

Tennessee ForestWatch Water Quality and Best Management Practices Report

County: Van Buren County, Tennessee

Inspection Date: June 16, 2001

Location: From HWY 8 go approximately 2.25 miles North on HWY 111 to logging road on left past OLD Hwy 111. Turn left on this logging road. Pass a small strip pit on left. Go right at first split. Left at 2nd split to bottom of hill. Site is on right approximately 1.25 miles from Hwy 111. (see fig. 1)

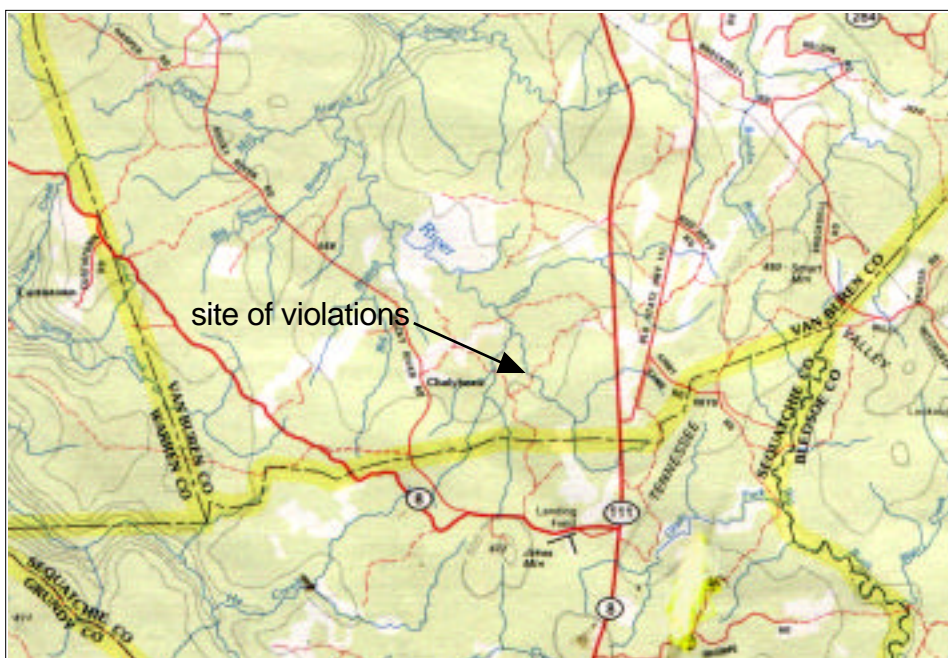


Figure 1. Location of violation.

Longitude/latitude: N 35 34.182/W 85 29.185

Landowner: Unknown

Logger: Unknown

Inspectors: Cielo Sand, Doug Murray, Todd Gregory, Susan Rogers.

Reason for Inspection: Located while attempting to find another sight located by aerial inspection.

Management Method: Final Cut (clearcut)

Description of Topography: Flat to 30% grade.

Streams on the site: Tributaries of Rocky River.

SUMMARY OF INSPECTION

Upon ground inspection, this site revealed failures to implement voluntary BMP's and as a result, point source violations are contributing to the pollution and degradation of the states water quality.

Erosion channels have formed on the road crossing the stream at this site. The road has not been stabilized to prevent gravel, sand, dirt and debris from entering the stream. Erosion channels

that have formed on the road are delivering pollution directly into the stream.

As a result of these point sources, the stream shows obvious evidence of pollution. The stream is now brown with turbidity and has 6-10 inches of silt deposited on the bottom for at least 300 feet downstream.

Violation 1--North Reach of Road

The first violation encountered at this site is the result of erosion channels forming on the road leading to this stream crossing (figure 2). The road approaching the stream was constructed at a grade of approximately 30 percent and an erosion channel has formed. This erosion channel is now 12 inches deep in some areas and is delivering sand and silt directly into the stream.

So much silt has traveled down this erosion channel that a small “beach” has formed on the bank of the stream (figure 3). However, during rain events, the silt and sand collected on this “beach” are delivered into the stream. The silt and sand collected on the banks of the stream are another source of point source pollution (EPA definition of point source pollution).

The sources of pollution shown in figures 2 and 3 are delivering large amounts of silt to this unnamed tributary of Rocky River to cause the high turbidity shown in figure 4. As a result of this pollution, almost no light is penetrating the water in this stream and large amounts of sediment are being deposited.



Figure 2. Erosion Channel beside road above the stream crossing. This channel is delivering silt directly to the stream.



Figure 3. Silt collecting on bank of stream below the road shown in figure 2.



Figure 4. Badly silted stream below road shown in figure 2

Violation 2--South Reach of Road

The second violation at this site was encountered at the bottom of the road shown in figure 2. A culvert installed at this location is serving to carry the stream under the road. Stormwater has formed an erosion channel at the edge of this road and silt that washes off the distal portion of the road is entering the stream thru a channel at the side of this culvert. Figure 5 shows the erosion channel that directs the runoff into the stream at the culvert.

Figure 6 shows the sediment collected at the culvert that will enter the stream with the next rain event. A channel has formed at the side of the culvert that allows sediment to enter the stream. This channel is a point source of pollution into this stream.

Conclusion

At least two cases of point source pollution have been documented in this report. Due to the sediment load being delivered to the impacted stream we strongly urge TDF and TDEC to conduct an inspection at this site and order the remedial action required to correct this situation that is compromising the waters of the state.

(Inspection form follows)

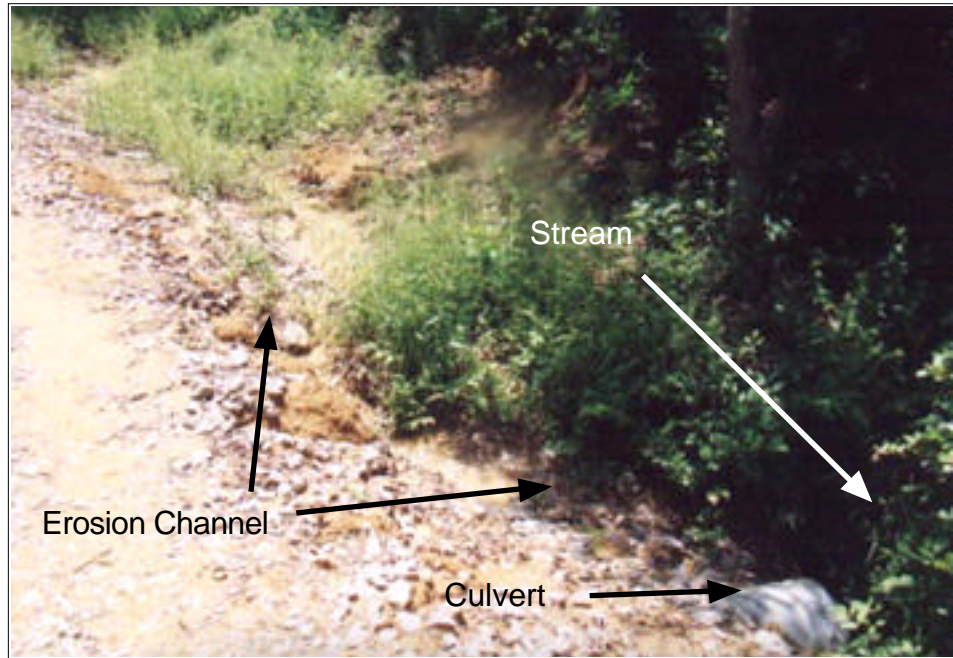


Figure 5. Erosion channel and culvert where runoff enters the stream

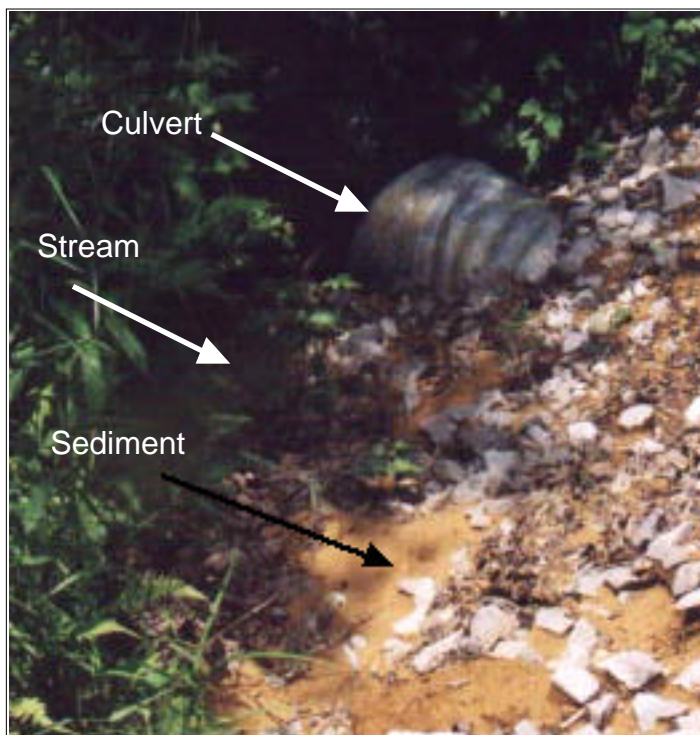


Figure 6. Sediment collected at side of culvert. This sediment will enter the stream with the next rain event.

FORESTWATCH INSPECTION FORM

LOCATION: Van Buren County--Longitude/latitude: N 35 34.182/W 085 29.185 (see report for details)

LANDOWNER: _____

LOGGER: _____

REASON FOR INSPECTION: Found while looking for another site

INSPECTORS: Cielo Sand, Todd Gregory, Susan Rogers, Doug Murray

DATE OF INSPECTION: June 16, 2001

DATE OF LAST RAIN: June 15, 2001

STREAM CROSSINGS

	yes	no	current problem	potential problem
1) Road leading in or out of stream exceeds 10% grade (one foot/ten foot)	X		X	
2) Erosion channels on roads leading to streams	X		X	
3) Road leading in and out of stream not stabilized with grass or gravel or water bars.	X		X	
4) Bottom of stream at crossing is not hard.				
5) Temporary bridge (hollow logs or cull trees) not removed after harvest				
6) Stream banks disturbed at crossing				

TOTAL

COMMENTS _____

STREAMSIDE MANAGEMENT ZONE (SMZ)

		water quality	
	yes	no	current potential
			problem problem

- 1) Evidence of equipment in SMZ
- 2) More than 50% of overstory removed
- 3) SMZ less than 50 feet
- 4) Logging debris in stream

TOTAL

Comments _____

LOG LANDINGS

	yes	no	current potential
			problem problem

- 1) Log landing located above stream
- 2) Log landing not reseeded
- 3) Log landing in SMZ

TOTAL

Comments: _____

ROADS

	yes	no	water quality current problem	water quality potential problem
1) Roads located above and near streams				
2) Roads not seeded	X		X	
3) Roads not water barred	X		X	
4) Roads greater than 12% grade	X		X	
5) Water bars failing				
6) Roads not graveled				

TOTAL

Comments: _____

OTHER VIOLATIONS

yes

no

- 1) Streams diverted
- 2) Streams dammed
- 3) Streams ruined by change to hydrology

SUMMARY

NUMBER OF BMP VIOLATIONS (YES'S) 6

NUMBER OF CURRENT WATER QUALITY PROBLEMS 6

NUMBER OF POTENTIAL WATER QUALITY PROBLEMS _____



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL
401 CHURCH STREET
L & C ANNEX 6TH FLOOR
NASHVILLE TN 37243-1534

October 10, 2001

Mr. Doug Murray
278 Log Home Road
LaFollette, TN 37766

Subject: Complaint alleging Tennessee Water Quality Control Act violations
Tributary to Rocky River off of Hwy 111
Van Buren County, Tennessee.

Dear Mr. Murray:

This is in response to your complaint I received on August 8, 2001, in which you expressed concerns in regard to water quality violations at the above-mentioned site.

Personnel from the Division of Water Pollution Control and the Tennessee Department of Agriculture Forestry Division inspected the site on August 9, 2001 during which they discovered a lack of erosion and sediment controls allowing sediment to leave the site and enter waters of the state. The Division notified the site operator of the problems at the site and what was required to bring it into compliance with the Water Quality Control Act.

Division personnel reinspected the site on October 8, 2001, and found all previous requirements to stabilize the site had been followed. At the time of the reinspection no observable evidence of erosion or additional sediment impact on waters of the state were apparent.

This Division believes the actions taken to date should adequately address your concerns. If you have questions concerning this correspondence, or if we may be of assistance to you in any way, please contact Linda Matheny at (615) 532-0683.

Sincerely,

A handwritten signature in black ink, appearing to read "CSM", written over a horizontal line.

Christopher S. Moran
Manager, Enforcement and Compliance

CSM/lkm

cc: EAC-Cookeville/Fran Baker
TDA-Forestry/Bob Baker
Bosie Cascade/David Foushee