

From: Duncan Patten [mailto:dtpatten@mcn.net]
Sent: Thursday, March 28, 2013 3:48 PM
To: 'Mussetter, Bob'; 'Scott M. Deeny'; Davidson Rebecca F; 'Reinthal, Peter N - (pnr)'
Cc: Shaw Lucas M; 'Craig Sommers'
Subject: RE: Message from KMBT_751

Bob

Just what I needed for one part of my report (you would know if you've looked at the report...unlikely this soon)... Your hydrographs show what I was writing about. Winter and summer peak with the typical Sonoran Desert winter peak slightly higher than summer. That shifts as one goes farther south and toward New Mexico. Can I paste the left graph into my report and acknowledge you? Group, is that allowed????

Thanks
Duncan

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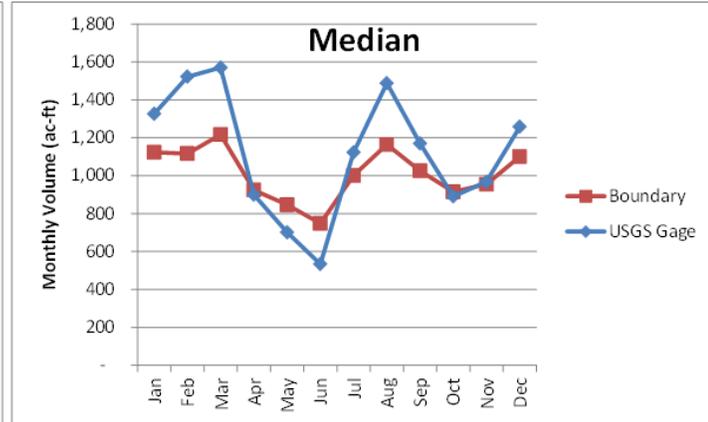
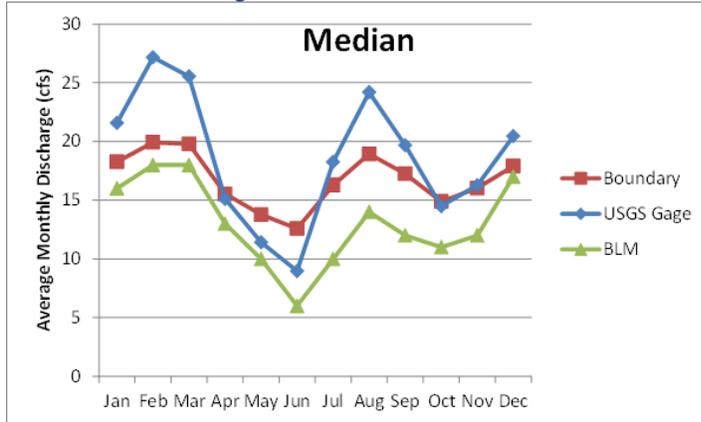
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From: Mussetter, Bob [mailto:Bob.Mussetter@tetrattech.com]
Sent: Thursday, March 28, 2013 12:22 PM
To: Scott M. Deeny; Duncan Patten; 'Davidson Rebecca F'; 'Reinthal, Peter N - (pnr)'
Cc: 'Shaw Lucas M'; 'Craig Sommers'
Subject: RE: Message from KMBT_751

Attached are two versions of monthly flow duration curves for Aravaipa Creek. The USGS gage flows are taken from the available record for the period from 1967 through 2012 (note that no records are available for 2003 and 2004). The Boundary flows were estimated using the modified relationship that I provided last week. The plots in the *Linear* file are in the same format as the BLM report so you can easily compare them. We typically plot flow duration curves with a logarithmic scale for the discharge and a probability scale for the Exceedence Percentages because it stretches out the tails of the curve, in the range of low and high flows that we're often interested in evaluating.

I'm also including a couple of plots showing the median monthly discharge and volume based on these curves. In general, the USGS gage flows are higher than the Boundary flows in the winter and late-summer/fall monsoon season and lower during the baseflow period, as expected. I've also included the BLM median monthly flows that, according to the report, are based only on the pre-1984 portion of the flow record. It appears that this period must have been quite dry

compared to the longer record. I need to look at this more thoroughly to understand why the difference is so big.



Please give me a call if you have questions.

Bob

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