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DEVELOPMENT SERVICES AGENCY

Engineering, Surveying and Permit Services Department
Planning and Community Development Department
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Engineering Bulletin 11-01

Subject: Precipitation Data
Application: Kern County Hydrology Manual
Kern County Development Standards

Date: December 21, 2011

Background: The Kern County Hydrology Manual (Hydrology Manual) was published in 1995 and became the governing document for hydrologic analysis performed for projects within the unincorporated areas of the County. At the time the Hydrology Manual was being assembled, the best available area-wide precipitation data was produced by the National Weather Service in a document titled NOAA Atlas 2, Volume XI, Precipitation-Frequency Atlas of the Western United States (1973). This document became the basis for precipitation-frequency determinations used in the Hydrology Manual and was adopted by reference.

Data Update: In May of 2011, the National Weather Service published NOAA Atlas 14, Volume 6, Version 2.0 for California. As stated in the introduction of the publication, this document supersedes precipitation-frequency estimates found in NOAA Atlas 2, Volume 11 and NOAA Atlas 14, Volume 1 which covered Kern County's desert region. Gage data used in the precipitation-frequency analysis for NOAA Atlas 14, Volume 6 incorporates the latest, quality verified rainfall information available up through June, 2010. The precipitation-frequency data is now available to the public, via a graphic interface, at the Hydrometeorological Design Studies Center's web site. (<http://hdsc.nws.noaa.gov/hdsc/pfds/>). It contains both short and long duration, including multi-day rainfall data in tabular and graphic formats.

Policy: Rainfall point precipitation values, intensity duration relationships, and multiday rainfall depths/ratios for the T-year (design) storm event shall be based upon the partial-series duration data found in NOAA Atlas 14, Volume 6, Version 2.0. Depth/Area Adjustments used for the development of unit hydrographs for large watersheds will continue to be based on Figure E-4 of the Hydrology Manual. All other procedures, practices and policies contained in the Hydrology Manual will remain unchanged.