



Legislation Text

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Consider an ordinance amending the City of Round Rock Design and Construction Standards-Drainage Criteria Manual, Section 2-Determination of Storm Runoff. (Second Reading)

The National Oceanic and Atmospheric Administration (NOAA) of the US Department of Commerce published Volume 11 of the Precipitation-Frequency Atlas of the United States (Atlas 14) in September 2018 containing new rainfall estimates for the State of Texas; these new estimates are commonly referred to as “NOAA Atlas 14” or just simply “Atlas 14”.

Atlas 14 indicates higher rainfall intensities in storm events in portions of Texas than previous data. For example, for a 24-hour 1% Annual Chance rainfall in the Round Rock area, Atlas 14 indicates about 2 inches more rainfall than previous data. Overall, the annual rainfall in the Round Rock area is not changing, but the estimates of the rainfall amounts corresponding to storms of various probability are increased according to Atlas 14.

AECOM was retained in the summer of 2019 to review Atlas 14 and to make recommendations to the City. AECOM believes that Atlas 14 is now the best available rainfall data and recommended that the City adopt it for use in hydrologic designs and analyses. Many agencies and entities have already adopted the use of Atlas 14 including Williamson County, the City of Austin, and TxDot. Therefore, City Staff now believes that it would be irresponsible not to incorporate the Atlas 14 rainfall estimates into hydrologic designs and analyses until such time as newer and better rainfall data become available.

This ordinance will remove rainfall specifics from the Storm Runoff Determination section of the Drainage Criteria Manual (DCM) and amend other rainfall-related portions of the DCM. Rainfall data (now Atlas 14) and instructions for its use will be contained in a separate document issued and amended by the Utilities & Environmental Services Director. City Staff conducted meetings with various stakeholders to discuss Atlas 14 and how its use will result in increases to future floodplain determinations and infrastructure sizing, and also to express the City’s opinion that use of the data is the responsible action. City Staff recommends approval of the DCM amendments.