



No. 3/120/2020-FFM/316-395

Dated: 2nd March 2020

To

The Executive Engineer,
Chenab Divn/SHD/UYD/LYD/Chambal Divn/ HGD/ MGD-I/ MGD-II/ MGD-III/ LGD-I/ LGD-II/LGD-III /
DD/ UBD/ MBD/ LBD/ NEID-I/NEID-II/NEID-III/Meghna Div/MID/SID/Mahanadi Div/ ERD/ WGD/
UGD/LGD/ UKD/ LKD/ Mahi Divn/TD/ND/ HD/Cauvery Divn/SRD/SWRD
Central Water Commission,
Jammu/ Shimla/ New Delhi/ Agra/ Jaipur/ Dehradun/ Lucknow/ Varanasi/ Patna/ Berhampur/ Asansol/
Dibrugarh/ Guwahati/ Jalpaiguri/ Shillong/ Aizwal/ Itanagar/ Silchar/ Gangtok/ Burla/ Bhubaneswar/
Nagpur/ Hyderabad/ Pune/ Gandhinagar/ Surat/ Bhopal/ Chennai/ Bengaluru/Coimbatore/Kochi

Subject: Preparedness for flood forecasting services for year 2020 and data/information requirement at Head Quarters for monitoring the forecasting activity at National Level.

All the field offices are hereby requested to take necessary steps of preparedness to continue the CWC flood forecasting services during the ensuing monsoon well before its onset in accordance with the Notification No. 3/120/2019-FFM/ dated 22nd April 2019 as well as the Standard Operating Procedure (SOP) on Flood Forecasting. This Directorate may please be confirmed about the preparedness for the flood forecasting activity at the earliest.

2. The monitoring of Data Entry/ Reception of Telemetry data and issue of Flood Forecasts issued by field offices of CWC is done by this Directorate through the Control Room of Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD & GR) under Ministry of Jal Shakti (MoJS). Based on data observed at all the FF & Flood Monitoring Stations, bulletin is prepared and issued daily by this office during the notified flood season. The bulletin contains the following information.

- (a) DAILY WATER LEVEL & FORECAST FOR ALL STAGE FORECASTING STATIONS.
- (b) DAILY RESERVOIR LEVEL & INFLOW FORECAST FOR ALL INFLOW FORECASTING STATIONS.

The bulletin is forwarded primarily to the Integrated Operation Centre (IOC), National Disaster Management Authority (NDMA), Ministry of Home Affairs, senior officers in the DoWR, RD & GR, MoJS including the Hon'ble Minister of MoJS, Chairman and other officers of Central Water Commission. The information so collected & compiled at the Headquarters is also frequently needed for reply of Parliament Questions especially during Monsoon Session.

3. The mathematical models were prepared for basin as a whole by Headquarters for various basins. In case if any new stations are to be added the same can be taken up at the earliest with concerned modelling directorates namely FCA-1 and FCA-2 respectively before start of ensuing flood season. As was done last year, these models will be run from Headquarters on real –time basis and the results for 3-day advisories will be made online





for the concerned field divisions to refer and use these model results for preparation of short range forecasts say 24 hours for sharing with local beneficiaries.

4. In order to facilitate the above activities, CWC has upgraded its existing website eSWIS in the name of Water Management Information System (WIMS) with additional features of online data entry system, reports generation and dissemination through e-mail and SMS. The WIMS is to be used like last year for feeding the hourly water level data, rainfall data, reservoir information (such as Inflow, Outflow through spillway and outflow through canal etc.), generating bulletins and sending e-mail and SMS.

5. The list of all the flood forecasting stations with State, District, Warning Level, Danger Level in case of Level Forecast & H.F.L with DATE, (updated up to 2019 end) in case of Level Forecast and Flood Monitoring (Base) Stations and FRL, MWL and HFL in case of Inflow Forecast Stations shall also be uploaded in the WIMS before commencement of flood season.

6. **The hydro-meteorological data for all Flood Forecasting Stations and their base/monitoring stations have also to be entered on real –time basis in the WIMS. The readings for these stations can be observed by putting proper gauges at all level forecast stations and observations taken by deploying either regular or outsourced staff and proper communication system. Data from none of the flood forecasting stations as well as their base/monitoring stations should be missing from data entry in WIMS on any account as it is very essential for running mathematical models from Flood Forecast Modelling and Monitoring Centre being set up in CWC Headquarters.**

7. Online data entry system requires dedicated internet connection available with all divisions on a 24x7 basis and data is to be fed on real –time basis from each of the divisions for all stations including base stations and reservoir information such as inflow outflow etc., as was done during last year. Based on the hourly water level and rainfall data (daily or twice daily or three hourly or hourly as per observation in concerned division), daily flood bulletins will be automatically generated and this generated bulletins can be sent by e-mail to all concerned agencies.

8. **The classifications for various flood situations were changed in 2018. Accordingly, the floods are classified as "Above Normal" (Water Level at or above Warning Level and Below Danger Level), "Severe" (Water Level at or above Danger Level and below HFL) and "Extreme" (At or above HFL). The Standard Operating Procedure (SOP) for sharing of information has also been changed with effect from 2018. As per the revised SOP circulated by MHA during December 2017, the data in respect of "Severe" Flood Situation have to be updated every three hours and data in respect of "Extreme" Flood Situation have to be updated every hour for all stations including monitoring stations to higher authorities of Government of India. Hence, it is once again emphasised that hourly water levels have to be updated immediately after its observation by the concerned Division without fail especially in case of Severe and Extreme Flood Situation.**

9. **The e-mail address and mobile numbers of all concerned organisations, beneficiaries and user agencies for all 325 FF (197 Level and 128 Inflow) stations shall also be updated and**





entered in the concerned files for sending e-mail/SMS using the web interface as well as sent to FFMMC for using the same to send the advisory forecasts. Contact details of nodal officers of various Systems of reservoirs under Integration Reservoir Operation may also be updated and a copy sent to this directorate for record.

10. Those Divisions who are not collecting real time data through wireless also need to feed the water level and daily rainfall data in WIMS on real time basis by collecting same through suitable means of communications as was done in 2019.

11. There is a provision to generate SMS alert also in case of specific severe flooding such as "Severe" and "Extreme" floods and send the same to designated users by entering their mobile numbers. For this purpose, this directorate has got a bulk SMS system of MTNL, New Delhi with call sign MD-CWCFFS and all SMS will be sent through WIMS using the above call sign. The mobile numbers of all the agencies, to whom SMS has to be sent, may accordingly be updated and kept ready. The information also have to be updated every 3 hours in case of "Severe" and every hour in case of "Extreme" Flood Situation to all concerned.

12. The generation of Weekly bulletins also is being automated with the WIMS. This requires feeding of hourly water level on real –time basis into the website. Hence the feeding of basic data is of utmost importance for the successful running of WIMS software.

13. All divisions are requested to take immediate necessary action to provide computer with latest operating systems and high speed internet connection to the concerned section which is dealing with the data entry activities, if not done so far. They may also ensure the round the clock working of the control rooms for feeding the data on real –time basis including those where new flood forecasting activity is envisaged. This is a mandatory condition as the mathematical models are being run on real –time basis from headquarters for generation of 3 day advisories which is made online for field divisions for their 24 hour flood forecast generations.

14. Telemetry and Mathematical Model for FF: The telemetry system should be made functional with reliability at all installed sites before onset of monsoon as given in SOP for upkeep and maintenance of Telemetry Stations/ Modelling Centres and Earth Stations circulated during 2018. Telemetry data only has to be used for the list of stations already identified by concerned Divisions and manual data has to be used only in case of any failure of telemetry system. Further, this directorate has already requested all the divisions to change the time of observation of water level to round hour IST so that the data can be compared easily. This should be given top most priority and all the vendors instructed suitably to change the observation time. The fortnightly return on the performance of telemetry data is to be continued throughout the year. Moreover, wherever mathematical models have been provided, they should also be used on real –time basis with Telemetry data and the performance of the model has to be highlighted in the Appraisal Report of the division.

15. As desired by higher officers of CWC, there is a new procedure for conducting video conferencing with Divisions where majority of the stations are flowing in Severe and





Extreme Flood Situation for interaction between modelling directorates, FFM Directorate and officers of the concerned Divisional officer for improving the performance of the Flood Forecasting Performance. This Video Conference interaction will start by 1000 hrs during such flooding days.

16. Photographs/videos of severe and extreme floods, especially devastating flood situations, if any, and the comments of user agencies should also be made available promptly to this office for incorporation of the same in Daily flood Situation Reports cum Advisories which is generated from this Directorate. A standing instruction may be issued to all sub-divisions in charge of FF/Base stations in this respect. Flood photographs/video are essential for preparation of album as well as presentations at higher offices and these are being uploaded in the Flood Forecasting Facebook Page and Twitter as well as for appraising senior officers in various ministries in times of flood.

17. All correspondence concerning the above subject during the flood season may be sent at the following address only:

Director (FFM),
Central Water Commission,
West Block-2, Wing VII, Ground Floor
R. K. Puram, New Delhi-110 606
Telephone: 011-26106523, 26105274, 26182836 (Director)
Fax: 011-26106523
e-mail: fmdte@nic.in, ffmcwc@gmail.com, cfc_r_cwc@yahoo.com
Mobile: 9868232398 (Director), 8800677536 (DD)
Facebook: @CWCOfficial.FF
Twitter: @CWCOfficial_FF

18. The complete postal address, telephone/mobile / fax number, e-mail address of all CWC offices i.e. the Sub – Division, Division, Circle and Organisation along with names of the incumbents involved in flood forecasting activities may also be updated and sent to this office positively before 25th April 2020. Copy of the same shall be sent through e-mail. The e-mail addresses as well as Mobile Numbers of all user agencies including those of new flood forecast stations shall also be updated and sent to this office.

19. All the communication to this office or to any other office including foreign countries may be signed at least by a Gazetted officer. If the e-mail communications are used, necessary authentication may be taken in the office copy.

210-26-4
02/03/2020

(शरद चन्द्र / Sharad Chandra)
निदेशक (एफ एफ एम) / Director (FFM)





A. Copy forwarded for favour of kind information to:

1. Sr. PPS to Chairman, CWC.
2. Sr. PPS to Member (River Management), CWC, New Delhi.
3. PPS to Chief Engineer, (Flood Management), CWC, New Delhi.
4. PPS to Chief Engineer (P&D), CWC, New Delhi.

B. Copy forwarded for favour of information and necessary action to all Regional Chief Engineers with a request that **in case of Severe and Extreme Flood, a brief report on the same including the basin map of the affected basin map should be sent to this directorate at the earliest. The basin map should also contain all the HO & FF Stations and all major reservoirs, weirs, barrages etc for proper presentation to high authorities including National Crisis management Committee as well as to concerned Hon'ble Ministers.**

There will also be preparedness Workshop through Video Conference (VC) during the last week of April 2020 for IBO, TBO & BBBO and for other organisations during end of May 2020. The Chief Engineers of the respective organisation shall attend these VC as per schedule and ensure that all preparedness including stakeholder consultations are completed before VC:

1. Chief Engineer, Indus Basin, CWC, Chandigarh.
2. Chief Engineer, Yamuna Basin, CWC, New Delhi.
3. Chief Engineer, Upper Ganga Basin, CWC, Lucknow.
4. Chief Engineer, Lower Ganga Basin, CWC, Patna.
5. Chief Engineer, Brahmaputra & Barak Basins, CWC, Shillong.
6. Chief Engineer, Teesta Basin, CWC, Kolkata
7. Chief Engineer, Mahanadi & Eastern Rivers, Bhubaneswar.
8. Chief Engineer, Narmada Basin, CWC, Bhopal.
9. Chief Engineer, Narmada & Tapi Basins, CWC, Gandhinagar.
10. Chief Engineer, Mon-Central, CWC, Nagpur.
11. Chief Engineer, Krishna & Godavari Basins, CWC, Hyderabad.
12. Chief Engineer, Monitoring South Organisation, CWC, Bengaluru.
13. Chief Engineer, Cauvery and Southern Rivers, CWC, Coimbatore.

C. Copy forwarded for favour of information and necessary action to the Superintending Engineer/Director of the following circles with a request that the field Divisions under their control may please be instructed to ensure timely transmission of data/information in WIMS, uploading short range forecasts and attend interaction as given in Para 15.

1. M&A, CWC, Jammu
2. Mon & App., CWC, Shimla.
3. Coordination, Indus Basin, CWC, Chandigarh.





4. Hydrological Observation Circle, CWC, Ghaziabad.
5. Hydrological Observation Circle, CWC, Dehradun.
6. Hydrological Observation Circle, CWC, Varanasi.
7. M&A, CWC, Patna.
8. Hydrological Observation Circle, CWC, Maithon.
9. Hydrological Observation Circle, CWC, Guwahati.
10. Investigation Circle, CWC, Gangtok
11. Meghna Circle, Silchar
12. North East Investigation Circle, Shillong
13. Hydrological Observation Circle, CWC, Bhubaneswar.
14. Hydrological Observation Circle, CWC, Gandhinagar.
15. Coordination, NBO, CWC, Bhopal.
16. Coordination, MCO, CWC, Nagpur.
17. Godavari Circle, CWC, Hyderabad.
18. Krishna and Coordination Circle, CWC, Hyderabad.
19. HOC &C, MSO, CWC, Bengaluru.
20. Cauvery & Southern Rivers Circle, CWC, Bengaluru.
21. FCA-1, CWC, New Delhi. There is a new procedure for conducting Video Conference interaction with concerned Divisions in case of Severe and Extreme Flood Situation. Accordingly, interaction shall be done every day by 1000 hours in such situation for providing inputs from CWC Head Quarters to the concerned Divisions so that a better quality flood forecasts are issued.
22. FCA-2, CWC, New Delhi There is a new procedure for conducting Video Conference interaction with concerned Divisions in case of Severe and Extreme Flood Situation. Accordingly, interaction shall be done every day by 1000 hours in such situation for providing inputs from CWC Head Quarters to the concerned Divisions so that a better quality flood forecasts are issued.
23. FM-2, CWC, New Delhi
24. SMD for uploading in CWC website.

D. Copy to Director, RDC-1/RDC-2 Directorate, CWC, West Block -2, R K Puram, New Delhi with request to ensure the working of the online WIMS and website during the flood season on round the clock basis during the flood season from 1st May to 31st December 2020. Contact Details of the nodal persons from TAMC to whom this directorate or field division may contact in case of emergency may kindly be shared with all concerned. A training on new WIMS for all the divisional officers/ staff may kindly be arranged well before the start of the flood season.

210-24-4
02/03/2020

(शरद चन्द्र / Sharad Chandra)
निदेशक (एफ एफ एम) / Director (FFM)



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केन्द्रीय जल आयोग
बाढ़ पूर्वानुमान प्रबोधन निदेशालय



Government of India
Ministry of Jal Shakti
Deptt. of Water Resources, RD&GR
Central Water Commission
Flood Forecast Monitoring Directorate

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