MEMORANDUM

Floodplain Management
Regional Flood Control District

DATE: December 20, 2011

TO: Surveyors, Engineers and District Staff

FROM: Brian Jones, CFM
Chief Hydrologist

SUBJECT: Establishing a local datum within Zone A Special Flood Hazard Areas and sheetflow floodplains in order provide consistent information on Elevation Certificates

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Historically and until now, the Pima County Regional Flood Control District (District) has used a Base Flood Depth when determining flood hazard potential in sheetflow floodplains and FEMA approximate Zone A Special Flood Hazard Areas (where Base Flood Elevations are not known). To do this, the District establishes Highest Adjacent Natural Grade (HANG) as the basis of elevation, and assigns HANG a value of 0.0 feet as the datum. When Elevation Certificates are completed, many surveyors use HANG or the lowest floor as the datum and assign the value of 100.0 feet.

It has come to the attention of the District that this approach has caused problems for property owners who desire or are required to purchase flood insurance. The insurance rating software that insurance agents use can not overcome the apparently incompatible information when more than one datum is used. Agents often also have a difficult time understanding why the BFE in box B.9 of the Elevation Certificate may say 0.5 ft, while section C of the Elevation Certificate refers to elevations starting with 100.0 feet as a benchmark.

In order to reduce this confusion, unless a BFE is tied to a national datum, the District will begin using a local datum with HANG assigned the value of 100.0 and BFEs will be established from that elevation. For example, in a floodplain where the depth of flow is 1.0 foot, the Floodplain Use Permit (FPUP) and Box B.9 of the Elevation Certificate will indicate 101.0 as the BFE. As you know, the Regulatory Flood Elevation in this case would be 102.0. The Elevation Certificate will prominently state the assumed local datum that the District has used.

Accordingly, with this change, the District will rely on surveyors and engineers who complete Elevation Certificates to also utilize HANG = 100.0 feet as the local datum for their survey so that the Certificate is consistent throughout. Anyone completing an Elevation Certificate for submission to the District must use HANG = 100.0 feet as the datum. Depending on the construction method, establishing a benchmark in order to confidently record highest adjacent natural grade prior to construction may be important. The District will continue to encourage FPUP applicants to have a surveyor or engineer establish natural grade elevations prior to beginning any earthmoving on the property.

The current Elevation Certificate expires March 31, 2012. A grace period for Elevation Certificates completed using a local datum other than HANG = 100.0 feet will extend until that date. After which, Elevation Certificates will not be accepted that do not use the standardized datum. During the grace period, if an Elevation Certificate requires modification for other reasons, the District will ask the surveyor or engineer to adjust the elevations on the Elevation Certificate to use the standardized datum.