

No 3/120/2018-FFM/ 330-395

भारत सरकार

Government of India

केंद्रीय जल आयोग

Central Water Commission

वाढ पूर्वानुमान पथोद्यम निदेशालय

Flood Forecast Monitoring Directorate

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R.K. Puram, New Delhi-110066.

Dated: 05 March 2018

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 Dehri/ 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 2018 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. 3/120/2013-FFM/2638-2717 dated 3<sup>rd</sup> December 2013 as well as the Standard Operating Procedure 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 and issue of Flood Forecasts issued by field offices of CWC is done by this Directorate through the Flood Forecast Modelling and Monitoring Centre (FFMMC). Based on data observed at 0800 hrs at all the FF 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 (MHA)/ Integrated Control Room (MHA) and also to senior officers in the Ministry of Water Resources, RD & GR including the Hon'ble Minister of Water Resources, RD & GR, National Disaster Management Authority (NDMA), Ministry of Home Affairs and the 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 are being prepared for basin as a whole by Headquarters for various basins. As was done last year, these models will be run from Headquarters also on real-time basis and the results for 3-day advisories will be made on line for the concerned field divisions to refer who in turn can use these model results for preparation of short range accurate forecasts say 24 hours for sharing with local beneficiaries.

4. In order to facilitate the above activities, CWC has upgraded its existing website in the name of e-SWIS with additional features of online data entry system, reports generation and dissemination through e-mail. The e-SWIS and the website are to be used like last year for feeding the data, generating bulletins and sending e-mail and SMS.
5. The list of all the FLOOD FORECASTING STATIONS WITH STATE, DISTRICT, WARNING LEVEL, DANGER LEVEL & H.F.L with DATE, (updated up to 2017 end) in case of Level Forecast Stations and FRL, MWL and HFL in case of Inflow Forecast Stations shall also be uploaded in the e-SWIS before commencement of flood season. The information on new flood forecasting stations and base/monitoring stations which was planned for expansion of FF network under XII Plan Scheme "Flood Forecasting" have also to be uploaded in e-SWIS by putting all static information and series information and should be ready for updating as well as to give advisory 3-day rainfall generated flood forecast using Mathematical models.
6. **The hydro-meteorological data for the new Flood Forecasting Stations and their base/monitoring stations have also to be entered on real –time basis in the eSWIS. 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 new flood forecasting stations as well as their base/monitoring stations should be missing from data entry in eSWIS 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 informations 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 has changed from this year. Accordingly, the floods will be 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 for sharing of information has also been changed with effect from this year. The data in respect of "Severe" Flood Situation have to be updated every three hours to higher authorities and data in respect of "Extreme" Flood Situation have to be updated every hour for all stations including monitoring stations in case of "Extreme" Flood Situation. 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 FF stations including new flood forecasting 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, they also need to feed the water level and daily rainfall data in e-SWIS on real time basis by collecting same through suitable means of communications as was done in 2017.**

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 by the web site 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 informations 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 e-SWIS. 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 e-SWIS software.

**13. All divisions are requested to take immediate necessary action to provide computer with latest operating systems and high speed internet connection (Speed of 512 kbps or higher) 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 days hydrological forecasts 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. The fortnightly return on the performance of telemetry data is to be continued throughout the year. The real-time data being received in the modelling centre during monsoon has to be used for flood forecast formulation by all modelling centres. The new telemetry stations which are being installed should also be included in the fortnightly bulletins and checked for their proper data reception qualitatively. Moreover, wherever mathematical models have been provided, they should also be used on real-time basis and the performance of the model has to be highlighted in the Appraisal Report of the division.

15. PHOTOGRAPHS 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 flood review reports. A standing instruction may be issued to all sub-divisions in charge of FF/Base stations in this respect. Flood photographs are essential for preparation of album as well as presentations at higher offices.

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

Director (FFM),  
Central Water Commission,  
V Floor, Sewa Bhawan,  
R. K. Puram, New Delhi-110 606  
Telephone: 011-26106523, 26105274, 26182836 (Director)  
Fax: 011-26106523  
e-mail: [fmdte@nic.in](mailto:fmdte@nic.in), [ffmcwc@gmail.com](mailto:ffmcwc@gmail.com), [cfc\\_r\\_cwc@yahoo.com](mailto:cfc_r_cwc@yahoo.com)  
Mobile: 9650804451 (Director), 8800677536 (DD)

17. 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 25<sup>th</sup> April 2018. 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.

18. 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 signature may be taken in the office copy.

*Vishnu Deo Roy*  
(विष्णु देव गय / Vishnu Deo Roy)  
निदेशक (एफ एफ एम) / Director (FFM)

**A.** Copy forwarded for favour of kind information to:

1. Sr. PPS to Chairman, CWC.
2. PPS to Member (River Management), CWC, New Delhi.
3. PS to Chief Engineer, (Flood Management), CWC, New Delhi.
4. PS to Chief Engineer (P&D), CWC, New Delhi.
5. Chief Engineer, Yamuna Basin, CWC, New Delhi.
6. Chief Engineer, Upper Ganga Basin, CWC, Lucknow.
7. Chief Engineer, Lower Ganga Basin, CWC, Patna.
8. Chief Engineer, Brahmaputra & Barak Basins, CWC, Shillong.
9. Chief Engineer, Mahanadi & Eastern Rivers, Bhubaneswar.
10. Chief Engineer, Krishna & Godavari Basins, CWC, Hyderabad.
11. Chief Engineer, Narmada & Tapi Basins, CWC, Gandhinagar.
12. Chief Engineer, Narmada Basin, CWC, Bhopal.
13. Chief Engineer, Mon-Central, CWC, Nagpur.
14. Chief Engineer, Cauvery and Southern Rivers, CWC, Coimbatore.
15. Chief Engineer, Indus Basin, CWC, Chandigarh.
16. Chief Engineer, Tista Basin, CWC, Siliguri.

**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 transmission of data/information in eSWIS as well as uploading short range forecasts.

1. Director (M&A), CWC, Jammu
2. Hydrological Observation Circle, CWC, Noida.
3. Hydrological Observation Circle, CWC, Dehradun.
4. Hydrological Observation Circle, CWC, Varanasi.
5. Director (M&A), CWC, Patna.
6. Hydrological Observation Circle, CWC, Maithon.
7. Hydrological Observation Circle, CWC, Guwahati.
8. Hydrological Observation Circle, CWC, Bhubaneswar.
9. Krishna and Coordination Circle, CWC, Hyderabad.
10. Hydrological Observation Circle, CWC, Gandhinagar.
11. Godavari Circle, CWC, Hyderabad.
12. Director (FCA), CWC, New Delhi.
13. S.E. (Coordination), CWC, Bhopal.
14. S.E. (Coordination), CWC, Coimbatore.
15. S.E. CSRC CWC, Bangalore.
16. S.E. (Coordination), Indus Basin, CWC, Chandigarh.
17. Director (Mon&App.), CWC, Shimla.
18. Director (SMD) for uploading in CWC website.

**C.** Copy to Director, RD Directorate, CWC, West Block -2, R K Puram, New Delhi with request to ensure the working of the online e-SWIS and website during the flood season on round the clock basis during the flood season from 1<sup>st</sup> May to 31<sup>st</sup> December 2018.

*SMD*  
अनु./Sec./निरे./Dte.  
डा. सं./Dy. No. 375  
दिनांक/Date 6-3-18

*Vishnu Deo Roy*  
(विष्णु देव गय / Vishnu Deo Roy)  
निदेशक (एफ एफ एम) / Director (FFM)