

## Standard Checklist

Name of Riparian-Wetland Area: Hitchcock Creek

Date: May 27, 2004 Segment/Reach ID: Reach 12, Bridge 518 PFC 312

Miles: \_\_\_\_\_ Elevation: 405 ft. GPS: N 36, 27. 884' W 121, 43. 453'

ID Team Observers: Clive Sanders, Danica Zupic Time: \_\_\_\_\_

Yes	No	N/A	HYDROLOGY
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1) Floodplain above bankfull is inundated in "relatively frequent" events
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2) Where beaver dams are present they are active and stable
<input type="checkbox"/>	<input checked="" type="checkbox"/>		3) Sinuosity, width/depth ratio, and gradient are in balance with the landscape setting (i.e., landform, geology, and bioclimatic region)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4) Riparian-wetland area is widening or has achieved potential extent
<input type="checkbox"/>	<input checked="" type="checkbox"/>		5) Upland watershed is not contributing to riparian-wetland degradation

Yes	No	N/A	VEGETATION
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6) There is diverse age-class distribution of riparian-wetland vegetation (recruitment for maintenance/recovery)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7) There is diverse composition of riparian-wetland vegetation (for maintenance/recovery)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8) Species present indicate maintenance of riparian-wetland soil moisture characteristics
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9) Streambank Vegetation is comprised of those plants or plant communities that have root masses capable of withstanding high-streamflow events
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10) Riparian-wetland plants exhibit high vigor
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11) Adequate riparian-wetland vegetative cover is present to protect banks and dissipate energy during high flows
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12) Plant communities are an adequate source of coarse and/or large woody material (for maintenance/recovery)

Yes	No	N/A	EROSION/DEPOSITION
<input type="checkbox"/>	<input checked="" type="checkbox"/>		13) Floodplain and channel characteristics (i.e., rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14) Point bars are revegetating with riparian-wetland vegetation
<input checked="" type="checkbox"/>	<input type="checkbox"/>		15) Lateral stream movement is associated with natural sinuosity
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16) System is vertically stable
<input type="checkbox"/>	<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)

## Summary Determination

### Functional Rating:

Proper Functioning Condition  
Functional—At Risk  
Nonfunctional  
Unknown

<input type="checkbox"/>
<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>

### Trend for Functional—At Risk:

Upward  
Downward  
Not Apparent

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Are factors contributing to unacceptable conditions outside the control of the manager?

Yes  
No

<input type="checkbox"/>
<input checked="" type="checkbox"/>

If yes, what are those factors?

<input type="checkbox"/> Flow regulations	<input type="checkbox"/> Mining activities	<input type="checkbox"/> Upstream channel conditions
<input type="checkbox"/> Channelization	<input type="checkbox"/> Road encroachment	<input type="checkbox"/> Oil field water discharge
<input type="checkbox"/> Augmented flows	<input type="checkbox"/> Other (specify) _____	



Picture 1

### Remarks

The area from Bridge 517 to the house with a severely eroding hillside and lawn looks good, with proper vegetative composition and age-class diversity.

The eroding hillside by the house was worsened by a previous tree clearing which the owner has ineffectively tried to stabilize with wire fencing (See Picture 1). The lack of vegetation on both banks causes the system's inability to adequately dissipate the immense flow energy caused by the creek bottleneck prior to bridge 518.

Bridge 518 is causing a great deal of erosion both directly upstream and downstream. The bridge makes the creek turn almost 90 degrees directly prior to passing under the bridge which is only 7 ft. wide, causing overflowing water to deteriorate the bank at the turn and carry sediment over the top of the bridge (See Picture 2). On the other side of the bridge is another sharp creek turn, which causes a severe undercut of two trees and a steep hillside (See Pictures 3 and 4). It seems this sharp turn doesn't help dissipate flow energy, and the sheer force it produces continues to degrade the already unstable hillside for the next 50-75 yds.

There is a lot of sediment deposition under or by the eroding hillside and bends (See Picture 3 and 4).

Ended at GPS N 36,27.807 W 121.43.470 Elevation 406 ft.

### Checklist Comments

#3, 13 The bridge is accelerating degradation at the creek bends and does not dissipate energy.

#5, 16, 17 The hillside is eroding and there is an excess sediment throughout the creek.

#4, 6, 7, 8, 9, 11, 12 The area around the house was devoid of vegetation.



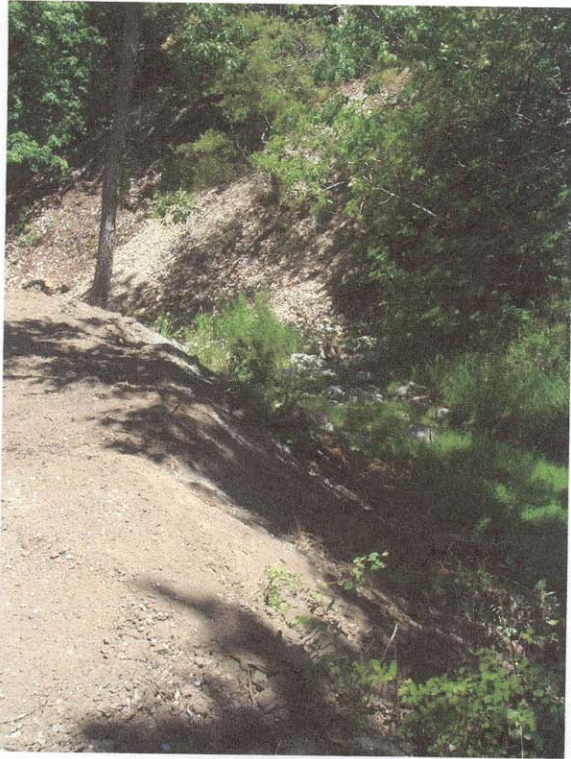
Picture 2



Picture 3



Picture 4



On June 15 while on route to complete other PFCs, it was observed that more dirt has been added to the site and has been pushed into the creek (See Pictures 6 and 7). The area is completely devoid of vegetation and the road side fence has been removed.

Picture 6



Picture 7