



Probable Maximum Precipitation Study Overview

- "Probable Maximum Precipitation" or "PMP" means the theoretical greatest depth of precipitation for a given duration that is physically possible over a given size storm area at a particular geographic location. It is an important component in determining the design flood for a dam.
- In 2011, Ohio Department of Natural Resources (ODNR), Divisions of Engineering & Parks and Recreation, commissioned a consultant to perform a study to update the PMP values for Ohio. This study used storm data from Hydrometeorological Report No. 51 (HMR51), data from storms that occurred since HMR51 was completed, and modern meteorological techniques. The study was completed in February 2013.
- ODNR commissioned a third-party board of consultants to review the study. In March 2013, a recommendation from the board of consultants to accept the study was provided to the Chief of the Division of Water Resources.
- The procedures used in the study as well as the results have been reviewed with the Ohio Dam Safety Organization (ODSO). ODSO has stated that "ODSO is in agreement that the Probable Maximum Precipitation Study for the State of Ohio (2013) should supersede HMR51 for establishing the probable maximum precipitation values for Ohio."
- The ODNR, Dam Safety Program, has discussed the study with the Federal Energy Regulatory Commission and the US Army Corps of Engineers.
- On August 21, 2013, the Chief of the Division of Water Resources approved Probable Maximum Precipitation Study for the State of Ohio (2013, Applied Weather Associates, LLC) for determining Probable Maximum Precipitation values under Ohio Administrative Code Rule 1501:21-13-02. This study supersedes HMR 51 for the purpose of determining design floods for dams within the division's jurisdiction.

Important References

<u>Reference</u>	<u>Description</u>
Ohio Statewide PMP Final Report	The 2013 PMP Study from Applied Weather Associates, except Appendix F. The report describes the procedures used for the study, results, and conclusions.
Ohio Statewide PMP Appendix F	Appendix F for the 2013 PMP Study provides details for the storms that were analyzed in developing the new PMP values. It has been provided as a separate document due to its size.
PMP Maps	PMP Maps for Ohio created using the GIS data from the study.
PMP Application Guidelines	Guidelines developed by the ODNR, Division of Water Resources, Dam Safety Program, for using the data provided in the 2013 PMP Study.
http://www.nws.noaa.gov/oh/hdsc/studies/pmp.html	Link to the National Weather Service's Hydrometeorological Report Nos. 51 and 52.
http://www.dodson-hydro.com/download/	Link to a website for free download of the HMR52 computer program.