

Project Factsheet for: Snowpack Flood Potential

Date Last Updated: 2006-09-06 11:26:39.0

Project Location Information

Location: Throughout the Rock Island District

State(s): IA, IL, MN, MO, WI

Congressional District(s): IA-1, IA-2, IA-3, IA-4, IA-5, IL-11, IL-13, IL-14, IL-15, IL-16, IL-17, IL-18, IL-19, IL-2, IL-3, MN-1, MN-7, MO-6, MO-9, WI-1, WI-2, WI-3, WI-5, WI-6

Status

The first outlook regarding snowmelt flood potential will be issued by the National Weather Service North Central River Forecast Center (NWS-NCRFC) in January 2007. As of September 2, 2006, the Palmer Drought Index indicates that soil moisture was near normal to below normal throughout the Rock Island District (CEMVR) and below normal in the northern portions of Wisconsin and Minnesota. Climate indicators suggest that precipitation will be at or below normal from September through November. Streamflows at most locations in Illinois and Iowa were near long term averages but were well below long-term averages in Minnesota and Wisconsin. While it is much too early to assess 2007 spring flood potential, if current trends continue the potential for flooding during the spring of 2007 may be limited.

Description

Terminology

- Minor flooding: A general term indicating minimal or no property damage, but possibly some public inconvenience.
- Moderate flooding: The inundation of secondary roads; transfer to higher elevation necessary to save property; some evacuation may be required.
- Major flooding: A general term including extensive inundation and property damage (usually characterized by the evacuation of people and livestock and the closure of both primary and secondary roads.

The risk for snowmelt flooding is determined by several factors, including: soil moisture, soil frost, snow water equivalent, river ice, base flows, future precipitation, and rate of melt. A gradual or intermittent melt with below normal precipitation would decrease the flood risk. Above normal precipitation, rapid snowmelt, and ice jams would increase the flood threat. On average, the month with the greatest snowfall in the Upper Midwest is March.

"These projections of river stages and reservoir levels are based on current observed states of streamflow, soil moisture, and snow pack, coupled with future precipitation and temperature patterns and anticipated operational hydrologic changes such as reservoir releases and canal diversions. "Outlooks" are provided for long-range (weeks to months) projections based on climatological patterns of precipitation and temperature. "Forecasts" are provided for short-term (days) projections based on future forecasted patterns of precipitation and temperature. The uncertainty of these products varies from season to season and site to site. In recent years, outlook crests have been above the observed crest about as often as they have been below the observed crest. The uncertainty of forecasts tends to be less than the uncertainty of outlooks due to their shorter lead time. Users of these products are encouraged to contact their nearest National Weather Service Forecast Office for continued updates of meteorological conditions which can have significant impacts on flood planning and flood fighting activities."

Authority

SI - Special Interest --

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