

Process for Assessing Proper Functioning Condition Erosion/Deposition Items

Hydrology



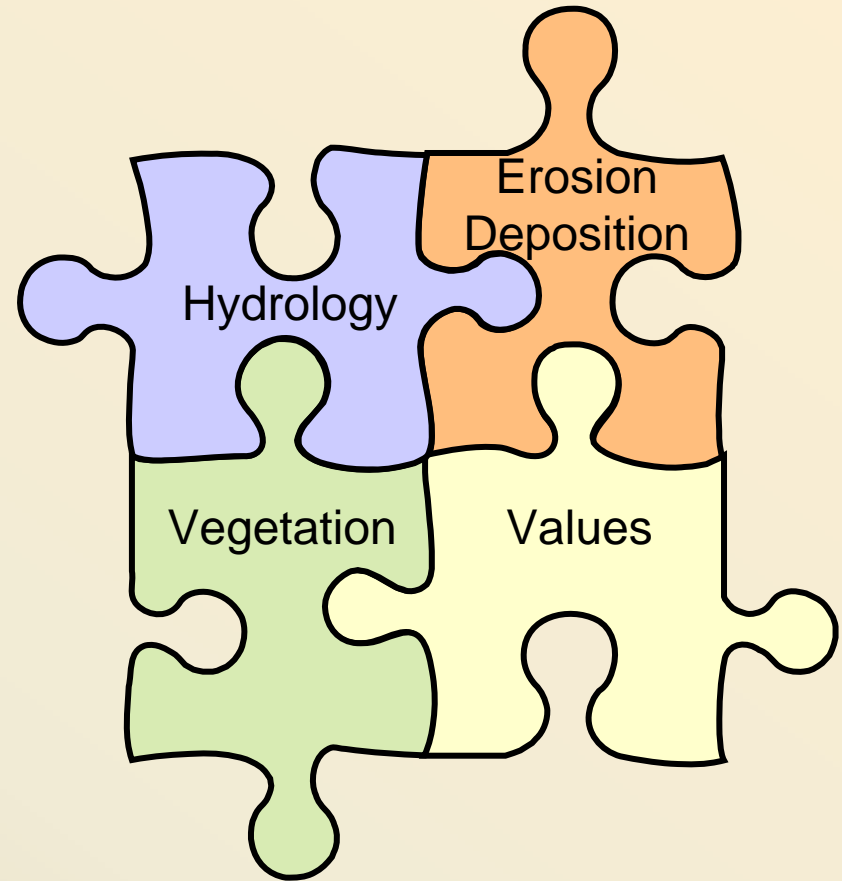
Soil, Landscape



Vegetation

Erosion/Deposition Items

- Floodplain and Channel Characteristics
- Point Bars
Revegetating
- Lateral Stability
- Vertical Stability
- Water & Sediment Balance



13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy

Purpose - *Determine if floodplain and channel characteristics for the stream type create resisting forces and dissipate energy during high-flow events*



13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy

Characteristics vary by potential vegetation and stream type



13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy

Visual indicators

Depending on streamtype - access to backwater areas, oxbows, overflow channels and their roughness elements



OK



Santa Maria River, AZ

13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy

Visual Indicators

Roughness - floodplain, bed, & bank

Yes	No	NA
	<input checked="" type="checkbox"/>	



Nueces River, TX May 2009

13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy

Visual Indicators

Roughness - floodplain, bed, & bank



Nueces River, TX



Frio River, TX

13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy

Visual Indicators

Roughness - floodplain, bed, & bank

Yes	No	NA
<input checked="" type="checkbox"/>		



Picosa Creek, TX May 2009

13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy

Roughness - floodplain, bed, & bank



?, TX

13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy



Near Langston, OK 1998

13) Floodplain and channel characteristics (i.e. rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy

Visual indicators

Roughness - floodplain, bed, & bank



Tributary to Picoso Creek
Gulf cordgrass May 2009

14) Point bars are revegetating with riparian-wetland vegetation

Purpose - For those stream types that have point bars, determine if riparian-wetland vegetation is capturing recent deposition on point bars and maintaining the width/depth ratio, sinuosity, gradient, and access to floodplain.



14) Point bars are revegetating with riparian-wetland vegetation

Visual indicator

✓Vegetation is established and stabilizing point bars

Yes	No	NA
	<input checked="" type="checkbox"/>	



Tabor Creek, NV 1979

Yes	No	NA
<input checked="" type="checkbox"/>		



Tabor Creek, NV 1987

14) Point bars are revegetating with riparian-wetland vegetation



Near Boise, ID

14) Point bars are revegetating with riparian-wetland vegetation



Item 15. Lateral Stream Movement



Item 16. Vertical Stream Movement



15) Lateral stream movement is associated with natural sinuosity

Purpose - *To document if lateral stream movement is appropriate for the landform or has been accelerated*

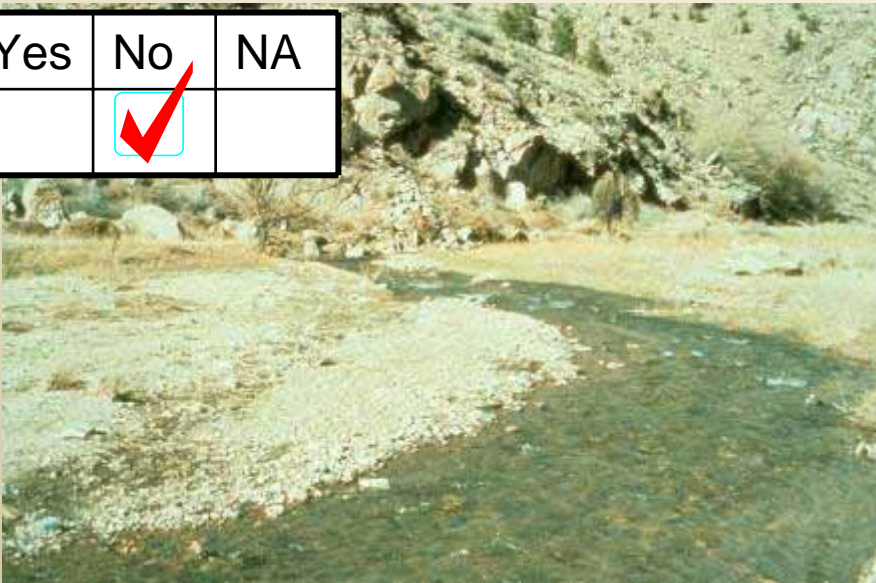


15) Lateral stream movement is associated with natural sinuosity

Visual indicators

- How often channel relocates with moderate to high flow events
- Stable streambanks
- Natural deposition with very slow change in bed elevation

Yes	No	NA
	<input checked="" type="checkbox"/>	



Texas Creek ,CO 1976

Yes	No	NA
<input checked="" type="checkbox"/>		



Texas Creek, CO 1978

15) Lateral stream movement is associated with natural sinuosity



Nueces River, TX 2008

15) Lateral stream movement is associated with natural sinuosity

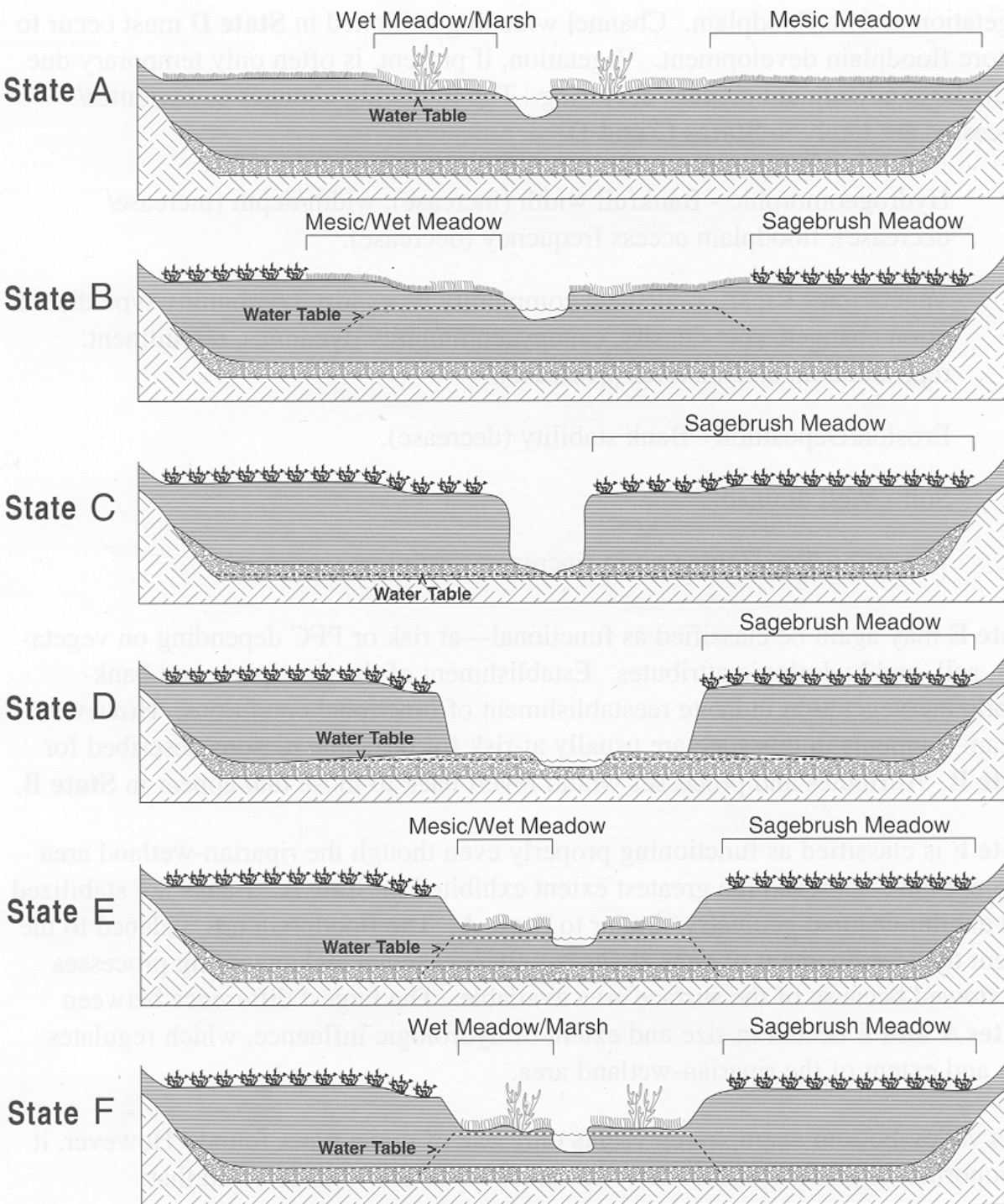


Nueces River, TX

16) System is vertically stable

Purpose - *To document if channel lowering adjustments are occurring at a “natural” or an accelerated rate.*





Item 16. Vertical Stability

16) System is vertically stable

Visual indicator

- Headcut(s) that lead to lowering of water table



Yes	No	NA
	<input checked="" type="checkbox"/>	

17) Stream is in balance with the water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)

Purpose - To look for evidence that a riparian-wetland area is out of balance, thus degrading the riparian-wetland area

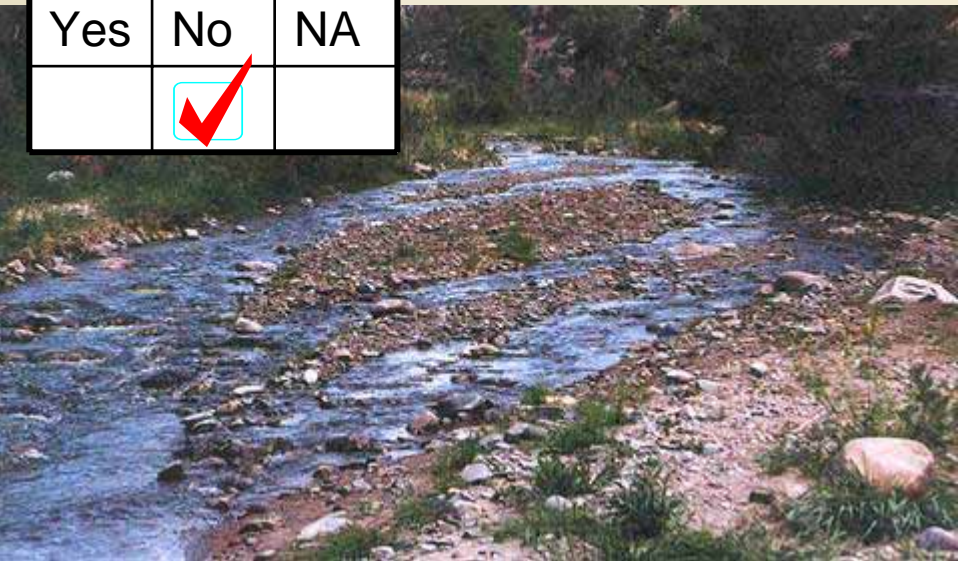


17) Stream is in balance with the water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)

Visual Indicators for single thread channels

- Increase in mid-channel or cross-channel bars
- Bank erosion on either side of the channel in straight sections
- Bank erosion rates
- Flattening of pools (except in uniform sand channels with no potential for large woody material)

Yes	No	NA
	<input checked="" type="checkbox"/>	



Badger Creek CO

Yes	No	NA
<input checked="" type="checkbox"/>		



17) Stream is in balance with the water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)



S Llano R, TX

17) Stream is in balance with the water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)



John Day R, OR

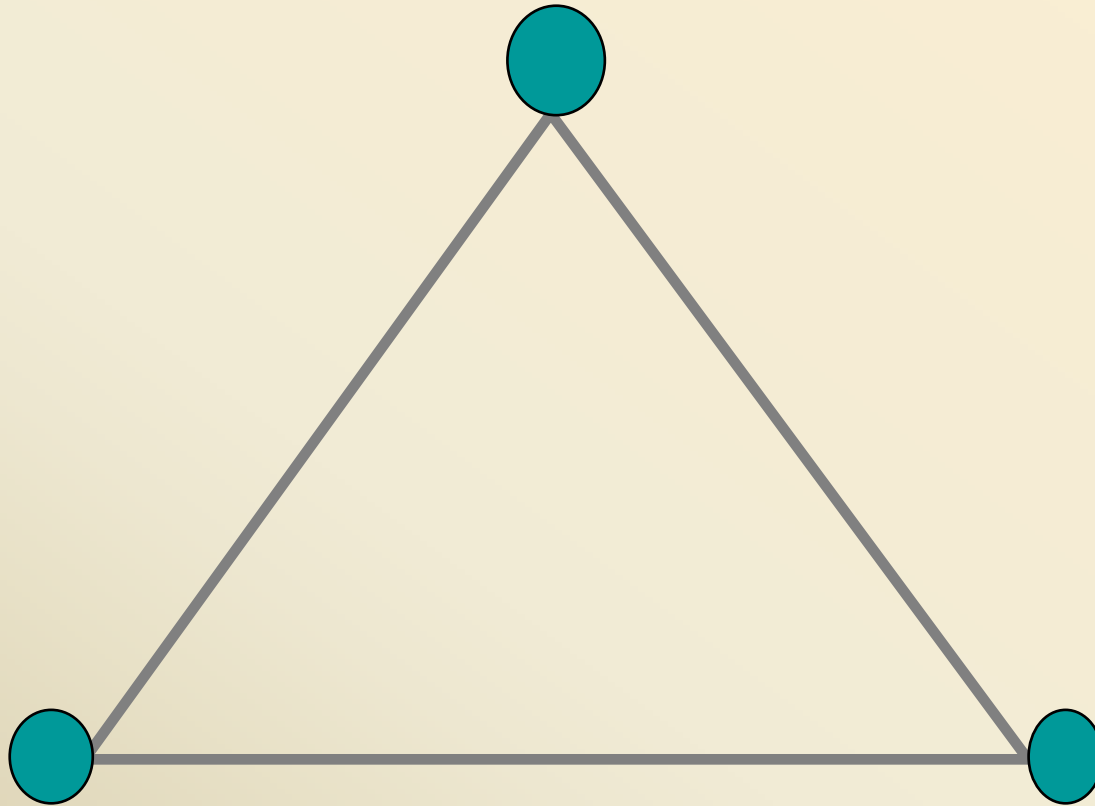
17) Stream is in balance with the water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)



Near Kerrville TX

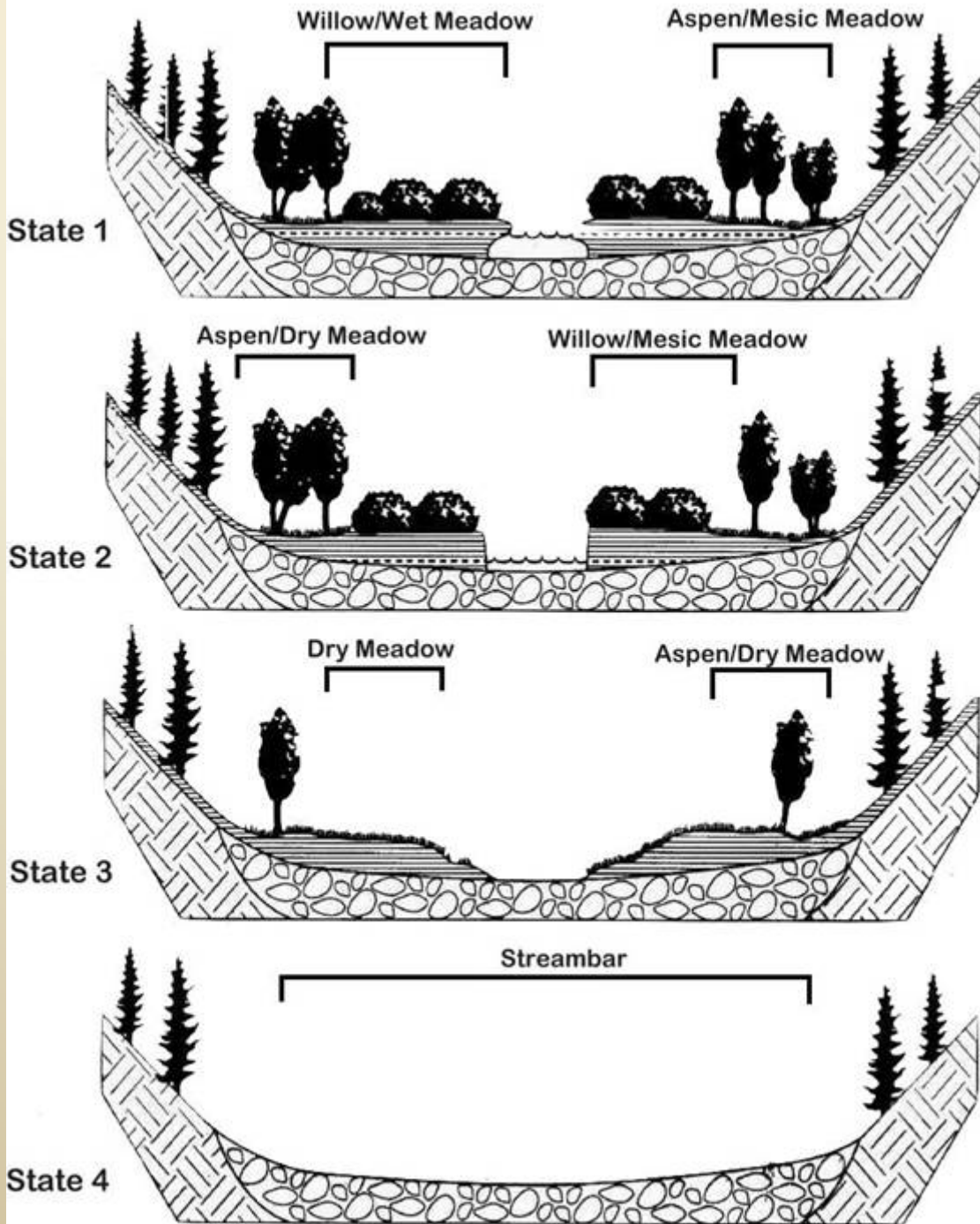
Riparian-Wetland Attributes & Processes

Vegetation



Soil, Landscape

Water



Item 15. Lateral Stability

17) Stream is in balance with the water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)



Near Corsicana TX