No.3/120/FFM-2019/ 232 8 -8 7

Government of India
Central Water Commission

Flood Forecast Monitoring Directorate
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110066.

Dated: | 9 /11/2019.

To

The Executive Engineer,

Chenab Divn/ UYD/ LYD/ Chambal Divn/HGD/MGD-I/MGD-III/LGD-I/LGD-I/LGD-II/DD/LBD/MBD/UBD/SID/ERD/ Mahanadi Division/ ND/ TD/ Mahi Division/ UGD/LGD/UKD/ LKD/ HD/ Cauvery Divn./ SRD/SWRD

Central Water Commission,

Jammu/ New Delhi/ Agra/ Jaipur/ Dehradun/ Lucknow/ Varanasi/ Patna/ Asansol/ Jalpaiguri/Guwahati/Dibrugarh/ Gangtok/ Bhubaneswar/ Burla/ Bhopal/ Surat/ Gandhinagar/ Hyderabad/ Chennai/ Bengaluru/ Coimbatore/Kochi

**Subject:** End of Flood Season 2019 and preparation of Appraisal report – regarding.

The flood season 2019 has ended on 31<sup>st</sup> October 2019 except for basins south of Krishna where flood season will end on 31<sup>st</sup> December 2019. The North East Monsoon rains has commenced on 16<sup>th</sup> October 2019. The divisions having jurisdiction in these basins are advised to monitor the rainfall and flood situations till cessation of rainfall activity in these basins. In case of any floods in Krishna Basin whose South and Western Portions are affected due to heavy rainfall, the monitoring of flood season should continue in this basin as a whole.

As is being done every year, the Flood Forecasting Appraisal report for the year 2019 may be prepared and sent to this Directorate **positively by 31**<sup>st</sup> **January 2020.** The FF Appraisal reports in respect of Cauvery/ Hydrology/ Southern Rivers / South Western Rivers Divisions, Bengaluru/Chennai/ Coimbatore/ Kochi may be sent positively by **31**<sup>st</sup> **March 2020**.

The Flood Forecasting Appraisal Report shall contain the important information viz., stationwise number of flood forecasts issued during flood season 2019, the number of forecasts within permissible limits and the performance accuracy of forecast along with the peak levels attained and the periods Above Normal, Severe and Extreme flood situations for all flood forecasting stations.

The salient content of the Appraisal report may include:

1. A basin map indicating the jurisdiction of separate divisions, the rivers and all real –time existing/proposed stations (both wireless and telemetry).

- 2. A line diagram showing the flow of the river from origin to terminal point (even if the terminal point is under the jurisdiction of another division or circle or organisation). This line diagram may also indicate the approximate distances from the origin, the distance from confluence of tributary to the nearest station and the catchment area of the stations. Major water resources projects along with their important salient features should also be included. The approximate travel time from base station to forecasting station may also be tabulated from each of the base station to forecasting station.
- 3. List of all real –time wireless/telemetry stations used for formulation of flood forecast.
- 4. List of already installed Telemetry stations alongwith station identification number as well as their status of data reception and usage in flood forecasting. Sample graphical comparison of telemetry data with manually observed data should be included in the report. Status of Installation and data reception of new telemetry stations shall also be included.
- 5. Status of use of mathematical models like Mike -11 for Basinwise models along with its performance with reference to gauge to gauge correlation models must be incorporated in the report. Sample comparison of 3-day advisories and the actual levels attained shall also be included. Accuracy of forecast should be assessed for different lead times separately.
- 6. Correlation diagrams used for formulation of forecast and a brief write up on formulation of forecast for all forecast stations.
- The Stage vs. Discharge curve for all Stations (Base as well as Forecast) where formulation of forecast is based on rating curve shall also be appended in the report.
- 8. List of User Agencies along with their mobile numbers and e-mail addresses.
- 9. Salient Features of Flood Forecasting Stations
- 10. Maximum Flood level attained during 2019 at all FF Stations along with time and date even if the maximum level is below warning level. No. of Forecast issued for each of the stations as well as forecasts which were within limit and the percentage of accuracy.
- 11. Number of base/ flood monitoring stations where previous HFLs have been exceeded along with levels and all relevant information.
- 12. Periods during which the stage was in Extreme (at or above HFL) Severe (at or above Danger Level) and Above Normal Flood (at or above Warning Level) Situation for all flood forecasting stations.
- 13. Rainfall (above 50mm) which was responsible for the above flood event wave wise.
- 14. Information regarding the weather situation and QPF received from IMD in Tabular form during the flood days when levels have gone above Warning Level.
- 15. Photographs of Extreme/Severe or significant Flood events.
- 16. Comments/Suggestions from User Agencies.
- 17. Constraints faced.
- 18. Special Note alongwith photographs on Assam/ North Bihar/ Northern Districts of West Bengal Floods of July 2019/ Maharashtra, Karnataka Kerala and Tamilnadu floods in Augsut 2019 and Rajasthan/Madhya Pradesh/ Gujarat/UP/Bihar Floods in September-October 2019 by EEs UBD/ MBD/ LBD/ LGD-I/ UGD/UKD/ LKD/ CD/ SRD/ SWRD/ ND/ TD/ MD/ Chambal Div/ LYD/ MGD-III/LGD-II and the actions

taken during and aftermath of floods with damage reports from concerned State Governments may also be sent immediately to answer any questions during the forthcoming Winter Session of Parliament immediately.

The statements for 9 to 12 above can be prepared in the usual proforma/ formats being used every year. The same may be sent immediately on finalization positively **before 30<sup>th</sup> November 2019** by **e-mail to <u>fmdte@nic.in</u>, <u>ffmcwc@gmail.com</u> in respect of divisions whose flood season has ended on 31<sup>st</sup> October 2019. Those divisions whose flood season will end by 31<sup>st</sup> December 2019 may send these informations by 31<sup>st</sup> January 2019. The same finalised figures should be incorporated in the final appraisal report also.** 

The final Appraisal Report may be sent positively by 31<sup>st</sup> January 2020 for the divisions whose flood season ceased on 31<sup>st</sup> October 2019 and by 28<sup>th</sup> February 2020 for the divisions whose flood season ends on 31<sup>st</sup> December 2019.

A soft copy of the appraisal report preferably in PDF format shall also be sent by e-mail to <a href="mailto:fmdte@nic.in">fmdte@nic.in</a> as well as to <a href="mailto:ffmcwc@gmail.com">ffmcwc@gmail.com</a> for use in this Directorate as well as for uploading in CWC website.

Yours faithfully

(Sharad Chandra)
Director (FFM)

- A. Copy for favour of information to:
- 1. Sr. PPS to Chairman, CWC
- 2. PPS to Member (River Management), CWC, New Delhi.
- 3. Chief Engineer, (Flood Management), CWC, New Delhi.
- 4. Chief Engineer (Planning and Development), CWC, New Delhi.
- 5. Chief Engineer, Indus Basin, CWC, Chandigarh.
- 6. Chief Engineer, Yamuna Basin, CWC, New Delhi.
- 7. Chief Engineer, Upper Ganga Basin Organisation, CWC, Lucknow.
- 8. Chief Engineer, Lower Ganga Basin Organisation, CWC, Patna.
- 9. Chief Engineer, Brahmaputra & Barak Basin Organisation, CWC, Shillong.
- 10. Chief Engineer, Teesta Basin Organisation, CWC, Kolkata
- 11. Chief Engineer, Mahanadi & Eastern Rivers Organisation, Bhubaneswar.
- 12. Chief Engineer, Monitoring (Central) Organisation, CWC, Nagpur.
- 13. Chief Engineer, Krishna & Godavari Basin Organisation, CWC, Hyderabad.
- 14. Chief Engineer, Mahi & Tapi Basin Organisation, CWC, Gandhinagar.
- 15. Chief Engineer, Narmada Basin Organisation, CWC, Bhopal.
- 16. Chief Engineer, Monitoring (South) Organisation, CWC, Bengaluru.
- 17. Chief Engineer, Cauvery & Southern Rivers Organisation, CWC, Coimbatore.

- B. Copy forwarded for favour of information and necessary action to the Superintending Engineer of the following circles with a request that the field Divisions under their control may please be instructed to ensure timely completion of Appraisal reports.
- I. Director (Monitoring), CWC, Jammu.
- II. Hydrological Observation Circle, CWC, Ghaziabad.
- III. Hydrological Observation Circle, CWC, Dehradun.
- IV. Hydrological Observation Circle, CWC, Varanasi.
- V. Director (M&A), CWC, Patna.
- VI. Hydrological Observation Circle, CWC, Maithon.
- VII. Hydrological Observation Circle, CWC, Guwahati.
- VIII. Sikkim Investigation Circle, CWC, Gangtok
  - IX. Hydrological Observation Circle, CWC, Bhubaneshwar.
  - X. Hydrological Observation Circle, CWC, Gandhinagar.
  - XI. Coordination, CWC, Bhopal.
- XII. Coordination, CWC, Nagpur
- XIII. Godavari Circle, CWC, Hyderabad.
- XIV. Krishna and Coordination Circle, CWC, Hyderabad.
- XV. HOC&C, CWC, Bengaluru.
- XVI. Cauvery & Southern Rivers Circle, CWC, Bengaluru
- XVII. Director (FCA-1 and FCA-2) to provide write up on various 3-day advisory models and its performance during the monsoon 2019 for inclusion in the National level appraisal report alongwith any significant graph. Accuracy of forecast should be assessed for different lead times separately.
- XVIII. Director (RMCD), CWC, New Delhi
  - XIX. Director (SMD), CWC for uploading in circular page of CWC website.

(Sharad Chandra)
Director (FFM)

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