

Final Determination

A riparian area in Proper Functioning Condition will have adequate vegetation, landform or large woody debris to:

- Dissipate stream energy during high flow
- Reduce erosion
- Stabilize channel and banks
- Trap sediment and capture bedload
- Develop floodplains
- Provide floodwater retention
- Provide water storage and aquifer recharge

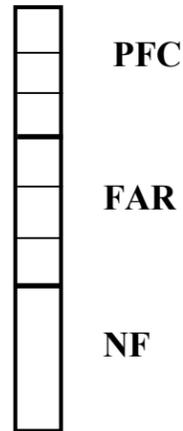
(In accordance with the potential for the riparian area / stream)

PFC (Proper Functioning Condition) describes a state of resiliency that allows a riparian area to hold together during 10 to 20 year high flow events with a high degree of reliability. A riparian area in PFC will meet the definition above.

FAR (Functional – At Risk) describes a riparian area that meets some or even most of the elements in the definition above, but has a high probability of degradation and damage during a 10 to 20 year high flow event.

NF (Non Functional) describes a riparian area that clearly lacks the elements in the definition above. There will often be a majority of “No” answers on the checklist; however there will often be several “Yes” answers.

___	Proper Functioning Condition
___	Functional – At Risk
___	Nonfunctional



Trend Determination for FAR: Circle

<u>Monitored Trend</u>	<u>Apparent Trend</u>
Upward	Upward
Downward	Downward
Not Apparent	Not Apparent

Rational for rating and trend (use additional sheets if needed):

Riparian Hindrances:

Circle any that may apply and provide notes

- Farming too close to banks
- Mowing, spraying close to the creek
- Manicured / highly altered landscapes near the creek
- Grazing concentrations in creek areas
- Excessive deer, exotics, hogs in creek areas
- Burning in riparian area
- Removal of large dead wood
- Artificial manipulation of banks / sediment
- Excessive vehicle traffic in creek area
- Low water dams
- Poorly designed road crossings / bridges
- Excessive recreational foot traffic in creek area
- Excessive alluvial pumping or other withdrawals

The identification of practices which hinder riparian recovery and overcoming those hindrances is often the most practical way to promote riparian restoration.

Riparian PFC Assessment Form - Texas For Perennial and Seasonal Creeks and Rivers

Creek Name: _____ Date: _____

Segment or Reach: _____

Team Members: _____

Describe Potential Channel Type and Plant Communities:

Yes No NA

--	--	--

Hydrology Assessment Items

1. Floodplain is inundated in “relatively frequent” events (at least every 1 – 3 years on average). Frequent flood access to floodplain indicates the capacity for energy dissipation, water storage, and aquifer recharge. (Cor-13,16)

Notes:

--	--	--

2. Beaver dams are stable. Stable dams will usually have live woody vegetation growing in the dam. Beavers may or may not be active. (Cor-4,6)

Notes:

--	--	--

3. Sinuosity, gradient, and width/depth ratio are in balance with the landscape setting (i.e., landform, geology, and bioclimatic region) Each of the three channel characteristics must be in proper balance for a “Yes” answer. Excessively straight, excessively wide or excessively steep channels are often indicators of other underlying problems. (Cor-1,16,17)

Notes:

--	--	--

4. Riparian area is expanding or has achieved potential extent The presence of wetland plants (OBL, FACW, FAC) is the best indicator of riparian width. A wide riparian area indicates that water storage is occurring. Wetted riparian area can widen outward toward the edge of the floodplain or inward as deposition becomes vegetated. (Cor-3,7,8,13,14)

Notes:

--	--	--

5. Riparian impairment from the upstream or upland watershed is absent. Grossly accelerated runoff or abnormal erosion rates from the watershed are examples. Excess sediment loads from upstream areas may also be considered here. A “Yes” answer indicates the absence of such disturbance. Note – uplands may be in poor condition and still not causing visual riparian degradation. (Cor-3,17)

Notes:

Yes No NA

Vegetation Assessment Items

--	--	--

6. There is adequate diversity of stabilizing riparian vegetation for recovery/maintenance At least two different stabilizing riparian species (OBL, FACW and FAC) must be present. On streams were both woody and herbaceous vegetation is required, should have at least two species of each as minimum for allowing recovery or maintaining function. (Cor-9,11) **Notes:**

--	--	--

7. There are adequate age class(es)of stabilizing riparian vegetation for recovery/maintenance Young and middle age classes of key stabilizing riparian plants (OBL, FACW and FAC) must be present. Should include age class diversity of both woody and herbaceous species where both are important. Small current year seedlings and very old plants do not count as a qualifying age class. (Cor-12) **Notes:**

--	--	--

8. Species present indicate maintenance of riparian soil-moisture characteristics. Plant species rated as OBL and FACW are indicative that water table is being maintained or improving. On some seasonal creeks, FAC species may be all that can be sustained. (Cor-4) **Notes:**

--	--	--

9. Stabilizing plant communities capable of withstanding moderately high streamflow events are present along the streambank. Riparian plant communities with stability rating of 6 (low gradient) and 7 (high gradient) or higher must be present in adequate amount to respond to management and allow for future recovery. (Cor-11) **Notes:**

--	--	--

10. Riparian plants exhibit high vigor. Good vigor of riparian species is strongly related to grazing and browsing intensity, human disturbance, and maintenance of water table. (Cor-7,8) **Notes:**

--	--	--

11. Adequate amount of stabilizing riparian vegetation is present to protect banks and dissipate energy during moderately high flows. In general, 70% or more and up to 90% or more for low gradient-sinuuous streams, of each bank should be covered by riparian plants and plant communities with good stabilizing root masses. Can include large anchored rock or wood in % cover. (Cor-1,3,6-9,11,14,15) **Notes:**

--	--	--

12. Plant communities are an adequate source of woody material for maintenance/recovery. Where large wood is needed for maintenance or recovery, adjacent woodlands should be present to provide this wood. NA where large wood not needed. (Cor-13) **Notes:**

Yes No NA

Geomorphology Assessment Items

--	--	--

13. Floodplain and channel characteristics are adequate to dissipate energy The presence of large rock, overflow channels, sinuosity, large wood, well vegetated floodplains or other forms of channel roughness help to dissipate energy and capture and store sediment. (Cor-1,12,17) **Notes:**

--	--	--

14. Point bars are revegetating with stabilizing riparian plants. The formation and growth of point bars are natural erosion and deposition features on some stream types. If these are in the process of establishing stabilizing riparian vegetation, it indicates a balance between erosion and deposition. (Cor-7,11,13,14) **Notes:**

--	--	--

15. Streambanks are laterally stable. Some lateral movement (cutbanks) is natural and normal, especially on outside bends in some stream types. This erosion should be balanced by the corresponding development of point bars. If the channel is widening without the formation of stable point bars, the answer would be "No". The intent is to determine if lateral erosion is occurring at normal rates or accelerated rates. (Cor-3,11,15) **Notes:**

--	--	--

16. Stream system is vertically stable (not incising). The presence of overfalls, active headcuts, or over steepened reaches indicates current downcutting and vertical instability. Any stream with a "No" answer to this question cannot be in PFC. Downcutting that occurred in the past is not counted. (Cor-1,3,4,8,17) **Notes:**

--	--	--

17. Stream is in balance with the water and sediment being supplied by the drainage basin (no excessive erosion or deposition is occurring) Indicators of excessive erosion include mid-channel bars, braided channels and unstable banks. (Cor-3,5,13,15,16,17) **Notes:**

Additional Comments: