

NATIONAL WEATHER SERVICE EASTERN REGION SUPPLEMENT 01-2008
APPLICABLE TO NWSI 10-912
NWSI 10-922
September 15, 2010
Operations and Services
Hydrologic Services Program, NWSPD 10-9
River Forecast Center Hydrologic Products Specification, NWSI 10-912
Weather Forecast Office Hydrologic Products Specification, NWSI 10-922

WINTER/SPRING FLOOD OUTLOOKS

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OPR: W/ER2x4 (L. Hogan)
Type of Issuance: Routine

Certified by: W/ER2 (R. Cabrera)

SUMMARY OF REVISIONS:

1. Changed 'Introduction' to mention mid-March Press Briefing associated with the National Hydrologic Assessment.
2. Added verbiage in sections 1 and 2 to further clarify that data collection is specifically for snow and snow water equivalent observations.
3. Modified section 3.1 to include HPC in distribution list of the ER Winter/Spring Flood Outlook schedule.
4. Added verbiage in section 4 to recommend valid period of two weeks for ESF and ESG products during the winter/spring flood potential season.

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September 15, 2010

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Date

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1. Introduction. NWSI 10-922 and NWSI 10-912 describe the issuance criteria, content and format for the Hydrologic Outlook (ESF) and Extended Range Streamflow Guidance (ESG) products that Weather Forecast Offices (WFOs) and River Forecast Centers (RFCs) issue to describe winter/spring snowmelt and flood potential. The Office of Climate, Water, and Weather Services Hydrologic Information Center (OCWWS/HIC) coordinates the National Hydrologic Assessment to summarize the potential for winter/spring flooding on the national scale – culminating in a mid-March Press Briefing. (Please refer to NWSI 10-930 for more assessment details.) These activities support the issuance of critical information to the public during the complex and rapidly evolving conditions during the winter/spring seasons.

Additionally, The National Operational Hydrologic Remote Sensing Center (NOHRSC) also relies on WFO and RFC snow and snow water data transmissions for cold region modeling operations and RFC collaborations for optimum scheduling of airborne snow survey flights (NWSI 10-930). As a result, the complexities of cold season hydrologic conditions, flooding and resultant impacts to the public, requires comprehensive planning, coordination, and scheduling to provide the best possible services to NWS users.

The purpose of this supplement is to clarify the responsibilities for Eastern Region (ER) Hydrologic Services Division (HSD), ER WFO(s) and ER RFC(s) related to data collection, interoffice, regional and partnered collaboration activities during the winter and spring seasons. The goal is to enhance the information and services delivered in the RFC(s) and WFO(s) winter/spring guidance and outlook products. General content information for the guidance and outlook products is provided in Section 4.

2. Data Collection. This section defines the responsibilities to ensure well coordinated snow and snow water equivalent data collection to support winter/spring flood outlooks in Eastern Region.

2.1 The ER HSD will:

- In the September/October timeframe each year, contact the Northeast Regional Climate Center (NRCC) to obtain the snow and snow water equivalent data collection dates which will ensure consistency in the climate records for snow observations in the Eastern US.
- Publish a recommended snow and snow water equivalent data collection schedule utilizing the dates provide by NRCC.
- Provide notification of published schedule to ER WFOs, ER RFCs, and Southern Region (SR) RFCs servicing ER WFOs, NOHRSC, Central Region Headquarters (CRH), Southern Region Headquarters (SRH), Hydrometeorological Prediction Center (HPC) and OCWWS/HIC.

2.2 The ER WFO(s) will:

- Review cold season data needs on an annual basis in coordination with the supporting RFC(s). This can include snow, ice, soil moisture, NOHRSC flight lines, pictures, etc.
- In the September/October timeframe each year, review data observing locations in the Hydrologic Service Area (HSA), analyze data sparse areas, and provide any necessary updates on locations (new NWS location identifiers (NWSLIs), latitude, longitude, etc) to the servicing RFC(s) and NOHRSC.
- Investigate resources available to add observations in data sparse regions where flood impacts or downstream flooding impacts may be significant.
- Provide data collection schedule to local and state partners as appropriate.
- During the data collection months, collect data from cooperators, encode into Standard Hydrometeorological Exchange Format (SHEF) and transmit using AWIPS.
- During the data collection months, collaborate with RFC(s) to request NOHRSC flight lines.

2.3. The ER RFC(s) will:

- Assist WFO(s) in annual review of data needs.
- During the data collection months, collect data from cooperators that span more than one HSA, encode into SHEF and transmit over AWIPS.
- During the data collection months, collaborate with WFO(s) to make decisions on NOHRSC flight lines to request.
- Collaborate with NOHRSC on flight lines, and other information.

3. **Winter/Spring Flood Outlooks.** This section defines the responsibilities to ensure well coordinated issuance of guidance and winter/spring flood outlooks in Eastern Region.

3.1. The ER HSD will:

- Coordinate with OCWWS/HIC to obtain scheduling information related to National Hydrologic Assessment and the timing of any national press releases and press conferences.
- Publish a RFC/WFO guidance/outlook issuance schedule for the months of January into May.
- Provide notification of published and/or updated schedule to ER WFOs, ER RFCs, SR RFCs servicing ER WFOs, NOHRSC, CRH, SRH, HPC and OCWWS/HIC.

3.2. The ER WFO(s) will:

- Collaborate with RFC(s), local and state agencies as appropriate to prepare and issue Hydrologic Outlooks on dates scheduled by ER HSD.
- Have the option to discontinue the issuance of scheduled outlooks once the National Hydrologic Assessment is complete and the snow/ice conditions in the HSA no longer pose a threat of future flooding.
- Have the option to forego routine issuance of a scheduled outlook once the National Hydrologic Assessment is complete and when ongoing flooding would make the issuance of the outlook confusing to the public. WFO(s) may alternately issue an outlook and specifically headline a limited geographic area for the product.
- Explicitly indicate overall categorical information (below average, average, above average flood potential) for the geographic areas covered in the HSA.

3.3. The ER RFC(s) will:

- Collaborate with WFO(s), local and state agencies as appropriate to prepare and issue Extended Range Streamflow Guidance on dates scheduled by ER HSD. Guidance may include graphical web products in addition to the ESG text product.
- In addition to supporting ER, OHRFC will produce guidance at a schedule requested by CRH and/or CR WFO(s).

4. General Product Content. The guidance and outlook products issued by RFC(s) and WFO(s) will include the following information at a minimum:

- Potential for snowmelt flooding (in areas with a snow pack only).
- River ice conditions (in areas with river ice only).
- Observed snow depth and snow water equivalent information (in areas with a snow pack only).
- Soil moisture information.
- Antecedent fall/winter/spring precipitation conditions.
- Information on future weather (especially potentially significant events).
- Water supply conditions, with focus on those areas experiencing or anticipating shortages.
- It is recommended that guidance and outlook products have a valid time period of at least two weeks; with updates occurring as conditions warrant.

Information in the outlooks can be provided at the level of detail as the WFO deems appropriate based on the local conditions. Guidance and outlooks should include additional information as appropriate to best serve the users and partners of a specific region/area.