



BERNALILLO COUNTY

PUBLIC WORKS DIVISION

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MEMORANDUM

TO: Bernalillo County Public Works, Development Review Section

FROM: Elias Archuleta, P.E., Deputy County Manager 

DATE: May 12, 2021

SUBJECT: Stormwater Quality Volume Calculation for Onsite Retention

The EPA NPDES Watershed-Based MS4 Permit and the Bernalillo County Stormwater Quality Ordinance (Chapter 38, Article IV) require the post-construction stormwater quality volume for the 80th and 90th percentile storm events for new and redevelopment projects, respectively, be retained and treated onsite. The rainfall depth for these storm events is defined in the 2014 *Estimating Predevelopment Hydrology for the Middle Rio Grande Watershed, New Mexico* (EPA Publication Number 832-R-14-007).

There has been inconsistent application in the use of rainfall depth and/or runoff depth for calculating the **stormwater quality volume (SWQV)**. In seeking consistency within the watershed, the Middle Rio Grande Stormwater Quality Team contracted Bohannon Huston, Inc. to prepare the *Post-Construction Runoff Values for Middle Rio Grande Watershed*, a literature review and assessment of the stormwater quality volume calculation.

Based on analysis from this document and discussions with NMED and EPA, **Bernalillo County will apply the 0.615" rainfall depth for new development (90th percentile event) and 0.48" rainfall depth for redevelopment (80th percentile) for impervious areas (including compacted areas), excluding landscaped areas/natural vegetation, for projects that disturb equal to or greater than 1 acre or are part of a larger common plan of development, for calculation of the SWQV.** Using the rainfall depth to determine the SWQV is the most protective standard for water quality.

Within 30 calendar days from May 12th, 2021, all new development and redevelopment projects that meet disturbance conditions as described above and in the Bernalillo County Stormwater Quality Ordinance will be required to use the rainfall depth to calculate the SWQV. This information can be found at <https://www.bernco.gov/public-works/default.aspx>.