CHANNEL MAINTENANCE FLOW PROTECTION

BASIC CONCEPT:

- Apply only to applications seeking to

  (1) divert at a rate greater than 10% of the trigger level for an applicable one-per-year pulse; or

  (2) impound, in an on-channel reservoir, more than 10,000 acre-feet.

- Using the WAM, compare predicted annual average flows with requested permit and all existing permits under WAM Run3 scenario (full use and no return flows) to WAM Run3 annual average flows based only on permits in existence at the time the flow standards were adopted.

- If the predicted average annual flow under WAM Run 3 with the requested permit is less than 85% of the average annual flow with just the permits in existence when the flow standards were adopted, then permit is presumed to have potential to adversely affect channel morphology. If predicted flow is equal to or greater than 85% of that baseline then no further analysis is needed on this issue.

- If the application is presumed to have potential to adversely affect, applicant must implement studies to assess effect on annual sediment yield and effective discharge.

- Based on those studies, TCEQ to include any additional permit conditions, beyond those otherwise required by flow standards, needed to avoid significant adverse changes to channel morphology.

POSSIBLE RULE LANGUAGE:

(a) This Section applies only to an application subject to this Subchapter that seeks authorization to:
    (1) divert at a rate greater than 10% of the trigger level of any applicable one-per-year pulse requirement; or
    (2) Impound, in an on-channel reservoir, more than 10,000 acre-feet.

(b) A water right application to which this Section applies shall not result in a significant impairment of flows needed to maintain channel morphology. In order to assess the potential for significant impairment, a water right application to which this Section applies shall include an assessment of potential impact on average annual flow.

(c) A proposed authorization will be considered to have the potential to result in a significant impairment of flows needed to maintain channel morphology if the average annual flow for the WAM period of record as predicted to occur just downstream of any proposed diversion or impoundment location with the requested authorization fully exercised, subject to any anticipated special conditions and considered in combination with all prior water right authorizations under a full use assumption, would result in a reduction of average annual flow to less than 85% of the baseline average annual flow at that location. The baseline average annual flow for a location is the flow calculated for the WAM period of record under a full use assumption with all permits as they existed at the time this Subchapter was first adopted.

(d) If the potential to result in a significant impairment of flows needed to maintain channel morphology is determined to exist pursuant to Subsection (c), the permit applicant shall provide a study and assessment of the effect of the proposed authorization on annual sediment yield and effective discharge as part of the permit application process. Based on consideration of that study and assessment and other relevant information, in granting an authorization the Commission shall include any special conditions, in addition to those otherwise provided for in this Subchapter, that it considers to be appropriate to avoid causing significant adverse changes in channel morphology.

One-per-year pulse triggers from BBEST:

Gage Location	Pulse Trigger	10% of Pulse Trigger
Colorado River above Silver	3,000 cfs	300 cfs
Colorado River near Ballinger	4,500 cfs	450 cfs
Colorado River near San Saba	18,900 cfs	1,890 cfs
Elm Creek at Ballinger	1,900 cfs	190 cfs
Concho River at Paint Rock	3,000 cfs	300 cfs
South Concho at Christoval	420 cfs	42 cfs
Pecan Bayou near Mullin	3,500 cfs	350 cfs
San Saba at San Saba	5,500 cfs	550 cfs
Llano River at Llano	9,100 cfs	910 cfs
Pedernales River near Johnson City	7,000 cfs	700 cfs
Onion Creek near Driftwood	1,200 cfs	120 cfs
Lavaca River near Edna	11,400 cfs	1,140 cfs
Navidad River at Strane Park	7,100 cfs	710 cfs
Sandy Creek near Ganado	4,500 cfs	450 cfs
East Mustang Creek near Louise	1,200 cfs	120 cfs
West Mustang Creek near Ganado	2,800 cfs	280 cfs
Garcitas Creek near Inez	2,000 cfs	200 cfs
Tres Palacios Creek near Midfield	3,500 cfs	350 cfs