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**Operations and Services
Hydrologic Services Program, NWSPD 10-9**

DEFINITIONS AND GENERAL TERMINOLOGY

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SUMMARY OF REVISIONS: This directive supersedes WSOM Chapter E-90, “Hydrologic Glossary,” Issuance 81-1, dated February 5, 1981.

Signed
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Date

Definitions and General Terminology

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1. Introduction. This directive provides official definitions of key policy-related terminology used in the Hydrologic Services Program.

2. Definitions.

Action Stage - the stage which, when reached by a rising stream, represents the level where the NWS or a customer/partner needs to take some type of mitigation action in preparation for possible significant hydrologic activity. The appropriate action is usually defined in a weather forecast office (WFO) hydrologic services manual. Could be the same as forecast issuance stage (see below).

Alert Stage - the stage which, when reached by a rising stream, represents the level where need-to-know officials (e.g., county sheriff, civil defense officials, or bypass gate operators) are notified of the threat of possible flooding. (Used if different from action stage, and at the discretion of the WFO or river forecast center [RFC].) The term “alert stage” is to be used instead of "warning stage." The term “monitor stage” may be used instead of “alert stage” in some parts of the country.

Bankfull Stage - an established gage height at a given location along a river or stream, above which a rise in water surface will cause the river or stream to overflow the lowest natural stream bank somewhere in the corresponding reach. The term “lowest bank” is however, not intended to apply to an unusually low place or a break in the natural bank through which the water inundates a small area. Not necessarily the same as flood stage.

Data Point - in the context of river or stream observations, a location along a river or stream for which observed data is input to RFC or WFO hydrologic forecast procedures.

Flash Flood - a flood which occurs within six hours or less of the causative event. In some parts of the Nation, the actual time threshold for an event to be considered a flash flood may be less than six hours.

Flood - any high flow, overflow, or inundation by water which causes or threatens damage.

Flood Categories - terms used to describe or categorize the severity of flooding on rivers and streams. The severity of flooding at a given stage is not necessarily the same at all locations along the corresponding reach due to varying channel/bank characteristics or existence of levees

on certain sections of the reach. Therefore, the stage value assigned for a given flood category is usually associated with a water level where the most significant flood impacts occur in the reach. The flood categories used in the NWS are:

Minor flooding - minimal or no property damage, but possibly some public threat or inconvenience.

Moderate Flooding - some inundation of structures and roads near stream. Some evacuations of people and/or transfer of property to higher elevations is necessary.

Major Flooding - extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations.

Record Flooding - flooding which equals or exceeds the highest stage or discharge at a given site during the period of record keeping.

Flood Stage - an established gage height at a given location above which a rise in water surface level is defined as a flood for the corresponding river or stream reach. Flood stage is usually set at a level where the river or stream begins to overflow its banks and create a potential hazard to lives, property, or commerce. Flood stage may equal or exceed bankfull stage but should rarely be less than bankfull stage.

Forecast Issuance Stage - the stage which, when reached by a rising stream, represents the level where RFCs need to begin issuing forecasts for a non-routine (flood-only) forecast point. This stage is coordinated between WFO and RFC personnel and is not necessarily the same as action or alert stage. The needs of WFO/RFC customers and partners are considered in determining this stage.

Forecast Point - a location along a river or stream for which hydrologic forecast and warning services are provided by a WFO. The observed/forecast stage or discharge for a given forecast point can be assumed to represent conditions in a given reach (see below).

Hydrometeorology - an interdisciplinary science involving the study and analysis of the inter-relationships between the atmospheric and land phases of water as it moves through the hydro-logic cycle.

Monitor Stage - see alert stage.

Reach - a section of river or stream between an upstream and downstream location, for which the stage or flow measured at a point somewhere along the section (e.g., gaging station or forecast point) is representative of conditions in that section of river or stream.

Stage - the level of the water surface of a river or stream above an established datum at a given location.