



Central Water Commission
Upper Ganga Basin Organisation, Lucknow
Daily Flood Situation Report Cum Advisories
Date: 26 AUGUST, 2020

FSR No.65

Dated 26-08-2020

1. Weather forecast by IMD

I. SYNOPTIC SITUATION:

- ♦ The Well-Marked Low Pressure Area over North Bay of Bengal & neighbourhood now lies over Northwest Bay of Bengal and adjoining coastal areas of Gangetic West Bengal and north Odisha. The associated cyclonic circulation extends upto 7.6 km above mean level tilting southwestwards with height.
- ♦ The Monsoon Trough at mean sea level now passes through Ganganagar, Hissar, Hardoi, Gorakhpur, Patna, Jamshedpur, the centre of Well-Marked Low Pressure Area over Northwest Bay of Bengal and adjoining coastal areas of Gangetic West Bengal and north Odisha and thence east southeastwards to Northeast Bay of Bengal.
- ♦ The Low Pressure Area over south Pakistan & neighbourhood has become less marked. However, the associated cyclonic circulation over south Pakistan & neighbourhood extending upto 5.8 km above mean sea level tilting southwestwards with height persists.
- ♦ A cyclonic circulation between 1.5 km and 2.1 km above mean sea level lies over northwest Rajasthan and adjoining areas of Haryana and Punjab.

II. a) DETERMINISTIC FORECAST (QPF):

Sr. No.	BASIN NAME	SUBBASIN CODE/NAME	QPF (mm)		
			Day-1	Day-2	Day-3
1	Alaknanda	Alaknanda	0.1-10	0.1-10	0.1-10
2	Bhagirathi	Bhagirathi	0.1-10	0.1-10	0.1-10
3	Ganga	Chhatnag to Mirzapur	11-25	11-25	0.1-10
		Narora to Phaphamau	0.1-10	11-25	0.1-10
		Phaphamau to Ballia	11-25	0.1-10	0.1-10
		Gomti	0.1-10	0.1-10	0.1-10
		Sai	0.1-10	11-25	0.1-10
		Upper Ganga	0.1-10	11-25	11-25
4	Ghaghra	Lower Ghaghra	0.1-10	0.1-10	0.1-10
		Middle Ghaghra	0.1-10	0.1-10	0.1-10
		Upper Ghaghra	0.1-10	0.1-10	0.1-10
5	Ramganga	Ramganga	0.1-10	11-25	11-25
6	Rapti	Rapti	11-25	0.1-10	0.1-10
7.	Sharda	Sharda	0.1-10	11-25	0.1-10

II (b) DETERMINISTIC FORECAST (DISTRIBUTION)

	BASIN NAME	SUBBASIN CODE/NAME	INTENSITY (I) & SPATIAL DISTRIBUTION (D)					
			Day-1		Day-2		Day-3	
			I	D	I	D	I	D
1	Alaknanda	Alaknanda	M	SCT	M	WS	M	WS
2	Bhagirathi	Bhagirathi	M	SCT	M	SCT	M	SCT
3	Ganga	Chhatnag to Mirzapur	M	SCT	M	WS	L	SCT
		Narora to Phaphamau	L	FWS	M	FWS	L	FWS
		Phaphamau to Ballia	M	WS	L	FWS	L	FWS
		Gomti	L	FWS	L	FWS	L	FWS
		Sai	L	FWS	M	WS	L	FWS
		Upper Ganga	L	SCT	M	WS	M	WS
4	Ghaghra	Lower Ghaghra	L	SCT	L	SCT	L	SCT
		Middle Ghaghra	L	SCT	L	SCT	L	SCT
		Upper Ghaghra	L	SCT	L	SCT	L	SCT
5	Ramganga	Ramganga	L	SCT	M	WS	M	WS
6	Rapti	Rapti	L	FWS	L	SCT	L	SCT
7.	Sharda	Sharda	L	SCT	M	WS	M	SCT

QPF in Ranges (mm)	UNLISTED	0	0.1-10	11-25	26-50	51-100	>100
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III. HEAVY RAINFALL WARNING:

NAME OF BASIN	NAME OF SUB- BASIN	Day-1		Day-2		Day-3	
		I	D	I	D	I	D
Alaknanda	Alaknanda			H	ISOL	H	ISOL
Bhagirathi	Bhagirathi			H	ISOL	H	ISOL
Ganga	Chhatnag to Mirzapur			H	ISOL	H	ISOL
	Narora to Phaphamau						
	Phaphamau to Ballia	H	ISOL				
	Gomti						
	Sai						
	Upper Ganga					H	ISOL
Ghaghra	Lower Ghaghra						
	Middle Ghaghra						
	Upper Ghaghra						
Ramganga	Ramganga					H	ISOL
Rapti	Rapti						
Sharda	Sharda					H	ISOL

Spatial Distribution of Rainfall		
DRY	Dry	No Station reported rainfall
ISOL	One or two Places	25% or less number of stations recorded rainfall 2.5 mm
SCT	At a few Places	26%-50% number of stations recorded rainfall 2.5 mm
FWS	At many Places	51%-75% number of stations recorded rainfall 2.5 mm
WS	At most places	76%-100% number of stations recorded rainfall 2.5 mm

Intensity of Rainfall					
MDry	NIL	0 cm	VL	Very Light Rainfall	Trace
L	Light Rainfall	Upto 1 cm	M	Moderate rainfall	02-06 cm
H	Heavy rainfall	07-11 cm	VH	Very Heavy rainfall	12-20 cm
EH	Extremely Heavy rainfall	21 cm or More			
ExH	Exceptionally Heavy Rainfall	When the amount is a value near about the highest recorded rainfall at or near the station for the month or season. However, this term will be used only when the actual rainfall amount exceeds 12 cm			

IV. PROBABILISTIC FORECAST

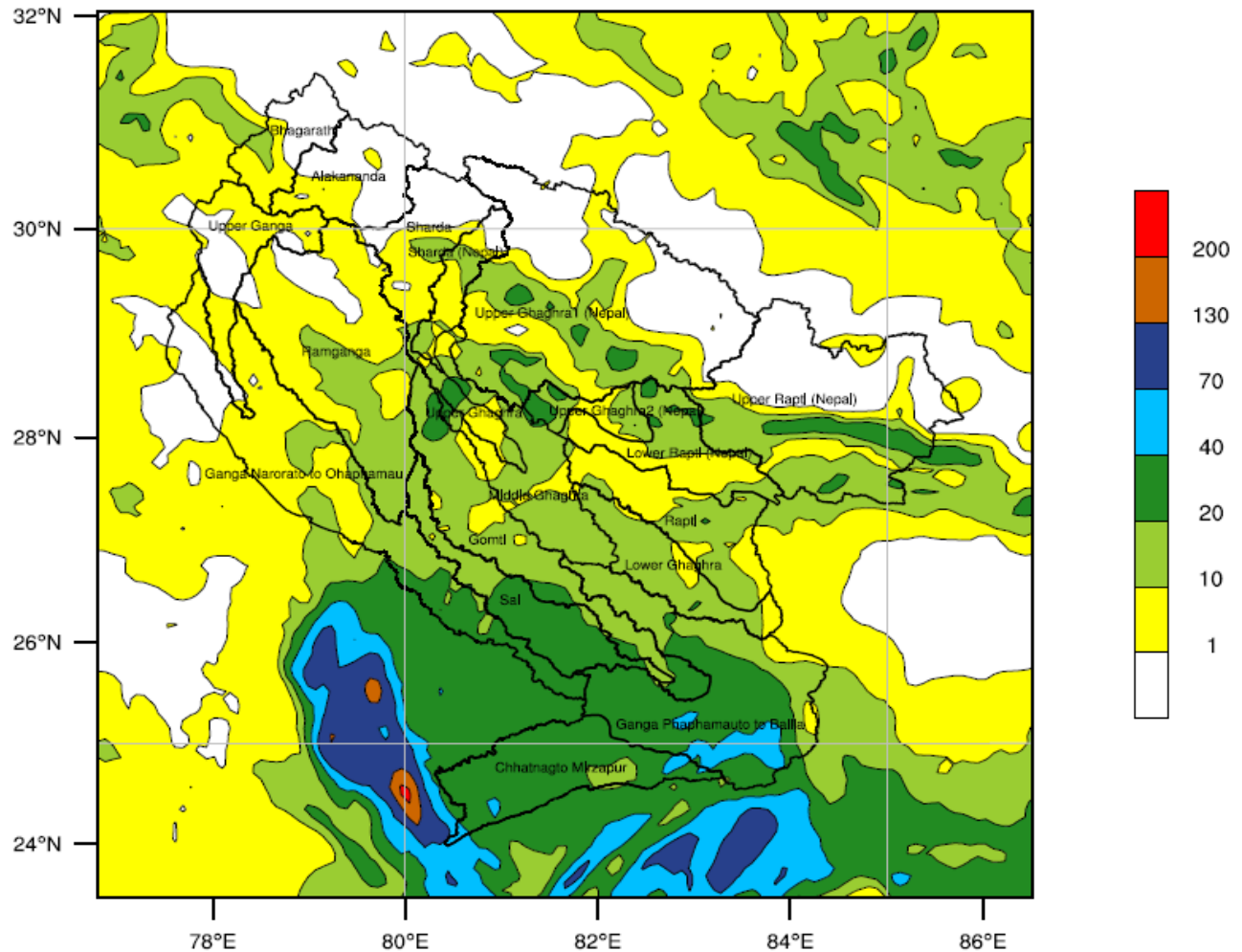
S. No.	BASIN NAME	SUBBASIN CODE/NAME	Day-1						Day-2						Day-3					
			0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm
1	Alaknanda	Alaknanda		75-100						25-50	50-75					25-50	50-75			
2	Bhagirathi	Bhagirathi		75-100						75-100						50-75	25-50			
3	Ganga	Chhatnag to Mirzapur		75-100						25-50	50-75					75-100				
		Narora to Phaphamau		75-100						25-50	50-75					75-100				
		Phaphamau to Ballia		25-50	50-75					75-100						75-100				
		Gomti		75-100						75-100						75-100				
		Sai		75-100						25-50	50-75					75-100				
		Upper Ganga		75-100						25-50	50-75					25-50	50-75			
4	Ghaghra	Lower Ghaghra		75-100						75-100						75-100				
		Middle Ghaghra		75-100						75-100						75-100				
		Upper Ghaghra		75-100						75-100						75-100				
5	Ramganga	Ramganga		75-100						25-50	50-75					25-50	50-75			
6	Rapti	Rapti		75-100						75-100						75-100				
7.	Sharda	Sharda		75-100						25-50	50-75					50-75	25-50			

Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100
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Init: 2020-08-26_00:00:00
 Vald: 2020-08-27_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(24hr)



Sub basin wise Average Rainfall Estimation

Alaknanda =	1 mm	Rapti =	10 mm
Bhagirathi =	3 mm	Sai =	21 mm
Chhatnagto Mirzapur =	29 mm	Sharda =	7 mm
Ganga Narorato Ohaphamau =	10 mm	Sharda (Nepal) =	5 mm
Ganga Phaphamauto Balia =	26 mm	Upper Ganga =	2 mm
Gomti =	16 mm	Upper Ghaghra =	7 mm
Lower Ghaghra =	13 mm	Upper Ghaghra1 (Nepal) =	14 mm
Lower Rapti (Nepal) =	12 mm	Upper Ghaghra2 (Nepal) =	15 mm
Middle Ghaghra =	13 mm	Upper Rapti (Nepal) =	8 mm
Ramganga =	7 mm		

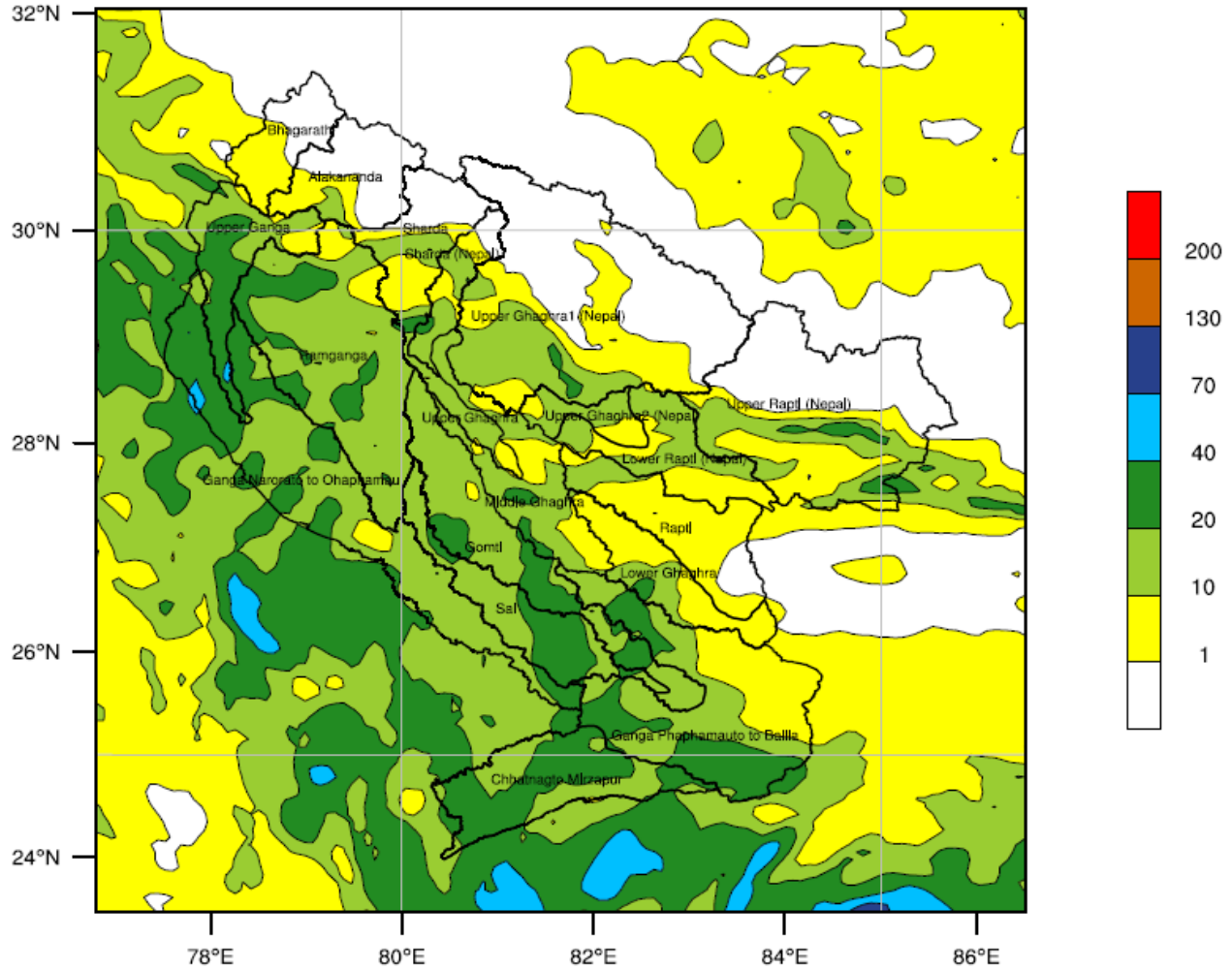
OUTPUT FROM WRF V3.6.1 MODEL

WE = 1001 ; SN = 945 ; Levels = 45 ; Dls = 9km ; Phys Opt = 16 ; PBL Opt = 2 ; Cu Opt = 5

Init: 2020-08-26_00:00:00
 Valld: 2020-08-28_03:00:00

FLOOD MET OFFICE LUCKNOW

IMD WRF Rainfall (mm) Forecast(48hr)



Sub basin wise Average Rainfall Estimation

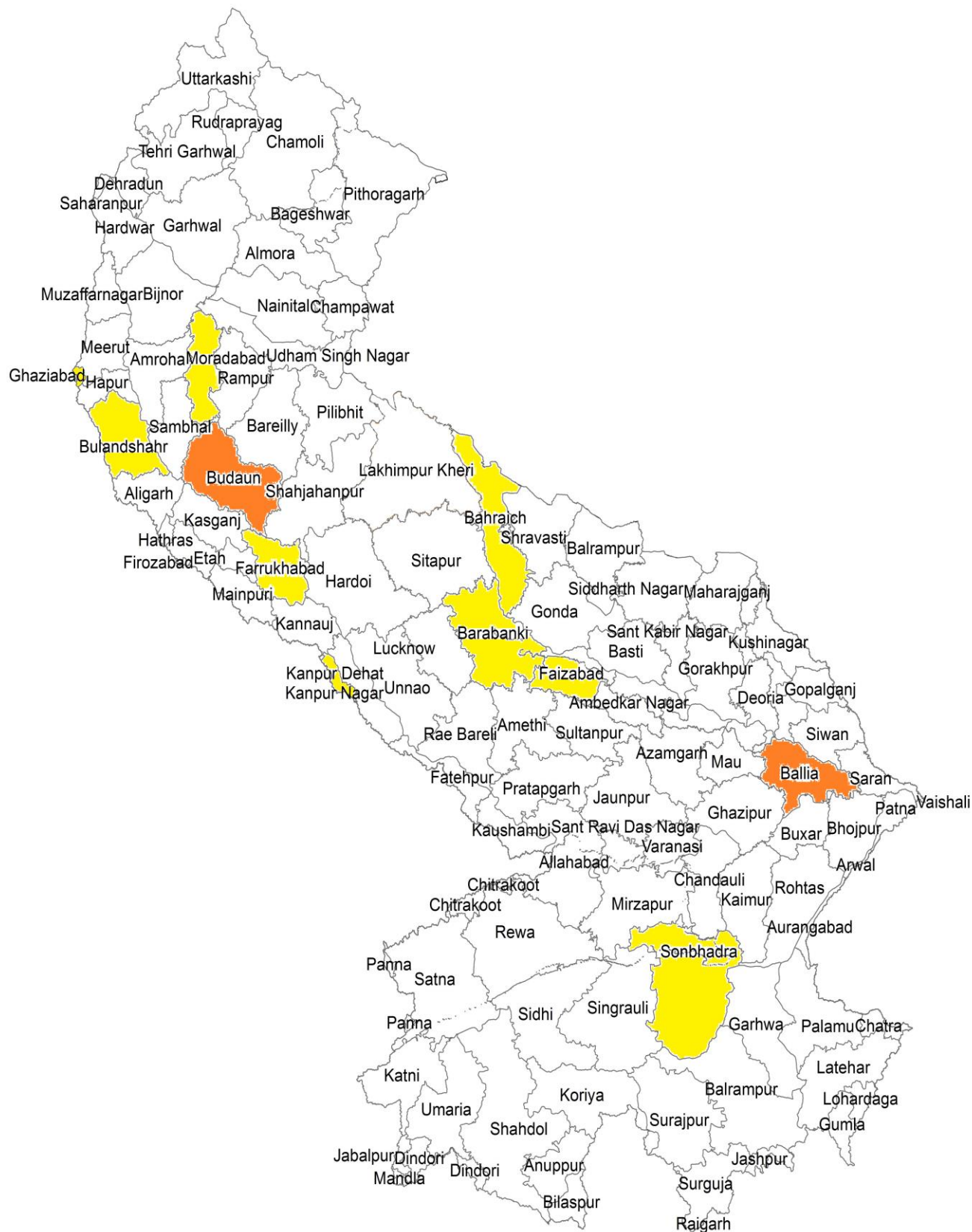
Alaknanda = 2 mm	Rapti = 5 mm
Bhagarathi = 2 mm	Sai = 19 mm
Chhatnagto Mirzapur = 22 mm	Sharda = 9 mm
Ganga Narorato Ohaphamau = 20 mm	Sharda (Nepal) = 7 mm
Ganga Phaphamauto Ballia = 16 mm	Upper Ganga = 20 mm
Gomti = 17 mm	Upper Ghaghra = 5 mm
Lower Ghaghara = 8 mm	Upper Ghaghra1 (Nepal) = 11 mm
Lower Rapti (Nepal) = 11 mm	Upper Ghaghra2 (Nepal) = 10 mm
Middle Ghaghara = 13 mm	Upper Rapti (Nepal) = 6 mm
Ramganga = 16 mm	

OUTPUT FROM WRF V3.6.1 MODEL

WE = 1001 ; SN = 945 ; Levels = 45 ; Dis = 9km ; Phys Opt = 16 ; PBL Opt = 2 ; Cu Opt = 5

2. Summary of flood situation as per CWC flood forecasting network

Flood Situation on 26 AUGUST, 2020



1. River Sarda at Paliakalan in KHERI district of Uttar Pradesh continues to flow in SEVERE SITUATION at 14:00 hrs today. At 14:00 hrs, it was flowing at a level of 154.16 with falling trend which is 0.06m above its Danger Level of 154.10m and 1.16m below its previous HFL of 155.32 m (2014-07-21).
2. River Ghagra at Turtipar in BALLIA district of Uttar Pradesh continues to flow in SEVERE SITUATION at 14:00 hrs today. At 14:00 hrs, it was flowing at a level of 64.52m with falling trend which is 0.51m above its Danger Level of 64.01 m and 1.48m below its previous HFL of 66.0 m (1998-08-28).
3. River Ghagra at Ayodhya in FAIZABAD district of Uttar Pradesh continues to flow in SEVERE SITUATION at 14:00 hrs today. At 14:00 hrs, it was flowing at a level of 92.74m with falling trend which is 0.01m above its Danger Level of 92.73 m and 1.27m below its previous HFL of 94.01 m (2009-10-11).
4. River Ganga at Kachhlabridge in BUDAN district of Uttar Pradesh continues to flow in SEVERE SITUATION at 08:00 hrs today. At 08:00 hrs, it was flowing at a level of 162.34m with steady trend which is 0.34m above its Danger Level of 162.0 m and 0.45m below its previous HFL of 162.79 m (2010-09-24).

2.1 Rainfall Situation

Amount of rainfall recorded at 8:30 hours IST of today (\geq 50 mm or more)

Name of Place (State)	Rainfall (in mm)

Note - No Station is in this situation Dated 26.08.2020

2.2 LEVEL FORECAST

LEVEL FORECAST		
S.No.	Flood Situations	No. of Forecasting Sites
A.	Extreme Flood Situation:	
	(Site (s) where the previous Highest Flood Level (HFL) is exceeded or equalized)	0
B.	Severe Flood Situation :	
	(Site(s) where water Level touching or exceeding the Danger Level but below Highest Flood Level(HFL)	02
C.	Above Normal Flood Situation:	
	(Site (s) where water level touching or exceeding the warning Level but below Danger Level)	06
Total Numbers of Sites above Warning Level (A+B+C)		08
INFLOW FORECAST		
Number of Sites for which inflow forecasts issued:		03
(Where inflow are equal or exceed the specified Threshold Limit for a particular reservoir/ barrage)		03

2.3 Above Normal (Water Level touching or exceeding the warning Level but below Danger Level)

Name of river	Flood Forecasting Sites	District	State	Danger Level(m)	Warning Level (m)	Previous Highest		Actual Level			Forecast			
						Level (m)	Date	Level (m)	Time	Trend	Level (m)	Date	Time	Trend
Ganga	Garhmukteshwar	Ghaziabad	U.P	199.33	198.33	199.9	2010	198.45	0800	R	198.40	27.08.20	0800	F
Ganga	Fatehgarh	Farukhabad	U.P	137.6	136.60	138.14	2010	137.52	0800	S	136.50	27.08.20	0800	F
Ganga	Ankinghat	Kanpur Dehat	U.P	124.0	123.0	124.49	2010	123.12	0800	S	123.30	27.08.20	0800	R
Ram Ganga	Moradabad	Moradabad	U.P	190.60	189.60	192.88	2010	190.30	0800	S	190.18	26.08.20	2000	F
Ghaghra	Elgin Bridge	Barabanki	U.P	106.07	105.07	107.616	2014	106.006	0800	F	105.87	27.08.20	0800	F
Ghaghra	Ayodhya	Faizabad	U.P	92.73	91.73	94.01	2009	92.78	0800	S	92.65	27.08.20	0800	F

2.4 Severe Flood Situation (Water Level touching or exceeding the Danger Level but below Highest Flood Level (HFL))

Name of river	Flood Forecasting Sites	District	State	Danger Level(m)	Warning Level (m)	Previous Highest		Actual Level			Forecast			
						Level(m)	Date	Level(m)	Time	Trend	Level (m)	Date	Time	Trend
Ghaghra	Turtipar	Baliya	U.P	64.01	63.01	66.00	1998	64.61	0800	F	64.45	27.08.20	0800	F
Ganga	Kachhla bridge	Budaun	U.P	161.00	162.00	162.79	2010	162.34	0800	S	162.25	27.08.20	0800	F

2.5 Extreme Flood Situation (Water Level exceeded or equalized Highest Flood Level (HFL))

Name of river	Flood Forecasting Sites	District	State	Danger Level(m)	Warning Level (m)	Previous Highest		Actual Level			Forecast			
						Level(m)	Date	Level(m)	Time	Trend	Level (m)	Date	Time	Trend

Note - No Station is in this situation Dated 26.08.2020

2.6 Inflow Forecast

Name of river	Flood Forecasting Sites	District	State	HFL(m)	FRL(m)	Previous Highest		Actual Level			Forecast			
						Discharge (Q)	Date	Discharge (Q)	Time	Trend	D (Q)	Date	Time	Trend
Sharda	Narora Barrage	Bulandshahr	U.P					2585.20	0800	S	2692.20	27.08.20	0800	F
Rihand	Rihand Dam	Sonbhadra	U.P.		265.18				0800	F	776.00	27.08.20	0800	R
Ghaghra	Katerniaghat	Bahraich	U.P.		138			3672.103	0800	R	3600.00	27.08.20	0800	R

Advisory on Hydro Meteorological Situation Expected from 27-08-2020 to 28-08-2020

As per rainfall pattern given in section II, Alaknanda, Bhagirathi, rivers are expected to receive moderate to heavy rain at scattered areas in next 48 hrs. Ganga river is expected to receive light to moderate rain at fairly widespread to widespread areas in next 48 hrs. Ghaghra, Ramganga, Sharda & Rapti river basins are expected to receive light to moderate rain at scattered to widespread areas in next 48 hours. Water level at most of CWC stations are expected to fall in next 48 hours. Level forecast will be issued if the level of river at stations are likely to touch or cross warning level. From the given QPF, Above normal flood like situation is expected in Ghaghra, Rapti & Sharda river basins.

अधिशसीअभियंता

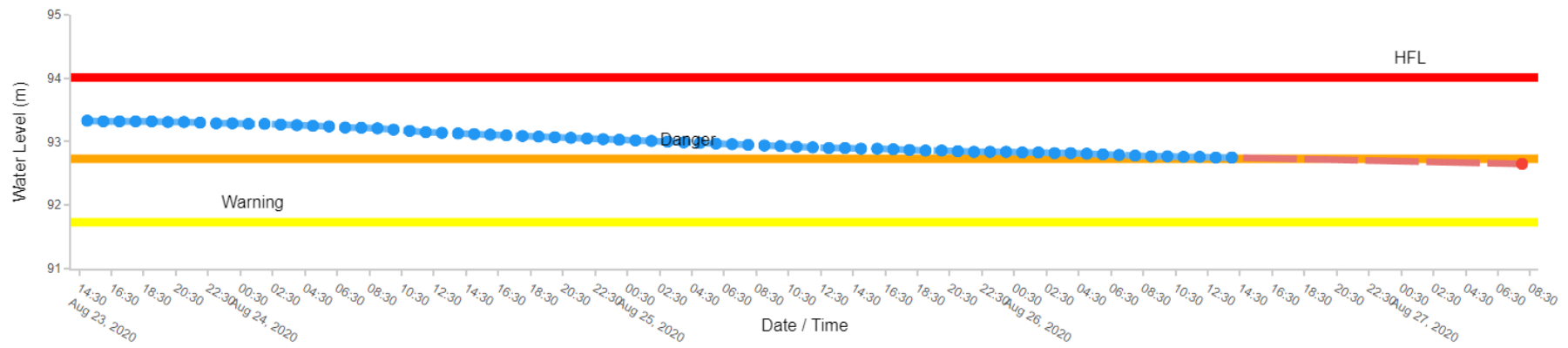
मध्य गंगा मण्डल -1 लखनऊ

Hydrograph view of - Ayodhya



District	Basin	River	Division
FAIZABAD	Ganga	Ghagra	Middle Ganga Division-I(MGD-I), Lucknow

● Forecasted Water Level
 ● Measured Water Level

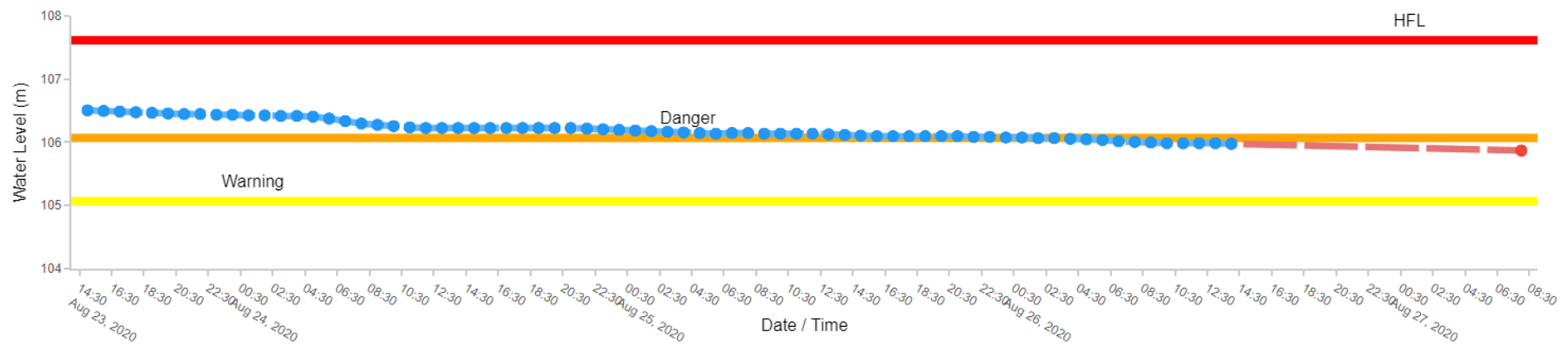


Hydrograph view of - Elginbridge



District	Basin	River	Division
BARABANKI	Ganga	Ghagra	Middle Ganga Division-I(MGD-I), Lucknow

● Forecasted Water Level
 ● Measured Water Level

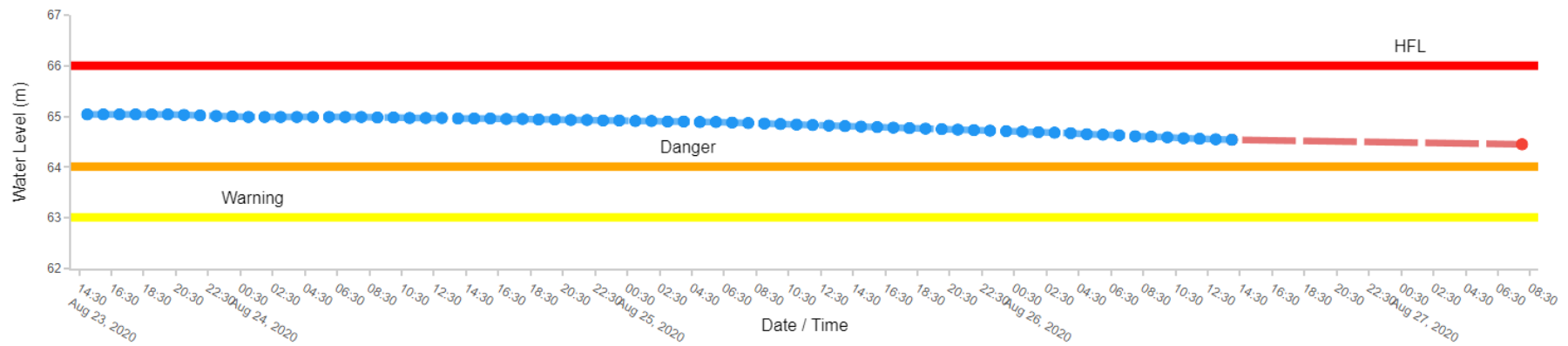


Hydrograph view of - Turtipar



District	Basin	River	Division
BALLIA	Ganga	Ghagra	Middle Ganga Division-I(MGD-I), Lucknow

● Forecasted Water Level
 ● Measured Water Level

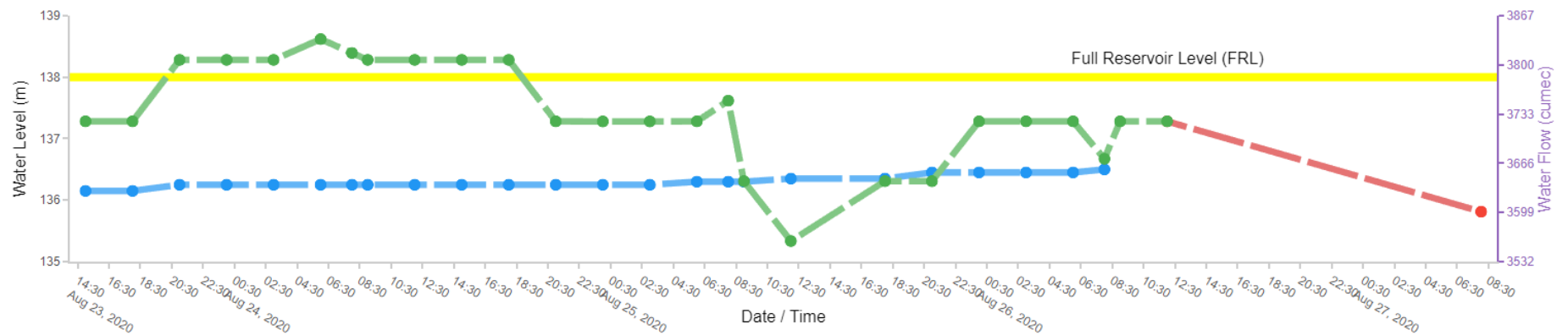


Hydrograph view of - Katerniaghat Barrage



District	Basin	River	Division
BAHRAICH	Ganga	Ghagra	Middle Ganga Division-I(MGD-I), Lucknow

Measured Water Level Forecasted Water Flow Inflow

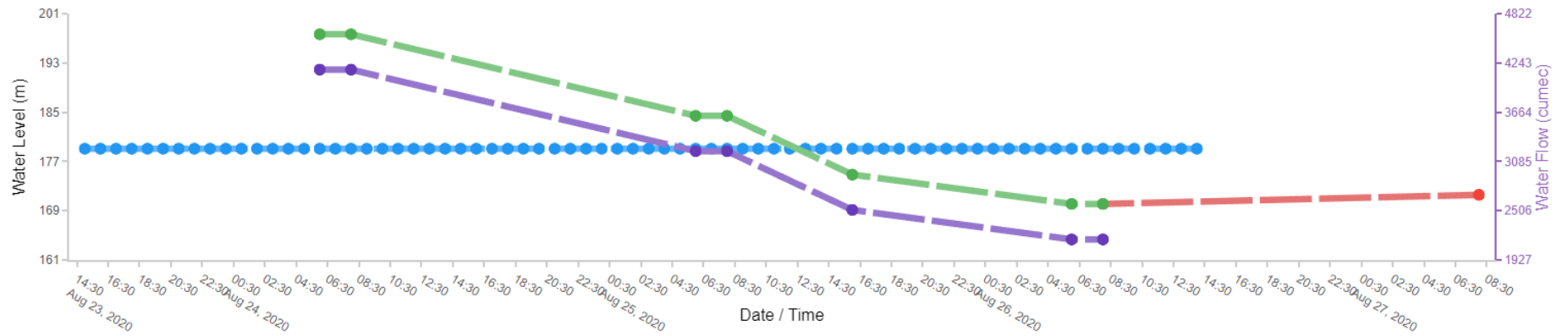


Hydrograph view of - NARORA Barrage



District	Basin	River	Division
BULANDSHAHR	Ganga	Ganga	Middle Ganga Division-II(MGD-II), Lucknow

Measured Water Level
Forecasted Water Flow
Inflow
Canal Outflow

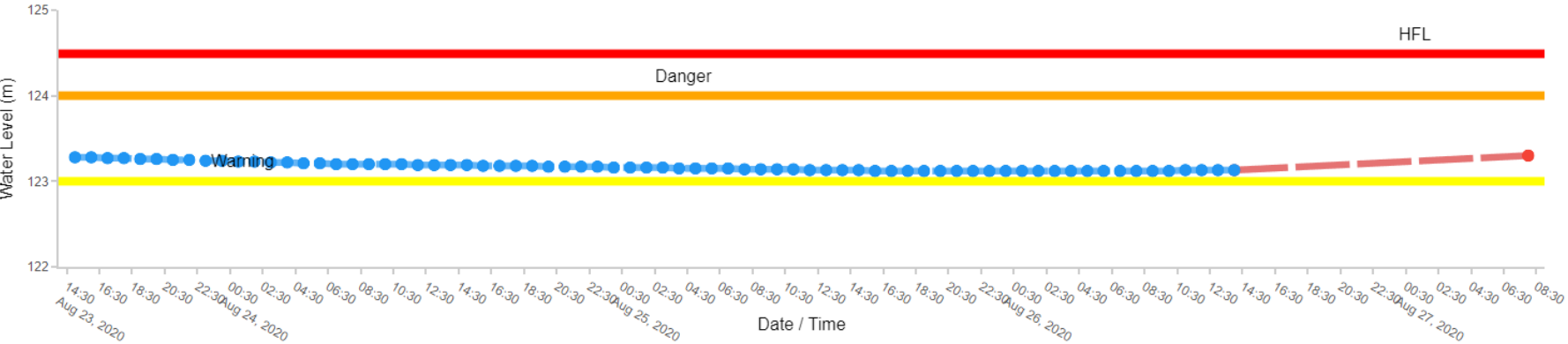


Hydrograph view of - Ankinghat



District	Basin	River	Division
KANPUR DEHAT	Ganga	Ganga	Middle Ganga Division-II(MGD-II), Lucknow

Forecasted Water Level Measured Water Level

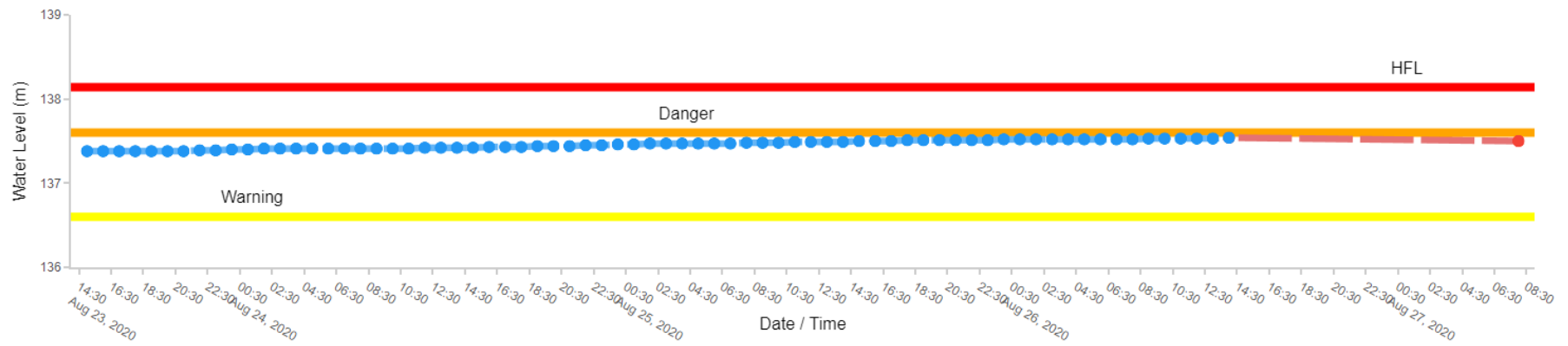


Hydrograph view of - Fatehgarh



District	Basin	River	Division
FARRUKHABAD	Ganga	Ganga	Middle Ganga Division-II(MGD-II), Lucknow

● Forecasted Water Level
 ● Measured Water Level

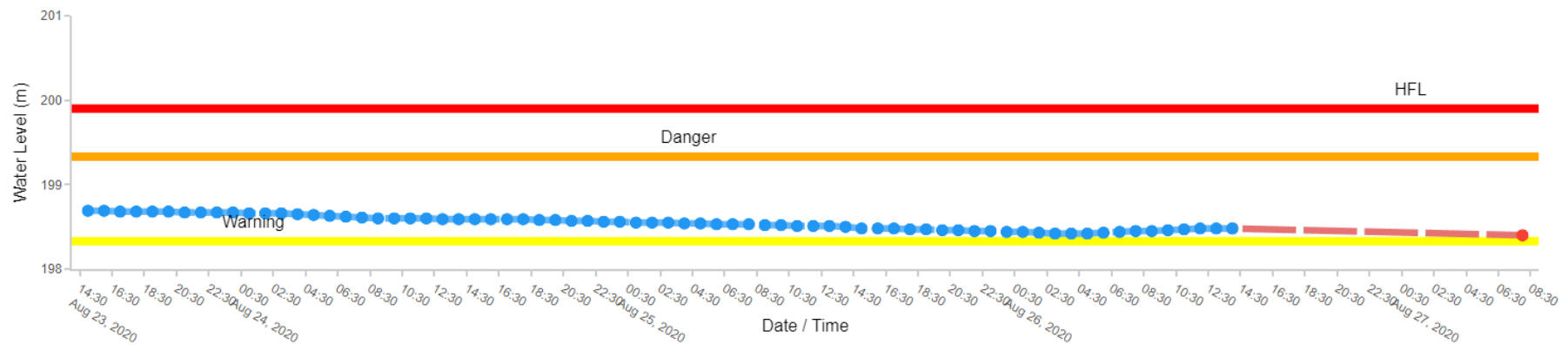


Hydrograph view of - Garhmukteshwar



District	Basin	River	Division
GHAZIABAD	Ganga	Ganga	Middle Ganga Division-II(MGD-II), Lucknow

—●— Forecasted Water Level
 —●— Measured Water Level

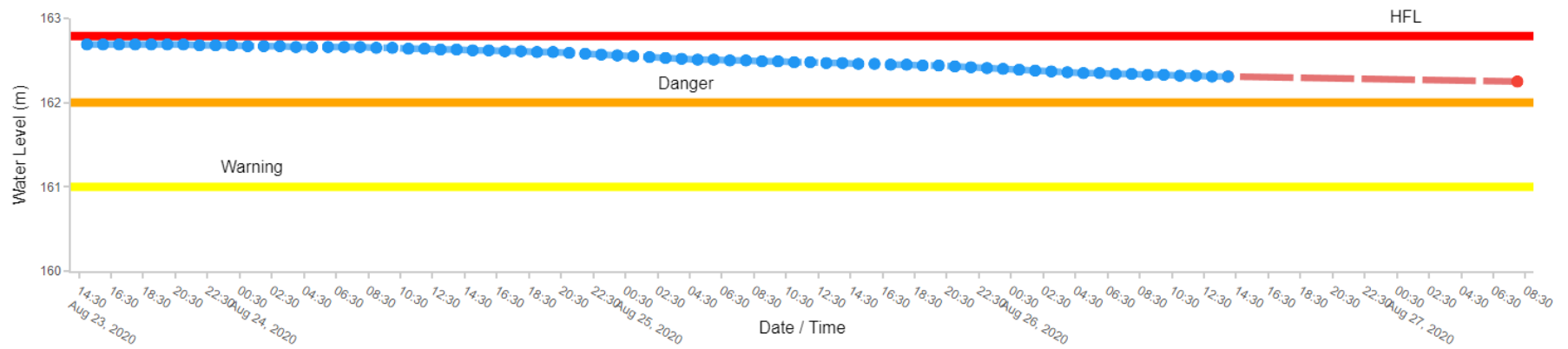


Hydrograph view of - Kachhlabridge



District	Basin	River	Division
BUDAUN	Ganga	Ganga	Middle Ganga Division-II(MGD-II), Lucknow

—●— Forecasted Water Level
 —●— Measured Water Level

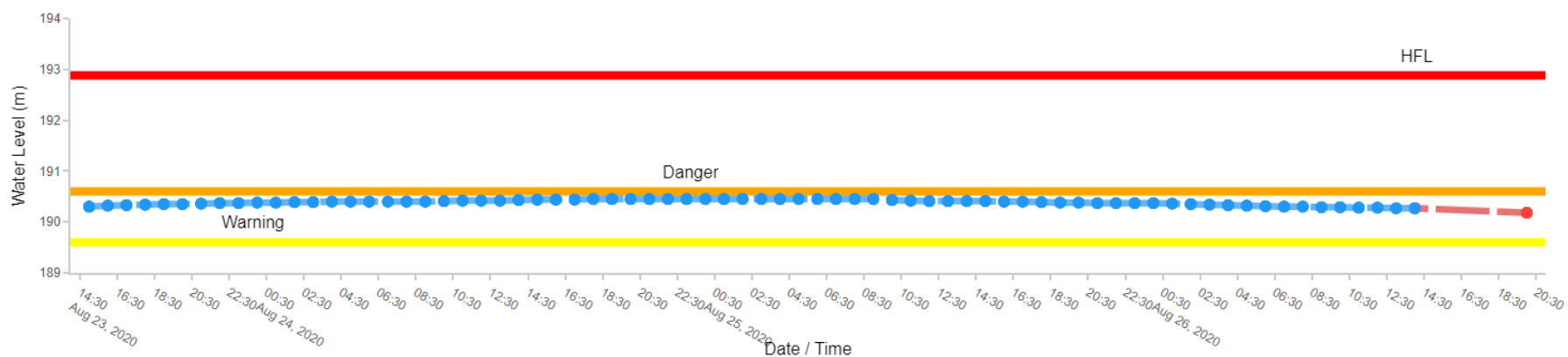


Hydrograph view of - Moradabad



District	Basin	River	Division
MORADABAD	Ganga	Ramganga	Middle Ganga Division-II(MGD-II), Lucknow

● Forecasted Water Level
 ● Measured Water Level



Hydrograph view of - RIHAND DAM



District	Basin	River	Division
VARANASI	Ganga	Rihand	Middle Ganga Division-III(MGD-III), Varanasi

● Measured Water Level
● Forecasted Water Flow
● Inflow

