



**Central Water Commission**  
**Upper Ganga Basin Organisation, Lucknow**  
**Daily Flood Situation Report Cum Advisories**  
**Date: 30 AUGUST, 2020**

**FSR No.69**

**Dated 30-08-2020**

**1. Weather forecast by IMD**

**I. SYNOPTIC SITUATION:**

♦ The Well-Marked Low Pressure Area over West Madhya Pradesh & adjoining East Rajasthan now lies as a low pressure area over the same region and the associated cyclonic circulation extends upto 7.6 km above mean sea level tilting southwestwards with height.

♦ Monsoon Trough at mean sea level now passes through Jaisalmer, centre of Low Pressure Area over West Madhya Pradesh & adjoining East Rajasthan, Sidhi, Churk, Patna, Goalpara and thence eastwards to Nagaland

**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	0	0	0.1-10
		Narora to Phaphamau	0.1-10	0	0.1-10
		Phaphamau to Ballia	0	0	0.1-10
		Gomti	0.1-10	0	0.1-10
		Sai	0	0	0.1-10
		Upper Ganga	0.1-10	0.1-10	0.1-10
4	Ghaghra	Lower Ghaghra	0	0	0.1-10
		Middle Ghaghra	0	0	0.1-10
		Upper Ghaghra	0.1-10	0	0.1-10
5	Ramganga	Ramganga	0.1-10	0	0.1-10
6	Rapti	Rapti	0	0	0.1-10
7.	Sharda	Sharda	0.1-10	0.1-10	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	VL	ISOL	VL	ISOL	VL	ISOL
2	Bhagirathi	Bhagirathi	VL	ISOL	VL	ISOL	VL	ISOL
3	Ganga	Chhatnag to Mirzapur	M.Dry	ISOL	M.Dry	ISOL	VL	ISOL
		Narora to Phaphamau	VL	ISOL	M.Dry	ISOL	VL	ISOL
		Phaphamau to Ballia	M.Dry	ISOL	M.Dry	ISOL	VL	ISOL
		Gomti	VL	ISOL	M.Dry	ISOL	L	SCT
		Sai	M.Dry	ISOL	M.Dry	ISOL	VL	ISOL
		Upper Ganga	VL	ISOL	VL	ISOL	M	SCT
4	Ghaghra	Lower Ghaghra	M.Dry	ISOL	M.Dry	ISOL	M	SCT
		Middle Ghaghra	M.Dry	ISOL	M.Dry	ISOL	M	SCT
		Upper Ghaghra	VL	ISOL	M.Dry	ISOL	M	SCT
5	Ramganga	Ramganga	VL	ISOL	M.Dry	ISOL	M	SCT
6	Rapti	Rapti	M.Dry	ISOL	M.Dry	ISOL	M	SCT
7.	Sharda	Sharda	VL	ISOL	VL	ISOL	VL	ISOL

<b>QPF in Ranges (mm)</b>	<b>UNLISTED</b>	<b>0</b>	<b>0.1-10</b>	<b>11-25</b>	<b>26-50</b>	<b>51-100</b>	<b>&gt;100</b>
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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						
Bhagirathi	Bhagirathi						
Ganga	Chhatnag to Mirzapur						
	Narora to Phaphamau						
	Phaphamau to Ballia					H	ISOL
	Gomti						
	Sai						
	Upper Ganga					H	ISOL
Ghaghra	Lower Ghaghra					H	ISOL
	Middle Ghaghra						
	Upper Ghaghra						
Ramganga	Ramganga					H	ISOL
Rapti	Rapti					H	ISOL
Sharda	Sharda						

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					
<del>MDry</del>	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

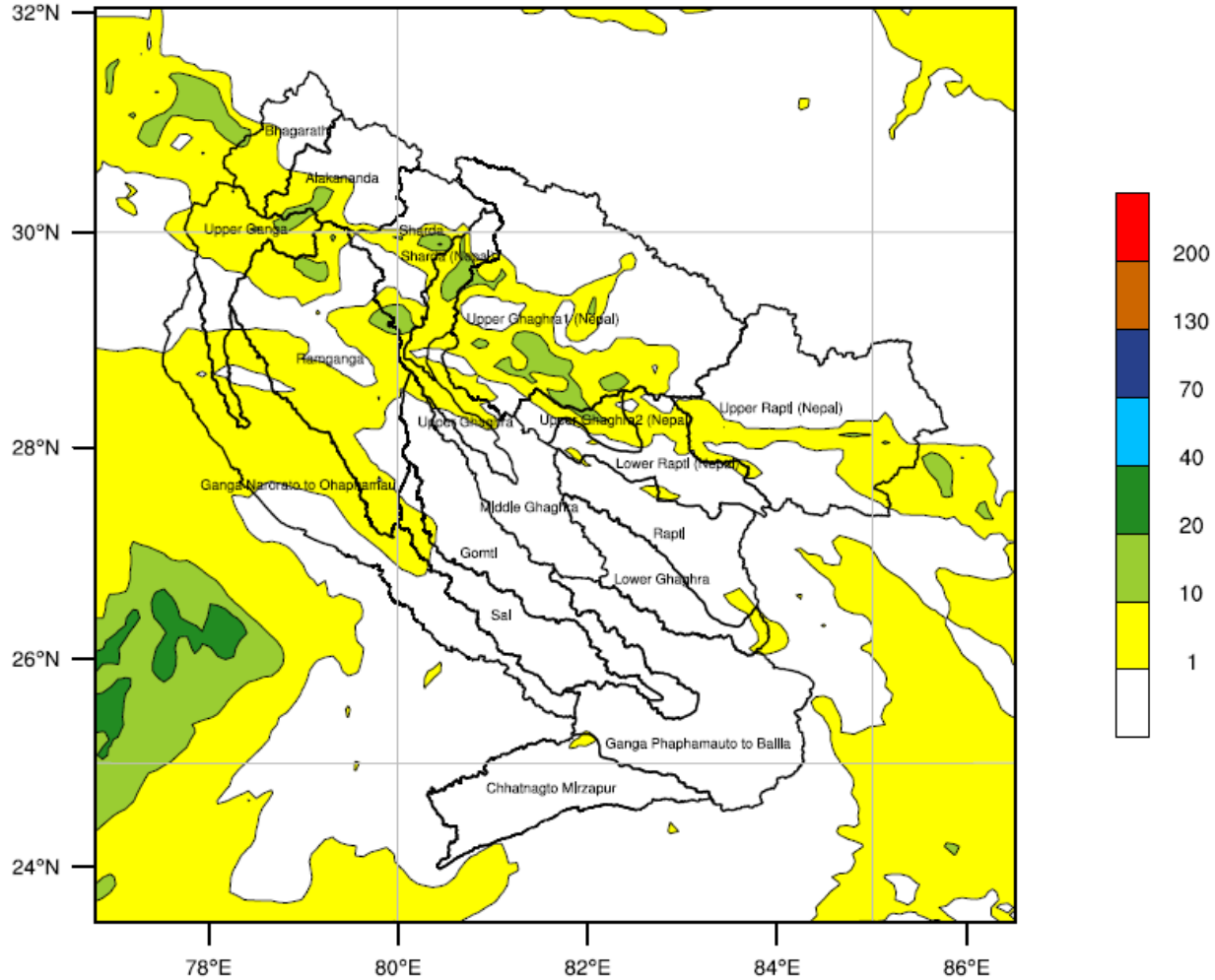
S. No.	BASIN NAME	SUBBASIN CODE/NAME	Day-1						Day-2						Day-3					
			0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm	0 mm	0.1-10 mm	11-25 mm	26-50 mm	51-100 mm	>100 mm
1	Alaknanda	Alaknanda		75-100						75-100						75-100				
2	Bhagirathi	Bhagirathi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

Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100
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Init: 2020-08-30\_00:00:00  
Vald: 2020-08-31\_03:00:00

## FLOOD MET OFFICE LUCKNOW

### IMD WRF Rainfall (mm) Forecast(24hr)



### Sub basin wise Average Rainfall Estimation

Alaknanda =	2 mm	Rapti =	0 mm
Bhagirathi =	3 mm	Sai =	0 mm
Chhatnagto Mirzapur =	0 mm	Sharda =	5 mm
Ganga Narorato Ohaphamau =	1 mm	Sharda (Nepal) =	3 mm
Ganga Phaphamauto Ballia =	0 mm	Upper Ganga =	4 mm
Gomti =	0 mm	Upper Ghaghra =	2 mm
Lower Ghaghara =	0 mm	Upper Ghaghra1 (Nepal) =	3 mm
Lower Rapti (Nepal) =	1 mm	Upper Ghaghra2 (Nepal) =	1 mm
Middle Ghaghara =	0 mm	Upper Rapti (Nepal) =	1 mm
Ramganga =	2 mm		

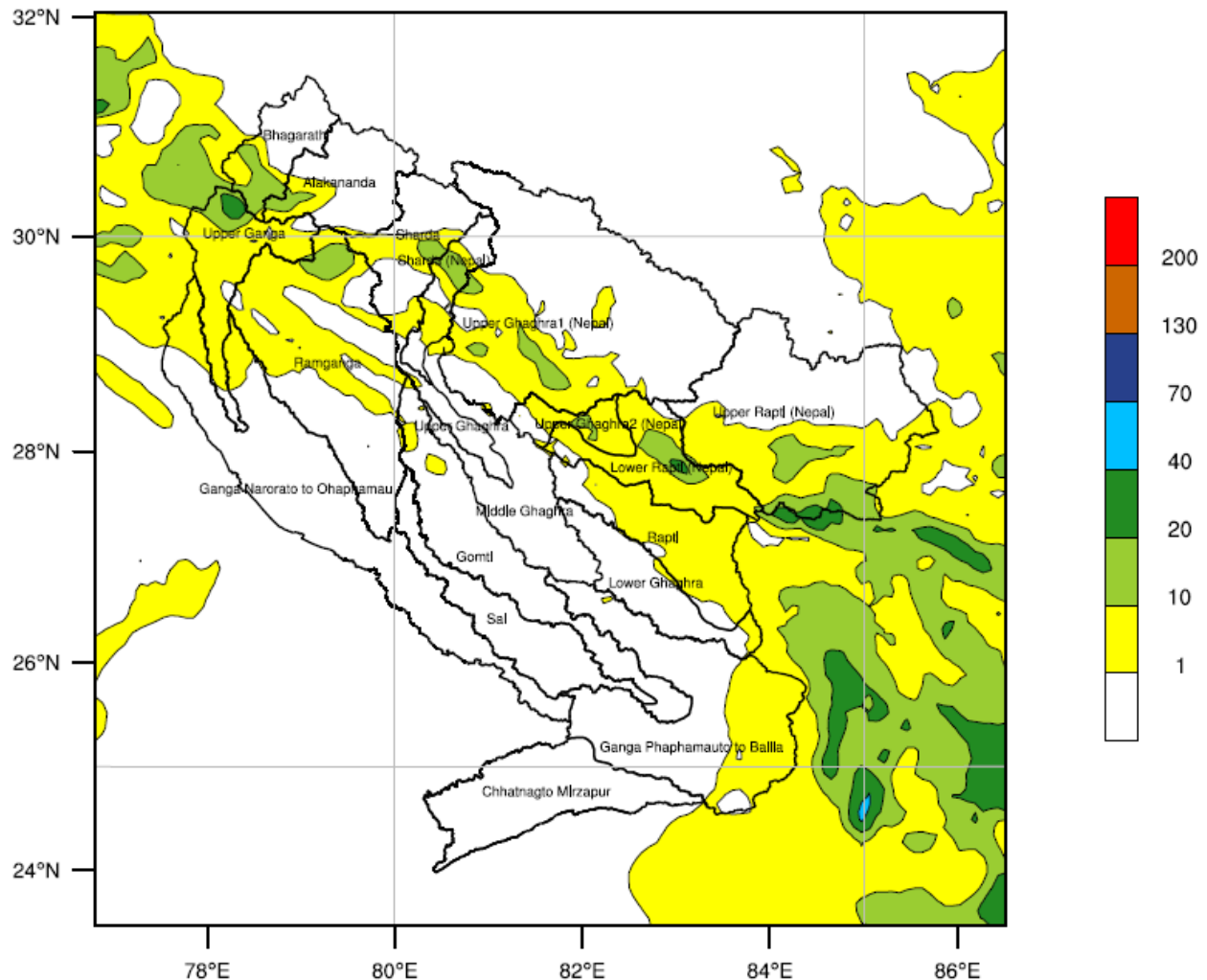
OUTPUT FROM WRF V3.6.1 MODEL

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

Init: 2020-08-30\_00:00:00  
 Valld: 2020-09-01\_03:00:00

## FLOOD MET OFFICE LUCKNOW

### IMD WRF Rainfall (mm) Forecast(48hr)



### Sub basin wise Average Rainfall Estimation

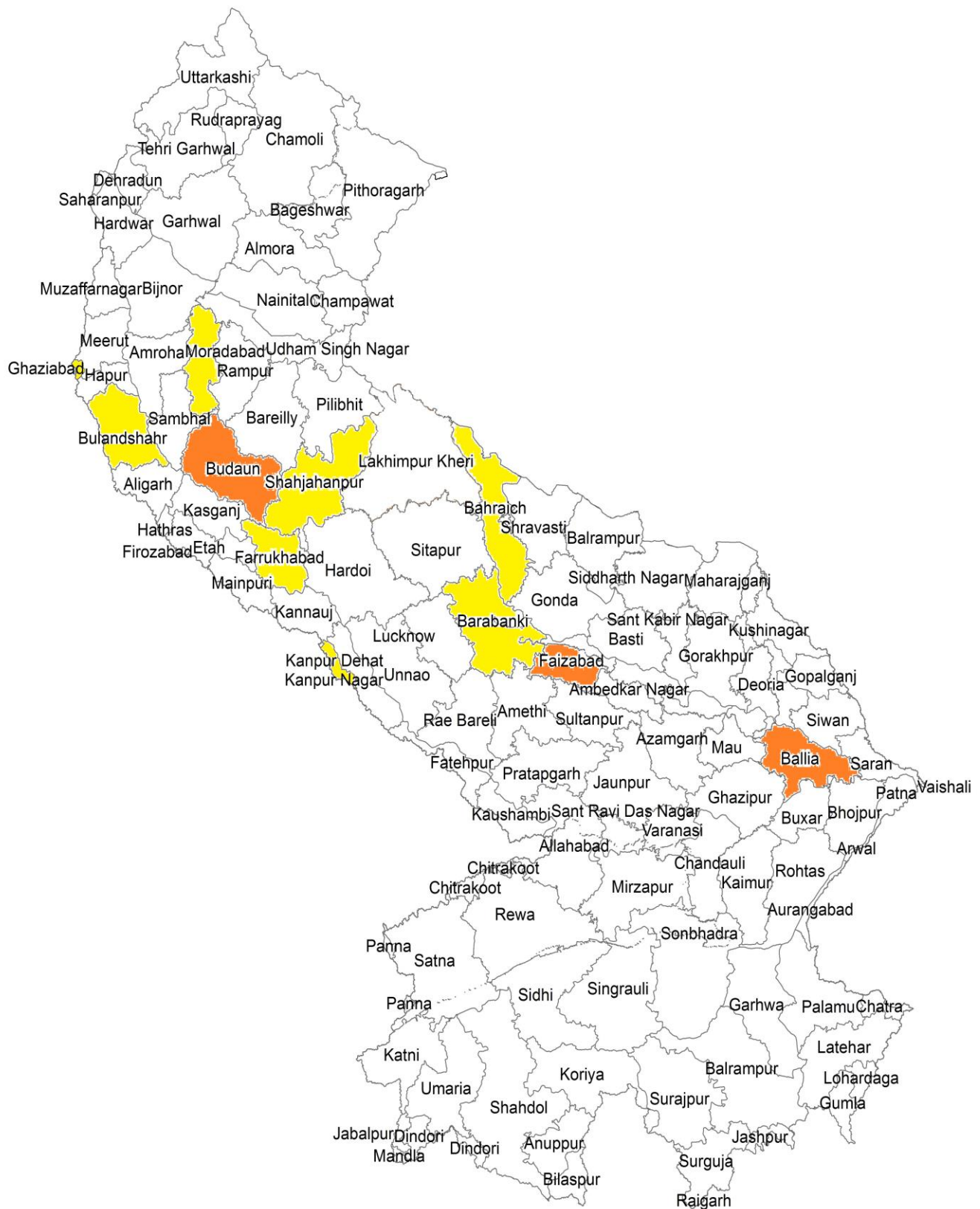
Alaknanda =	1 mm	Rapti =	3 mm
Bhagirathi =	4 mm	Sai =	0 mm
Chhatnagto Mirzapur =	0 mm	Sharda =	4 mm
Ganga Narorato Ohaphamau =	0 mm	Sharda (Nepal) =	1 mm
Ganga Phaphamauto Balia =	1 mm	Upper Ganga =	5 mm
Gomti =	0 mm	Upper Ghaghra =	2 mm
Lower Ghaghara =	0 mm	Upper Ghaghra1 (Nepal) =	5 mm
Lower Rapti (Nepal) =	6 mm	Upper Ghaghra2 (Nepal) =	0 mm
Middle Ghaghara =	0 mm	Upper Rapti (Nepal) =	4 mm
Ramganga =	2 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

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

## Flood Situation on 30 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 154.18m with steady trend which is 0.08m above its Danger Level of 154.10m and 1.14m 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 64.37m with steady trend which is 0.36m above its Danger Level of 64.01 m and 1.63m below its previous HFL of 66.0 m (1998-08-28).
3. River Ghagra at Elginbridge in BARABANKI 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 106.086m with falling trend which is 0.016 m above its Danger Level of 106.07 m and 1.53m below its previous HFL of 107.616 m (2014-08-18).
4. 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 92.84m with falling trend which is 0.11m above its Danger Level of 92.73 m and 1.28m below its previous HFL of 94.01 m (2009-10-11).
5. 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 162.46m with rising trend which is 0.46m above its Danger Level of 162.0 m and 0.33m 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 30.08.2020

## 2.2 LEVEL FORECAST

LEVEL FORECAST		
S.No.	Flood Situations	No. of Forecasting Sites
A.	<b>Extreme Flood Situation:</b>	
	(Site (s) where the previous Highest Flood Level (HFL) is exceeded or equalized)	0
B.	<b>Severe Flood Situation :</b>	
	(Site(s) where water Level touching or exceeding the Danger Level but below Highest Flood Level(HFL))	04
C.	<b>Above Normal Flood Situation:</b>	
	(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)		10
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	198.54	0800	R	198.45	31.08.20	0800	F
Ganga	Fatehgarh	Farukhabad	U.P	137.6	136.60	138.14	2010	137.35	0800	S	137.32	31.08.20	0800	F
Ganga	Ankinghat	Kanpur Dehat	U.P	124.0	123.0	124.49	2010	123.10	0800	S	123.08	31.08.20	0800	F
Ram Ganga	Moradabad	Moradabad	U.P	190.60	189.60	192.88	2010	190.00	0800	S	190.05	30.08.20	2000	R
Ram Ganga	Dabri	Shahjahanpur	U.P	137.30	136.30	139.695	1983	136.61	0800	S	136.68	31.08.20	0800	R
Ghaghra	Elgin Bridge	Barabanki	U.P	106.07	105.07	107.616	2014	106.146	0800	F	105.95	31.08.20	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	Ballia	U.P	64.01	63.01	66.00	1998	64.36	0800	S	64.30	31.08.20	0800	F
Ghaghra	Ayodhya	Faizabad	U.P	92.73	91.73	94.01	2009	92.86	0800	S	92.75	31.08.20	0800	F
Ganga	Ballia	Ballia	U.P	57.615	56.615	60.39	2016	57.56	0800	S	57.65	31.08.20	0800	R
Ganga	Kachhla bridge	Budaun	U.P	161.00	162.00	162.79	2010	162.46	0800	R	162.40	31.08.20	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 30.08.2020

## 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					2776.60	0800	S	2690.40	31.08.20	0800	F
Sone	Bansagar Dam	Harda	M.P.		341.64				0800	F	1557.00	31.08.20	0800	R
Ghaghra	Katerniaghat	Bahraich	U.P.		138			3926.782	0800	S	3550.00	31.08. 20	0800	F

### **Advisory on Hydro Meteorological Situation Expected from 31-08-2020 to 01-09-2020**

As per rainfall pattern given in section II, Alaknanda, Bhagirathi rivers are expected to receive very light rain at isolated areas in next 48 hrs. Ganga river is expected to receive nil rain at isolated areas in next 48 hrs. Ghaghra, Ramganga, Sharda & Rapti river basins are expected to receive nil to very light rain at isolated 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 Ganga, Ghaghra, Rapti & Sharda river basins.

अधिशालीअभियंता

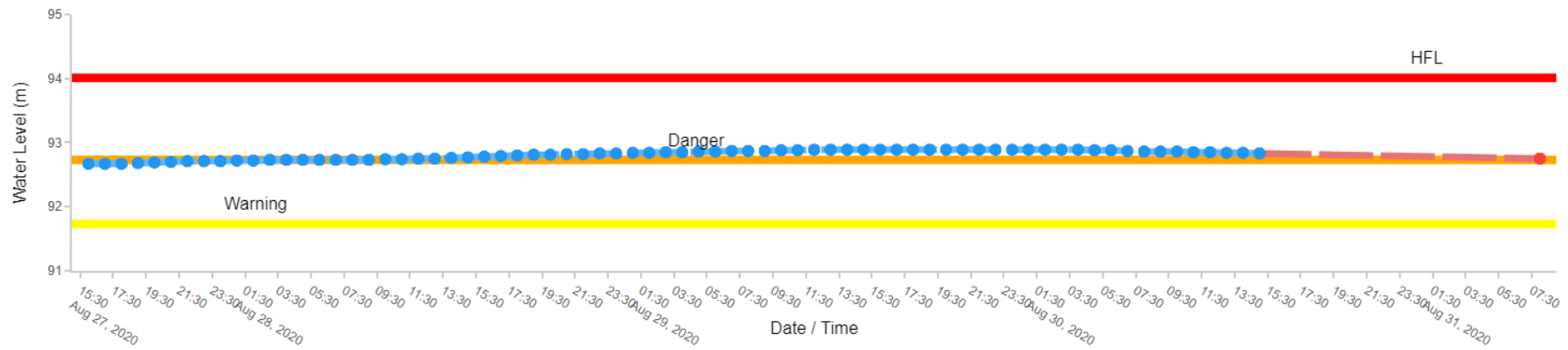
मध्य गंगा मण्डल -1 लखनऊ

# Hydrograph view of - Ayodhya



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

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

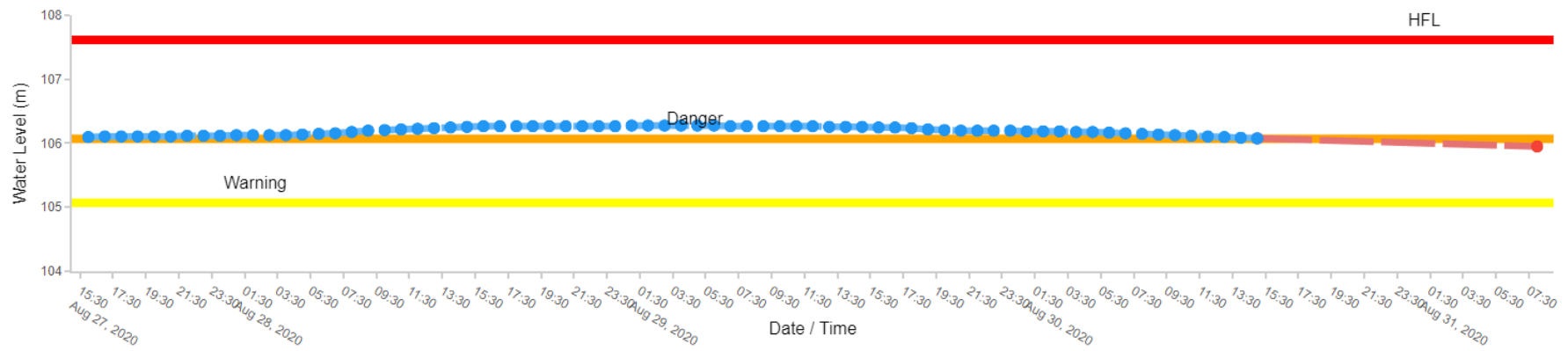


# Hydrograph view of - Elginbridge



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

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

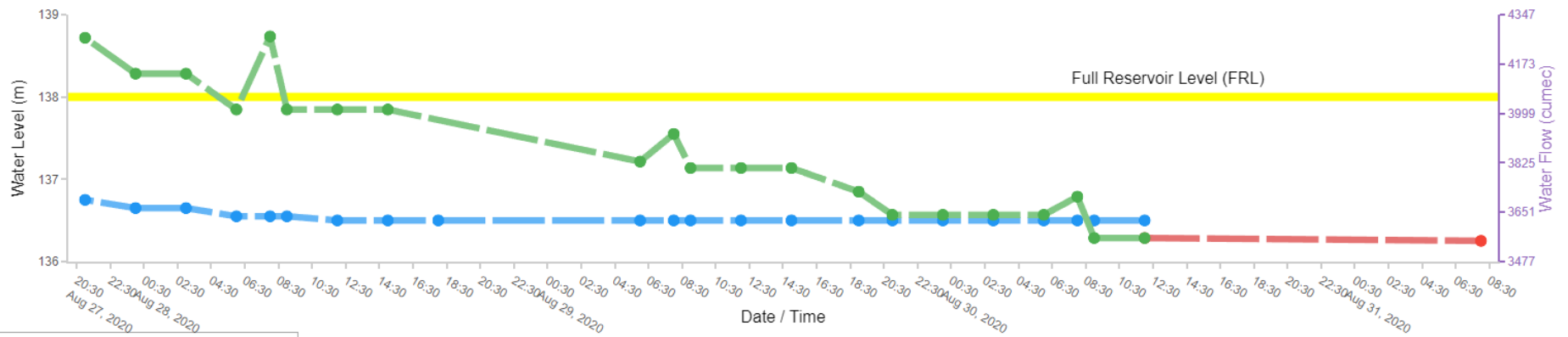


# Hydrograph view of - Katerniaghat Barrage



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

● Measured Water Level
● Forecasted Water Flow
● Inflow

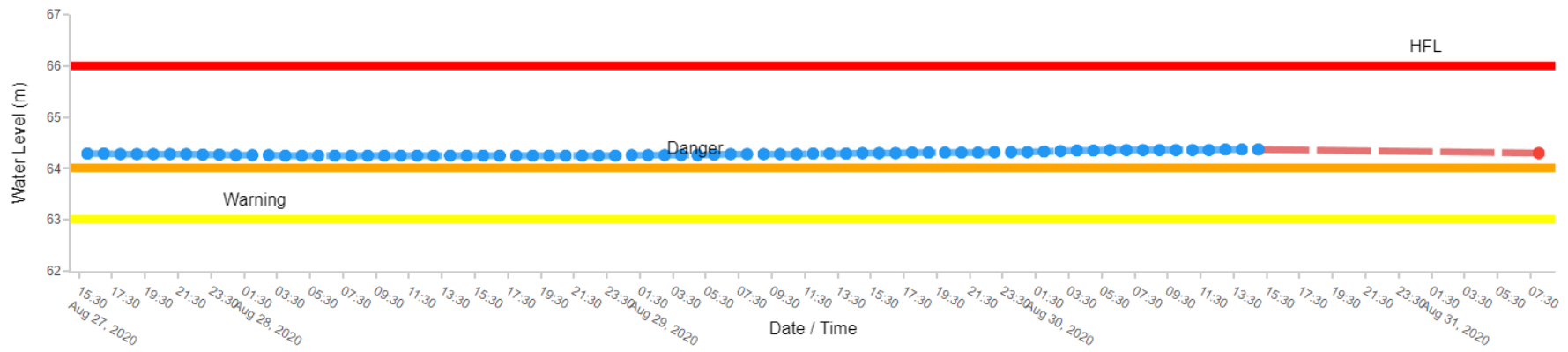


# Hydrograph view of - Turtipar



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

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



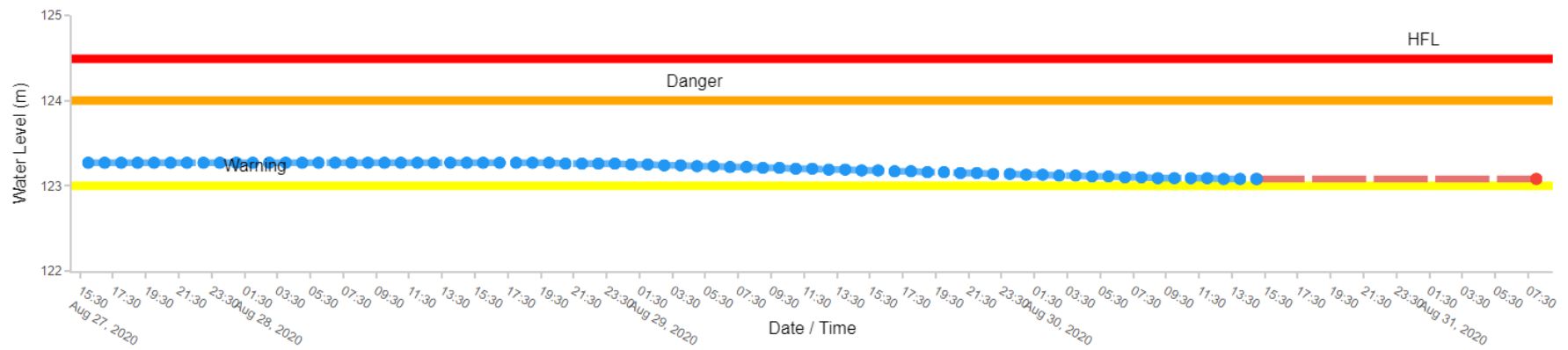


# Hydrograph view of - Ankinghat



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

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

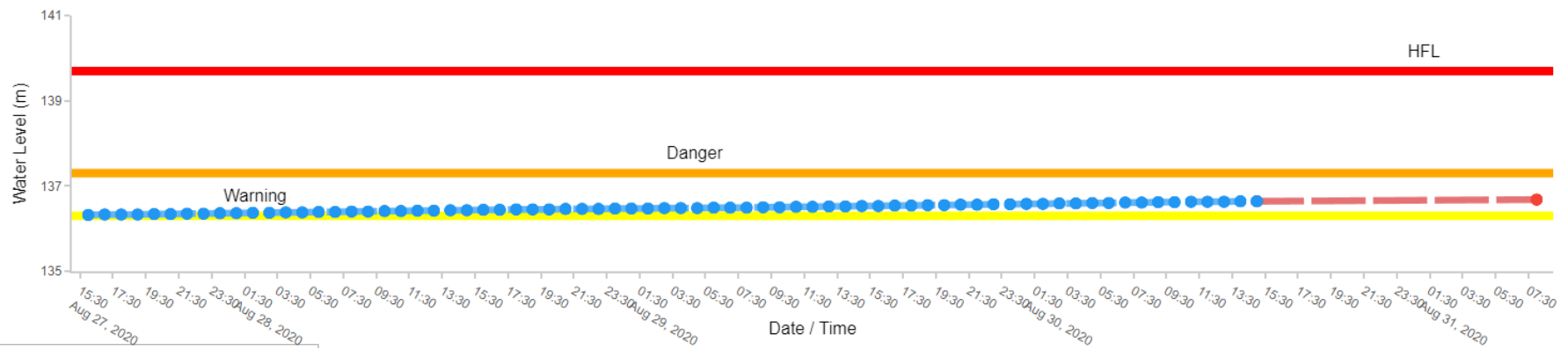


# Hydrograph view of - Dabri



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

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

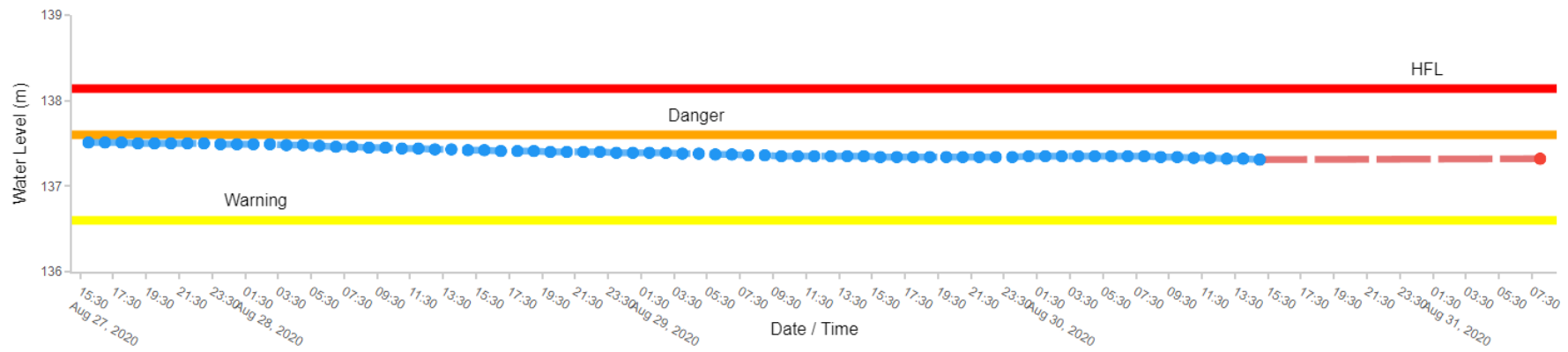


# Hydrograph view of - Fatehgarh



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

● Forecasted Water Level
 ● Measured Water Level

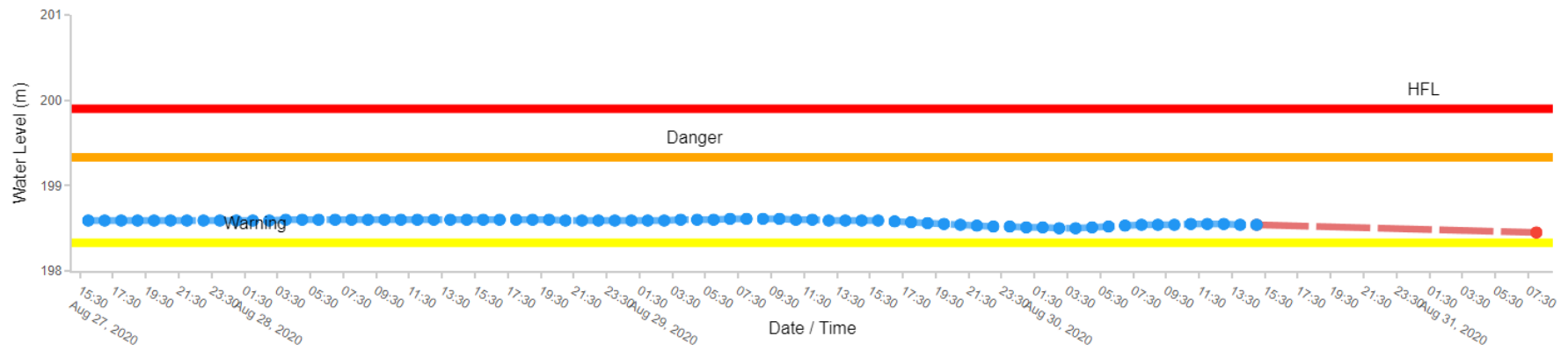


# Hydrograph view of - Garhmukteshwar



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

● Forecasted Water Level
 ● Measured Water Level

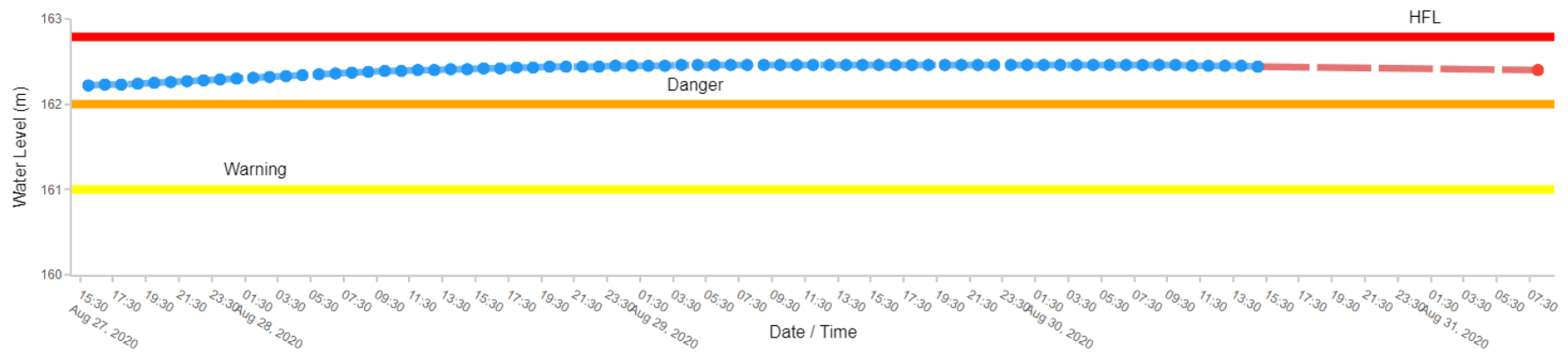


# Hydrograph view of - Kachhlabridge



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

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

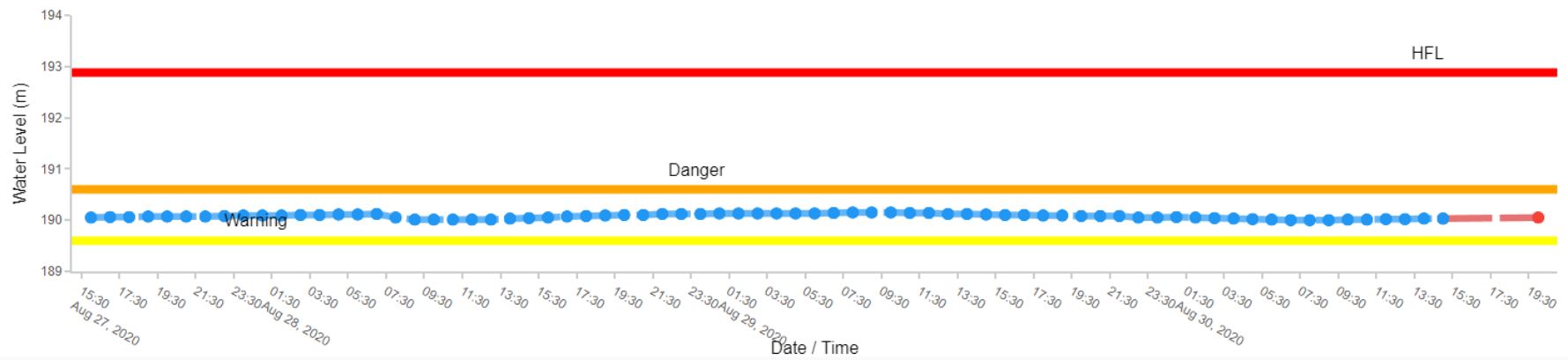


# Hydrograph view of - Moradabad



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

● Forecasted Water Level
 ● Measured Water Level

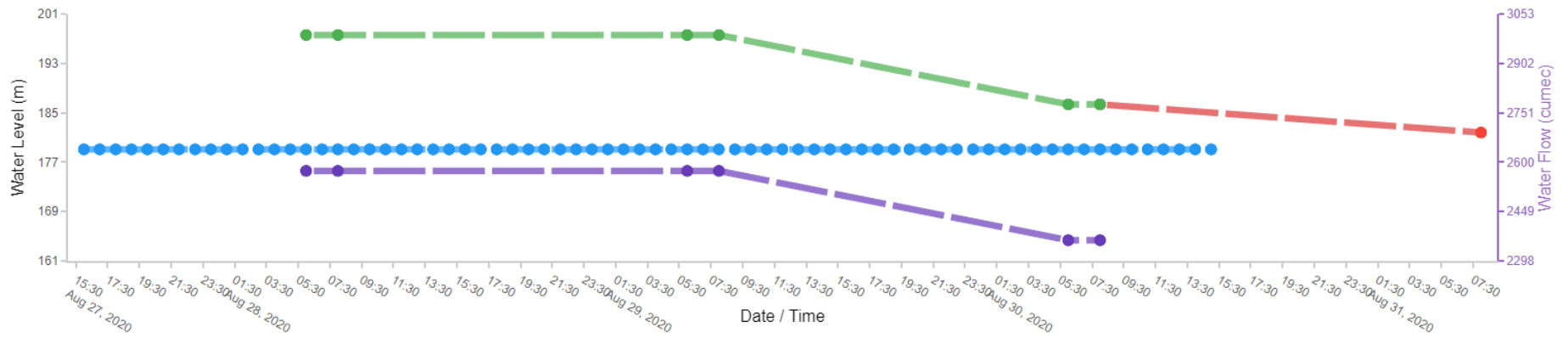


# Hydrograph view of - NARORA Barrage



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

Measured Water Level
Forecasted Water Flow
Inflow
Canal Outflow

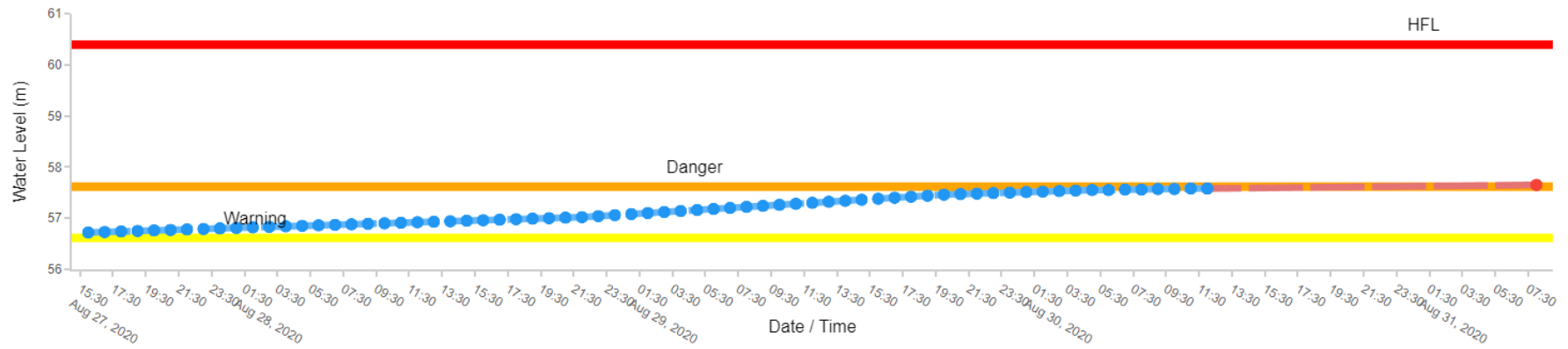


# Hydrograph view of - BALLIA



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

● Forecasted Water Level
 ● Measured Water Level





# Hydrograph view of - Bansagar Dam



District	Basin	River	Division
HARDA	Ganga	Sone	Middle Ganga Division-III(MGD-III), Varanasi

● Measured Water Level
● Forecasted Water Flow

