Appendix C

Level II Stream Classification Forms

Mined Segment

FIELD GUIDE FOR STREAM CLASSIFICATION

Stream Channel Classification (Level III) ....

Stream NAME: ROBINSON FORK

Basin NAME: MINED SEGMENT Drainage AREA: _____Ac. _____SqMi.

Location: WEST FINLEY TOWNSHIP, WASHINGTON COUNTY, PA

Twp:_____ Rge:_____ Sec:_____ Qtr:_____ Lat._____Long._____

Observers: RDB, JMS, KMB *Date:* 7/01

Bankfull WIDTH (W_{bkf}) 32 (B-B') TO 49 (F-F') Ft.
WIDTH of the stream channel, at bankfull stage elevation, in a riffle section.

Mean DEPTH (d_{bkf}) 4.03 (B-B') / 3.29 (F-F') Ft.
Mean DEPTH of the stream channel cross-section, at bankfull stage elevation, in a riffle section. ($d_{bkf} = A / W_{bkf}$)

Bnkfl. X-Section AREA (A_{bkf}) 129.0 (B-B') / 161.5 (F-F') Sq.Ft.
AREA of the stream channel cross-section, at bankfull stage elevation, in a riffle section.

Width / Depth RATIO (W_{bkf} / d_{bkf}) 7.9 (B-B') / 14.9 (F-F')
Bankfull WIDTH divided by bankfull mean DEPTH, in a riffle section.

Maximum DEPTH (d_{mbkf}) 4.5 (B-B') / 4.4 (F-F') Ft.
Maximum depth of the bankfull channel cross-section, or distance between the bankfull stage and thalweg elevations, in a riffle section.

WIDTH of Flood-Prone Area (W_{fpa}) 141' (B-B') / 380' (F-F') Ft.
Twice maximum DEPTH, or ($2 \times d_{mbkf}$) = the stage/elevation at which flood-prone area WIDTH is determined. (riffle section)

Entrenchment Ratio (ER) 4.4 (B-B') / 7.8 (F-F')
The ratio of flood-prone area WIDTH divided by bankfull channel WIDTH. (W_{fpa} / W_{bkf}) (riffle section)

Channel Materials *(Particle Size Index)* D50 21.1 mm.
The D50 particle size index represents the **median** diameter of channel materials, as sampled from the channel surface, between the bankfull stage and thalweg elevations.

Water Surface SLOPE (S) 0.0044 Ft./Ft.
Channel slope = "rise" over "run" for a reach approximately 20 - 30 bankfull channel widths in length, with the "riffle to riffle" water surface slope representing the gradient at bankfull stage.

Channel SINUOSITY (K) 1.04
Sinuosity is an index of channel pattern, determined from a ratio of stream length divided by valley length (SL/ VL); or estimated from a ratio of valley slope divided by channel slope (VS/S).

Stream Type C4 *For reference, note: StreamType Chart & Classification Key*

TABLE 2. Level II classificaton criteria, (field form)

Unmined Segment

FIELD GUIDE FOR STREAM CLASSIFICATION

Stream Channel Classification (Level III) ....

Stream NAME: ROBINSON FORK

Basin NAME: UNMINED SEGMENT Drainage AREA: _____Ac. _____SqMi.

Location: WEST FINLEY TOWNSHIP, WASHINGTON COUNTY, PA

Twp:_____ Rge:_____ Sec:_____ Qtr:_____ Lat._____Long._____

Observers: ROB, JMS, KMB Date: 7/01

Bankfull WIDTH (W_{bkf}) 32 (I-I') TO 22' (L-L') Ft.
WIDTH of the stream channel, at bankfull stage elevation, in a riffle section.

Mean DEPTH (d_{bkf}) 3.00' (I-I') 2.98 (L-L') Ft.
Mean DEPTH of the stream channel cross-section, at bankfull stage elevation, in a riffle section. ($d_{bkf} = A / W_{bkf}$)

Bnkfl. X-Section AREA (A_{bkf}) 96.0 (I-I') 65.5 (L-L') Sq.Ft.
AREA of the stream channel cross-section, at bankfull stage elevation, in a riffle section.

Width / Depth RATIO (W_{bkf} / d_{bkf}) 10.7 (I-I') 7.4 (L-L')
Bankfull WIDTH divided by bankfull mean DEPTH, in a riffle section.

Maximum DEPTH (d_{mbkf}) 7.0 (I-I') 3.9 (L-L') Ft.
Maximum depth of the bankfull channel cross-section, or distance between the bankfull stage and thalweg elevations, in a riffle section.

WIDTH of Flood-Prone Area (W_{fpa}) 160' (I-I') 244' (L-L') Ft.
Twice maximum DEPTH, or ($2 \times d_{mbkf}$) = the stage/elevation at which flood-prone area WIDTH is determined. (riffle section)

Entrenchment Ratio (ER) 5.0 (I-I') 11.1 (L-L')
The ratio of flood-prone area WIDTH divided by bankfull channel WIDTH. (W_{fpa}/W_{bkf}) (riffle section)

Channel Materials *(Particle Size Index)* D50 19.6 mm.
The D50 particle size index represents the **median** diameter of channel materials, as sampled from the channel surface, between the bankfull stage and thalweg elevations.

Water Surface SLOPE (S) 0.0037 Ft./Ft.
Channel slope = "rise" over "run" for a reach approximately 20 - 30 bankfull channel widths in length, with the "riffle to riffle" water surface slope representing the gradient at bankfull stage.

Channel SINUOSITY (K) 1.23
Sinuosity is an index of channel pattern, determined from a ratio of stream length divided by valley length (SL/ VL); or estimated from a ratio of valley slope divided by channel slope (VS/S).

Stream Type C4 *For reference, note: StreamType Chart & Classification Key*

TABLE 2. Level II classificaton criteria, (field form)