Statement 2021-01-WD&S

ICWP Principle Statement on Extreme Precipitation Estimation—Including Atlas 14

Adopted by the ICWP Board of Directors on ??, 2021; Sunset/Review December, 2024

Statement of the Issue:

National Probable Maximum Precipitation (PMP) standards for extreme rainfall have long been used for the design and regulation of infrastructure including dams, roads and bridges, as well as thermal power facilities; and are used to promote consistency between federal and state agencies, as well as the private sector professional design community.

The National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS) first developed methodologies for estimating PMP in the 1940s, using historic data available at that time, and applied them across the United States through hydrologic and hydrometeorological studies. Many of these studies are now quite dated, do not incorporate recent severe events and are inconsistent across arbitrary political boundaries. The science and methods behind estimating PMP need a comprehensive review and PMP estimates into the future need to account for non-stationarity and contemporary modeling knowledge.

Why Important to ICWP membership:

ICWP member organizations utilize precipitation estimates for a myriad of uses in planning, design, and safety of water infrastructure. The inconsistencies between minimum design criteria of adjacent states and between federal and state design/performance expectations within states are increasing, leading to unsafe situations and uncertainty for project sponsors. Decades of storm event data (the basis for calculating the standards) have been recorded since the existing standards were published, but these have never been officially updated to include new methods, technologies, and more recent storm data, leading to unreliable estimates of maximum events. Many of our members also see large differences at state lines and other non-hydrologic boundaries simply because the historical studies were completed regionally and due to the large time lapses between studies. The development of National Guidance Document on consistent methods for estimating precipitation is needed by both the public and private sectors. The results of the National Academies Study will drive the development of these improved forecasting/estimating tools.

ICWP Recommended Action/Position:

--ICWP actively supports passage of the Providing Research and Estimates of Changes In Precipitation Act (PRECIP). (H.R. 1437-117th Congress)

--ICWP supports funding for the NOAA/NWS to complete the National Academies Study described in the PRECIP Act.

--ICWP supports funding and staffing levels at the NOAA/NWS to update Atlas 14 to a robust, modern modeling estimation product with national coverage to eliminate border differences between regions.

Statement 2021-02-WP

ICWP Principle Statement on Facilitating Disaster Preparedness and Resiliency in Water Planning

Adopted by the ICWP Board of Directors on ??, 2021; Sunset/Review December, 2024

Statement of the Issue:

Federal programs which advance preparation and pre-disaster mitigation can be valuable support to the water resources planning activities of ICWP members and possible inclusion in state/interstate water planning efforts. As one of many natural disasters facing water managers, drought should be recognized by federal agencies in same way as other natural disasters such as flooding or hurricanes.

Why Important to ICWP membership:

In most states, the responsibilities for water planning are not in the same agency as state emergency response. ICWP can provide information on the various federal programs related to pre-disaster planning and resiliency to the water planning community, and encourage their coordination with emergency response agencies.

By providing additional funding, technical assistance, and other benefits, states, organizations and communities are encouraged to include pre-disaster mitigation, such as green infrastructure and other nature-based solutions into their water planning program products. The goal is for all communities to be better prepared for natural disasters which can impact water infrastructure, whether from too much or too little water. Lack of sufficient water (drought conditions) should also qualify for pre-disaster planning assistance. Disadvantaged communities should be identified and resiliency efforts prioritized in those areas.

Coordination must occur among the relevant emergency response and water resources agencies to ensure appropriate selection of effective pre-disaster mitigation projects, alignment with existing disaster recovery and post-disaster mitigation efforts, current and future workforce needs and capabilities, and integration with various funding sources.

ICWP Recommended Action/Position:

--ICWP will continue to participate in the Resiliency Coalition facilitated by the US Chamber of Commerce.

--ICWP supports funding for the provisions of the Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act, which passed congress in 2020.

--ICWP will continue to alert the membership of funding opportunities and other pertinent aspects of programs such as Building Resilient Infrastructure and Communities (BRIC) and urge FEMA to provide the full 6% funding for BRIC.

--FEMA and Homeland Security pre-disaster programs should be aware of the Drought/Water Supply programs within the Bureau of Reclamation and assure there is no conflict among these federal programs.

--ICWP will continue to participate in the NIDIS Executive Council to be alerted to new drought prediction tools that can aid ICWP members in their drought preparedness and response.

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