

Applied Weather Associates (AWA) has completed site-specific PMP studies for many locations around the country. In recent years, AWA has completed two studies in the northeastern US, the Upper and Middle Dams in Maine and the Stewarts Bridge Project in New York. Both of these studies were reviewed by an Federal Energy Regulatory Commission (FERC) approved Board of Consultants and both have been approved for use by the FERC. AWA is conducting a third site-specific PMP study with an FERC approved Board of Consultants for a drainage basin in the Catskill Mountains. Many of the topographically related issues addressed in these studies can be used in the rainfall analyses for drainage basins where topography plays a role in enhancing or depleting moisture and helps to characterize the spatial development of rainfall. Additionally, techniques developed to use sea surface temperatures for storm maximization and transposition can be applied in place of dew point temperatures where storm inflow moisture sources are from over the oceans.

AWA is currently conducting a statewide study for Nebraska, sponsored by several water supply organizations in Nebraska. This study has updated the storm database for the last 35 years for the Midwest (HMR 51) and is providing eight new complete storm analyses, several using NEXRAD weather radar data to spatially and temporally quantify rainfall distributions. Also incorporated into this study is a new return frequency maximum dew point climatology similar to that incorporated into the EPRI Michigan and Wisconsin completed and accepted by the FERC in 1993 (Tomlinson 1993). AWA has completed many other site-specific studies that have provided updated storm analyses, improved precipitation spatial and temporal patterns, and site-specific PMP values for individual drainage basins. These studies have been approved by both federal and state dam safety regulators.