

COLORADO/LAVACA BBEST/BBASC HYDROLOGIC CONDITION ANALYSIS

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WHY WE ARE DOING THIS?

- Stakeholders asked.
- Hydrologic Condition has not made it into any of the adopted SB3 basins, so no goby exists.
- Past SB3 efforts did not have enough direction for the TCEQ to implement; thus the coming analysis presents numerous options.

WHY WERE DIFFERENT MODELS AND HISTORICAL FLOWS USED?

- To give Stakeholders feel for the model results verses what has actually occurred in recent history.
- Might offer reason to come up with 2 sets of triggers for each site:
 - 1 set for evaluating new water right applications – based on RUN3.
 - 1 set for placing in any new permit that gets issued – based on more current conditions (RUN8 or recent historical).

WHATS WRONG WITH USING RUN3 TO DEVELOP TRIGGERS?

- Triggers based on RUN3 conditions could be inappropriate until basin conditions actually get to RUN3 condition.
 - Triggers based on RUN3 condition where actual conditions are not as “bad” as RUN3 can result in new permits being subjected to higher eflows standards more of the time in the real world.
- RUN3 based triggers would be required, since RUN3 is the TCEQ’s test for new water right applications. More relaxed triggers, based on more current condition, could be considered and possibly tied to the work plan.

LOOK AT PLOTS FROM BOTTOM UP

- As good example, go through all aspects of the plotted information on Page 1 first (LCRA System – RUN3). Note the following:
 - Percent of time engagement is stated in legend and rationalize this time on X scale.
 - Left Y scale is storage in acre-feet and right Y scale is % full.
 - Area between triggers represents zone in which the applicable base flow would be engaged.
 - For many of the other plots, the top tier of base flow would only be applied when reservoir at or above full.
- None of this speaks to how often any of the recommended flow regimes will be **met**. Instead, the hydrologic condition triggers dictate how often the recommended flow regimes will be **engaged**.

OTHER ISSUES TO NOTE

- WAM Models do not store water above the conservation capacity.
- The RUN 8 WAM model for Colorado Basin has different operating rules for the LCRA System than the comparable RUN3 (updated RUN8 not available at this time).
- Each of the three sets of storage (RUN3, RUN8, Historical) have their own conservation capacity associated:
 - RUN3 - full authorized amount of storage without consideration of sedimentation.
 - RUN8 – reflects recent TCEQ estimate of current sedimentation.
 - Historical – Taken from information provided by reservoir owner.
- For the 12 month cumulative flow analysis, the San Saba @ San Saba gage was missing information for the period 10/1/1993-9/30/1997.
- None of the legend in the WAM plots express reservoir triggers in terms of elevation. This is simply because elevation is not needed or contained in the WAM models; however, corresponding elevation trigger could be calculated.