	0.00	1.86
31	Bondi	H,M,L	BAHAWALNAGAR	0.00	0.00	0.68	1.24	1.20	2.13	1.44	2.32
32	Bunga Teieka and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.51	0.00	2.37	0.00	2.39
33	Darkhnai and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.75	0.00	1.68	0.00	2.12
34	Dilawar Joka	H,M,L	BAHAWALNAGAR	0.00	0.00	0.34	0.59	0.98	1.22	1.22	1.46
35	Duna Jiwan Sarhu	H,M,L	BAHAWALNAGAR	0.00	0.00	0.73	1.31	1.00	1.59	1.67	2.25
36	Dunna Mamewala and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.33	0.13	1.78	0.39	2.31
37	Godai Shah and nearby 6 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.24	0.00	0.61	0.00	1.11
38	Hazara	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.89	0.53	1.65	0.90	1.82
39	Izzatke Kala Abad	H,M,L	OKARA	0.00	0.00	0.00	0.07	0.15	0.59	0.34	0.78
40	Jamalpur and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.34	0.00	1.37	0.00	2.27
41	Jodheke	H,M,L	OKARA	0.00	0.00	0.00	0.10	0.00	1.47	0.00	2.03
42	Jugge Maharan and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.35	1.08	0.85	1.84	1.04	2.05
43	Jutmahi Kot and nearby 1 Settlement	H,M,L	OKARA	0.00	0.00	0.00	0.72	0.00	1.23	0.00	1.47
44	Kasuli	H,M,L	OKARA	0.00	0.00	0.55	0.73	1.07	1.25	1.30	1.49
45	Khapri	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.36	0.00	1.10	0.00	1.21
46	Lala Amar Singh and nearby 5 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.18	0.60	2.04	0.80	2.06
47	Langarke	H,M,L	OKARA	0.00	0.00	0.00	0.04	0.06	0.97	0.32	1.16
48	Manjha Pur	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.30	0.93	2.21	1.91	2.25
49	Matan and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.24	1.18	0.31	2.19	1.04	2.45
50	Mathera Qaimka and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.38	0.54	1.78	0.86	2.36
51	Maulia Chishti and nearby 1 Settlement	H,M,L	OKARA	0.00	0.00	0.00	0.49	0.00	1.02	0.00	1.21
52	Mehrab Ganj and nearby 3 Settlements	H,M,L	OKARA	0.00	0.00	0.00	1.75	0.00	2.02	0.00	2.33
53	Mohib Ali Hither	H,M,L	OKARA	0.00	0.00	0.19	0.50	0.81	1.13	1.05	1.37
54	Muhammed Rahmuke and nearby 6 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.94	0.00	1.80	0.00	2.28
55	Murghan Goth	H,M,L	OKARA	0.00	0.00	0.00	0.93	0.00	1.45	0.24	1.69
56	Nasirpur	H,M,L	BAHAWALNAGAR	0.00	0.00	0.70	1.08	1.29	1.83	1.48	2.09
57	Naushahra	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.54	0.00	1.30	0.00	1.45
58	Peer Kot	H,M,L	OKARA	0.00	0.00	0.00	0.41	0.61	1.16	0.71	1.26
59	3 Settlements nearby Pir Ghani	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.29	0.00	0.93	0.00	1.16
60	Qalandarpur and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.79	0.55	1.83	1.20	2.56
61	Roriwala and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.50	1.14	1.17	1.81	1.37	2.01
62	1 Setlement nearby Santewaja Godhoka	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.67	0.31	1.33	0.53	1.54
63	Seenath Jo Goth	H,M,L	OKARA	0.00	0.00	0.11	1.12	0.62	1.64	0.85	1.88
64	Sharin Rehula	H,M,L	OKARA	0.00	0.00	0.00	0.25	0.29	0.97	0.40	1.05
65	Tara Jodheka and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.45	0.53	1.43	0.87	1.68
66	Taruke Ratteke	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.29	0.00	0.98	0.00	1.15
67	Walla Shaikhuka	H,M,L	OKARA	0.00	0.00	0.00	0.11	0.00	0.63	0.00	0.82
68	Bheem Pura	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.58	1.87	0.95	2.37
69	Salimke	M,L	OKARA	0.00	0.00	0.00	0.00	0.00	1.57	0.00	2.28
70	Sardarpura	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.25	1.47	0.28	1.50
71	2 Settlements nearby Ahmadpur	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76
72	Ameen Abad	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.60
73	Badri Narayanpura	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.58
74	Bakka Rahmoke	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.25
75	Bhela	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82
76	Billi Mar	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79
77	Chak Jamua and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32
78	Chak Ahmadyar	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
79	Ghouspur	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.22
80	Hushal Pur	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.62
81	Jabir Pur	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.32
82	Jiwan Mahr and nearby 2 Settlements	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.58
83	Kahdhpura	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.67	1.04
84	Kalewala	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.92
85	Kamirian	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.66
86	Kapuri and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01
87	Karam Chand and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
88	Khera Muhammed Ali	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
89	1 Settlement nearby Khu Ashraf Arain	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
90	Lala Dhan Singh and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36
91	Mahram Chhanno and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.95
92	Maira Kaluka	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.47
93	Masum Shahwali and nearby 5 Settlements	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16
94	Miani Ratteke	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
95	Nanaksar	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.43	1.15
96	Nasira Kaluke	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
97	Parbhatiwala and nearby 2 Settlements	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.74
98	Rahk Abdaike	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
99	Rahmuke	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79
100	2 Settlements nearby Saddu Maleka	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56
101	1 Settlement nearby Soma Bodla	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62
102	1 Settlement nearby Sujeke	L	OKARA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
103	Tara Chhanna and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14
104	Tawakkal Bodla and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
105	Wazira Gadnoka	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.38

Zone*

VH= Inundation Extent Corresponding to PID Medium flood limit

H= High Risk Inundation Zone corresponds to 5 yr return period flood
M= Medium Risk Inundation Zone corresponds to 15 yr return period flood
L= Low Risk Inundation Zone corresponds to 50 yr return period flood

Inundation Depth of Settlements along Sutlej River

Sutlej River - Sheet No. 5

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Suleimanki		Inundation Depth at Discharge of 150,000 Cusec below Suleimanki		Inundation Depth at Discharge of 250,000 Cusec below Suleimanki		Inundation Depth at Discharge of 350,000 Cusec below Suleimanki	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Bhaini Momeka	VH,H,M,L	BAHAWALNAGAR	0.00	1.35	0.42	1.78	1.50	2.88	1.84	3.22
2	Dakua and nearby 7 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.82	0.00	2.48	0.00	3.40	0.00	3.43
3	Ganju Shah Makhdum	VH,H,M,L	BAHAWALNAGAR	0.00	1.92	2.07	2.78	2.70	3.44	3.61	4.31
4	Gnauspur and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	2.85	1.73	3.28	2.73	3.31	3.18	3.72
5	Harlal Bhaini and nearby 4 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.24	0.32	1.76	1.30	2.83	1.53	3.01
6	Jaseem Ki	VH,H,M,L	PAKPATTAN	0.00	1.12	0.88	1.68	1.50	2.31	1.88	2.68
7	Kotheka Bhaini and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	1.05	0.92	1.70	1.47	2.27	1.88	2.66
8	Mali Kani and nearby 3 Settlements	VH,H,M,L	PAKPATTAN	0.00	2.03	1.33	2.61	2.27	3.38	2.28	3.56
9	Malik Niaz Bane and nearby 3 Settlements	VH,H,M,L	PAKPATTAN	0.00	1.38	0.11	1.90	0.63	2.51	1.02	2.81
10	Malika and nearby 1 Settlement	VH,H,M,L	PAKPATTAN	0.00	1.72	1.46	2.23	2.44	3.15	2.66	3.41
11	Saidanwali Bhaini and nearby 3 Settlements	VH,H,M,L	PAKPATTAN	0.00	1.23	1.35	1.93	2.84	3.44	2.96	3.56
12	Sardar Bhaini and nearby 1 Settlement	VH,H,M,L	PAKPATTAN	0.00	0.83	0.34	1.40	1.05	2.12	1.78	2.34
13	Shaki and nearby 9 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.76	0.12	2.11	0.75	2.67	1.07	3.08
14	7 Settlements nearby Bhaini Momeka	H,M,L	BAHAWALNAGAR	0.00	0.00	0.56	1.54	1.65	2.53	2.82	3.99
15	9 Settlements nearby Bhaini Punan	H,M,L	BAHAWALNAGAR	0.00	0.00	0.82	2.03	1.97	3.34	2.13	3.45
16	Abadi Shehzad Malkanay Ki and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.49	1.33	2.78	1.45	2.90
17	Abera Uttar and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.85	1.65	3.20	2.65	3.44
18	Acharki	H,M,L	BAHAWALNAGAR	0.00	0.00	1.49	3.22	2.09	3.82	2.22	3.95
19	Adlana and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.41	2.14	1.65	2.29	1.88	3.55
20	Ahmad Musla and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.57	0.00	3.13	0.00	3.26
21	Amir Sohara and nearby 5 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.26	0.00	1.88	0.02	2.17
22	Amira Ahloka and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.74	1.97	1.48	2.68	1.68	2.91
23	Anwar Shah and nearby 3 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	2.07	1.67	2.39	2.18	2.65
24	Arain and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.14	1.01	0.78	1.67	1.03	1.90
25	Babana and nearby 7 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	2.48	0.00	3.08	0.00	3.19
26	Bachianwali and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.28	0.38	2.12	0.54	2.22
27	Bagha	H,M,L	PAKPATTAN	0.00	0.00	0.41	0.74	1.96	2.28	2.08	2.41
28	Bagwari	H,M,L	BAHAWALNAGAR	0.00	0.00	1.17	1.40	2.72	2.95	2.85	3.08
29	Bahadurka Sharki and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.62	2.34	2.20	3.91	2.33	4.04
30	Bahli Musa	H,M,L	BAHAWALNAGAR	0.00	0.00	1.30	1.77	2.87	3.34	3.00	3.47
31	Bahramka Hathar and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.53	0.08	1.17	0.35	1.43
32	Balari Piran and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	1.68	2.33	2.27	2.92	2.40	3.05
33	Baliwala	H,M,L	PAKPATTAN	0.00	0.00	0.00	2.24	0.00	3.84	0.00	3.95
34	Banga	H,M,L	PAKPATTAN	0.00	0.00	1.25	2.77	1.91	3.46	2.95	4.07
35	Basti Ahmad and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.08	1.50	2.63	3.06	2.74	3.16
36	Basti Khalifa and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.89	0.50	2.11	0.62	2.22
37	Basti Mahngai Singh and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.49	1.07	2.04	2.61	2.16	2.74
38	Basti Quraishan	H,M,L	BAHAWALNAGAR	0.00	0.00	0.82	1.99	2.38	3.56	2.51	3.68
39	Basti Sialan	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.46	0.76	3.06	0.89	3.19
40	Basti Araian	H,M,L	BAHAWALNAGAR	0.00	0.00	0.81	1.23	2.38	2.81	2.51	2.94
41	Basti Dhudian	H,M,L	BAHAWALNAGAR	0.00	0.00	0.82	1.34	1.59	3.20	2.50	4.01
42	Basti G.Ali	H,M,L	BAHAWALNAGAR	0.00	0.00	0.98	1.49	2.53	3.04	2.66	3.16
43	Basti Jhale Shah	H,M,L	BAHAWALNAGAR	0.00	0.00	1.35	1.48	2.92	3.05	3.04	3.17
44	Basti Parsa	H,M,L	BAHAWALNAGAR	0.00	0.00	0.45	0.97	2.00	2.52	2.13	2.65
45	Bhagan and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.42	2.18	2.63	3.10	3.03	3.84
46	Bhaini Jinjran and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.27	0.86	0.93	1.64	1.52	2.16
47	Bhaini Sukheria	H,M,L	BAHAWALNAGAR	0.00	0.00	0.72	0.88	2.26	2.42	2.38	2.54
48	Bhalloka	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.34	1.44	2.91	1.55	3.03
49	Bhinda and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	1.15	1.77	2.26	2.98	2.49	3.14
50	Bhindi Laleki and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.45	2.02	2.04	3.62	3.13	3.70
51	Bilara and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.79	0.52	2.44	0.86	2.77
52	Bodia and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.91	1.05	2.49	1.16	2.58
53	Bunga Akbar and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.31	0.00	2.07	0.00	2.25
54	Bunga Niaz Khan Baloch and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.09	1.11	0.81	1.90	1.03	2.06
55	Bunga Alam Shah	H,M,L	BAHAWALNAGAR	0.00	0.00	1.01	1.44	2.20	2.60	2.39	2.81
56	Bunga Machni and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.99	0.00	2.54	0.00	2.66
57	Butewali and nearby 8 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.74	0.61	2.38	0.87	2.66
58	Chak 11 KB and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.46	1.35	3.17	1.48	3.30
59	Chak Amira Ahloka	H,M,L	PAKPATTAN	0.00	0.00	1.36	1.70	2.11	2.44	2.31	2.65
60	Chak Kartarpur and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.97	0.41	2.57	0.54	2.69
61	Chak Tehsildarka and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.19	1.81	2.79	3.41	2.92	3.54
62	Chak Thanedar	H,M,L	BAHAWALNAGAR	0.00	0.00	1.07	1.49	2.63	3.05	2.75	3.17
63	Chak 10 KB	H,M,L	PAKPATTAN	0.00	0.00	0.00	2.08	1.35	3.67	1.48	3.80
64	Chak 5 Kb	H,M,L	PAKPATTAN	0.00	0.00	0.05	0.37	1.35	1.67	1.49	1.81
65	Chak 7 Kb and nearby 5 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	2.03	0.46	3.63	0.59	3.74
66	Chak 8 KB	H,M,L	PAKPATTAN	0.00	0.00	1.29	2.11	1.89	2.71	3.02	3.84
67	Chak 9 KB	H,M,L	PAKPATTAN	0.00	0.00	1.26	2.39	1.85	2.99	1.98	3.11
68	Chak Amir and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.31	1.38	2.85	1.50	2.97
69	Chako Ki Bhaini	H,M,L	BAHAWALNAGAR	0.00	0.00	0.97	1.15	1.51	1.69	2.10	2.29
70	Chakoka and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.33	0.39	2.14	0.90	2.59
71	Challadka and 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.19	0.00	1.75	0.00	2.37
72	Chaudhriwala	H,M,L	BAHAWALNAGAR	0.00	0.00	1.79	2.60	2.39	3.20	2.52	3.32
73	Chaweka and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.52	2.18	2.12	3.78	2.25	3.91
74	Chouk Fidayee Shah and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.16	0.22	0.71	0.47	1.15
75	Dadu Ahluka and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.60	0.25	1.25	0.51	1.52
76	Daulatpur and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.99	1.83	2.58	3.41	2.71	3.54
77	Dera Bakhsha and nearby 4 Settlements	H,M,L	PAKPATTAN	0.00	0.00	1.67	2.56	2.26	3.16	2.39	3.29
78	Dhuddi Gajjan and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.33	1.03	1.69	2.42	1.84	2.54
79	Dhuddi Khazan Singh and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.25	2.02	2.82	3.59	2.95	3.71
80	1 Settlement nearby Dilawar Joka	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.02	0.12	0.62	0.40	0.90
81	Dohar	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.74	0.88	1.98	0.94	2.13
82	Fatwera and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.43	3.24	2.62	3.44	3.04	3.86
83	Ferozepur and nearby 6 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.62	0.00	2.14	0.00	2.26
84	Fidayee Shah and nearby 5 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.44	0.04	2.00	0.41	2.49
85	Gomiwali and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.17	1.53	2.63	2.99	2.74	3.10
86	Habibka	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.84	0.49	1.42	0.90	1.81
87	Haidar Dhuddi	H,M,L	BAHAWALNAGAR	0.00	0.00	0.88	1.60	2.33	3.04	2.43	3.14
88	Hota and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	2.49	1.30	3.08	1.41	3.21
89	Ismailpur and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.34	0.27	0.88	0.84	1.44
90	Jhandwala Khu and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.45	1.64	0.99	2.18	1.51	2.75
91	Jhullan Arain and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.72	0.00	3.31	0.00	3.44
92	Kakarwali Kothi and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.72	0.00	3.30	0.00	3.43
93	Kala Chishti and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.50	1.53	1.82	2.76	1.96	2.89
94	Khair Shah Uthar	H,M,L	BAHAWALNAGAR	0.00	0.00	0.11	0.61	0.95	1.51	1.34	1.86
95	Kolorwala	H,M,L	BAHAWALNAGAR	0.00	0.00	0.25	0.66	0.91	1.31	1.14	1.55
96	Kot Bahawal	H,M,L	PAKPATTAN	0.00	0.00	0.85	1.83	1.65	2.53	2.33	3.33
97	Kot Bakhsha and nearby 4 Settlements	H,M,L	PAKPATTAN	0.00	0.00	1.59	2.38	3.19	3.97	3.32	4.10
98	Kot Mukhdoon	H,M,L	BAHAWALNAGAR	0.00	0.00	0.14	1.91	1.72	3.41	2.69	3.47
99	Lakhvera	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.11	0.23	0.78	0.55	1.09
100	Laleka and nearby 5 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.18	1.08	3.72	1.20	3.83
101	Landi pura	H,M,L	BAHAWALNAGAR	0.00	0.00	0.06	0.89	0.71	1.53	0.98	1.80
102	Maarri Chakkooka and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.09	0.00	1.80	0.00	2.02
103	Machhiwali Bhaini and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.87	1.67	1.55	2.43	2.54	3.39
104	Mahant Darshan	H,M,L	PAKPATTAN	0.00	0.00	0.10	0.94	1.63	2.48	1.76	2.60
105	Maidanwala Khu	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.37	0.88	1.32	0.90	2.32
106	Manduwala and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.26	0.00	1.41	0.00	1.72
107	Mari Amb Minor	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.76	0.00	3.30	0.00	3.43
108	Mariamb	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.53	0.00	3.11	0.00	3.22
109	Masrirwali and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.41	1.17	1.96	2.72	2.09	2.85
110	Mehr Shah and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.69	0.00	3.27	0.00	3.39
111	Muhammad pur and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	3.31	0.00	3.91	0.00	4.04
112	Munawwar	H,M,L	PAKPATTAN	0.00	0.00	1.51	2.99	2.10	3.59	2.23	3.71
113	Munshi Hithar and nearby 7 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.21	1.24	0.94	2.05	1.15	2.19
114	Munshi Outarhh and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.01	0.53	0.55	1.07	1.01	1.53
115	Mustaqim Mahmunka	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.55	0.40	2.55	1.36	3.50
116	Nazirabad and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.76	0.16	1.31	0.79	1.94
117	Naushahra and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.74	0.16	2.87	0.29	3.15
118	Pir Gurai and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.33	1.70	2.18	2.53	2.28	2.65
119	Pirada	H,M,L	PAKPATTAN	0.00	0.00	1.49	2.68	2.08	3.28	3.21	3.41
120	Pulliwala and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.85	1.51	2.18	2.88	2.26	2.97
121	Rafiqkot and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.45	2.72	1.04	3.31	2.17	3.44
122	Rahmani	H,M,L	PAKPATTAN	0.00	0.00	0.15	0.41	1.06	1.31	1.27	1.54
123	Ramzan Langan	H,M,L	BAHAWALNAGAR	0.00	0.00	0.96	2.26	1.89	3.16	2.63	3.93
124	Ranewala and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.81	1.18	1.97	2.47	2.13	2.55
125	Sadhwala and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.70	1.21	2.15	1.33	2.28
126	Sandhe	H,M,L	PAKPATTAN	0.00	0.00	2.46	2.85	3.06	3.45	3.19	3.58
127	Shadiwala	H,M,L	BAHAWALNAGAR	0.00	0.00	2.09	2.30	2.68	3.90	2.81	4.03
128	Sharian di Basti	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.73	1.22	2.04	1.34	2.12
129	Sialan	H,M,L	BAHAWALNAGAR	0.00	0.00	0.60	0.87	2.15	2.43	2.28	2.55
130	Sikandar Baloch	H,M,L	BAHAWALNAGAR	0.00	0.00	1.66	2.10	3.23	3.68	3.36	3.81
131	Sudha	H,M,L	PAKPATTAN	0.00	0.00	0.23	1.97	0.88	2.62	1.20	2.94
132	Sukherien Di Bhaini	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.09	0.64	0.87	0.81	1.04
133	Toba Qalander Shah	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.76	0.00	3.36	0.00	3.49
134	Wan Duniwala and nearby 5 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.87	1.42	2.47	2.98	2.58	3.11
135	Wan Hafiz G and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.56	0.00	3.16	0.00	3.29
136	Wasir	H,M,L	BAHAWALNAGAR	0.00	0.00	2.77	3.03	4.37	3.62	4.50	3.75
137	Wazirka and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.06	0.00	3.62	0.07	3.74
138	Zafarabad and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.42	2.22	3.00	3.80	3.13	3.93
139	1 Settlement nearby Bhaini Rajar	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.70	1.92	2.06	2.27
140	Anandpur	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.91	1.12	1.05	1.26
141	Basti Luqman	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.48	1.76	1.66	1.93
142	Beriwala and nearby 1 Settlement	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	1.40	2.28	1.54	2.41
143	Bhaini Dara	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.36	1.45	1.59	1.69
144	Bhaini Rajar	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.10	1.71	0.38	2.01
145	Bhattian Di Bhaini	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	1.37	0.00	1.67
146	Chah Ranjiewala and nearby 1 Settlement	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.93	2.47	1.08	2.61
147	Chak 6 Kb and nearby 1 Settlement	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.64	1.60	0.77	1.73
148	Chak Amar Singh and nearby 5 Settlements	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	1.49	2.04	1.64	2.19
149	Chak 4 Kb	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	1.25	1.52	1.41	1.68
150	Faridke and nearby 1 Settlement	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.98	1.36	1.10	1.47
151	Gundi wala	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	1.38	0.00	1.50
152	Kabuttri Dhuddian and nearby 2 Settlements	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.93	1.23	1.06	1.35
153	Kot	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	1.59	1.80	1.72	1.92
154	Pahlwanka and nearby 3 Settlements	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	2.07	0.00	2.17
155	Warsin and nearby 1 Settlement	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	1.85	0.00	1.98
156	Addipur Thatta and nearby 2 Settlements	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.82
157	Adhannwan and nearby 2 Settlements	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.99
158	Alam Dhudhi	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.64
159	Alipur and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.51
160	Babbaran Wala Khouh	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.40
161	Bahawalgarh and nearby 4 Settlements	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.38
162	Bara and nearby 3 Settlements	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.61	1.76
163	Bhimpura	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.24
164	Bohar Diwan	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.82	1.41
165	Bolpur and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98
166	Bunga Baloan and nearby 1 Settlement	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
167	Chak Kirpa Raam	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
168	Chak Hakeem	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.96
169	Chak Muhammad Pur and nearby 6 Settlements	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.58	1.53
170	Diwan Sahib and nearby 1 Settlement	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.54	1.52
171	Diwanwala and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26
172	Diyal Singh and nearby 2 Settlements	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.86
173	Fitipur and nearby 1 Settlement	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.08	1.08
174	Gamewala and nearby 3 Settlements	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
175	1 Settlement nearby Ghaus Nagar	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.49
176	Gulla	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.70
177	Hafizwala(Mosam Wala)	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.63	1.26
178	Haji Razzaq Khan	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
179	Jagga Baloch	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.52
180	Jahana Mahmunka	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.80
181	Janduwala and 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.75	1.56
182	Jatto Wal and nearby 1 Settlement	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
183	Jaura	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.85
184	Jawaya Mal and nearby 1 Settlement	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
185	Jhugge Baloch	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.63	1.10
186	Khalis Khurd	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43
187	Khola Uttam Singh	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.83
188	Khuda Bakhsh and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.81
189	Kili	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79
190	Kot bodla	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.90	1.33
191	Lohra and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
192	Malik Bahawal	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
193	Malikpur and nearby 2 Settlements	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92
194	Mall Shah and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	1.35	1.96
195	Marlay	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.66	1.58
196	Matipura	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.91
197	3 Settlements nearby Minchinabad	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37
198	Munnanwala and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54
199	Nawaz Mal Wala Khouh	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
200	Nebwali	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
201	Neza Jodheka and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.35	1.74
202	Panpura	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
203	1 Settlement nearby Qadirpur	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	1.34	1.44
204	Qadirpur Balouch and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.97	1.39
205	Qadirpur Saithan	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.84	1.41
206	Salamat	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43
207	Sayid Ali	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44
208	Shah Mirwala	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
209	Shahin di Basti and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.60	1.16
210	Shahu Bloch and nearby 1 Settlement	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.08	1.16
211	Sharf Shah and nearby 2 Settlements	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64
212	Suralpura	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.84
213	Tahnwala and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.89	1.55
214	Wasandwala	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20

Sutlej River - Sheet No. 6

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Suleimanki		Inundation Depth at Discharge of 150,000 Cusec below Suleimanki		Inundation Depth at Discharge of 250,000 Cusec below Suleimanki		Inundation Depth at Discharge of 350,000 Cusec below Suleimanki	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Allahyar Baini and nearby 3 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.85	1.31	2.26	1.88	2.87	2.40	3.35
2	Basti Sahuke and nearby 4 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.32	0.43	1.98	1.03	2.34	1.32	2.96
3	Bhaini Mahar Janaki	VH,H,M,L	BAHAWALNAGAR	0.00	2.55	2.05	3.09	2.31	3.69	3.30	4.06
4	Bhaini Jalveria and nearby 2 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	0.37	0.26	0.87	1.62	2.22	2.35	2.96
5	Bharrian	VH,H,M,L	BAHAWALNAGAR	0.00	2.24	0.00	2.72	0.12	3.02	1.04	3.90
6	Bhaini Dhuddian and nearby 4 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.81	0.00	2.52	1.95	3.03	2.28	4.01
7	Kakku Bodla	VH,H,M,L	BAHAWALNAGAR	0.00	1.53	1.68	2.35	2.08	3.66	3.03	3.71
8	Kund Kabul and nearby 4 Settlements	VH,H,M,L	PAKPATTAN	0.00	1.42	1.27	2.26	2.10	3.38	2.53	3.52
9	Musa Bohta and nearby 2 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.12	0.00	1.78	1.03	2.22	1.50	3.04
10	Suleman Jhandheke and nearby 2 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.27	0.00	2.08	0.00	2.47	0.00	3.24
11	Ali Shah	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.02	0.09	0.71	0.70	1.30
12	Baigke	H,M,L	BAHAWALNAGAR	0.00	0.00	1.11	1.49	1.53	2.94	2.20	3.58
13	Basti Bapa and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.65	0.94	1.19	1.48	1.74	2.03
14	Basti Mahatma	H,M,L	BAHAWALNAGAR	0.00	0.00	0.61	0.88	1.43	2.72	1.65	2.92
15	Basti Manna and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.59	0.00	2.89	0.00	3.79
16	Bet Bhatti	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.31	0.14	1.69	0.86	2.41
17	Bhain Mirza and nearby 5 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.41	2.38	1.85	3.20	2.50	3.50
18	Bhain Yasin	H,M,L	PAKPATTAN	0.00	0.00	0.52	1.07	1.14	3.75	1.40	3.94
19	Bhaini Kharlan and nearby 4 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.42	0.90	1.78	2.27	2.51	3.00
20	Bhaini Niamat Ali and nearby 3 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.66	2.03	1.33	2.52	1.94	3.35
21	Bhaini Jiwanke and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.19	1.00	2.38	1.25	3.26
22	Bhaini Lakhoka	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.10	1.35	1.82	1.66	2.15
23	Bhaini Maingal and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.20	0.68	1.61	0.87	2.30
24	Bilara Kalan	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.56	0.00	1.93	0.00	2.67
25	Billoke	H,M,L	BAHAWALNAGAR	0.00	0.00	0.79	0.99	2.02	2.22	2.86	3.06
26	Bulla Shah and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.98	2.07	2.34	2.72	2.92
27	Bunga Ihsan Bibi and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.28	2.46	1.87	3.03	2.40	3.56
28	Chah Alluke and nearby 5 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.06	0.55	1.85	0.80	2.09
29	Chah Sonamwala and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.92	1.81	1.27	2.41	2.08	2.94
30	Chak Kamal wala	H,M,L	VEHARI	0.00	0.00	0.00	0.00	0.00	1.65	0.00	2.08
31	Chak Machi Singh	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.96	0.00	1.55	0.00	2.06
32	Chak Sohawa Mal and nearby 5 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.98	0.46	1.61	0.62	2.08
33	Chak 39 KB and nearby 2 Settlements	H,M,L	VEHARI	0.00	0.00	0.00	2.10	0.53	2.78	0.66	3.19
34	1 Settlement nearby Chanoke	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.56	0.10	1.94	0.58	2.65
35	Chowk Marlay and nearby 2 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.12	0.00	1.70	0.00	2.21
36	Chundian and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.17	0.00	2.45	0.00	3.35
37	Dholo and nearby 4 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.25	0.49	1.92	0.81	2.62
38	Dullek	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.14	0.21	1.79	0.50	2.48
39	Ghanipur	H,M,L	BAHAWALNAGAR	0.00	0.00	0.28	0.73	0.40	1.84	1.32	2.77
40	Jalalke	H,M,L	BAHAWALNAGAR	0.00	0.00	1.54	1.84	2.03	2.32	2.63	2.93
41	Jange Joray and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.61	1.17	1.92	1.40	2.63
42	Jhandeke	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.06	0.00	1.68	0.00	2.17
43	Jodheka and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.20	0.69	3.83	1.20	4.09
44	Jogeke and nearby 5 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.26	0.70	2.95	1.32	3.55
45	Kalia Shah	H,M,L	BAHAWALNAGAR	0.00	0.00	0.11	0.65	0.52	1.05	1.19	1.73
46	Khai Bodia	H,M,L	BAHAWALNAGAR	0.00	0.00	0.73	1.21	1.30	2.80	1.82	3.29
47	Kotli	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.42	0.34	2.62	0.61	3.69
48	Kulachian	H,M,L	BAHAWALNAGAR	0.00	0.00	0.87	1.57	1.21	2.80	2.11	3.80
49	Kund Shamsuddin and nearby 3 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.20	1.87	0.55	2.47	1.42	3.13
50	Lakhwera and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.93	1.20	1.74	2.27	1.92	3.04
51	Lala Shah and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.14	0.90	2.43	1.84	3.35
52	Lukman Mehruka and nearby 4 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.60	1.70	1.06	2.18	1.76	2.85
53	Madheke	H,M,L	PAKPATTAN	0.00	0.00	1.18	2.05	1.82	2.88	2.32	3.52
54	Mahmudpur and nearby 1 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.70	0.21	2.08	0.91	2.79
55	Mari Main Sahib and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.88	0.00	3.12	0.00	3.35
56	Murad Bhuk	H,M,L	PAKPATTAN	0.00	0.00	1.26	1.64	1.55	2.94	2.44	3.83
57	Musla and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.54	2.26	2.17	2.92	2.63	3.35
58	Nazir Kot	H,M,L	BAHAWALNAGAR	0.00	0.00	0.49	0.76	1.93	2.18	2.47	2.74
59	Nihalke	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.13	0.19	1.04	0.33	1.14
60	Nowshera Jamlera	H,M,L	VEHARI	0.00	0.00	0.00	0.93	0.00	2.47	0.00	3.02
61	Patepura	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.35	0.93	1.49	1.03	2.45
62	Pipal	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.05	0.73	3.12	1.52	3.91
63	Pir Shah	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.66	1.40	2.24	1.93	2.78
64	Pir Sikandar and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.64	0.47	2.14	0.67	2.55
65	Pirali Shah	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.96	0.00	2.54	0.00	3.05
66	Qaimka and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.56	0.22	2.92	0.50	3.64
67	Rajeka	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.31	0.55	2.57	0.70	3.29
68	4 Settlements nearby Ramuwala	H,M,L	VEHARI	0.00	0.00	0.00	1.33	1.36	2.68	2.09	3.42
69	Sabuke	H,M,L	PAKPATTAN	0.00	0.00	0.90	1.29	1.86	2.25	2.91	3.33
70	Sadiq Jalalke	H,M,L	BAHAWALNAGAR	0.00	0.00	0.86	1.33	2.42	2.90	2.95	3.42

Zone*

VH= Inundation Extent Corresponding to PID Medium flood limit

H= High Risk Inundation Zone corresponds to 5 yr return period flood

M= Medium Risk Inundation Zone corresponds to 15 yr return period flood

L= Low Risk Inundation Zone corresponds to 50 yr return period flood

Inundation Depth of Settlements along Sutlej River

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Suleimanki		Inundation Depth at Discharge of 150,000 Cusec below Suleimanki		Inundation Depth at Discharge of 250,000 Cusec below Suleimanki		Inundation Depth at Discharge of 350,000 Cusec below Suleimanki	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
71	Salam Rath and nearby 1 Settlement	H,M,L	PAKPATTAN	0.00	0.00	0.53	1.01	0.99	1.51	1.87	2.36
72	Santeka and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.84	2.47	1.45	3.08	1.92	3.55
73	Shabazi	H,M,L	PAKPATTAN	0.00	0.00	0.98	1.27	1.67	2.00	2.04	2.33
74	Soneke and nearby 2 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.25	0.52	1.64	1.24	2.36
75	Tibbi Lal Baig and nearby 2 Settlements	H,M,L	PAKPATTAN	0.00	0.00	0.00	0.53	0.00	2.68	0.00	3.53
76	Wali Muhammad	H,M,L	PAKPATTAN	0.00	0.00	0.00	1.87	1.19	2.64	1.52	3.34
77	Wara Allah Jawaya and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.75	1.32	2.15	1.77	2.56
78	Basti Lune Khan and nearby 1 Settlement	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	2.85	0.00	3.25
79	2 Settlements nearby Bhaini Acharki	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.05	2.13	1.37	2.88
80	Bhaini Haiderke	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.69	1.00	1.41	1.73
81	Bhaini Masteki	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	1.12	1.54	1.60	2.91
82	Bilara Arjanke	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.79	1.22	1.48	2.83
83	Budhan Shah	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.37	1.66	0.52	2.06
84	Chak Sarwar	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.54	2.95	1.32	3.12
85	Hasan wali and nearby 1 Settlement	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.51	2.99	1.52	3.32
86	Hayder Shah and nearby 1 Settlement	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.46	2.08	1.52	2.96
87	Heman Mehruka and nearby 1 Settlement	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	2.39	0.00	3.11
88	Joiya and nearby 1 Settlement	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	0.57	1.35	1.42	2.03
89	Mari Halbatwali	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	2.85	3.31	2.89	3.90
90	Mehramke	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	1.75	0.00	2.61
91	Muhari Piran	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.64	1.16	0.93	1.85
92	Noor Rath and nearby 1 Settlement	M,L	PAKPATTAN	0.00	0.00	0.00	0.00	1.30	1.68	1.51	1.98
93	Rahmani	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.62	2.83	2.07	3.27
94	Annuke and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09
95	Bahadurke and nearby 3 Settlements	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35
96	Basti Farid Khan and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04
97	Basti G.Nabi and nearby 1 Settlement	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.99
98	Kuria and nearby 1 Settlement	L	PAKPATTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
99	Shadana	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
100	1 Settlement nearby Ziarat Shahan Shah	L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.05	0.00	0.08	0.20

Sutlej River - Sheet No. 7

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Suleimanki		Inundation Depth at Discharge of 150,000 Cusec below Suleimanki		Inundation Depth at Discharge of 250,000 Cusec below Suleimanki		Inundation Depth at Discharge of 350,000 Cusec below Suleimanki	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Balochan di Bhaini and nearby 3 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.51	0.52	2.03	1.38	2.95	2.99	3.24
2	Basti Wali Dad Baloch and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	0.92	0.67	1.27	1.70	2.29	2.40	3.98
3	Basti Ajira	VH,H,M,L	BAHAWALNAGAR	0.00	1.14	1.28	1.46	1.58	2.76	2.27	2.85
4	Basti Dhoda	VH,H,M,L	BAHAWALNAGAR	0.00	1.08	1.47	1.58	1.50	2.61	2.45	3.56
5	Bhaini Imam Bakhsh	VH,H,M,L	BAHAWALNAGAR	0.00	2.04	1.67	2.38	1.91	2.63	2.63	3.35
6	Bhaini Jahana Baloch and nearby 5 Settlements	VH,H,M,L	BAHAWALNAGAR	0.00	1.83	1.49	2.34	1.51	3.33	2.20	3.96
7	Bhaini Farid	VH,H,M,L	VEHARI	0.00	1.27	1.36	1.64	2.22	2.46	2.34	2.61
8	Bhaini Qazian	VH,H,M,L	BAHAWALNAGAR	0.00	1.31	1.60	1.75	1.63	2.77	2.41	3.55
9	Bhattian Di Bhaini	VH,H,M,L	VEHARI	0.00	2.25	1.43	2.72	2.04	3.34	2.64	3.95
10	Bhinda Shal Muhammed and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	1.87	1.18	2.19	1.34	3.87	2.59	4.17
11	Dadu Baloch and nearby 2 Settlements	VH,H,M,L	VEHARI	0.00	1.22	0.83	1.82	1.91	3.80	2.84	3.81
12	Ghulam Farid and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	1.03	0.84	1.47	1.10	3.04	1.86	3.47
13	Hamid Khan Baloch and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	2.12	0.91	2.49	1.49	3.32	1.81	3.46
14	Jhedwan and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	1.17	0.00	1.84	0.55	1.93	1.65	2.82
15	Kaura Bhutna and nearby 1 Settlement	VH,H,M,L	BAHAWALNAGAR	0.00	2.27	1.21	2.81	1.49	3.10	2.20	3.80
16	Kharalan Bhaini and nearby 2 Settlements	VH,H,M,L	VEHARI	0.00	1.29	0.62	1.84	1.32	2.57	1.99	3.25
17	Khichchi	VH,H,M,L	VEHARI	0.00	1.23	1.72	1.75	1.74	2.77	2.49	3.52
18	Khokharan di Basti	VH,H,M,L	VEHARI	0.00	1.88	1.06	2.35	1.72	3.01	2.37	3.66
19	Lodhran	VH,H,M,L	BAHAWALNAGAR	0.00	0.93	0.80	1.39	1.97	2.57	2.80	3.39
20	Mehrabad	VH,H,M,L	BAHAWALNAGAR	0.00	1.84	1.74	1.97	2.03	3.26	2.73	3.96
21	Main Nur Hussain	VH,H,M,L	BAHAWALNAGAR	0.00	1.02	0.00	1.53	0.96	1.99	1.70	2.78
22	Pir Bodan Shan and nearby 2 Settlements	VH,H,M,L	VEHARI	0.00	0.83	0.45	1.16	0.52	3.29	1.42	4.13
23	Rajjowali Bhaini	VH,H,M,L	BAHAWALNAGAR	0.00	1.82	1.72	1.95	1.98	3.21	2.70	3.93
24	Rajuke	VH,H,M,L	BAHAWALNAGAR	0.00	2.10	1.72	2.45	2.56	3.32	2.68	3.41
25	Sahu	VH,H,M,L	BAHAWALNAGAR	0.00	1.42	1.31	1.60	1.49	2.78	2.28	3.58
26	Sahu ka Patan	VH,H,M,L	BAHAWALNAGAR	0.00	1.11	1.04	1.25	1.22	3.45	2.12	4.03
27	Tibbi Salin Khan Baloch and nearby 1 Settlement	VH,H,M,L	VEHARI	0.00	1.86	1.27	2.35	1.28	2.38	1.94	3.09
28	Tibbi Rehmat	VH,H,M,L	VEHARI	0.00	1.76	1.57	2.05	2.57	3.05	3.20	3.69
29	Tiwana and nearby 3 Settlements	VH,H,M,L	VEHARI	0.00	1.94	0.98	2.12	1.19	3.16	1.82	3.93
30	Ziarat Qasim Ali	VH,H,M,L	BAHAWALNAGAR	0.00	1.15	1.13	1.21	1.85	2.40	2.11	2.80
31	Afzalpur	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.75	1.22	2.52	2.06	2.90
32	Allah Yar	H,M,L	BAHAWALNAGAR	0.00	0.00	0.22	1.01	1.98	2.79	2.16	2.96
33	Allahabad and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	1.58	2.35	1.70	2.37	2.41	3.15
34	1 Settlement nearby Aminkot	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.99	0.43	2.10	0.86	2.99
35	Azad Kashmir	H,M,L	BAHAWALNAGAR	0.00	0.00	0.99	1.33	1.17	2.51	1.99	3.33
36	Bagh Arain	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.31	0.37	2.58	0.40	3.17
37	Baghlianwala	H,M,L	VEHARI	0.00	0.00	0.51	1.04	1.18	2.70	1.48	3.01
38	Bahmdi Jatera and nearby 5 Settlements	H,M,L	VEHARI	0.00	0.00	0.07	1.40	1.04	2.66	1.06	3.43
39	2 Settlements nearby Basti Bagha	H,M,L	VEHARI	0.00	0.00	0.00	1.97	0.37	2.77	0.84	3.07
40	Basti Gode Shah Shah	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.64	0.00	2.15	0.00	2.55
41	Basti Johiyan and nearby 1 Settlement	H,M,L	VEHARI	0.00	0.00	0.33	0.58	1.12	1.36	1.33	1.58
42	Basti Shirazi and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	1.24	1.78	2.18	2.61	2.66	3.11
43	Basti Bahu and nearby 2 Settlements	H,M,L	VEHARI	0.00	0.00	1.11	1.79	1.12	3.73	2.11	3.78
44	Basti Dakwali	H,M,L	VEHARI	0.00	0.00	0.67	1.25	1.31	2.89	1.62	3.20
45	Basti Khokharan	H,M,L	BAHAWALNAGAR	0.00	0.00	0.86	0.90	1.75	2.78	1.82	2.85
46	Basti Mir Khan	H,M,L	BAHAWALNAGAR	0.00	0.00	1.09	1.26	1.47	2.67	1.97	3.14
47	Basti Moharan Wali	H,M,L	VEHARI	0.00	0.00	1.09	1.37	1.62	2.89	2.01	3.29
48	Basti Sial and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.88	1.86	1.09	2.08	1.89	2.87
49	Bhaini Dhodian and 3 Settlements	H,M,L	VEHARI	0.00	0.00	1.14	1.88	2.00	2.51	2.08	2.84
50	Bhaini H Sulama	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.30	0.16	2.55	0.28	3.15
51	Bhaini Balochan	H,M,L	VEHARI	0.00	0.00	1.54	1.70	2.11	2.29	2.50	2.66
52	Bhaini Chanianwala and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.36	1.44	1.66	3.73	2.36	3.93
53	Bhaini G.Farid	H,M,L	BAHAWALNAGAR	0.00	0.00	1.30	2.21	1.56	2.54	2.34	3.26
54	Bhaini H.Amin	H,M,L	BAHAWALNAGAR	0.00	0.00	1.27	2.62	1.33	2.95	2.30	3.08
55	2 Settlements nearby Bhatian	H,M,L	VEHARI	0.00	0.00	0.00	2.16	0.57	2.25	1.48	3.22
56	Bhinda Hussain and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.53	2.02	2.48	3.86	2.55	4.02
57	Bhinda Karam Khan and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.10	1.82	2.10	3.62	2.28	3.82
58	Bhinda Samand	H,M,L	BAHAWALNAGAR	0.00	0.00	1.92	2.15	1.98	3.23	2.74	3.97
59	1 Settlement nearby	H,M,L	VEHARI	0.00	0.00	0.18	1.67	1.18	2.68	1.84	3.35
60	Bunga and nearby 1 Settlement	H,M,L	VEHARI	0.00	0.00	1.45	1.87	2.14	3.54	2.40	3.81
61	Bunga Baloch and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.65	2.17	2.89	2.96	3.68
62	Chanipur and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.53	1.49	3.63	2.37	4.10
63	Din Panah and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.44	0.05	2.06	0.08	2.39
64	Dulla Akuka and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	1.50	2.94	1.91	3.19	2.57	4.05
65	Dullah Bhadera	H,M,L	BAHAWALNAGAR	0.00	0.00	0.22	1.28	1.58	2.69	2.10	3.17
66	Dullawala	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.11	1.37	2.91	1.49	3.08
67	Farid Shah	H,M,L	BAHAWALNAGAR	0.00	0.00	1.61	1.67	2.01	3.05	2.65	3.71
68	Faridkot	H,M,L	BAHAWALNAGAR	0.00	0.00	2.08	2.26	2.70	3.90	3.04	4.23
69	Gahi Shah and nearby 1 Settlement	H,M,L	VEHARI	0.00	0.00	1.56	1.76	2.40	3.57	2.49	3.69
70	Gul Shah and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.36	0.06	3.12	0.18	3.30
71	Hindala Khas	H,M,L	VEHARI	0.00	0.00	0.57	1.17	1.30	2.10	1.56	2.16
72	1 Settlement nearby Hisama	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	2.05	0.00	3.68	0.00	4.01
73	Hithar Binda	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.66	0.48	3.11	1.01	3.55
74	Islampura	H,M,L	BAHAWALNAGAR	0.00	0.00	1.39	1.44	1.54	2.59	2.35	3.40
75	Jawae Wali Bas and nearby 4 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.83	1.69	2.89	1.72	3.77
76	Jumman Shah and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.28	0.53	3.07	0.59	3.23
77	Kahir Kot and 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.76	0.80	2.93	1.00	3.72
78	Kalia Shah and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.55	3.12	1.36	3.83	1.50	4.07
79	Kaliawala and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.34	1.27	1.40	2.15	2.30
80	Kamera Basti	H,M,L	BAHAWALNAGAR	0.00	0.00	1.10	1.19	2.23	3.32	3.04	4.13
81	Karimwala Khu	H,M,L	VEHARI	0.00	0.00	1.32	1.61	1.35	3.64	2.37	3.66
82	Khand Baloch	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.69	2.01	2.93	2.79	3.71
83	Kharralan wali and nearby 1 Settlement	H,M,L	VEHARI	0.00	0.00	0.61	1.22	1.42	3.05	1.61	3.23
84	Kot Qadar Bakhsh	H,M,L	VEHARI	0.00	0.00	0.85	1.76	1.52	3.38	1.83	3.72
85	Kot Babale	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.56	0.66	2.34	0.90	2.53
86	Kot Nimat	H,M,L	BAHAWALNAGAR	0.00	0.00	1.25	1.36	1.89	3.01	2.20	3.31
87	Ladhere and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.87	0.92	2.96	1.96	3.97
88	Lakha and nearby 1 Settlement	H,M,L	VEHARI	0.00	0.00	0.66	2.12	1.94	2.40	2.67	3.12
89	Lashkarwali	H,M,L	BAHAWALNAGAR	0.00	0.00	0.78	1.00	1.66	3.86	1.77	3.98
90	Lura	H,M,L	BAHAWALNAGAR	0.00	0.00	0.90	1.75	1.73	3.58	2.00	3.85
91	Madhar and nearby 3 Settlements	H,M,L	VEHARI	0.00	0.00	0.00	1.64	0.65	2.82	1.00	3.60
92	Mangher Sharif	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.66	1.53	2.73	2.42	3.61
93	Mauj Mahar and nearby 3 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	1.90	2.61	1.92	3.12	2.69	3.34
94	MianPur	H,M,L	VEHARI	0.00	0.00	1.20	1.33	2.16	3.28	2.19	3.31
95	Miran Shah and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	1.41	1.93	1.60	2.24	2.51	3.03
96	Miru Baloch and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.03	2.10	1.11	3.29	2.04	4.00
97	Motianwali	H,M,L	VEHARI	0.00	0.00	1.13	1.49	2.01	3.35	2.23	3.59
98	Mouza Saldera and nearby 1 Settlement	H,M,L	VEHARI	0.00	0.00	0.16	1.49	0.22	2.53	1.09	3.43
99	Muhammad Azim and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	1.47	1.88	1.71	3.10	2.32	3.73
100	Mungar	H,M,L	VEHARI	0.00	0.00	1.88	1.98	2.51	3.62	2.84	3.93
101	Murad Ali	H,M,L	VEHARI	0.00	0.00	0.10	1.51	0.84	3.20	1.09	3.49
102	Nisarpur	H,M,L	BAHAWALNAGAR	0.00	0.00	1.49	1.70	1.67	2.87	2.49	3.69
103	Nunan Basti and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	1.56	2.07	2.51	3.04	2.55	4.06
104	Nuran Baloch	H,M,L	BAHAWALNAGAR	0.00	0.00	0.00	1.83	0.00	3.28	0.00	3.72
105	Para Pathanada	H,M,L	BAHAWALNAGAR	0.00	0.00	1.75	2.04	2.33	3.61	2.71	3.99
106	Patai and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.90	1.89	1.16	3.13	1.93	3.91
107	Rahim Shah	H,M,L	VEHARI	0.00	0.00	1.50	2.01	2.30	3.80	2.43	3.94
108	Rajbewali	H,M,L	BAHAWALNAGAR	0.00	0.00	0.94	1.19	0.98	2.23	1.94	3.19
109	Rajushah	H,M,L	BAHAWALNAGAR	0.00	0.00	1.31	1.74	2.16	3.61	2.27	3.70
110	Sadhuwala	H,M,L	BAHAWALNAGAR	0.00	0.00	1.34	1.40	2.17	3.24	2.32	3.38
111	Sahuka and nearby 1 Settlement	H,M,L	VEHARI	0.00	0.00	0.00	1.88	0.02	3.28	0.10	3.96
112	Said Nagar	H,M,L	VEHARI	0.00	0.00	0.00	1.01	0.41	2.69	0.73	3.95
113	Shah Adam	H,M,L	BAHAWALNAGAR	0.00	0.00	0.33	1.05	1.55	3.25	2.44	4.06
114	Shahbaz Kot	H,M,L	BAHAWALNAGAR	0.00	0.00	1.75	1.89	2.50	3.61	2.72	3.86
115	Sujo Kamera and nearby 2 Settlements	H,M,L	BAHAWALNAGAR	0.00	0.00	1.08	1.72	1.21	2.88	2.03	3.67
116	Talian Wala	H,M,L	BAHAWALNAGAR	0.00	0.00	1.09	1.21	2.00	3.13	2.05	3.18
117	Tanaza	H,M,L	BAHAWALNAGAR	0.00	0.00	1.71	2.06	2.50	3.82	2.71	4.05
118	Therigi Balucha	H,M,L	BAHAWALNAGAR	0.00	0.00	1.56	1.82	1.73	2.98	2.39	3.66
119	Thingi	H,M,L	BAHAWALNAGAR	0.00	0.00	1.00	1.22	1.12	3.33	1.94	4.16
120	Walia Baloch	H,M,L	VEHARI	0.00	0.00	0.00	1.09	1.24	3.02	1.31	3.08
121	Wasir	H,M,L	VEHARI	0.00	0.00	1.53	2.08	2.19	2.74	2.51	3.06
122	Wattu and nearby 1 Settlement	H,M,L	BAHAWALNAGAR	0.00	0.00	0.78	1.88	2.76	3.74	2.88	3.98
123	Datani	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.33	3.53	2.45	3.65
124	Karmani	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.40	2.83	1.66	3.04
125	M.S.Fettani	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.99	2.19	1.93	3.11
126	Mehta Jhedu and nearby 7 Settlements	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.00	1.10	0.00	1.35
127	Mochipura	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.30	1.03	1.17	1.96
128	Pir Shah Fettani and nearby 2 Settlements	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.98	2.36	1.03	2.46
129	Samani	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	1.61	2.98	1.89	3.22
130	2 Settlements nearby Tiloka	M,L	BAHAWALNAGAR	0.00	0.00	0.00	0.00	0.05	1.12	0.06	1.79

Sutlej River - Sheet No. 8

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Islam		Inundation Depth at Discharge of 115,000 Cusec below Islam		Inundation Depth at Discharge of 190,000 Cusec below Islam		Inundation Depth at Discharge of 265,000 Cusec below Islam	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Basti Bhinda and nearby 3 Settlements	VH,H,M,L	BAHAWALPUR	0.00	0.30	0.00	0.65	0.12	1.53	0.24	1.70
2	Basti Bhinda Naye and nearby 2 Settlements	VH,H,M,L	BAHAWALPUR	0.00	0.41	0.00	0.76	0.79	1.61	0.87	1.71
3	Basti Ghulam Wali	VH,H,M,L	BAHAWALPUR	0.00	0.34	0.10	0.53	1.28	1.40	1.51	1.63
4	Bhattian di Basti	VH,H,M,L	BAHAWALPUR	0.00	0.24	0.00	0.52	0.02	0.78	0.12	0.88
5	8 Settlements nearby Bhindwala Khu	VH,H,M,L	BAHAWALPUR	0.00	1.03	0.00	1.47	0.00	2.22	0.00	2.31
6	Chadrar Bhinda and nearby 1 Settlement	VH,H,M,L	BAHAWALPUR	0.00	0.56	0.32	1.00	1.32	1.87	1.41	2.13
7	1 Settlement nearby Hamur Wasir	VH,H,M,L	VEHARI	0.00	0.21	0.00	0.62	0.18	0.88	0.28	0.97
8	Jhok Randuwala and nearby 2 Settlements	VH,H,M,L	BAHAWALPUR	0.00	0.31	0.00	0.81	0.48	1.15	0.69	1.38
9	Basti Waills and nearby 8 Settlements	VH,H,M,L	VEHARI	0.00	0.28	0.00	0.82	0.00	1.05	0.00	1.20
10	Jhok Jamal Khan	VH,H,M,L	BAHAWALPUR	0.00	0.72	0.00	0.95	0.00	1.10	0.56	1.50
11	Nasirpur and nearby 3 Settlements	VH,H,M,L	BAHAWALPUR	0.00	0.18	0.00	0.94	0.00	1.23	0.00	1.62
12	5 Settlements nearby Alampur	H,M,L	VEHARI	0.00	0.00	0.00	0.58	0.00	1.45	0.00	1.67
13	Basti Dultana and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.90	0.00	1.78	1.00	1.95
14	Deda	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.16	0.00	0.78	0.22	1.00
15	5 Settlements nearby Ghauspur	H,M,L	VEHARI	0.00	0.00	0.00	1.36	0.00	2.46	0.00	3.35
16	6 Settlements nearby Khairo di Basti	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.08	0.00	1.84	0.00	1.98
17	2 Settlements nearby Malsi Syphon	H,M,L	VEHARI	0.00	0.00	0.87	1.90	1.49	3.14	1.76	3.87
18	Nagana di Basti and nearby 4 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.14	0.40	2.99	0.80	3.01
19	Sialan di Basti and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.64	0.00	1.19	0.01	1.42
20	Chaker Qadeywala and nearby 1 Settlement	M,L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	2.60	0.00	2.86
21	Head Islam	M,L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	3.17	0.00	3.55
22	Khairi Bhabi and nearby 1 Settlement	M,L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.39	1.53	0.50	2.34
23	1 Settlement nearby Bakain	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.63
24	Basti Arain and nearby 6 Settlements	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.84
25	1 Settlement nearby Basti Ganjewal	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.48
26	Basti Admane and nearby 3 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12
27	Basti Chhona	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.46
28	Basti Jabailianwali	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.56
29	Basti Jhed Wala and nearby 3 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46
30	Basti Jhedu and nearby 2 Settlements	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
31	Basti Muhammad Pur	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
32	3 Settlements nearby Ghazi Ghannana	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
33	4 Settlements nearby Kalia Shah	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.04	1.02
34	Kharianwala Khu and nearby 4 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72
35	1 Settlement nearby Kiri Mian Sahib Jadid	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
36	Kiri Mian Sahib Darbar and nearby 3 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42
37	Kot Ghulam Qadir and nearby 2 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52
38	2 Settlements nearby Mumtazabad	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82
39	Naiabadi and nearby 1 Settlement	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03
40	Sharaf	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41	Zakirabad and nearby 2 Settlements	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97

Sutlej River - Sheet No.9

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Islam		Inundation Depth at Discharge of 115,000 Cusec below Islam		Inundation Depth at Discharge of 190,000 Cusec below Islam		Inundation Depth at Discharge of 265,000 Cusec below Islam	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Chhutani and nearby 13 Settlements	VH,H,M,L	VEHARI	0.00	1.81	0.00	2.12	0.00	2.51	0.00	2.54
2	Dera Dilawar and nearby 4 Settlements	VH,H,M,L	LODHRAN	0.00	0.25	0.00	0.62	0.00	0.79	0.00	0.83
3	2 Settlements nearby Fatehpur	VH,H,M,L	VEHARI	0.00	1.72	0.00	2.22	0.00	3.04	0.00	3.96
4	5 Settlements nearby Jhok Pannowali	VH,H,M,L	LODHRAN	0.00	0.26	0.00	0.44	0.10	0.56	0.78	1.29
5	Kund Ahmad Hasan and nearby 5 Settlements	VH,H,M,L	LODHRAN	0.00	0.17	0.00	0.48	0.00	0.91	0.00	1.17
6	Mamar and nearby 10 Settlements	VH,H,M,L	VEHARI	0.00	2.42	0.22	2.91	0.91	3.48	1.84	3.60
7	Sathuwali Jhok and nearby 7 Settlements	VH,H,M,L	VEHARI	0.00	2.11	0.73	2.52	1.67	3.08	2.42	3.22
8	5 Settlements nearby Jhok Malanan	VH,H,M,L	BAHAWALPUR	0.00	0.83	0.00	1.23	0.00	1.52	0.00	1.85
9	Rangbhara and nearby 2 Settlements	VH,H,M,L	BAHAWALPUR	0.00	0.45	0.00	0.91	0.00	1.28	0.15	1.53
10	Arainwali and nearby 7 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	2.20	0.00	2.22	0.00	2.94
11	Araiowqii and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.42	0.00	2.60	0.00	3.14
12	4 Settlements nearby Arewala	H,M,L	VEHARI	0.00	0.00	0.00	0.77	0.02	2.50	0.52	2.68
13	Balim wali and nearby 3 Settlements	H,M,L	VEHARI	0.00	0.00	1.58	2.80	2.12	3.34	2.28	3.51
14	Basti Muhammad Pur	H,M,L	BAHAWALPUR	0.00	0.00	0.44	0.83	0.91	1.30	1.22	1.62
15	Basti Shah Wali and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.55	0.16	0.91	0.55	1.32
16	Basti Darwesh and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.12	0.00	0.35	0.01	0.97
17	Basti Gulpur and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.50	0.00	0.58	0.25	1.36
18	Basti Jindu Shah and 1 Settlement	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.60	0.18	0.96	0.59	1.35
19	Basti Qudratabad	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.11	0.28	0.46	0.70	0.87
20	Basti Shakurwala and nearby 3 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.78	0.00	1.24	0.00	1.65
21	2 Settlements nearby Behli de Basti	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.16	0.00	0.74	0.00	0.93
22	Bhattian wala Khu and nearby 10 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.62	0.21	1.38	0.35	2.26
23	Bhindi Wala and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.45	0.00	1.06	0.00	1.09
24	2 Settlements nearby Bhuratta	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.44	0.06	0.83	0.43	1.22
25	Chah Mandranwala and nearby 4 Settlements	H,M,L	VEHARI	0.00	0.00	0.00	1.32	0.37	1.85	0.52	1.98
26	6 Settlements nearby Chatwahan	H,M,L	VEHARI	0.00	0.00	0.00	2.85	0.00	3.40	0.00	3.58
27	Chhina and nearby 2 Settlements	H,M,L	VEHARI	0.00	0.00	0.85	1.54	1.33	2.00	1.67	2.36
28	1 Settlement nearby Chinna de Basti	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.06	0.18	1.60	0.46	1.89
29	Dahnrun di Basti	H,M,L	BAHAWALPUR	0.00	0.00	1.04	1.43	1.24	2.68	1.74	3.13
30	Darian de Jhok and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.13	0.00	0.40	0.06	0.98
31	Durpur and nearby 4 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.09	1.73	0.74	2.27	1.72	2.38
32	Fazilwali Jhok and nearby 4 Settlements	H,M,L	VEHARI	0.00	0.00	0.94	2.57	1.34	3.07	1.73	3.35
33	Ghauspur	H,M,L	VEHARI	0.00	0.00	0.00	0.12	0.96	2.26	1.62	3.01
34	Ghauswali	H,M,L	VEHARI	0.00	0.00	0.00	0.79	0.00	1.21	0.00	1.59
35	Ghulam Sindhi and nearby 4 Settlements	H,M,L	VEHARI	0.00	0.00	0.26	1.29	0.75	1.77	1.08	2.11
36	Goth Bahar and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.39	1.83	0.71	2.17	1.10	2.55
37	Jakri and nearby 7 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.76	0.00	1.11	0.00	1.47
38	Jhok Haji and 11 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.43	2.22	1.18	2.75	1.35	2.87
39	Jhok Jindu and nearby 3 Settlements	H,M,L	VEHARI	0.00	0.00	1.18	2.76	2.18	3.49	2.91	3.51
40	Jhok Zakria and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	1.28	2.75	2.32	3.45	2.97	3.93
41	Kalwain Khu and nearby 12 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.50	0.00	0.81	0.47	1.36
42	1 Settlement nearby Kauje de Basti	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.47	0.00	0.87	0.28	1.26
43	Khajiwala and nearby 1 Settlement	H,M,L	BAHAWALPUR	0.00	0.00	0.26	0.47	0.64	0.85	1.02	1.24
44	6 Settlements nearby Khand	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.92	0.00	1.26	0.00	1.62
45	1 Settlement nearby Kharralan Wali	H,M,L	BAHAWALPUR	0.00	0.00	1.03	1.21	1.17	2.32	1.72	2.90
46	Kumharan di Basti	H,M,L	BAHAWALPUR	0.00	0.00	1.71	2.19	2.17	2.89	2.37	3.85
47	Kund Nauabad Sani and nearby 1 Settlement	H,M,L	VEHARI	0.00	0.00	0.65	1.20	1.24	1.78	1.49	2.04
48	Lakhran Basti	H,M,L	VEHARI	0.00	0.00	1.47	1.65	1.90	2.08	2.27	2.45
49	Lorran de Basti and nearby 5 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.57	0.00	0.92	0.00	1.32
50	Mani and nearby 4 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.90	1.76	1.82	2.79	2.57	3.44
51	Mari and nearby 7 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.34	0.00	0.53	0.00	1.21
52	Muhammad de Basti and nearby 14 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	2.18	0.00	2.70	0.00	2.83
53	Nawaz Mamran de Jhok and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.34	1.36	0.75	1.64	1.18	2.12
54	Nawin Basti and nearby 5 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	1.11	1.97	1.63	2.50	1.74	2.63
55	Pana de Jhkok and nearby 4 Settlements	H,M,L	VEHARI	0.00	0.00	1.25	1.78	1.70	2.20	2.06	2.58
56	Puna and nearby 3 Settlements	H,M,L	VEHARI	0.00	0.00	0.64	1.68	1.15	2.18	1.47	2.50
57	Sahih Kamb and nearby 2 Settlements	H,M,L	VEHARI	0.00	0.00	0.00	1.52	0.00	1.97	0.14	2.32
58	1 Settlement nearby Shahpur Kamangran Wala	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.15	0.46	1.36	0.82	1.87
59	Sharin Wala Khu	H,M,L	VEHARI	0.00	0.00	1.69	1.73	2.11	2.15	2.49	2.53
60	1 Settlement nearby Umar Fatani	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.35	0.00	0.81	0.00	1.16
61	Wair Wahan and 1 Settlement	H,M,L	VEHARI	0.00	0.00	0.00	0.75	0.00	1.34	0.00	1.38
62	Zorkot and nearby 10 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.41	0.00	1.97	0.00	2.09
63	Basti Din Muhammad and nearby 2 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.62
64	Basti Shah Muhammad and nearby 1 Settlement	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.91
65	Basti Ganji and nearby 3 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.87

Zone*

VH= Inundation Extent Corresponding to PID Medium flood limit

H= High Risk Inundation Zone corresponds to 5 yr return period flood
M= Medium Risk Inundation Zone corresponds to 15 yr return period flood
L= Low Risk Inundation Zone corresponds to 50 yr return period flood

Inundation Depth of Settlements along Sutlej River

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Islam		Inundation Depth at Discharge of 115,000 Cusec below Islam		Inundation Depth at Discharge of 190,000 Cusec below Islam		Inundation Depth at Discharge of 265,000 Cusec below Islam	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
66	Basti Jatal and nearby 2 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
67	Basti Mian and nearby 1 Settlement	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26
68	Basti Nai	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
69	Basti Rane Wali and neaby 7 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.04	1.27
70	2 Settlements nearby Chah Ramkali	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
71	4 Settlements nearby Chelewahan	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.50
72	Goth Miththa and nearby 2 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.63	1.38
73	3 Settlements nearby Hasliwala Khu	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
74	Mamran and nearby 3 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.46	1.03
75	Nalwali Basti and nearby 4 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22
76	3 Settlements nearby Nasirpur	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.55	1.69
77	Sharinwala	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
78	1 Settlement nearby Tibbi Waddan	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.63
79	Toka Mukhi and nearby 3 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.09	1.04
80	Tundan	L	VEHARI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54

Sutlej River - Sheet No. 10

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Islam		Inundation Depth at Discharge of 115,000 Cusec below Islam		Inundation Depth at Discharge of 190,000 Cusec below Islam		Inundation Depth at Discharge of 265,000 Cusec below Islam	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Adam Wahan and nearby 2 Settlements	VH,H,M,L	LODHRAN	0.00	0.82	0.00	1.02	0.00	1.29	0.00	1.48
2	Basti Khan Muhammad and nearby 11 Settlements	VH,H,M,L	LODHRAN	0.00	0.71	0.00	1.08	0.40	2.28	0.55	2.45
3	Goth Ghani and nearby 5 Settlements	VH,H,M,L	BAHAWALPUR	0.00	0.65	0.00	1.29	0.00	2.04	0.00	2.28
4	Jhok Janwar and nearby 2 Settlements	VH,H,M,L	BAHAWALPUR	0.00	0.98	0.00	1.32	0.00	1.71	0.00	2.12
5	Jagir Kiri and nearby 3 Settlements	VH,H,M,L	LODHRAN	0.00	0.73	0.00	1.14	0.46	1.87	0.69	2.11
6	Jhoke Babian and nearby 1 Settlement	VH,H,M,L	BAHAWALPUR	0.00	0.32	0.00	0.81	0.00	1.02	0.39	1.15
7	Nawan Khu	VH,H,M,L	BAHAWALPUR	0.00	0.19	0.00	0.42	0.00	0.86	0.00	1.12
8	1 Settlement nearby Basti Ropri	VH,H,M,L	BAHAWALPUR	0.00	0.41	0.00	0.78	0.00	1.12	0.37	1.52
9	Basti Lal Kamal and nearby 3 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.38	0.22	1.00	0.45	1.23
10	Basti Maish and nearby 7 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.38	0.62	1.49	0.79	1.66
11	Basti Mian and nearby 6 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.46	0.61	1.66	0.79	1.84
12	Basti Anbar	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.50	0.00	1.15	0.00	1.36
13	Basti Bangla and nearby 3 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.68	0.00	1.71	0.00	1.86
14	Basti Mian Sahib and nearby 11 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.45	0.43	2.19	0.55	2.26
15	Jhok Lal Suhanra and nearby 2 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.29	0.07	0.42	0.82	1.18
16	Jhok Malik Elahi Bakhsh and nearby 1 Settlement	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.44	0.91	1.38	1.07	1.54
17	Jhok Rahim Bakhsh Jhabil	H,M,L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.38	0.11	0.80
18	Jhok Tarar and nearby 4 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.12	0.31	2.18	0.47	2.34
19	Jhok Kasranwan	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.20	0.00	1.13	0.15	1.28
20	Khanwali and nearby 4 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.98	0.00	1.72	0.00	1.96
21	Munshi Wala	H,M,L	LODHRAN	0.00	0.00	0.56	1.30	1.79	2.54	1.97	2.73
22	Wadhawe wala and nearby 4 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.36	0.92	1.46	1.09	1.64
23	5 Settlements nearby Basti Miani	M,L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	1.38	0.00	1.56
24	Dargahpur and nearby 3 Settlements	M,L	LODHRAN	0.00	0.00	0.00	0.00	0.76	1.41	0.94	1.59
25	4 Settlements nearby Adamwahn Bridge	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45
26	1 Settlement nearby Ain Wahan	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.40
27	1 Settlement nearby Azizabad	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56
28	1 Settlement nearby Baqir Pur	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.80
29	1 Settlement nearby Basti Arain	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
30	Basti Faqiria	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.60
31	Basti Ghulam Qadri and nearby 4 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.66
32	Basti Haji Allah Bakhsh	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
33	2 Settlements nearby Basti Hurian	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
34	Basti Kumharan and nearby 3 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.82
35	1 Settlement nearby Basti Salan	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.71
36	Basti Taliwala and nearby 1 Settlement	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54
37	Basti Wilayat and nearby 4 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.68
38	Basti Harian	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35
39	Basti Khandan	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77
40	Budh Wala	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
41	Chachanwali and nearby 2 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
42	Dera Jand and nearby 2 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
43	1 Settlement nearby Gharibabad	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
44	Gidran and nearby 5 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26
45	5 Settlements nearby Goth Lashkar	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.10	1.48
46	1 Settlement nearby Haji Rahim Bakhsh	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.69
47	Hisam Basti and nearby 1 Settlement	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.92
48	Hurian and nearby 1 Settlement	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.07	1.16
49	Jandwala and nearby 3 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01
50	Jas and nearby 1 Settlement	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
51	3 Settlements nearby Jhok Ahmadyar	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.55
52	Jhok Allah Dita	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
53	Jhok Allah Ditta	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.93
54	Jhok Ghulam Ahmad	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.49
55	Jhok Ghulam Nab and nearby 3 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17
56	Jhok Hassanwali	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.90
57	Jhok Khanwali	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.65
58	Jhok Machhian Wali and nearby 8 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.09	1.99
59	Khan Wala and nearby 2 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.79	1.15
60	Kikriwala	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.65
61	Kotla Chandan	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
62	Miani Jhabelian	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66
63	Musawala and nearby 4 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.18	1.09
64	Nai Basti and nearby 2 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.36	1.10
65	Nalewala and nearby 6 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35
66	Nawabpura and nearby 1 Settlement	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72
67	4 Settlements nearby Panunwala	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13
68	Sardarwala and nearby 13 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99
69	Shahi Sherki Khangah	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
70	Sharifabad and nearby 3 Settlements	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39

Sutlej River - Sheet No. 11

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 80,000 Cusec below Islam		Inundation Depth at Discharge of 115,000 Cusec below Islam		Inundation Depth at Discharge of 190,000 Cusec below Islam		Inundation Depth at Discharge of 265,000 Cusec below Islam	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Basti Haji Ghulam Muhammad and nearby 5 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.52	0.00	1.94	0.00	2.59	0.00	2.66
2	Basti Pir Lal Wali and nearby 6 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.43	0.00	1.95	0.00	2.39	0.30	2.68
3	Basti Rang Godam and nearby 26 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.81	0.00	2.57	0.09	3.15	0.25	3.28
4	Basti Jhallanwali and nearby 7 Settlements	VH,H,M,L	MULTAN	0.00	1.86	1.63	2.02	2.36	2.75	2.48	2.88
5	Basti Jianwali and nearby 6 Settlements	VH,H,M,L	BAHAWALPUR	0.00	2.21	1.80	2.88	2.52	3.59	2.67	3.76
6	Basti Muham Wali and nearby 7 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.24	0.00	1.64	0.49	2.20	0.70	2.39
7	Basti Utra	VH,H,M,L	LODHRAN	0.00	2.02	1.98	2.14	2.48	2.65	2.70	2.86
8	Chah Elahi Bakhshwala and nearby 3 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.05	0.00	1.36	0.66	2.11	0.72	2.12
9	Ilahi Bakhshwala and nearby 6 Settlements	VH,H,M,L	LODHRAN	0.00	1.73	0.94	2.06	1.63	2.71	1.76	2.84
10	Jhoke Garde Wali and nearby 10 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.31	1.00	1.97	1.65	2.64	1.77	2.76
11	Manhora	VH,H,M,L	MULTAN	0.00	1.38	1.35	1.49	2.10	2.24	2.26	2.40
12	Miani Jhanda and nearby 24 Settlements	VH,H,M,L	MULTAN	0.00	1.24	0.18	1.96	0.96	2.75	1.10	2.88
13	Pahor Wala and nearby 3 Settlements	VH,H,M,L	MULTAN	0.00	1.12	0.68	1.30	1.47	2.10	1.60	2.22
14	Toki Sikandar and nearby 17 Settlements	VH,H,M,L	LODHRAN	0.00	2.58	1.03	3.42	1.56	3.88	1.74	4.14
15	Toki Tarkhanan and nearby 7 Settlements	VH,H,M,L	BAHAWALPUR	0.00	2.27	0.97	2.67	1.56	3.13	1.72	3.41
16	Abbas Nagar and nearby 16 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.30	0.24	1.83	0.42	2.03
17	Alipur Asar	H,M,L	LODHRAN	0.00	0.00	1.92	2.32	2.52	2.92	2.68	3.07
18	Bahadur Pur and nearby 7 Settlements	H,M,L	MULTAN	0.00	0.00	0.00	3.60	0.00	4.35	0.00	4.51
19	Bahimabad and nearby 15 Settlements	H,M,L	LODHRAN	0.00	0.00	1.03	3.49	1.55	4.12	1.78	4.25
20	4 Settlements nearby Basti Abdullah Pir	H,M,L	BAHAWALPUR	0.00	0.00	0.99	3.11	1.72	3.85	1.85	3.98
21	Basti Araian and nearby 15 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	1.19	2.86	1.89	3.58	2.07	3.75
22	Basti Chanar and nearby 4 Settlements	H,M,L	LODHRAN	0.00	0.00	1.47	2.38	1.96	2.86	2.20	3.12
23	Basti Ghulaman and nearby 8 Settlements	H,M,L	LODHRAN	0.00	0.00	1.60	3.10	2.06	3.62	2.33	3.85
24	6 Settlements nearby Basti Jhabil	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.48	0.35	2.22	0.48	2.39
25	9 Settlements nearby Basti Jhallanwali	H,M,L	MULTAN	0.00	0.00	0.67	2.12	1.41	2.83	1.54	2.96
26	Basti Kameman Lal and nearby 6 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.48	0.37	1.12	0.53	1.27
27	Basti Kot Dadu Wali and nearby 7 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.42	0.00	2.00	0.00	2.17
28	Basti Lala Shahbaz and nearby 2 Settlements	H,M,L	MULTAN	0.00	0.00	0.82	2.92	1.50	3.61	1.64	3.74
29	3 Settlements nearby Basti Lona	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.79	0.00	2.46	0.00	2.58
30	Basti Muhammad Bakhsh and nearby 5 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	1.60	2.05	2.11	2.53	2.35	2.79
31	Basti Pir Auliya and nearby 14 Settlements	H,M,L	MULTAN	0.00	0.00	1.11	2.89	1.84	3.63	2.01	3.80
32	Basti Sarhatta and nearby 8 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.85	0.62	1.53	0.71	1.61
33	Basti Sawan and nearby 4 Settlements	H,M,L	LODHRAN	0.00	0.00	0.22	1.94	0.80	2.53	0.94	2.65
34	Basti Wasu Khan Utere and nearby 9 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.76	2.57	1.35	3.15	1.47	3.28
35	Basti Awan and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.07	0.71	0.51	1.18	0.80	1.45
36	Basti Bhatian Wala and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.82	0.00	2.50	0.00	2.62
37	Basti Devat Wali and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.17	0.79	0.67	1.29	0.92	1.53
38	Basti Diwan and nearby 8 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.95	0.00	2.49	0.00	2.66
39	Basti Gujjian Wali and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.69	0.00	1.11	0.14	1.43
40	Basti Jalalabad and nearby 7 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	2.10	0.00	2.56	0.00	2.82
41	Basti Kallar Wali and nearby 3 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.92	0.03	1.69	0.05	2.68
42	Basti Lang	H,M,L	MULTAN	0.00	0.00	2.99	3.16	3.75	3.92	3.90	4.08
43	Basti Loharan and nearby 4 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	2.08	0.00	2.76	0.00	2.89
44	Basti Moulawian Wali and nearby 5 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.16	0.00	1.68	0.00	1.88
45	Basti Pakhiwar and nearby 6 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	2.14	0.00	2.88	0.00	3.01
46	Bhagri Wala and nearby 5 Settlements	H,M,L	LODHRAN	0.00	0.00	1.22	2.32	1.78	2.91	1.97	3.08
47	Bhandi and nearby 11 Settlements	H,M,L	MULTAN	0.00	0.00	1.84	3.05	2.57	3.78	2.69	3.91
48	Bhitwai and nearby 19 Settlements	H,M,L	MULTAN	0.00	0.00	1.00	2.23	1.69	2.94	1.89	3.11
49	Chak 89 and nearby 6 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	0.69	0.15	1.24	0.31	1.42
50	1 Settlement nearby Chanwala	H,M,L	MULTAN	0.00	0.00	1.63	2.86	2.36	3.59	2.81	3.74
51	6 Settlements nearby Chhutowala	H,M,L	MULTAN	0.00	0.00	0.00	1.85	0.29	2.52	0.41	2.64
52	Chutala and nearby 3 Settlements	H,M,L	LODHRAN	0.00	0.00	1.02	1.78	1.64	2.41	1.78	2.54
53	Dali Wala and nearby 7 Settlements	H,M,L	LODHRAN	0.00	0.00	2.42	3.31	3.07	3.97	3.19	4.10
54	Dipal and nearby 5 Settlements	H,M,L	MULTAN	0.00	0.00	2.36	3.49	3.09	4.22	3.25	4.38
55	Faridwala and nearby 6 Settlements	H,M,L	LODHRAN	0.00	0.00	0.77	2.59	1.47	3.27	1.59	3.40
56	Fath Wala and nearby 2 Settlements	H,M,L	MULTAN	0.00	0.00	1.13	2.10	1.84	2.81	2.03	2.99
57	Fazal Chowk and nearby 2 Settlements	H,M,L	MULTAN	0.00	0.00	2.07	2.54	2.76	3.22	2.89	3.35
58	Fazal Colony and nearby 5 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.63	0.00	1.27	0.00	1.39
59	Gagan Natta and nearby 7 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.07	0.00	1.60	0.00	1.79
60	3 Settlements nearby Gang	H,M,L	MULTAN	0.00	0.00	1.54	2.12	2.31	2.92	2.46	3.04
61	Ghoghi and nearby 11 Settlements	H,M,L	MULTAN	0.00	0.00	1.23	2.44	1.96	3.16	2.14	3.34
62	Goth Gahna Wali and nearby 10 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.66	0.00	2.39	0.00	2.42
63	Hayat Pur and nearby 12 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.60	0.26	2.12	0.45	2.32
64	Ismailabad and nearby 7 Settlements	H,M,L	MULTAN	0.00	0.00	1.32	2.94	2.02	3.62	2.14	3.74
65	Jahana Motha and nearby 1 Settlement	H,M,L	MULTAN	0.00	0.00	1.87	2.94	2.52	3.58	2.65	3.70
66	Jal Wala and nearby 9 Settlements	H,M,L	LODHRAN	0.00	0.00	0.97	3.05	1.54	3.61	1.72	3.80
67	Jarrahi Wala and nearby 13 Settlements	H,M,L	LODHRAN	0.00	0.00	0.68	2.10	1.18	2.59	1.42	2.84
68	Jhak Warhialian Wali and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.69	1.75	1.32	2.38	1.45	2.51
69	Jharjbu and nearby 8 Settlements	H,M,L	MULTAN	0.00	0.00	0.42	1.96	1.16	2.69	1.33	2.86
70	Jhok Utran and nearby 16 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.98	0.51	2.52	0.73	2.70
71	Jhok Janan and nearby 12 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.89	0.49	2.47	0.60	2.60
72	Kachiwah Basti and nearby 1 Settlement	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.33	0.00	1.91	0.00	2.04
73	Karpal and nearby 9 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.05	0.00	1.57	0.00	1.79
74	Khan Wah and nearby 7 Settlements	H,M,L	LODHRAN	0.00	0.00	0.43	1.42	0.94	1.93	1.16	2.15
75	Kochhewala and nearby 13 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	2.16	0.17	2.74	0.35	2.90
76	Kot Pir Shahadat	H,M,L	LODHRAN	0.00	0.00	0.00	1.20	0.00	1.72	0.00	1.92
77	3 Settlements nearby Kotla More	H,M,L	MULTAN	0.00	0.00	1.91	3.07	2.65	3.80	2.79	3.94
78	Kotla Shah Rasool and nearby 8 Settlements	H,M,L	MULTAN	0.00	0.00	0.85	2.41	1.57	3.13	1.73	3.29
79	Kotla Chakor and nearby 9 Settlements	H,M,L	MULTAN	0.00	0.00	0.48	2.42	1.22	3.15	1.35	3.27
80	Laddewala and nearby 8 Settlements	H,M,L	MULTAN	0.00	0.00	1.33	2.46	2.03	3.19	2.16	3.31
81	Lasuri Wala and nearby 10 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.50	0.22	2.09	0.39	2.23
82	Mariwala and nearby 10 Settlements	H,M,L	MULTAN	0.00	0.00	2.25	2.83	2.99	3.58	3.14	3.72
83	Miani and nearby 5 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.98	1.49	1.53	2.04	1.73	2.24
84	Miani Motha and nearby 1 Settlement	H,M,L	MULTAN	0.00	0.00	1.11	2.31	1.78	3.00	2.73	3.13
85	Motha and nearby 5 Settlements	H,M,L	MULTAN	0.00	0.00	2.03	2.65	2.76	3.35	2.89	3.47
86	Murad Pur and nearby 6 Settlements	H,M,L	LODHRAN	0.00	0.00	0.77	2.77	1.28	3.28	1.51	3.51
87	Musa Wala and nearby 5 Settlements	H,M,L	MULTAN	0.00	0.00	2.67	3.34	3.33	4.02	3.46	4.15
88	Nai Basti and nearby 4 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	2.22	0.00	2.87	0.00	2.99
89	Nauraja Bhutta and nearby 9 Settlements	H,M,L	MULTAN	0.00	0.00	0.49	2.05	1.26	2.82	1.40	2.96
90	5 Settlements nearby Nunari	H,M,L	BAHAWALPUR	0.00	0.00	0.00	1.69	0.56	2.40	0.62	2.49
91	Pakka Munna and nearby 6 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.75	0.00	2.34	0.00	2.50
92	13 Settlements nearby Pipli Rajan	H,M,L	BAHAWALPUR	0.00	0.00	0.00	2.58	0.00	3.29	0.00	3.46
93	Pul Sodalwali and nearby 4 Settlements	H,M,L	LODHRAN	0.00	0.00	0.74	1.74	1.30	2.31	1.47	2.47
94	Qurashiwala and nearby 2 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	1.90	0.00	2.49	0.00	2.65
95	Saidiwala and nearby 12 Settlements	H,M,L	LODHRAN	0.00	0.00	0.99	2.99	1.58	3.50	1.75	3.74
96	Sajawal Pur	H,M,L	MULTAN	0.00	0.00	2.50	3.14	3.29	3.93	3.42	4.06
97	Sawewala and nearby 9 Settlements	H,M,L	MULTAN	0.00	0.00	2.06	3.17	2.80	3.94	2.97	4.09
98	Shajerawala and nearby 3 Settlements	H,M,L	MULTAN	0.00	0.00	1.24	2.59	1.91	3.28	2.04	3.41
99	Sher Girwan and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.92	1.53	1.49	2.11	1.62	2.24
100	Silband Wala and nearby 4 Settlements	H,M,L	LODHRAN	0.00	0.00	1.01	2.63	1.57	3.15	1.76	3.38
101	Sui Wala and nearby 3 Settlements	H,M,L	LODHRAN	0.00	0.00	0.00	2.49	0.00	3.07	0.00	3.23
102	Suk and nearby 1 Settlement	H,M,L	BAHAWALPUR	0.00	0.00	0.00	0.48	0.64	1.14	0.73	1.23
103	Tar Khanwala	H,M,L	LODHRAN	0.00	0.00	0.95	1.78	1.53	2.37	1.68	2.51
104	Tarkanwali and nearby 2 Settlements	H,M,L	MULTAN	0.00	0.00	1.98	3.20	2.71	3.93	2.87	4.08
105	Tibba Miani and nearby 1 Settlement	H,M,L	BAHAWALPUR	0.00	0.00	0.79	1.15	1.38	1.74	1.50	1.86
106	Tibbi Ghali Wah and nearby 3 Settlements	H,M,L	LODHRAN	0.00	0.00	1.06	2.37	1.60	2.93	1.80	3.12
107	1 Settlement nearby Totawala	H,M,L	MULTAN	0.00	0.00	0.00	2.06	0.00	2.81	0.00	2.96
108	Ukhan Wala	H,M,L	LODHRAN	0.00	0.00	0.83	1.29	1.42	1.88	1.56	2.02
109	Yusuf Wala and 1 Settlement	H,M,L	LODHRAN	0.00	0.00	1.83	2.14	2.47	2.78	2.59	2.90
110	Basti Jan Muhammad and nearby 3 Settlements	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77
111	Basti Main Muhammad Aslam Lindhar	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62
112	Basti Mughalwali and nearby 1 Settlement	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.94
113	Basti Tarkhanan	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
114	Chah Muhammad Ramzan and nearby 1 Settlement	L	LODHRAN	0.00	0.00	0.00	0.00	0.00	0.00	0.16	1.04

Zone*

VH= Inundation Extent Corresponding to PID Medium flood limit

H= High Risk Inundation Zone corresponds to 5 yr return period flood
M= Medium Risk Inundation Zone corresponds to 15 yr return period flood
L= Low Risk Inundation Zone corresponds to 50 yr return period flood

Inundation Depth of Settlements along Chenab River(Confluence Sheets)

Chenab River - Sheet No.17

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 200,000 Cusec below Trimmu		Inundation Depth at Discharge of 425,000 Cusec below Trimmu		Inundation Depth at Discharge of 615,000 Cusec below Trimmu		Inundation Depth at Discharge of 820,000 Cusec below Trimmu	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Bashira Di Basti and nearby 11 Settlements	VH,H,M,L	MULTAN	0.00	1.23	0.81	1.80	1.78	2.78	2.39	3.39
2	Basti Ghulam Muhammad and nearby 8 Settlements	VH,H,M,L	MULTAN	0.00	1.72	0.59	2.00	2.45	2.85	3.01	3.41
3	Basti Kach Pak and nearby 24 Settlement	VH,H,M,L	MULTAN	0.00	1.02	0.39	1.40	1.28	2.29	1.89	2.90
4	Basti Khuda Bakhsh and nearby 4 Settlements	VH,H,M,L	MULTAN	0.00	2.13	0.17	2.64	0.23	3.06	0.72	3.14
5	Basti Salah Qadir and nearby 23 Settlements	VH,H,M,L	MUZAFFARGARH	0.00	1.75	0.11	2.13	0.80	2.81	1.22	3.23
6	Basti Toni and nearby 5 Settlements	VH,H,M,L	MULTAN	0.00	2.13	1.94	2.61	2.85	3.52	3.43	4.09
7	Bhand and nearby 18 Settlements	VH,H,M,L	MUZAFFARGARH	0.00	1.95	0.14	2.46	1.08	3.40	1.72	4.03
8	1 Settlement nearby Gakhran di Basti	H,M,L	MULTAN	0.00	0.00	1.59	2.46	2.49	3.37	3.05	3.92
9	10 Settlements nearby Janjwala	H,M,L	MUZAFFARGARH	0.00	0.00	0.05	2.62	0.19	3.43	0.29	3.95
10	11 Settlements nearby Araianwala	H,M,L	MUZAFFARGARH	0.00	0.00	0.01	2.27	0.55	3.16	0.67	3.77
11	11 Settlements nearby Chah Barinwala	H,M,L	MUZAFFARGARH	0.00	0.00	0.02	2.01	0.49	2.90	0.97	3.51
12	12 Settlements nearby Basti Bullu Sandila	H,M,L	MULTAN	0.00	0.00	0.10	1.64	0.45	2.48	0.98	3.04
13	12 Settlements nearby Basti Khurwala	H,M,L	MULTAN	0.00	0.00	0.23	2.35	0.64	3.20	0.89	3.77
14	20 Settlements nearby Basti Moharan	H,M,L	MULTAN	0.00	0.00	0.15	3.20	0.85	3.89	1.10	4.03
15	6 Settlements nearby Basti Zahidan	H,M,L	MULTAN	0.00	0.00	0.06	2.72	0.21	3.19	0.65	3.46
16	Basti Nachang and nearby 7 Settlements	H,M,L	MULTAN	0.00	0.00	0.09	1.69	0.53	2.57	1.15	3.19
17	8 Settlements nearby Shahpur	H,M,L	MULTAN	0.00	0.00	0.71	3.07	0.88	3.57	1.30	4.01
18	Basira and nearby 8 Settlements	H,M,L	MULTAN	0.00	0.00	0.33	2.08	0.92	3.00	1.50	3.58
19	Basti Darhiwali and nearby 8 Settlements	H,M,L	MULTAN	0.00	0.00	0.31	2.43	1.26	3.37	1.88	4.00
20	Basti Drigh and nearby 12 Settlements	H,M,L	MULTAN	0.00	0.00	2.12	2.21	3.10	3.18	3.73	3.82
21	Basti Ganga and nearby 22 Settlements	H,M,L	MUZAFFARGARH	0.00	0.00	0.09	1.39	0.10	2.06	0.46	2.49
22	Basti Jam and nearby 6 Settlements	H,M,L	MULTAN	0.00	0.00	0.07	2.08	0.27	2.97	0.88	3.58
23	Basti Lag and nearby11 Settlements	H,M,L	MULTAN	0.00	0.00	2.02	2.23	2.17	3.18	2.81	3.82
24	Basti Langah and nearby 2 Settlements	H,M,L	MULTAN	0.00	0.00	0.15	1.86	1.02	2.73	1.59	3.30
25	Basti Sag and nearby 4 Settlements	H,M,L	MULTAN	0.00	0.00	0.06	1.15	0.17	2.14	0.58	2.76
26	Basti Walwat	H,M,L	MULTAN	0.00	0.00	1.02	2.22	1.98	3.18	2.61	3.81
27	Day di Basti and nearby 2 Settlements	H,M,L	MULTAN	0.00	0.00	0.80	3.03	1.68	3.19	2.25	3.76
28	Daye Di Basti and nearby 1 Settlement	H,M,L	MULTAN	0.00	0.00	0.19	1.50	1.15	2.46	1.78	3.09
29	Ganjarian Di Basti and nearby 6 Settlements	H,M,L		0.00	0.00	0.34	1.65	1.02	2.33	1.44	2.75
30	Gul Di Bhindi and nearby 16 Settlements	H,M,L	MULTAN	0.00	0.00	1.47	2.14	2.37	3.03	3.00	4.07
31	Janda Sandila and nearby 7 Settlements	H,M,L	MULTAN	0.00	0.00	0.16	0.76	0.21	2.83	0.36	3.43
32	JHANGi Ahmad Khan	H,M,L	MULTAN	0.00	0.00	0.04	0.61	0.06	1.51	0.11	2.11
33	Jhipal and nearby 4 Settlements	H,M,L		0.00	0.00	1.00	2.94	1.82	3.74	2.38	3.89
34	Kach Piran	H,M,L	MULTAN	0.00	0.00	0.88	3.09	1.76	3.30	2.38	3.59
35	Magwala	H,M,L	MUZAFFARGARH	0.00	0.00	0.32	2.06	0.66	2.95	1.27	3.56
36	Malkan and nearby 7 Settlements	H,M,L	MULTAN	0.00	0.00	0.43	2.82	1.32	3.71	1.93	3.93
37	Markana and nearby 6 Settlements	H,M,L	MULTAN	0.00	0.00	0.24	1.69	1.14	2.60	1.74	3.19
38	Maulvi Atta Di Basti and nearby 7 Settlements	H,M,L	MULTAN	0.00	0.00	2.00	3.03	2.93	3.95	3.48	4.05
39	Paladpur and nearby 4 Settlement	H,M,L	MULTAN	0.00	0.00	1.86	2.03	2.66	2.82	3.22	3.38
40	Qureshiwala and nearby 6 Settlements	H,M,L	MULTAN	0.00	0.00	1.16	1.74	1.83	2.41	2.26	2.84
41	Ranjhe di Basti and nearby 9 Settlements	H,M,L	MULTAN	0.00	0.00	1.17	3.03	2.06	3.21	2.67	3.82
42	Shahr Sultan and nearby 4 Settlements	H,M,L	MUZAFFARGARH	0.00	0.00	0.32	1.95	0.76	2.87	0.82	3.45
43	Shinni Miani and nearby 5 Settlements	H,M,L	MULTAN	0.00	0.00	0.41	3.03	1.40	3.24	2.02	3.85
44	Tharowali and nearby 2 Settlements	H,M,L	MULTAN	0.00	0.00	0.01	2.14	0.02	3.04	0.04	3.64
45	Thatta Makhdumpur and nearby 1 Settlement	H,M,L	MULTAN	0.00	0.00	0.07	0.63	0.40	1.30	0.83	1.73
46	Tibbi Khoranwali and nearby 8 Settlements	H,M,L	MUZAFFARGARH	0.00	0.00	0.04	2.93	0.21	3.60	0.63	4.03
47	Wachha Sandila and nearby 14 Settlements	H,M,L	MULTAN	0.00	0.00	0.93	2.28	1.49	3.19	2.19	3.78
48	Waddi Basti and nearby 10 Settlements	H,M,L	MUZAFFARGARH	0.00	0.00	0.01	1.75	0.09	2.44	0.29	2.85
49	1 Settlement nearby Jatla	M,L	MULTAN	0.00	0.00	0.00	0.00	0.34	1.90	1.23	2.33
50	1 Settlement nearby Mianwala Khu	M,L	MULTAN	0.00	0.00	0.00	0.00	0.88	2.66	1.72	3.21
51	2 Settlements nearby Faizpur	M,L	MUZAFFARGARH	0.00	0.00	0.00	0.00	0.25	1.58	0.76	2.12
52	5 Settlements nearby Wigwali	M,L	MUZAFFARGARH	0.00	0.00	0.00	0.00	0.08	2.72	1.88	3.29
53	Basti Arain and nearby 4 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	2.79	3.90	3.39	4.05
54	Basti Baknsha and nearby 4 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	0.09	2.05	0.67	2.63
55	Basti Jafar and nearby 4 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	1.00	2.53	1.56	3.10
56	Basti Jamwali and nearby 12 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	1.28	3.39	1.87	3.98
57	Basti Karmunwala and nearby 5 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	2.52	3.02	3.62	4.06
58	Basti Laliwala and nearby 3 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	0.16	3.82	0.29	3.94
59	Bhanda and nearby 14 Settlements	M,L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.06	1.68	0.66	2.28
60	Bindah and nearby 15 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	0.88	2.89	1.44	3.46
61	Indrar and nearby 10 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	0.80	3.36	1.96	3.95
62	Khan Bela and nearby 3 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	1.25	2.54	2.68	3.16
63	Langar and nearby 6 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	0.18	1.75	0.75	2.33
64	Lar Janub	M,L	MULTAN	0.00	0.00	0.00	0.00	0.84	3.60	1.45	4.21
65	Nauraja Bhutta and nearby 1 Settlement	M,L	MULTAN	0.00	0.00	0.00	0.00	0.13	1.65	0.76	2.26
66	Rai Da Kotla and nearby 9 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	1.92	2.55	2.53	3.16
67	Seri Shajra and nearby 5 Settlements	M,L	MULTAN	0.00	0.00	0.00	0.00	0.87	3.23	1.27	3.64
68	1 Settlement nearby Jalalpur Pirwala	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.91
69	1 Settlement nearby Shaikh Ismail	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.85
70	12 Settlements nearby Chah Aduwala	L	MUZAFFARGARH	0.00	0.00	0.00	0.00	0.00	0.00	0.06	3.92
71	4 Settlements nearby Basti Lang	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.12	3.47
72	Abaura Janubi and nearby 2 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.62
73	Basti Darhi and nearby 3 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	3.21	5.18
74	Basti Hafiz and nearby 4 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.46	1.43
75	Basti Kachcha Pakka and nearby 1 Settlement	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.11	1.25
76	Basti Mihr Bakhsh and nearby 1 Settlement	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.56
77	Basti Ponta and nearby 17 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	2.63	3.38
78	Basti Ramzanwal and nearby 13 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.35
79	Basti Aziz	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.93
80	Chhatran Di Basti and nearby 7 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.66	1.26
81	Darapur and nearby 3 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.96
82	Darhiwala and nearby 6 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.41	1.50
83	Gang	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.36	1.12
84	Nurwala and nearby 1 Settlement	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.85
85	Rawan and nearby 5 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.52
86	Shujaatabad and nearby 8 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.36	1.14
87	Tibbi Suhrab and nearby 3 Settlements	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.46
88	Ziarat Abdullah Bukhari	L	MULTAN	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08

Chenab River - Sheet No.18

Sr. No.	Settlement Name	Zone*	District	Inundation Depth at Discharge of 200,000 Cusec below Panjnad		Inundation Depth at Discharge of 420,000 Cusec below Panjnad		Inundation Depth at Discharge of 640,000 Cusec below Panjnad		Inundation Depth at Discharge of 870,000 Cusec below Panjnad	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Adil Khan and nearby 6 Settlements	VH,H,M,L	BAHAWALPUR	0.00	2.51	2.66	3.00	3.19	3.53	3.57	3.91
2	BAHAWALPUR Chalwan and nearby 19 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.86	1.92	2.46	2.66	3.21	3.17	3.74
3	Basti Jalalwali and nearby 8 Settlements	VH,H,M,L	BAHAWALPUR	0.00	0.73	0.54	1.13	1.22	1.81	1.70	2.29
4	Basti Kachchi and nearby 21 Settlements	VH,H,M,L	MULTAN	0.00	2.21	0.09	2.67	0.68	3.43	1.17	3.93
5	Basti Kalarwali and nearby 3 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.14	0.01	1.52	0.28	2.22	0.77	2.72
6	Basti Muhammad Ali and nearby 4 Settlements	VH,H,M,L	BAHAWALPUR	0.00	2.27	0.37	2.70	0.98	3.32	1.41	3.76
7	Basti Panwan and nearby 9 Settlements	VH,H,M,L	BAHAWALPUR	0.00	2.38	0.06	2.82	0.29	3.29	0.34	3.65
8	Basti Tanwari and nearby 4 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.74	0.69	2.05	1.36	2.72	1.83	3.20
9	Basti Tanwian and nearby 5 Settlements	VH,H,M,L	MULTAN	0.00	2.08	0.81	2.63	1.46	3.28	1.91	3.74
10	Basti Zahidan and nearby 24 Settlements	VH,H,M,L	MULTAN	0.00	1.96	0.76	2.40	1.45	3.10	1.95	3.60
11	Bindah Kot Imam Din and nearby 24 Settlements	VH,H,M,L	MULTAN	0.00	1.87	0.67	2.02	1.41	2.76	1.91	3.25
12	Gadian Di Basti and nearby 4 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.91	0.12	2.15	1.08	2.59	1.79	3.31
13	Jhabil Ghulam Farid and nearby 3 Settlements	VH,H,M,L	MUZAFFARGARH	0.00	1.62	1.41	1.94	2.00	2.53	2.41	2.94
14	Kajjal Miani and nearby 13 Settlements	VH,H,M,L	MULTAN	0.00	0.91	0.72	1.09	1.36	1.92	1.84	2.46
15	Mahbubabad and nearby 4 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.12	0.66	1.30	1.22	1.86	1.62	2.26
16	Muhammad Kabirabad and nearby 10 Settlements	VH,H,M,L	MUZAFFARGARH	0.00	1.28	0.01	1.79	0.02	2.30	0.39	2.67
17	Pakke Di Basti and nearby 2 Settlements	VH,H,M,L	BAHAWALPUR	0.00	1.45	0.03	1.96	0.13	2.64	0.62	3.13
18	Puran Di Basti and nearby 1 Settlement	VH,H,M,L	BAHAWALPUR	0.00	0.83	0.20	1.24	0.42	1.79	0.82	2.20
19	1 Settlement nearby Basti Ghulam Muhammad	H,M,L	MULTAN	0.00	0.00	2.15	4.60	3.02	5.47	3.58	6.03
20	1 Settlement nearby Basti Langah	H,M,L	MULTAN	0.00	0.00	0.57	2.03	1.41	2.89	1.96	3.45
21	1 Settlement nearby Ilahi Bakhsh Jam	H,M,L	BAHAWALPUR	0.00	0.00	2.27	3.23	2.88	3.84	3.31	4.28
22	13 Settlements nearby Dammarwala	H,M,L	MUZAFFARGARH	0.00	0.00	0.04	2.37	0.46	3.10	0.67	3.57
23	3 Settlements nearby Basti Chalbani	H,M,L	MUZAFFARGARH	0.00	0.00	0.10	3.17	0.64	3.29	0.93	3.93
24	4 Settlements nearby Basti Jafar	H,M,L	MULTAN	0.00	0.00	0.08	2.85	0.12	3.72	0.56	4.29
25	4 Settlements nearby Basti Toni	H,M,L	MULTAN	0.00	0.00	0.13	4.37	0.57	5.22	0.68	5.77
26	4 Settlements nearby Inayatpur	H,M,L	BAHAWALPUR	0.00	0.00	0.10	3.13	0.65	3.34	0.94	3.54
27	Basti Adil Khan and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	1.33	2.84	1.84	3.35	2.22	3.73
28	Basti Arain and nearby 9 Settlements	H,M,L	MULTAN	0.00	0.00	0.66	2.52	1.35	3.20	1.81	3.67
29	Basti Borian and nearby 4 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	1.77	2.61	2.34	3.19	2.75	3.62
30	Basti Chakar and nearby 8 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.58	2.84	1.15	3.43	1.56	3.85
31	Basti Jhalin and nearby 9 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.39	2.07	1.00	2.68	1.45	3.13
32	Basti Nur Muhammad and nearby 2 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.08	2.19	0.28	2.75	0.69	3.16
33	Basti Nar	H,M,L	BAHAWALPUR	0.00	0.00	1.12	3.17	1.67	3.71	2.06	4.01
34	Binda Paolian and nearby 3 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.42	2.66	0.80	3.13	1.22	3.48
35	Jhipal	H,M,L	BAHAWALPUR	0.00	0.00	0.01	2.94	0.06	3.74	0.40	4.03
36	Julian Di Basti	H,M,L	BAHAWALPUR	0.00	0.00	0.08	2.46	0.21	3.01	0.62	3.42
37	Khairpur Daha and nearby 4 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	1.53	2.28	2.05	2.80	2.44	3.19
38	Khurampur and nearby 5 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	1.02	2.35	1.29	2.98	1.56	3.43
39	Qaster Di Basti and nearby 1 Settlement	H,M,L	BAHAWALPUR	0.00	0.00	0.11	1.24	0.64	1.78	1.03	2.17
40	Sari Basti and nearby 5 Settlements	H,M,L	BAHAWALPUR	0.00	0.00	0.06	2.34	0.63	2.92	1.05	3.34
41	1Settlement nearby Basti Gabbal	M,L	MUZAFFARGARH	0.00	0.00	0.00	0.00	0.32	1.47	0.74	2.03
42	Hassu Di Basti	M,L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.63	3.16	0.86	3.54
43	Tahraned Bisharat and nearby 2 Settlements	M,L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.11	0.32	0.49	0.71
44	1 Settlement nearby Basti Jangre	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	1.03	1.53
45	Rattar Lal Khan	L	BAHAWALPUR	0.00	0.00	0.00	0.00	0.00	0.00	0.06	1.03

Zone*

VH= Inundation Extent Corresponding to PID Medium flood limit

H= High Risk Inundation Zone corresponds to 5 yr return period flood
M= Medium Risk Inundation Zone corresponds to 15 yr return period flood
L= Low Risk Inundation Zone corresponds to 50 yr return period flood