SAMPLE\_TYPE METRIC LABEL

PHab boatable: residual pools ARFASLIM Resid. Pool Vert Profile Area (m2/reach) Resid. Pool Vert Profile Area (m2/reach) PHab wadeable: residual pools **AREASUM** PHab boatable: bank morphology **BANGMODE** Mode of bank slope category (Zar 1984) PHab boatable: bank morphology BAP LOW Bank slopes 0-5 degrees (% reach) PHab boatable: bank morphology BAP MED Bank slopes 5-30 degrees (% reach) PHab boatable: bank morphology BAP\_STP Bank slopes 30-75 degrees (% reach) PHab boatable: bank morphology BAP VST Bank slopes >75 degrees (% reach) PHAB BEDSED COND MOD Model used for Expected LRBS

PHab boatable: channel morphology BFWD\_RAT Bankfull Width/Depth Ratio
PHab wadeable: channel morphology BFWD\_RAT Bankfull Width/Depth Ratio

PHab wadeable: bank morphology BKA Q1 Bank Angle-Lower Quartile (degrees) Bank Angle-Upper Quartile (degrees) PHab wadeable: bank morphology BKA\_Q3 PHab wadeable: bank morphology BKUN Q1 Undercut Distance-Lower Quartile (m) PHab wadeable: bank morphology BKUN Q3 Undercut Distance-Upper Quartile (m) PHab boatable: large woody debris C<sub>1</sub>D LWD in Bkf channel&dry (#/rch-all sizes) PHab wadeable: large woody debris C<sub>1</sub>D LWD above Bkf channel (#/rch-all sizes) PHab boatable: large woody debris C1DM100 LWD in Bkf chnl & dry (#/100m-all sizes) PHab wadeable: large woody debris C1DM100 LWD above Bkf chnl (#/100m-all sizes) PHab boatable: large woody debris C1T LWD in/over wetted chnl(#/rch-all sizes) PHab wadeable: large woody debris C1T LWD in/over Bkf channel(#/rch-all sizes) PHab boatable: large woody debris C1TM100 LWD in/above wet chan(#/100m-all sizes) PHab wadeable: large woody debris C1TM100 LWD in/above Bkfl chan(#/100m-all sizes) PHab boatable: large woody debris C1W LWD in wetted channel(#/rch-all sizes) PHab wadeable: large woody debris C1W LWD in Bankfull channel(#/rch-all sizes) PHab boatable: large woody debris C1W\_MSQ LWD in wetted chnl (#/m2-all sizes) PHab wadeable: large woody debris C1W MSQ LWD in Bkf chnl (#/m2-all sizes) PHab boatable: large woody debris C1WM100 Woody Debris pieces/100m PHab wadeable: large woody debris C1WM100 Woody Debris pieces/100m

PHab boatable: large woody debris C2D LWD in Bkf channel & dry (#/rch-SMLX) PHab wadeable: large woody debris C2D LWD above Bkf channel (#/rch-SMLX) PHab boatable: large woody debris C2DM100 LWD in Bkf chnl & dry (#/100m-SMLX) PHab wadeable: large woody debris C2DM100 LWD above Bkf chnl (#/100m-SMLX) PHab boatable: large woody debris C2T LWD in/over wetted chnl (#/rch-SMLX) PHab wadeable: large woody debris C2T LWD in/over Bkf channel (#/rch-SMLX) LWD in/above wetted chan(#/100m-SMLX) PHab boatable: large woody debris C2TM100 PHab wadeable: large woody debris C2TM100 LWD in/above Bkfl chan (#/100m-SMLX) PHab boatable: large woody debris C2W LWD in wetted channel (#/rch-SMLX) C2W PHab wadeable: large woody debris LWD in Bankfull channel (#/rch-SMLX) PHab boatable: large woody debris C2W MSQ LWD in wetted chnl (#/m2-SMLX) PHab wadeable: large woody debris C2W MSQ LWD in Bkf chnl (#/m2-SMLX) PHab boatable: large woody debris C2WM100 LWD in wetted chnl (#/100m-SMLX) PHab wadeable: large woody debris C2WM100 LWD in Bkf chnl (#/100m-SMLX) PHab boatable: large woody debris C3D LWD in Bkf channel & dry (#/rch-MLX) C3D LWD above Bkf channel (#/rch-MLX) C3DM100 LWD in Bkf chnl & dry (#/100m-MLX) LWD above Bkf chnl (#/100m-MLX) C3DM100

PHab wadeable: large woody debris PHab boatable: large woody debris PHab wadeable: large woody debris PHab boatable: large woody debris C3T LWD in/over wetted channel (#/rch-MLX) PHab wadeable: large woody debris C3T LWD in/over Bkf channel (#/rch-MLX) PHab boatable: large woody debris C3TM100 LWD in/above wetted chan (#/100m-MLX) PHab wadeable: large woody debris C3TM100 LWD in/above Bkfl chan (#/100m-MLX) PHab boatable: large woody debris C3W LWD in wetted channel (#/rch-MLX) PHab wadeable: large woody debris C3W LWD in Bankfull channel (#/rch-MLX) PHab boatable: large woody debris C3W\_MSQ LWD in wetted chnl (#/m2-MLX) PHab wadeable: large woody debris C3W\_MSQ LWD in Bkf chnl (#/m2-MLX) PHab boatable: large woody debris C3WM100 LWD in wetted chnl (#/100m-MLX)

PHab wadeable: large woody debris C3WM100 LWD in Bkf chnl (#/100m-MLX) C4D LWD in Bkf channel & dry (#/rch-LX) PHab boatable: large woody debris LWD above Bkf channel (#/rch-LX) PHab wadeable: large woody debris C4D PHab boatable: large woody debris C4DM100 LWD in Bkf chnl & dry (#/100m-LX) PHab wadeable: large woody debris C4DM100 LWD above Bkf chnl (#/100m-LX) C4T LWD in/over wetted channel (#/rch-LX) PHab boatable: large woody debris PHab wadeable: large woody debris C4T LWD in/over Bkf channel (#/rch-LX) PHab boatable: large woody debris C4TM100 LWD in/above wetted chan (#/100m-LX) PHab wadeable: large woody debris C4TM100 LWD in/above Bkfl chan (#/100m-LX) PHab boatable: large woody debris C4W LWD in wetted channel (#/rch-LX) C4W LWD in Bankfull channel (#/rch-LX) PHab wadeable: large woody debris PHab boatable: large woody debris C4W MSQ LWD in wetted chnl (#/m2-LX) C4W\_MSQ LWD in Bkf chnl (#/m2-LX) PHab wadeable: large woody debris PHab boatable: large woody debris C4WM100 LWD in wetted chnl (#/100m-LX) PHab wadeable: large woody debris C4WM100 LWD in Bkf chnl (#/100m-LX) PHab boatable: large woody debris C5D LWD in Bkf channel & dry (#/rch-X) PHab wadeable: large woody debris C5D LWD above Bkf channel (#/rch-X) PHab boatable: large woody debris C5DM100 LWD in Bkf chnl & dry (#/100m-X) PHab wadeable: large woody debris C5DM100 LWD above Bkf chnl (#/100m-X) PHab boatable: large woody debris C5T LWD in/over wetted channel (#/rch-X) PHab wadeable: large woody debris C5T LWD in/over Bkf channel (#/rch-X) PHab boatable: large woody debris C5TM100 LWD in/above wetted chan (#/100m-X) PHab wadeable: large woody debris C5TM100 LWD in/above Bkfl chan (#/100m-X) PHab boatable: large woody debris C5W LWD in wetted channel (#/rch-X) LWD in Bankfull channel (#/rch-X) PHab wadeable: large woody debris C5W PHab boatable: large woody debris C5W\_MSQ LWD in wetted chnl (#/m2-X) PHab wadeable: large woody debris C5W MSQ LWD in Bkf chnl (#/m2-X) PHab boatable: large woody debris C5WM100 LWD in wetted chnl (#/100m-X) PHab wadeable: large woody debris C5WM100 LWD in Bkf chnl (#/100m-X) PHab boatable: channel characteristics **CONBANKFULL** Site bankfull width PHab wadeable: channel characteristics CONBANKFULL Site bankfull width PHab boatable: channel characteristics **CONFEATURES** Constraining features PHab wadeable: channel characteristics **CONFEATURES** Constraining features PHab boatable: channel characteristics **CONPATTERN** Channel pattern

PHab boatable: channel characteristics CONPERCENT Percent of channel length in contact with constraining features

Channel pattern

Valley boarders not seen

PHab boatable: channel characteristics CONSTRAINT Channel constraint type
PHab wadeable: channel characteristics CONSTRAINT Channel constraint type
PHab boatable: channel characteristics CONVALLEY Valley width, estimated
PHab wadeable: channel characteristics CONVALLEY Valley width, estimated
PHab boatable: channel characteristics CONVALLEY Valley boarders not seen

CONVALLEYBOX

**CONPATTERN** 

CONPERCENT

PHab wadeable: channel characteristics

PHab wadeable: channel characteristics

PHab wadeable: channel characteristics

PHab wadeable: bed stability

PHab boatable: bed stability

CP3\_MILL

Hydraulic resistance due to bed particles at bank full

PHab wadeable: bed stability

CP3\_MILL

Hydraulic resistance due to bed particles at bank full

Ratio of particle to total hydraulic resistances at bank full, not

Percent of channel length in contact with constraining features

PHab boatable: bed stability CP3CTRPWD\_RAT allowed to exceed 1

Ratio of particle to total hydraulic resistances at bank full, not

CP3CTRPWD\_RAT allowed to exceed 1

PHab boatable: bed stability
CT\_RPWD
Hydraulic resistance, total at bank full
PHab wadeable: bed stability
CT\_RPWD
Hydraulic resistance, total at bank full
Hydraulic resistance, total at bank full
16th pctl. mobile substrate diam (interpmm)
PHab wadeable: substrate characterization
PHab boatable: substrate characterization

PHab wadeable: substrate characterization D50 Median mobile substrate diam (interpmm)
PHab boatable: substrate characterization D84 84th pctl. mobile substrate diam (interpmm)
PHab wadeable: substrate characterization D84 84th pctl. mobile substrate diam (interpmm)

PHab boatable: substrate characterization DCBF\_G08 Erod. sub. dia. Geom (2008)
PHab wadeable: substrate characterization DCBF\_G08 Erod. sub. dia. Geom (2008)

DGM PHab boatable: substrate characterization Mean mobile substrate diameter (mm) PHab wadeable: substrate characterization DGM Mean mobile substrate diameter (mm) PHab boatable: fish cover **IDROHV** interdecadal range overhanging veg len. PHab wadeable: fish cover **IDROHV** interdecadal range overhanging veg len. PHab boatable: fish cover **IDRUCB** interdecadal range undercut bank length PHab wadeable: fish cover **IDRUCB** interdecadal range undercut bank length

PHAB INSTRMCVR\_COND\_MOD Model used for Expected Instream habitat cover and complexity

PHab wadeable: bank morphology INTOBKA Bank Angle-interquartile range (degrees) PHab wadeable: bank morphology INTOBKUN Undercut Distance- interquart range (m) PHab boatable: fish cover **IQROHV** interquartile range overhanging veg len. PHab wadeable: fish cover **IQROHV** interquartile range overhanging veg len. PHab boatable: fish cover **IQRUCB** interquartile range undercut bank length PHab wadeable: fish cover **IQRUCB** interquartile range undercut bank length

 PHAB
 L\_XCMGW
 Log10(XCMGW + 0.01

 PHAB
 L\_XFC\_NAT
 Log10(XFC\_NAT + 0.01)

PHab boatable: substrate characterization LDCBF\_G08 Log10(Streambed Critical Diameter-at Bankfull -- mm)(PRK 2008)

PHab wadeable: substrate characterization LDCBF\_G08 Log10(Streambed Critical Diameter-at Bankfull -- mm)(PRK 2008)

PHab boatable: bed stability LDMB\_BW4 Log10[Erodible Substr Dia.(mm)]-old #2 PHab wadeable: bed stability LDMB\_BW4 Log10[Erod. Substr Dia.(mm)]-old #2

PHab boatable: bed stability LDMB\_BW5 Log10(Streambed Critical Diameter-at Bankfull - mm) (PRK 1999)

PHab wadeable: bed stability LDMB\_BW5 Log10(Streambed Critical Diameter-at Bankfull - mm) (PRK 1999)

Count/reach all small dia lwd PHab boatable: large woody debris **LGDIATOT LGDIATOT** Count/reach all small dia lwd PHab wadeable: large woody debris PHab boatable: large woody debris **LGDRYDIA** Count/reach all dry large dia lwd Count/reach all dry large dia lwd PHab wadeable: large woody debris **LGDRYDIA** PHab boatable: large woody debris **LGDRYLEN** Count/reach all dry long len lwd PHab wadeable: large woody debris **LGDRYLEN** Count/reach all dry long len lwd PHab boatable: large woody debris **LGLENTOT** Count/reach all long len lwd PHab wadeable: large woody debris **LGLENTOT** Count/reach all long len lwd PHab boatable: large woody debris Count/reach all wet large dia lwd **LGWETDIA** Count/reach all wet large dia lwd PHab wadeable: large woody debris **LGWETDIA** PHab boatable: large woody debris **LGWETLEN** Count/reach all wet long len lwd PHab wadeable: large woody debris **LGWETLEN** Count/reach all wet long len lwd PHab boatable: bed stability LRBS\_BW4 Log10[Relative Bed Stability] - old #2 PHab wadeable: bed stability LRBS BW4 Log10[Relative Bed Stability] - old #2

PHab boatable: bed stability LRBS\_BW5 Log10(Relative Bed Stability (Dgm/Dcb) (PRK 1999)
PHab wadeable: bed stability LRBS\_BW5 Log10(Relative Bed Stability (Dgm/Dcb) (PRK 1999)

PHab boatable: bed stability LRBS\_BW6 Log10[Erod. sub. dia.]- Est. 2 split BL PHab wadeable: bed stability LRBS\_BW6 Log10[Erod. sub. dia.]- Est. 2 split BL

PHab boatable: bed stability LRBS\_G08 Log10(Relative Bed Stability (Dgm/Dcb) (PRK 2008)

PHab wadeable: bed stability LRBS\_G08 Log10(Relative Bed Stability (Dgm/Dcb) (PRK 2008)

PHAB LRBS\_G08\_SUBST Substitute LRBS variable if LRBS\_g08 missing

PHab boatable: bed stability LRBS\_TST Log10[Relative Bed Stability] - Fast est
PHab wadeable: bed stability LRBS\_TST Log10[Relative Bed Stability] - Fast est

Log relative bed stability to use in assessing BEDSED\_COND, filled

PHAB LRBS\_USE in from other variables as needed

PHab boatable: substrate characterization	LSUB_D16	Thalweg subD16 LOG10(Diam Class mm)
PHab wadeable: substrate characterization	LSUB_D16	Substrate-D16 LOG10(Diam Class mm)
PHab boatable: substrate characterization	LSUB_D25	Thalweg subD25 LOG10(Diam Class mm)
PHab wadeable: substrate characterization	LSUB_D25	Substrate-D25 LOG10(Diam Class mm)
PHab boatable: substrate characterization	LSUB_D50	Thalweg subMedian LOG10(Diam Class mm)
PHab wadeable: substrate characterization	LSUB_D50	Substrate-Median LOG10(Diam Class mm)
PHab boatable: substrate characterization	LSUB_D75	Thalweg subD75 LOG10(Diam Class mm)
PHab wadeable: substrate characterization	LSUB_D75	Substrate-D75 LOG10(Diam Class mm)
PHab boatable: substrate characterization	LSUB_D84	Thalweg subD84 LOG10(Diam Class mm)
PHab wadeable: substrate characterization	LSUB_D84	Substrate-D84 LOG10(Diam Class mm)
		Log10(DgmGeometric Mean Bed Surface Particle Diameter
PHab boatable: substrate characterization	LSUB_DMM	mm))
		Log10(DgmGeometric Mean Bed Surface Particle Diameter
PHab wadeable: substrate characterization	LSUB_DMM	mm))
		Log10(DgmGeom.Mean Bed Surf.Part Diam,exclud
PHab boatable: substrate characterization	LSUB_DMM_NOR	Bdrk+hardpanmm)
		Log10(DgmGeom.Mean Bed Surf.Part Diam,exclud
PHab wadeable: substrate characterization	LSUB_DMM_NOR	Bdrk+hardpanmm)
PHab boatable: substrate characterization	LSUB_IQR	Thal subIntQt Rng LOG10(Diam class mm)
PHab wadeable: substrate characterization	LSUB_IQR	Substrate-IntQt Rng LOG10(Diam class mm)
PHab boatable: substrate characterization	LSUB2D16	the 16.0000 percentile log2dmm
PHab wadeable: substrate characterization	LSUB2D16	the 16.0000 percentile log2dmm
PHab boatable: substrate characterization	LSUB2D16INOR	Mobile logd D16 interpolated 2 BL classes
PHab wadeable: substrate characterization	LSUB2D16INOR	Mobile logd D16 interpolated 2 BL classes
PHab boatable: substrate characterization	LSUB2D25	the lower quartile log2dmm
PHab wadeable: substrate characterization	LSUB2D25	the lower quartile log2dmm
PHab boatable: substrate characterization	LSUB2D50	the median log2dmm
PHab wadeable: substrate characterization	LSUB2D50	the median log2dmm
PHab boatable: substrate characterization	LSUB2D50INOR	Mobile logd D50 interpolated 2 BL classes
PHab wadeable: substrate characterization	LSUB2D50INOR	Mobile logd D50 interpolated 2 BL classes
PHab boatable: substrate characterization	LSUB2D75	the upper quartile log2dmm
PHab wadeable: substrate characterization	LSUB2D75	the upper quartile log2dmm
PHab boatable: substrate characterization	LSUB2D84	the 84.0000 percentile log2dmm
PHab wadeable: substrate characterization	LSUB2D84	the 84.0000 percentile log2dmm
PHab boatable: substrate characterization	LSUB2D84INOR	Mobile logd D84 interpolated 2 BL classes
PHab wadeable: substrate characterization	LSUB2D84INOR	Mobile logd D84 interpolated 2 BL classes
PHab boatable: substrate characterization	LSUB2DMM	the mean log2dmm
PHab wadeable: substrate characterization	LSUB2DMM	the mean log2dmm
PHab boatable: substrate characterization	LSUB2DMM_NOR	Mobile mean logged diam 2 BL classes
PHab wadeable: substrate characterization	LSUB2DMM_NOR	Mobile mean logged diam 2 BL classes
PHab boatable: substrate characterization	LSUB2IQR	the interquartile range log2dmm
PHab wadeable: substrate characterization	LSUB2IQR	the interquartile range log2dmm
PHab boatable: substrate characterization	LSUBD_SD	Thalweg subStDev LOG10(Diam Class mm)
PHab wadeable: substrate characterization	LSUBD_SD	Substrate-StDev LOG10(Diam Class mm)
PHab boatable: substrate characterization	LSUBD_SD_NOR	Mobile stdev logged diam
PHab wadeable: substrate characterization	LSUBD_SD_NOR	Mobile stdev logged diam
PHab boatable: substrate characterization	LSUBD2SD	the standard deviation log2dmm
PHab wadeable: substrate characterization	LSUBD2SD	the standard deviation log2dmm
PHab boatable: substrate characterization	LSUBD2SD_NOR	Mobile stdev logged diam 2 BL classes
PHab wadeable: substrate characterization	LSUBD2SD_NOR	Mobile stdev logged diam 2 BL classes
PHab boatable: bed stability	LTEST	Log10[Erodible Substr Dia.(mm)]-Fast est
PHab wadeable: bed stability	LTEST	Log10[Erod. Substr Dia.(mm)]-Fast est
PHab boatable: large woody debris	LWDDV33	Volume/reach (Robison 1998) of dry lwd
PHab wadeable: large woody debris	LWDDV33	Volume/reach (Robison 1998) of dry lwd
PHab boatable: large woody debris	LWDDVCAL	Volume/reach (other) of dry lwd
PHab wadeable: large woody debris	LWDDVCAL	Volume/reach (other) of dry lwd

PHab boatable: large woody debris LWDTV33 Volume/reach (Robison 1998) of all lwd LWDTV33 Volume/reach (Robison 1998) of all lwd PHab wadeable: large woody debris LWDTVCAL Volume/reach (other) of all lwd PHab boatable: large woody debris PHab wadeable: large woody debris LWDTVCAL Volume/reach (other) of all lwd PHab boatable: large woody debris LWDWV33 Volume/reach (Robison 1998) of wet lwd LWDWV33 Volume/reach (Robison 1998) of wet lwd PHab wadeable: large woody debris PHab boatable: large woody debris LWDWVCAL Volume/reach (other) of wet lwd PHab wadeable: large woody debris **LWDWVCAL** Volume/reach (other) of wet lwd PHab boatable: large woody debris **MDDIATOT** Count/reach all small dia lwd PHab wadeable: large woody debris **MDDIATOT** Count/reach all small dia lwd Count/reach all dry medium dia lwd PHab boatable: large woody debris **MDDRYDIA** PHab wadeable: large woody debris **MDDRYDIA** Count/reach all dry medium dia lwd PHab boatable: large woody debris **MDDRYLEN** Count/reach all dry medium len lwd PHab wadeable: large woody debris **MDDRYLEN** Count/reach all dry medium len lwd PHab boatable: large woody debris **MDLENTOT** Count/reach all medium len lwd PHab wadeable: large woody debris **MDLENTOT** Count/reach all medium len lwd PHab boatable: large woody debris **MDWETDIA** Count/reach all wet medium dia lwd PHab wadeable: large woody debris **MDWETDIA** Count/reach all wet medium dia lwd PHab boatable: large woody debris **MDWETLEN** Count/reach all wet medium len lwd PHab wadeable: large woody debris **MDWETLEN** Count/reach all wet medium len lwd PHab wadeable: bank morphology MEDBK A Bank Angle--Median (degrees) PHab wadeable: bank morphology **MEDBKUN** Undercut Distance--Median (m) PHab boatable: littoral depth **MNLIT** Minimum littoral depth (m) PHab boatable: channel characteristics **MNSHOR** Minimum distance shore to vegetation (m) PHab boatable: littoral depth MXI IT Maximum littoral depth (m) **MXSHOR** PHab boatable: channel characteristics Maximum distance shore to vegetation (m) PHab boatable: substrate characterization Ν Number of obs. of substrate SIZE CLS PHab wadeable: substrate characterization Ν Number of obs. of substrate SIZE CLS PHab boatable: bank morphology N BA Number of observations--Bank Angle PHab wadeable: bank morphology N BA Number of observations--Bank Angle number of nonmissing values bf\_rat PHab boatable: channel morphology N BFRAT PHab wadeable: channel morphology N\_BFRAT number of nonmissing values bfwd\_rat PHab boatable: channel morphology N BH no observations-Bankfull Height PHab wadeable: channel morphology N BH no observations-Bankfull Height PHab boatable: channel morphology N BW no observations--Bankfull Width PHab wadeable: channel morphology N BW no observations--Bankfull Width  $N_D$ PHab boatable: channel morphology Number of obs -- Thalweg Depth PHab wadeable: channel morphology N D Number of obs -- Thalweg Depth N INCIS no of observations-Chan Incision Ht.(m) PHab boatable: channel morphology PHab wadeable: channel morphology N INCIS no of observations-Chan Incision Ht.(m) PHab boatable: substrate characterization N NOR Number of mobile substrate PHab wadeable: substrate characterization N NOR Number of mobile substrate PHab wadeable: bank morphology N\_UN Number of observations--Undercut dist. PHab boatable: channel morphology  $N_W$ Number of obs -- Wetted Width PHab wadeable: bank morphology N W Number of obs -- Wetted Width PHab boatable: channel morphology N WD Number of obs -- W\*D Product PHab wadeable: channel morphology Number of obs -- W\*D Product N WD PHab boatable: channel morphology N\_WDR Number of obs -- W/D Ratio PHab wadeable: channel morphology N WDR Number of obs -- W/D Ratio N33 PHab boatable: substrate embeddedness number of observations in XEMBED PHab wadeable: substrate embeddedness N33 number of observations in XEMBED PHab boatable: substrate embeddedness N55 number of observations in XCEMBED PHab wadeable: substrate embeddedness N55 number of observations in XCEMBED PHab boatable: canopy densiometer **NBNK** Number of Bank Obs-Densiometer **NBNK** Number of Bank Obs-Densiometer PHab wadeable: canopy densiometer PHab boatable: large woody debris NC number of nonmissing wet obs

PHab wadeable: large woody debris	NC	number of nonmissing wet obs
PHab boatable: canopy densiometer	NMID	Number of Mid-channel Obs-Densiometer
PHab wadeable: canopy densiometer	NMID	Number of Mid-channel Obs-Densiometer
PHab boatable: large woody debris	NS	number of nonmissing dry obs
PHab wadeable: large woody debris	NS	number of nonmissing dry obs
PHab boatable: slope & bearing	NSLP	# of values used to calc mean slope
PHab wadeable: slope & bearing	NSLP	# of values used to calc mean slope
PHab boatable: riparian vegetation	PCAN_C	Riparian Canopy Coniferous (Fract reach)
PHab wadeable: riparian vegetation	PCAN_C	Riparian Canopy Coniferous (Fract reach)
PHab boatable: riparian vegetation	PCAN_D	Riparian Canopy Deciduous (Fract. reach)
PHab wadeable: riparian vegetation	PCAN_D	Riparian Canopy Deciduous (Fract. reach)
PHab boatable: riparian vegetation	PCAN_E	Rip Canopy Broadlf evrgrn (Fract of rch)
PHab wadeable: riparian vegetation	PCAN_E	Rip Canopy Broadlf evrgrn (Fract of rch)
PHab boatable: riparian vegetation	PCAN_M	Rip Canopy Mix Conif-Decid (Fract reach)
PHab wadeable: riparian vegetation	PCAN_M	Rip Canopy Mix Conif-Decid (Fract reach)
PHab boatable: riparian vegetation	PCAN N	Rip Canopy Absent (Fraction of reach)
PHab wadeable: riparian vegetation	PCAN_N	Rip Canopy Absent (Fraction of reach)
PHab boatable: substrate characterization	PCT_BDRK	Bed Surface % Bedrock
PHab wadeable: substrate characterization	PCT BDRK	Bed Surface % Bedrock
PHab boatable: substrate characterization	PCT_BH	Bed Surface % Bedrock + Hardpan
PHab boatable: substrate characterization	PCT_BIGR	Bed Surface % Larger than Gravel (64mm)
PHab wadeable: substrate characterization	PCT_BIGR	Bed Surface % Larger than Gravel (64mm)
PHab boatable: substrate characterization	PCT_BL	Thalweg sub. Boulders 250-4000 mm (%)
PHab wadeable: substrate characterization	PCT_BL	Substrate Boulders 250-4000 mm (%)
PHab boatable: channel habitat	PCT_CA	Cascade (% of reach)
PHab wadeable: channel habitat	PCT_CA	Cascade (% of reach)
PHab boatable: substrate characterization	PCT_CB	Thalweg sub. Cobbles 64-250 mm (%)
PHab wadeable: substrate characterization	PCT_CB	Substrate Cobbles 64-250 mm (%)
PHab boatable: substrate characterization	PCT_DBBL	Pct. littoral substrate with BL dominant
PHab boatable: substrate characterization	PCT_DBCB	Pct. littoral substrate with CB dominant
PHab boatable: substrate characterization	PCT_DBFN	Pct. littoral substrate with FN dominant
PHab boatable: substrate characterization	PCT_DBGC	Pct. littoral substrate with GC dominant
PHab boatable: substrate characterization	PCT_DBGF	Pct. littoral substrate with GF dominant
PHab boatable: substrate characterization	PCT_DBHP	Pct. littoral substrate with HP dominant
PHab boatable: substrate characterization	PCT_DBOM	Pct. littoral substrate with OM dominant
PHab boatable: substrate characterization	PCT_DBOT	Pct. littoral substrate with OT dominant
PHab boatable: substrate characterization	PCT_DBRC	Pct. littoral substrate with BC dominant
PHab boatable: substrate characterization	PCT_DBRR	Pct. littoral substrate with RR dominant
PHab boatable: substrate characterization	PCT_DBRS	Pct. littoral substrate with RS dominant
PHab boatable: substrate characterization	PCT_DBSA	Pct. littoral substrate with SA dominant
PHab boatable: substrate characterization	PCT_DBSB	Pct. littoral substrate with SB dominant
PHab boatable: substrate characterization	PCT_DBWD	Pct. littoral substrate with WD dominant
	<del>-</del>	Pct. littoral substrate with XB dominant
PHab boatable: substrate characterization	PCT_DBXB	
PHab boatable: channel habitat	PCT_DR	Percent of Reach that is Dry
PHab wadeable: channel habitat	PCT_DR	Percent of Reach that is Dry
PHab boatable: substrate characterization	PCT_DSBL	Pct. shore substrate with BL dominant
PHab boatable: substrate characterization	PCT_DSCB	Pct. shore substrate with CB dominant
PHab boatable: substrate characterization	PCT_DSFN	Pct. shore substrate with FN dominant
PHab boatable: substrate characterization	PCT_DSGC	Pct. shore substrate with GC dominant
PHab boatable: substrate characterization	PCT_DSGF	Pct. shore substrate with GF dominant
PHab boatable: substrate characterization	PCT_DSHP	Pct. shore substrate with HP dominant
PHab boatable: substrate characterization	PCT_DSOM	Pct. shore substrate with OM dominant
PHab boatable: substrate characterization	PCT_DSOT	Pct. shore substrate with OT dominant
PHab boatable: substrate characterization	PCT_DSRC	Pct. shore substrate with RC dominant
PHab boatable: substrate characterization	PCT_DSRR	Pct. shore substrate with RR dominant
PHab boatable: substrate characterization	PCT_DSRS	Pct. shore substrate with RS dominant

PHab boatable: substrate characterization	PCT_DSSA	Pct. shore substrate with SA dominant
PHab boatable: substrate characterization	PCT_DSSB	Pct. shore substrate with SB dominant
PHab boatable: substrate characterization	PCT_DSWD	Pct. shore substrate with WD dominant
PHab boatable: substrate characterization	PCT_DSXB	Pct. shore substrate with XB dominant
PHab boatable: channel habitat	PCT_FA	Falls (% of reach)
PHab wadeable: channel habitat	PCT_FA	Falls (% of reach)
PHab boatable: channel habitat	PCT_FAST	Percent Fast Water Habitat
PHab wadeable: channel habitat	PCT_FAST	Percent Fast Water Habitat
PHab boatable: substrate characterization	PCT_FN	Bed Surface % Fines < 0.06mm
PHab wadeable: substrate characterization	PCT_FN	Bed Surface % Fines < 0.06mm
PHab boatable: substrate characterization	PCT_GC	Substrate Coarse Gravel 16-64 mm (%)
PHab wadeable: substrate characterization	PCT_GC	Substrate Coarse Gravel 16-64 mm (%)
PHab boatable: substrate characterization	PCT_GF	Substrate Fine Gravel 2-16 mm (%)
PHab wadeable: substrate characterization	PCT_GF	Substrate Fine Gravel 2-16 mm (%)
PHab boatable: channel habitat	PCT_GL	Glide (% of reach)
PHab wadeable: channel habitat	PCT_GL	Glide (% of reach)
PHab boatable: substrate characterization	PCT_GR	Thalweg substrate Gravel 16-64 mm (%)
PHab boatable: substrate characterization	PCT_HP	Bed Surface % Hardpan
Phab wadeable: substrate characterization	PCT_HP	Bed Surface % Hardpan
PHab boatable: substrate characterization	PCT_OM	Substrate Organic detritus (%)
PHab wadeable: substrate characterization	PCT_OM	Substrate Organic detritus (%)
PHab boatable: substrate characterization	PCT_ORG	Substrate Wood or Detritus (%)
PHab wadeable: substrate characterization	PCT ORG	Substrate Wood or Detritus (%)
PHab boatable: substrate characterization	PCT_OT	Thalweg substrate Miscellaneous (%)
PHab wadeable: substrate characterization	PCT_OT	Substrate Miscellaneous (%)
PHab boatable: channel characteristics	PCT_OVRB	Ability to see over bank (% reach)
PHab boatable: channel habitat	_	, ,
PHab wadeable: channel habitat	PCT_POOL PCT_POOL	Pools All Types (% of reach)
PHab boatable: channel habitat	_	Pools All Types (% of reach)
	PCT_RA	Rapids (% of reach)
PHab wadeable: channel habitat	PCT_RA	Rapids (% of reach)
PHab boatable: substrate characterization	PCT_RC	Substrate Concrete (%)
PHab wadeable: substrate characterization	PCT_RC	Substrate Concrete (%)
PHab boatable: channel habitat	PCT_RI	Riffle (% of reach)
PHab wadeable: channel habitat	PCT_RI	Riffle (% of reach)
PHab boatable: substrate characterization	PCT_RR	Substrate Rough Bedrock (%)
PHab wadeable: substrate characterization	PCT_RR	Substrate Rough Bedrock (%)
PHab boatable: substrate characterization	PCT_RS	Substrate Smooth Bedrock (%)
PHab wadeable: substrate characterization	PCT_RS	Substrate Smooth Bedrock (%)
PHab boatable: substrate characterization	PCT_SA	Thalweg substrate Sand06-2 mm (%)
PHab wadeable: substrate characterization	PCT_SA	Substrate Sand06-2 mm (%)
PHab boatable: substrate characterization	PCT_SAFN	Bed Surface Percent Sand or smaller (<2.0mm)
PHab wadeable: substrate characterization	PCT_SAFN	Bed Surface Percent Sand or smaller (<2.0mm)
PHab boatable: substrate characterization	PCT_SB	Substrate Boulders 250-1000 mm (%)
PHab wadeable: substrate characterization	PCT_SB	Substrate Boulders 250-1000 mm (%)
PHab boatable: substrate characterization	PCT_SBBL	Pct. littoral substrate with BL subdom.
PHab boatable: substrate characterization	PCT_SBCB	Pct. littoral substrate with CB subdom.
PHab boatable: substrate characterization	PCT_SBFN	Pct. littoral substrate with FN subdom.
PHab boatable: substrate characterization	PCT_SBGC	Pct. littoral substrate with GC subdom.
PHab boatable: substrate characterization	PCT_SBGF	Pct. littoral substrate with GF subdom.
PHab boatable: substrate characterization	PCT_SBHP	Pct. littoral substrate with HP subdom.
PHab boatable: substrate characterization	PCT_SBOM	Pct. littoral substrate with OM subdom.
PHab boatable: substrate characterization	PCT_SBOT	Pct. littoral substrate with OT subdom.
PHab boatable: substrate characterization	PCT_SBRC	Pct. littoral substrate with RC subdom.
PHab boatable: substrate characterization	PCT_SBRR	Pct. littoral substrate with RR subdom.
PHab boatable: substrate characterization	PCT_SBRS	Pct. littoral substrate with RS subdom.
PHab boatable: substrate characterization	PCT_SBSA	Pct. littoral substrate with SA subdom.

PHab boatable: substrate characterization	PCT_SBSB	Pct. littoral substrate with SB subdom.
PHab boatable: substrate characterization	PCT_SBWD	Pct. littoral substrate with WD subdom.
PHab boatable: substrate characterization	PCT_SBXB	Pct. littoral substrate with XB subdom.
PHab boatable: substrate characterization	PCT_SFGF	Bed Surface Fine Gravel or smaller (<16mm)
PHab wadeable: substrate characterization	PCT_SFGF	Bed Surface Fine Gravel or smaller (<16mm)
PHab boatable: general	PCT_SIDE	Percent of reach with side Channels/Bkwtrs
PHab wadeable: general	PCT_SIDE	Percent of reach with side Channels/Bkwtrs
PHab boatable: channel habitat	PCT_SLOW	Percent of reach with Pool or Glide Habitat.
PHab wadeable: channel habitat	PCT_SLOW	Percent of reach with Pool or Glide Habitat.
PHab boatable: substrate characterization	PCT_SSBL	Pct. shore substrate with BL subdominant
PHab boatable: substrate characterization	PCT_SSCB	Pct. shore substrate with CB subdominant
PHab boatable: substrate characterization	PCT_SSFN	Pct. shore substrate with FN subdominant
PHab boatable: substrate characterization	PCT_SSGC	Pct. shore substrate with GC subdominant
PHab boatable: substrate characterization	PCT_SSGF	Pct. shore substrate with GF subdominant
PHab boatable: substrate characterization	PCT_SSHP	Pct. shore substrate with HP subdominant
PHab boatable: substrate characterization	PCT_SSOM	Pct. shore substrate with OM subdominant
PHab boatable: substrate characterization	PCT_SSOT	Pct. shore substrate with OT subdominant
PHab boatable: substrate characterization	PCT_SSRC	Pct. shore substrate with RC subdominant
PHab boatable: substrate characterization	PCT_SSRR	Pct. shore substrate with RR subdominant
PHab boatable: substrate characterization	PCT_SSRS	Pct. shore substrate with RS subdominant
PHab boatable: substrate characterization	PCT_SSSA	Pct. shore substrate with SA subdominant
PHab boatable: substrate characterization	PCT_SSSB	Pct. shore substrate with SB subdominant
PHab boatable: substrate characterization	PCT_SSWD	Pct. shore substrate with WD subdominant
PHab boatable: substrate characterization	PCT_SSXB	Pct. shore substrate with XB subdominant
PHab boatable: substrate characterization	PCT_WD	Substrate Woody (%)
PHab wadeable: substrate characterization	PCT_WD	Substrate Woody (%)
PHab boatable: substrate characterization	PCT_XB	Substrate Boulders 1000-4000 mm (%)
PHab wadeable: substrate characterization	PCT_XB	Substrate Boulders 1000-4000 mm (%)
PHab boatable: channel characteristics	PCTCH_B	Broad valley unconst. channel (% rch)
PHab boatable: channel characteristics	PCTCH_C	Constrained channel (% reach)
PHab boatable: channel characteristics	PCTCH_N	Narrow valley unconst. channel (% rch)
PHab boatable: channel characteristics	PCTCH_U	Unconstrained channel (% reach)
PHab boatable: slope and bearing	PCTCLINOMETER	Percent of slope values based on hand held clinometer
PHab wadeable: slope and bearing	PCTCLINOMETER	Percent of slope values based on hand held clinometer
PHab boatable: fish cover	PFC_ALG	Littoral fil. algae presence (% Rch)
PHab wadeable: fish cover	PFC_ALG	Filamentous Algae Presence (% Rch)
PHab boatable: fish cover	PFC_ALL	Littoral sum(all type presence) (% Rch)
PHab wadeable: fish cover	PFC_ALL	Any Types Fsh Cvr Present (% Rch)
PHab boatable: fish cover	PFC_AQM	Littoral ag. Macrophyte Presence (% Rch)
PHab wadeable: fish cover	PFC_AQM	Ag. Macrophytes Presence (% Rch)
PHab boatable: fish cover	PFC_BIG	Lit. sum(LWDRCKOHBHUM pres.) (% Rch)
PHab wadeable: fish cover	PFC_BIG	LWDRCKOHB or HUM Fsh Cvr Pres (% Rch)
PHab boatable: fish cover	PFC_BRS	Lit. brush & Small Debris Prsnce (% Rch)
PHab wadeable: fish cover	PFC_BRS	Brush & Small Debris Prsnce (% Rch)
PHab boatable: fish cover	PFC_HUM	Littoral artif. struct. presence (% Rch)
PHab wadeable: fish cover	PFC_HUM	Artif. Structs. Presence (% Rch)
PHab boatable: fish cover	PFC_LVT	Littoral artif. struct. presence (% Rch)
PHab wadeable: fish cover	PFC_LVT	Living tree Presence (% Rch)
PHab boatable: fish cover		
Phab boatable: fish cover	PFC_LWD	Littoral LWD Presence (% Rch)
	PFC_LWD	LWD Presence (% Rch)
PHab wadaable: fish cover	PFC_NAT	Lit. sum(nat. type presence) (% Rch)
PHab wadeable: fish cover	PFC_NAT	Any Natural Fish Cover Present (% Rch)
PHab boatable: fish cover	PFC_OHV	Littoral overhang. Veg. presence (% Rch)
PHab wadeable: fish cover	PFC_OHV	Overhang. Veg. Presence (% Rch)
PHab boatable: fish cover	PFC_RCK	Littoral boulders presence (% Rch)
PHab wadeable: fish cover	PFC_RCK	Boulders Presence (% Rch)

PHab boatable: fish cover	PFC_UCB	Littoral undercut Bank presence (% Rch)
PHab wadeable: fish cover	PFC_UCB	Undercut Bank Presence (% Rch)
PHab boatable: riparian vegetation	PMID_C	Rip MidLayer Coniferous (Fraction reach)
PHab wadeable: riparian vegetation	PMID_C	Rip MidLayer Conferous (Fraction reach)
•	PMID_D	Rip MidLayer Deciduous (Fraction reach)
PHab boatable: riparian vegetation	_	
PHab wadeable: riparian vegetation	PMID_D	Rip MidLayer Deciduous (Fraction reach)
PHab boatable: riparian vegetation	PMID_E	Rip MidLayer broadlf evrgrn (Frac reach)
PHab wadeable: riparian vegetation	PMID_E	Rip MidLayer broadlf evrgrn (Frac reach)
PHab boatable: riparian vegetation	PMID_M	Rip MidLayer Mix Con-Decid (Fract reach)
PHab wadeable: riparian vegetation	PMID_M	Rip MidLayer Mix Con-Decid (Fract reach)
PHab boatable: riparian vegetation	PMID_N	Rip MidLayer Absent (Fraction of reach)
PHab wadeable: riparian vegetation	PMID_N	Rip MidLayer Absent (Fraction of reach)
PHab boatable: bed stability	RB3	Hydraulic radius of channel at bank full
PHab wadeable: bed stability	RB3	Hydraulic radius of channel at bank full
PHab boatable: large woody debris	RCHDLDLL	Count/reach dry large dia long len lwd
PHab wadeable: large woody debris	RCHDLDLL	Count/reach dry large dia long len lwd
PHab boatable: large woody debris	RCHDLDML	Count/reach dry large dia medium len lwd
PHab wadeable: large woody debris	RCHDLDML	Count/reach dry large dia medium len lwd
PHab boatable: large woody debris	RCHDLDSL	Count/reach dry large dia short len lwd
PHab wadeable: large woody debris	RCHDLDSL	Count/reach dry large dia short len lwd
PHab boatable: large woody debris	RCHDMDLL	Count/reach dry medium dia long len lwd
PHab wadeable: large woody debris	RCHDMDLL	Count/reach dry medium dia long len lwd
PHab boatable: large woody debris	RCHDMDML	Count/reach dry medium dia med. len lwd
PHab wadeable: large woody debris	RCHDMDML	Count/reach dry medium dia med. len lwd
PHab boatable: large woody debris	RCHDMDSL	Count/reach dry medium dia short len lwd
PHab wadeable: large woody debris	RCHDMDSL	Count/reach dry medium dia short len lwd
PHab boatable: large woody debris	RCHDRYT	Count/reach all dry size classes
PHab wadeable: large woody debris	RCHDRYT	Count/reach all dry size classes
PHab boatable: large woody debris	RCHDSDLL	Count/reach dry small dia long len lwd
PHab wadeable: large woody debris	RCHDSDLL	Count/reach dry small dia long len lwd
PHab boatable: large woody debris	RCHDSDML	Count/reach dry small dia medium len lwd
PHab wadeable: large woody debris	RCHDSDML	Count/reach dry small dia medium len lwd
PHab boatable: large woody debris	RCHDSDSL	Count/reach dry small dia short len lwd
PHab wadeable: large woody debris	RCHDSDSL	Count/reach dry small dia short len lwd
PHab boatable: large woody debris	RCHDXDLL	
- · · · · · · · · · · · · · · · · · · ·		Count/reach dry xlarge dia long len lwd
PHab wadeable: large woody debris	RCHDXDLL	Count/reach dry xlarge dia long len lwd
PHab boatable: large woody debris	RCHDXDML	Count/reach dry xlarge dia med. len lwd
PHab wadeable: large woody debris	RCHDXDML	Count/reach dry xlarge dia med. len lwd
PHab boatable: large woody debris	RCHDXDSL	Count/reach dry xlarge dia short len lwd
PHab wadeable: large woody debris	RCHDXDSL	Count/reach dry xlarge dia short len lwd
PHab boatable: large woody debris	RCHTLDLL	Count/reach tot large dia long len lwd
PHab wadeable: large woody debris	RCHTLDLL	Count/reach tot large dia long len lwd
PHab boatable: large woody debris	RCHTLDML	Count/reach tot large dia medium len lwd
PHab wadeable: large woody debris	RCHTLDML	Count/reach tot large dia medium len lwd
PHab boatable: large woody debris	RCHTLDSL	Count/reach tot large dia short len lwd
PHab wadeable: large woody debris	RCHTLDSL	Count/reach tot large dia short len lwd
PHab boatable: large woody debris	RCHTMDLL	Count/reach tot medium dia long len lwd
PHab wadeable: large woody debris	RCHTMDLL	Count/reach tot medium dia long len lwd
PHab boatable: large woody debris	RCHTMDML	Count/reach tot medium dia med len lwd
PHab wadeable: large woody debris	RCHTMDML	Count/reach tot medium dia med len lwd
PHab boatable: large woody debris	RCHTMDSL	Count/reach tot medium dia short len lwd
PHab wadeable: large woody debris	RCHTMDSL	Count/reach tot medium dia short len lwd
PHab boatable: large woody debris	RCHTSDLL	Count/reach tot small dia long len lwd
PHab wadeable: large woody debris	RCHTSDLL	Count/reach tot small dia long len lwd
PHab boatable: large woody debris	RCHTSDML	Count/reach tot small dia medium len lwd
PHab wadeable: large woody debris	RCHTSDML	Count/reach tot small dia medium len lwd
- ,		

PHab boatable: large woody debris **RCHTSDSL** Count/reach tot small dia short len lwd **RCHTSDSL** Count/reach tot small dia short len lwd PHab wadeable: large woody debris Count/reach tot xlarge dia long len lwd PHab boatable: large woody debris **RCHTXDLL** PHab wadeable: large woody debris **RCHTXDLL** Count/reach tot xlarge dia long len lwd PHab boatable: large woody debris **RCHTXDML** Count/reach tot xlarge dia med len lwd Count/reach tot xlarge dia med len lwd PHab wadeable: large woody debris **RCHTXDML** PHab boatable: large woody debris **RCHTXDSL** Count/reach tot xlarge dia short len lwd PHab wadeable: large woody debris **RCHTXDSL** Count/reach tot xlarge dia short len lwd **RCHWDT** Count/reach all wood

PHab boatable: large woody debris PHab wadeable: large woody debris **RCHWDT** Count/reach all wood Count/reach all wet size classes PHab boatable: large woody debris **RCHWETT** PHab wadeable: large woody debris **RCHWETT** Count/reach all wet size classes PHab boatable: large woody debris **RCHWLDLL** Count/reach wet large dia long len lwd PHab wadeable: large woody debris **RCHWLDLL** Count/reach wet large dia long len lwd PHab boatable: large woody debris **RCHWLDML** Count/reach wet large dia medium len lwd PHab wadeable: large woody debris **RCHWLDML** Count/reach wet large dia medium len lwd PHab boatable: large woody debris **RCHWLDSL** Count/reach wet large dia short len lwd PHab wadeable: large woody debris **RCHWLDSL** Count/reach wet large dia short len lwd PHab boatable: large woody debris **RCHWMDLL** Count/reach wet medium dia long len lwd PHab wadeable: large woody debris **RCHWMDLL** Count/reach wet medium dia long len lwd PHab boatable: large woody debris **RCHWMDML** Count/reach wet medium dia med. len lwd PHab wadeable: large woody debris **RCHWMDML** Count/reach wet medium dia med, len lwd PHab boatable: large woody debris **RCHWMDSL** Count/reach wet medium dia short len lwd PHab wadeable: large woody debris **RCHWMDSL** Count/reach wet medium dia short len lwd Count/reach wet small dia long len lwd PHab boatable: large woody debris **RCHWSDLL** PHab wadeable: large woody debris **RCHWSDLL** Count/reach wet small dia long len lwd PHab boatable: large woody debris **RCHWSDML** Count/reach wet small dia medium len lwd PHab wadeable: large woody debris **RCHWSDML** Count/reach wet small dia medium len lwd PHab boatable: large woody debris **RCHWSDSL** Count/reach wet small dia short len lwd PHab wadeable: large woody debris **RCHWSDSL** Count/reach wet small dia short len lwd PHab boatable: large woody debris **RCHWXDLL** Count/reach wet xlarge dia long len lwd PHab wadeable: large woody debris **RCHWXDLL** Count/reach wet xlarge dia long len lwd PHab boatable: large woody debris **RCHWXDML** Count/reach wet xlarge dia med. len lwd

**RCHWXDSL** PHab boatable: general **REACHLEN** Sample Reach Length (m) PHab wadeable: general **REACHLEN** Sample Reach Length (m)

**RCHWXDML** 

**RCHWXDSL** 

PHab wadeable: large woody debris

PHab boatable: large woody debris

PHab wadeable: large woody debris

Particle Reynolds number at bank full PHab boatable: bed stability REYP3 PHab wadeable: bed stability REYP3 Particle Reynolds number at bank full **PHAB** RIPDIST COND MOD Model used for Disturbance Criteria

**PHAB** RIPVEG\_COND\_MOD Model used for Expected Riparian Veg Cover and Complexity

Count/reach wet xlarge dia med. len lwd

Count/reach wet xlarge dia short len lwd Count/reach wet xlarge dia short len lwd

Mean Residual Depth at thalweg (cm) PHab boatable: residual pools **RP100** PHab wadeable: residual pools Mean Residual Depth at thalweg (cm) RP100 Count resid Pools >5cm deep PHab boatable: residual pools RPGT05

Count resid Pools >5cm deep PHab wadeable: residual pools RPGT05 PHab boatable: residual pools RPGT05X Mean depth resid Pools >5cm deep PHab wadeable: residual pools RPGT05X Mean depth resid Pools >5cm deep Count resid Pools >10cm deep PHab boatable: residual pools RPGT10 PHab wadeable: residual pools Count resid Pools > 10cm deep RPGT10

PHab boatable: residual pools RPGT100 Resid Pools >100cm deep (number/reach) PHab wadeable: residual pools RPGT100 Resid Pools >100cm deep (number/reach) PHab boatable: residual pools RPGT10X Mean depth resid Pools >10cm deep PHab wadeable: residual pools Mean depth resid Pools >10cm deep RPGT10X PHab boatable: residual pools Count resid Pools >20cm deep RPGT20

5	DD 0.700	0 1 110 1 100 1
PHab wadeable: residual pools	RPGT20	Count resid Pools >20cm deep
PHab boatable: residual pools	RPGT20X	Mean depth resid Pools >20cm deep
PHab wadeable: residual pools	RPGT20X	Mean depth resid Pools >20cm deep
PHab boatable: residual pools	RPGT50	Resid Pools >50cm deep (number/reach)
PHab wadeable: residual pools	RPGT50	Resid Pools >50cm deep (number/reach)
PHab boatable: residual pools	RPGT75	Resid Pools >75cm deep (number/reach)
PHab wadeable: residual pools	RPGT75	Resid Pools >75cm deep (number/reach)
PHab boatable: residual pools	RPMXAR	Max. RP profile area in rch (m2/pool)
PHab wadeable: residual pools	RPMXAR	Max. RP profile area in rch (m2/pool)
PHab boatable: residual pools	RPMXDEP	Maximum residual depth in reach (m)
PHab wadeable: residual pools	RPMXDEP	Maximum residual depth in reach (cm)
PHab boatable: residual pools	RPMXLEN	Max. resid pool length in reach (m/pool)
PHab wadeable: residual pools	RPMXLEN	Max. resid pool length in reach (m/pool)
PHab boatable: residual pools	RPVAREA	StdDev profile area of RPs (m2/pool)
PHab wadeable: residual pools	RPVAREA	StdDev profile area of RPs (m2/pool)
PHab boatable: residual pools	RPVDEP	StdDev of residual pool depths (m)
PHab wadeable: residual pools	RPVDEP	StdDev of residual pool depths (cm)
PHab boatable: residual pools	RPVLEN	StdDev length of resid pools (m/pool)
PHab wadeable: residual pools	RPVLEN	StdDev length of resid pools (m/pool)
PHab boatable: residual pools	RPXAREA	Mean vert. profile area of RPs (m2/pool)
PHab wadeable: residual pools	RPXAREA	Mean vert. profile area of RPs (m2/pool)
PHab boatable: residual pools	RPXDEP	Mean RP depth in reach (m/pool)
PHab wadeable: residual pools	RPXDEP	Mean RP depth in reach (cm/pool)
PHab boatable: residual pools	RPXLEN	Mean length of resid pools (m/pool)
PHab wadeable: residual pools	RPXLEN	Mean length of resid pools (m/pool)
		Effective Hydraulic Radius at Bankfull (Adjusted for wood and pool
PHab boatable: bed stability	RRPW3	roughnesses)
		Effective Hydraulic Radius at Bankfull (Adjusted for wood and pool
PHab wadeable: bed stability	RRPW3	roughnesses)
•		
•		Bed surface particle critical diameter (mm) from Geom (2008),
PHab boatable: bed stability	S_DCBF_G08	estimated lacking station increment
PHab boatable: bed stability		estimated lacking station increment  Bed surface particle critical diameter (mm) from Geom (2008),
•	S_DCBF_G08 S_DCBF_G08	estimated lacking station increment  Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment
PHab boatable: bed stability  PHab wadeable: bed stability	S_DCBF_G08	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008),
PHab boatable: bed stability		estimated lacking station increment  Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment  Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment)
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability	S_DCBF_G08 S_LDCBF_G08	estimated lacking station increment  Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment  Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment)  Log10(bed surface particle critical diameter from Geom (2008),
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08	estimated lacking station increment  Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment  Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment)  Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment)
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDMB_BW5 S_LDMB_BW5 S_LRBS_BW5 S_LRBS_BW5	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW5  S_LRBS_BW6	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDMB_BW5 S_LDMB_BW5 S_LRBS_BW5 S_LRBS_BW5	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100
PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW5  S_LRBS_BW6	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment)
PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_BW6	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking
PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment)
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab boatable: ped stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08  S_RP100	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Estimated RP100 in absence of station increment
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: residual pools  PHab wadeable: residual pools	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08  S_RP100  S_RP100	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Estimated RP100 in absence of station incremnt Estimated RP100 in absence of station incremnt
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: residual pools  PHab wadeable: human disturbance	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08  S_RP100  S_RP100  SDB_HALL	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Estimated RP100 in absence of station incremnt Estimated RP100 in absence of station incremnt Std dev human disturbance on bank
PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: residual pools  PHab wadeable: human disturbance  PHab wadeable: human disturbance	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08  S_RP100  S_RP100  SDB_HALL  SDB_HALL	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Estimated RP100 in absence of station incremnt Estimated RP100 in absence of station incremnt Std dev human disturbance on bank
PHab boatable: bed stability  PHab wadeable: bed stability  bed stability  PHab boatable: bed stability  PHab wadeable: bed stability	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08  S_RP100  S_RP100  SDB_HALL  SDB_HALL  SDBK_A	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Estimated RP100 in absence of station incremnt Estimated RP100 in absence of station incremnt Std dev human disturbance on bank Std dev human disturbance on bank Bank AngleStd. Dev. (degrees)
PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: residual pools  PHab wadeable: human disturbance  PHab wadeable: bank morphology  PHab boatable: channel morphology	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08  S_RP100  S_RP100  SDB_HALL  SDB_HALL  SDBK_A  SDBKF_H	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Estimated RP100 in absence of station incremnt Estimated RP100 in absence of station incremnt Std dev human disturbance on bank Std dev human disturbance on bank Bank AngleStd. Dev. (degrees) Bankfull Height-Std. Dev. (m)
PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: residual pools  PHab wadeable: channel morphology  PHab boatable: channel morphology  PHab wadeable: channel morphology  PHab wadeable: channel morphology	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08  S_RP100  S_RP100  SDB_HALL  SDB_HALL  SDBK_A  SDBKF_H  SDBKF_H	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Estimated RP100 in absence of station incremnt Estimated RP100 in absence of station incremnt Std dev human disturbance on bank Std dev human disturbance on bank Bank AngleStd. Dev. (degrees) Bankfull Height-Std. Dev. (m) Std Dev bankfull height (m)
PHab boatable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: bed stability  PHab wadeable: bed stability  PHab boatable: residual pools  PHab wadeable: human disturbance  PHab wadeable: bank morphology  PHab boatable: channel morphology	S_DCBF_G08  S_LDCBF_G08  S_LDCBF_G08  S_LDMB_BW5  S_LDMB_BW5  S_LRBS_BW5  S_LRBS_BW6  S_LRBS_BW6  S_LRBS_G08  S_LRBS_G08  S_RP100  S_RP100  SDB_HALL  SDB_HALL  SDBK_A  SDBKF_H	estimated lacking station increment Bed surface particle critical diameter (mm) from Geom (2008), estimated lacking station increment Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Log10(bed surface particle critical diameter from Geom (2008), estimated lacking station increment) Est. ldmb_bw5 using s_rp100 Est. ldmb_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw5 using s_rp100 Est. lrbs_bw6 using s_rp100 Est. lrbs_bw6 using s_rp100 Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Log10(Relative bed stability from Geom (2008), estimated lacking station increment) Estimated RP100 in absence of station incremnt Estimated RP100 in absence of station incremnt Std dev human disturbance on bank Std dev human disturbance on bank Bank AngleStd. Dev. (degrees) Bankfull Height-Std. Dev. (m)

PHab boatable: human disturbance SDC HALL Std dev human disturbance in channel PHab wadeable: human disturbance SDC\_HALL Std dev human disturbance in channel SDCB HALL PHab boatable: human disturbance Std dev human dist. on bank or channel PHab wadeable: human disturbance SDCB HALL Std dev human dist. on bank or channel

PHab boatable: channel morphology **SDDEPTH** Std Dev. of Thalweg Depth (cm) **SDDEPTH** Std Dev. of Thalweg Depth (cm) PHab wadeable: channel morphology PHab boatable: fish cover SDFC OHV Std Dev Overhanging veg. cover PHab wadeable: fish cover SDFC\_OHV Std Dev Overhanging veg. cover PHab boatable: fish cover SDFC UCB Std Dev Undercut bank cover PHab wadeable: fish cover SDFC UCB Std Dev Undercut bank cover Channel Incision Ht.-Std. Dev. (m) PHab boatable: channel morphology SDINC H PHab wadeable: channel morphology SDINC H Channel Incision Ht.-Std. Dev. (m) PHab wadeable: bank morphology Undercut Distance--Std. Dev. (m) **SDUN** 

PHab boatable: human disturbance SDWCB HALL Std dev wted human dist on bank or chan PHab wadeable: human disturbance SDWCB HALL Std dev wted human dist on bank or chan PHab boatable: channel morphology SDWD RAT Std Dev of Width/Depth Ratio (m/m) PHab wadeable: channel morphology SDWD RAT Std Dev of Width/Depth Ratio (m/m) PHab boatable: channel morphology **SDWIDTH** Std Dev. of Wetted Width (m) **SDWIDTH** 

PHab boatable: channel morphology **SDWXD** Std Dev. of Wetted Width x Thalweg Depth (m2) PHab wadeable: channel morphology **SDWXD** Std Dev. of Wetted Width x Thalweg Depth (m2)

Std Dev. of Wetted Width (m)

PHab boatable: large woody debris SHDRYLEN Count/reach all dry short len lwd PHab wadeable: large woody debris SHDRYLEN Count/reach all dry short len lwd PHab boatable: bed stability SHLD\_PX3 Shields parameter at bank full SHLD PX3 PHab wadeable: bed stability Shields parameter at bank full PHab boatable: large woody debris **SHLENTOT** Count/reach all short len lwd PHab wadeable: large woody debris **SHLENTOT** Count/reach all short len lwd PHab boatable: large woody debris **SHWETLEN** Count/reach all wet short len lwd PHab wadeable: large woody debris **SHWETLEN** Count/reach all wet short len lwd

PHab wadeable: channel morphology

PHab boatable: general **SIDECNT** count of side channel transects sampled in reach SIDECNT count of side channel transects sampled in reach PHab wadeable: general

PHab boatable: slope & bearing SINU Sinuosity of sample reach. PHab wadeable: slope & bearing SINU Sinuosity of sample reach. PHab boatable: large woody debris **SMDIATOT** Count/reach all small dia lwd PHab wadeable: large woody debris **SMDIATOT** Count/reach all small dia lwd PHab boatable: large woody debris **SMDRYDIA** Count/reach all dry small dia lwd PHab wadeable: large woody debris **SMDRYDIA** Count/reach all dry small dia lwd PHab boatable: large woody debris **SMWETDIA** Count/reach all wet small dia lwd PHab wadeable: large woody debris Count/reach all wet small dia lwd **SMWETDIA** 

PHab boatable: substrate characterization SUB DMM NOR Mobile mean diam (mm) PHab wadeable: substrate characterization SUB DMM NOR Mobile mean diam (mm)

PHab boatable: substrate characterization SUB2DMM NOR Mobile mean diam 2 BL classes (mm) PHab wadeable: substrate characterization SUB2DMM\_NOR Mobile mean diam 2 BL classes (mm)

PHab boatable: substrate characterization SUBD\_SD\_NOR Mobile stdev diam (mm) PHab wadeable: substrate characterization SUBD SD NOR Mobile stdev diam (mm)

SUBD2SD\_NOR PHab boatable: substrate characterization Mobile stdev diam 2 BL classes (mm) PHab wadeable: substrate characterization SUBD2SD NOR Mobile stdev diam 2 BL classes (mm) PHab boatable: residual pools **TOTPLEN** Total resid pool length (m/reach) PHab wadeable: residual pools **TOTPLEN** Total resid pool length (m/reach) PHab boatable: slope & bearing **TRANSPC** Mean dist. betw. Transects (m) PHab wadeable: slope & bearing **TRANSPC** Mean dist. betw. Transects (m)

PHab boatable: large woody debris V1D LWD vol in Bkf chnl&dry(m3/rch-all size) PHab wadeable: large woody debris V1D LWD vol above Bkf chnl(m3/rch-all sizes) PHab boatable: large woody debris V1DM100 LWD vol in Bkf chnl&dry(m3/100m-all) PHab wadeable: large woody debris V1DM100 LWD Vol above Bkf chnl(m3/100m-all size) PHab boatable: large woody debris V1T LWD vol in/over wet chnl(m3/rch-all)

PHab wadeable: large woody debris V1T LWD vol in/abv Bkf chnl(m3/rch-all size) V1TM100 PHab boatable: large woody debris LWD vol in/abv wt chan(#/100m-all sizes) V1TM100 PHab wadeable: large woody debris LWD Vol in/abv Bf chan(#/100m-all sizes) PHab boatable: large woody debris V1W LWD vol in wetted chnl(m3/rch-all sizes) PHab wadeable: large woody debris V1W LWD vol in Bkf chnl (m3/rch-all sizes) Bankful Channel woody debris (m3/m2) PHab boatable: large woody debris V1W MSQ PHab wadeable: large woody debris V1W MSQ Bankful Channel woody debris (m3/m2) PHab boatable: large woody debris V1WM100 Bankful channel woody debris (m3/100m) PHab wadeable: large woody debris V1WM100 Bankful channel woody debris (m3/100m) PHab boatable: large woody debris V2D LWD vol in Bkf chnl&dry (m3/rch-SMLX) PHab wadeable: large woody debris V2D LWD vol above Bkf chnl (m3/rch-SMLX) PHab boatable: large woody debris V2DM100 LWD vol in Bkf chnl&dry(m3/100m-SMLX) V2DM100 LWD Vol above Bkf chnl (m3/100m-SMLX) PHab wadeable: large woody debris PHab boatable: large woody debris V2T LWD vol in/over wet chnl(m3/rch-SMLX) PHab wadeable: large woody debris V2T LWD vol in/abv Bkf chnl (m3/rch-SMLX) PHab boatable: large woody debris V2TM100 LWD vol in/aby wet chan (#/100m-SMLX) PHab wadeable: large woody debris V2TM100 LWD Vol in/abv Bf chan (#/100m-SMLX) PHab boatable: large woody debris V2W LWD vol in wetted chnl (m3/rch-SMLX) PHab wadeable: large woody debris V2W LWD vol in Bkf chnl (m3/rch-SMLX) PHab boatable: large woody debris V2W MSQ LWD vol in Bkf chnl& dry (m3/m2-SMLX) PHab wadeable: large woody debris V2W MSQ LWD Vol in Bkf chnl (m3/m2-SMLX) PHab boatable: large woody debris V2WM100 LWD vol in Bkf chnl& dry (m3/100m-SMLX) PHab wadeable: large woody debris V2WM100 LWD Vol in Bkf chnl (m3/100m-SMLX) PHab boatable: large woody debris V3D LWD vol in Bkf chnl & dry (m3/rch-MLX) PHab wadeable: large woody debris V3D LWD vol above Bkf chnl (m3/rch-MLX) PHab boatable: large woody debris V3DM100 LWD vol in Bkf chnl& dry (m3/100m-MLX) PHab wadeable: large woody debris V3DM100 LWD Vol above Bkf chnl (m3/100m-MLX) PHab boatable: large woody debris V3T LWD vol in/over wet chnl (m3/rch-MLX) PHab wadeable: large woody debris V3T LWD vol in/abv Bkf chnl (m3/rch-MLX) PHab boatable: large woody debris V3TM100 LWD vol in/abv wetted chan(#/100m-MLX) PHab wadeable: large woody debris V3TM100 LWD Vol in/abv Bf chan (#/100m-MLX) PHab boatable: large woody debris V3W LWD vol in wetted chnl (m3/rch-MLX) PHab wadeable: large woody debris V3W LWD vol in Bkf chnl (m3/rch-MLX) PHab boatable: large woody debris V3W MSQ LWD vol in Bkf chnl & dry (m3/m2-MLX) PHab wadeable: large woody debris V3W MSQ LWD Vol in Bkf chnl (m3/m2-MLX) PHab boatable: large woody debris V3WM100 LWD vol in Bkf chnl & dry (m3/100m-MLX) PHab wadeable: large woody debris V3WM100 LWD Vol in Bkf chnl (m3/100m-MLX) PHab boatable: large woody debris V4D LWD vol in Bkf chnl & dry (m3/rch-LX) V4D PHab wadeable: large woody debris LWD vol above Bkf chnl (m3/rch-LX) PHab boatable: large woody debris V4DM100 LWD vol in Bkf chnl & dry (m3/100m-LX) PHab wadeable: large woody debris V4DM100 LWD Vol above Bkf chnl (m3/100m-LX) PHab boatable: large woody debris V4T LWD vol in/over wetted chnl (m3/rch-LX) PHab wadeable: large woody debris V4T LWD vol in/abv Bkf chnl (m3/rch-LX) PHab boatable: large woody debris V4TM100 LWD vol in/abv wetted chan (#/100m-LX) PHab wadeable: large woody debris V4TM100 LWD Vol in/abv Bf chan (#/100m-LX) PHab boatable: large woody debris V4W LWD vol in wetted chnl (m3/rch-LX) LWD vol in Bkf chnl (m3/rch-LX) PHab wadeable: large woody debris V4W PHab boatable: large woody debris V4W\_MSQ LWD vol in Bkf chnl & dry (m3/m2-LX) PHab wadeable: large woody debris V4W MSQ LWD Vol in Bkf chnl (m3/m2-LX) PHab boatable: large woody debris V4WM100 LWD vol in Bkf chnl & dry (m3/100m-LX) PHab wadeable: large woody debris V4WM100 LWD Vol in Bkf chnl (m3/100m-LX) PHab boatable: large woody debris V5D LWD vol in Bkf chnl & dry (m3/rch-X) PHab wadeable: large woody debris V<sub>5</sub>D LWD vol above Bkf chnl (m3/rch-X) PHab boatable: large woody debris V5DM100 LWD vol in Bkf chnl & dry (m3/100m-X) PHab wadeable: large woody debris V5DM100 LWD Vol above Bkf chnl (m3/100m-X) PHab boatable: large woody debris LWD vol in/over wetted chnl (m3/rch-X) V5T

PHab wadeable: large woody debris	V5T	LWD vol in/abv Bkf chnl (m3/rch-X)
PHab boatable: large woody debris	V5TM100	LWD vol in/abv wetted chan (#/100m-X)
PHab wadeable: large woody debris	V5TM100	LWD Vol in/abv Bf chan (#/100m-X)
PHab boatable: large woody debris	V5W	LWD vol in wetted chnl (m3/rch-X)
PHab wadeable: large woody debris	V5W	LWD vol in Bkf chnl (m3/rch-X)
PHab boatable: large woody debris	V5W_MSQ	LWD vol in Bkf chnl & dry (m3/m2-X)
PHab wadeable: large woody debris	V5W_MSQ	LWD Vol in Bkf chnl (m3/m2-X)
PHab boatable: large woody debris	V5WM100	LWD vol in Bkf chnl & dry (m3/100m-X)
PHab wadeable: large woody debris	V5WM100	LWD Vol in Bkf chnl (m3/100m-X)
PHab boatable: canopy densiometer	VCDENBK	Std. Dev. Bank Canopy Density (%)
PHab wadeable: canopy densiometer	VCDENBK	Std. Dev. Bank Canopy Density (%)
PHab boatable: canopy densiometer	VCDENMID	Std. Dev. Mid-channel Canopy Density (%)
PHab wadeable: canopy densiometer	VCDENMID	Std. Dev. Mid-channel Canopy Density (%)
PHab boatable: substrate embeddedness	VCEMBED	SD EmbeddednessChannel only (%)
PHab wadeable: substrate embeddedness	VCEMBED	SD EmbeddednessChannel only (%)
PHab boatable: substrate embeddedness	VEMBED	SD EmbeddednessChannel+Margin (%)
PHab wadeable: substrate embeddedness	VEMBED	SD EmbeddednessChannel+Margin (%)
PHab boatable: littoral depth	VLIT	Stdev. littoral depth (m)
PHab boatable: slope & bearing	VSLOPE	Std Dev of Channel % Slope
PHab wadeable: slope & bearing	VSLOPE	Std Dev of Channel % Slope
		Human Agricultural Influence Index(distance-wtd tally of types and
PHab boatable: human disturbance	W1_HAG	presence
		Human Agricultural Influence Index(distance-wtd tally of types and
PHab wadeable: human disturbance	W1_HAG	presence
		Human Disturbance Index(distance-wtd tally of types and
PHAB	W1_HALL	presence used for condition
		Human Disturbance Index(distance-wtd tally of types and
PHab boatable: human disturbance	W1_HALL	presence
		Human Disturbance Index(distance-wtd tally of types and
PHab wadeable: human disturbance	W1_HALL	presence
		Human Non-Agricultural Disturbance Index (distance weighted
PHab boatable: human disturbance	W1_HNOAG	tally of types and presence)
That boutable. Haman distarbance	W1	Human Non-Agricultural Disturbance Index (distance weighted
PHab wadeable: human disturbance	W1 HNOAG	tally of types and presence)
PHab boatable: human disturbance	W1H BLDG	Rip DistBuildings (ProxWt Pres)
PHab wadeable: human disturbance	W1H_BLDG	Rip Dist-Buildings (ProxWt Pres)
That wadded haman distarbanes	W111_B2B6	Near Channel Human Dist : Row Crops (distance-wtd tally of
PHab boatable: human disturbance	W1H_CROP	presence
Thab boatable. Human disturbance	WITI_CROI	Near Channel Human Dist : Row Crops (distance-wtd tally of
PHab wadeable: human disturbance	W1H_CROP	presence
PHab boatable: human disturbance	W1H_LDFL	Rip DistTrash/Landfill (ProxWt Pres)
PHab wadeable: human disturbance	W1H_LDFL	Rip DistTrash/Landfill (ProxWt Pres)
PHab boatable: human disturbance	W1H_LOG	Rip DistLogging Activity (ProxWt Pres)
PHab wadeable: human disturbance	W1H_LOG	Rip DistLogging Activity (FroxWt Fres)
PHab boatable: human disturbance	W1H_MINE	Rip DistHining Activity (ProxWt Pres)
PHab wadeable: human disturbance	W1H_MINE	Rip DistMining Activity (ProxWt Pres)
PHab boatable: human disturbance	_	Rip DistLawn/Park (ProxWt Pres)
PHab wadeable: human disturbance	W1H_PARK	Rip DistLawn/Park (ProxWt Pres)
	W1H_PARK	. ,
PHab wadaable: human disturbance	W1H_PIPE	Rip DistPipes infl/effl (ProxWt Pres)
PHab wadeable: human disturbance	W1H_PIPE	Rip DistPipes infl/effl (ProxWt Pres)
PHab wadaable: human disturbance	W1H_PSTR	Rip DistPasture/Hayfield (ProxWt Pres)
PHab wadeable: human disturbance	W1H_PSTR	Rip Dist Pasture/Hayfield (ProxWt Pres)
PHab wadaable: human disturbance	W1H_PVMT	Rip DistPavement (ProxWt Pres)
PHab wadeable: human disturbance	W1H_PVMT	Rip DistPavement (ProxWt Pres)
PHab wadaable: human disturbance	W1H_ROAD	Rip DistRoad/Railroad (ProxWt Pres)
PHab wadeable: human disturbance	W1H_ROAD	Rip DistRoad/Railroad (ProxWt Pres)

Near Channel Human Dist: Walls/dikes/revetments(distance-wtd PHab boatable: human disturbance W1H\_WALL tally of presence Near Channel Human Dist: Walls/dikes/revetments(distance-wtd PHab wadeable: human disturbance W1H WALL tally of presence PHab boatable: human disturbance X HAG Rip Dist Sum-Ag Types rip Plt & Beyond PHab wadeable: human disturbance X HAG Rip Dist Sum-Ag Types rip Plt & Beyond PHab boatable: human disturbance X HALL Rip Dist--Sum All Types str plt & beyond PHab wadeable: human disturbance X HALL Rip Dist--Sum All Types str plt & beyond PHab boatable: human disturbance X HNOAG Rip Dist Sum-Non Ag rip Plt & Beyond PHab wadeable: human disturbance X HNOAG Rip Dist Sum-Non Ag rip Plt & Beyond PHab boatable: human disturbance XB HAG Rip Dist-Sum Ag Types instrm & in plot PHab wadeable: human disturbance XB HAG Rip Dist-Sum Ag Types instrm & in plot PHab boatable: human disturbance Rip Dist--Sum All Types instrm & on bank XB\_HALL PHab wadeable: human disturbance XB HALL Rip Dist--Sum All Types instrm & on bank Rip Dist Sum-Non ag Types instrm & Plot PHab boatable: human disturbance **XB HNOAG** PHab wadeable: human disturbance **XB HNOAG** Rip Dist Sum-Non ag Types instrm & Plot PHab boatable: slope & bearing **XBEARING** Mean Flow Direction of reach (degrees) PHab wadeable: slope & bearing Mean Flow Direction of reach (degrees) **XBEARING** PHab wadeable: bank morphology Bank Angle--mean (degrees) **XBKA** Mean Bankfull Height above wetted channel (m) PHab boatable: channel morphology XBKF\_H Mean Bankfull Height above wetted channel (m) PHab wadeable: channel morphology XBKF H Mean Bankfull Width (m) PHab boatable: channel morphology XBKF\_W PHab wadeable: channel morphology XBKF\_W Mean Bankfull Width (m) XC Canopy Mean Areal Cover proportion PHab boatable: riparian vegetation Canopy Mean Areal Cover proportion PHab wadeable: riparian vegetation XC Rip Dist-Sum of Ag Types in Ripar Plot PHab boatable: human disturbance XC\_HAG PHab wadeable: human disturbance XC HAG Rip Dist-Sum of Ag Types in Ripar Plot PHab boatable: human disturbance XC\_HALL Rip Dist--Sum All Types in Ripar Plots PHab wadeable: human disturbance XC\_HALL Rip Dist--Sum All Types in Ripar Plots PHab boatable: human disturbance XC\_HNOAG Rip Dist Sum-Non Ag Types in Ripar Plot Rip Dist Sum-Non Ag Types in Ripar Plot PHab wadeable: human disturbance XC\_HNOAG XCB\_HAG Rip Dist Sum-Ag Types instrm & on Bank PHab boatable: human disturbance PHab wadeable: human disturbance XCB\_HAG Rip Dist Sum-Ag Types instrm & on Bank Rip Dist--Sum All Types instrm & in plot PHab boatable: human disturbance XCB HALL PHab wadeable: human disturbance XCB\_HALL Rip Dist--Sum All Types instrm & in plot PHab boatable: human disturbance XCB\_HNAG Rip Dist Sum-Non Ag Types instrm & Bank PHab wadeable: human disturbance XCB\_HNAG Rip Dist Sum-Non Ag Types instrm & Bank PHab boatable: canopy densiometer **XCDENBK** Canopy Density at bank (mean percent) PHab wadeable: canopy densiometer **XCDENBK** Canopy Density at bank (mean percent) PHab boatable: canopy densiometer **XCDENMID** Canopy Density at mid-channel (mean percent) PHab wadeable: canopy densiometer **XCDENMID** Canopy Density at mid-channel (mean percent) PHab boatable: substrate embeddedness **XCEMBED** Mean Embeddedness--Channel only (%) PHab wadeable: substrate embeddedness **XCEMBED** Mean Embeddedness--Channel only (%) PHab boatable: riparian vegetation XCL Large diameter (Dbh>0.3m) Tree Canopy Areal Cover proportion Large diameter (Dbh>0.3m) Tree Canopy Areal Cover proportion PHab wadeable: riparian vegetation XCL Rip Veg Canopy+Mid Layer Cover PHab boatable: riparian vegetation **XCM** Rip Veg Canopy+Mid Layer Cover PHab wadeable: riparian vegetation XCM PHab boatable: riparian vegetation **XCMG** Sum of Canopy+Mid+Ground layer areal cover proportion Sum of Canopy+Mid+Ground layer areal cover proportion PHab wadeable: riparian vegetation **XCMG** PHab boatable: riparian vegetation **XCMGW** Sum of Woody Canopy+Mid+Ground layer areal cover proportion PHab wadeable: riparian vegetation **XCMGW** Sum of Woody Canopy+Mid+Ground layer areal cover proportion

Rip Veg Canopy+Mid Layer Woody Cover

PHab boatable: riparian vegetation

**XCMW** 

PHab wadeable: riparian vegetation **XCMW** Rip Veg Canopy+Mid Layer Woody Cover XCS Riparian Canopy <= 0.3m DBH (Cover) PHab boatable: riparian vegetation Riparian Canopy <= 0.3m DBH (Cover) PHab wadeable: riparian vegetation XCS PHab boatable: channel morphology **XDEPTH** Mean thalweg depth (cm) PHab wadeable: channel morphology **XDEPTH** Mean thalweg depth (cm) Mean streambed embeddedness (%) PHab boatable: substrate embeddedness **XEMBED** PHab wadeable: substrate embeddedness **XEMBED** Mean streambed embeddedness (%) PHab boatable: human disturbance XF HAG Rip Dist Sum-Ag Types Beyond Ripar Plot PHab wadeable: human disturbance XF HAG Rip Dist Sum-Ag Types Beyond Ripar Plot PHab boatable: human disturbance XF HALL Rip Dist--Sum All Types beyond Rip Plots Rip Dist--Sum All Types beyond Rip Plots PHab wadeable: human disturbance XF HALL PHab boatable: human disturbance XF HNOAG Rip Dist Sum-Non Ag Types Beyond Rip Plt PHab wadeable: human disturbance XF\_HNOAG Rip Dist Sum-Non Ag Types Beyond Rip Plt PHab boatable: fish cover XFC ALG Filamentous algae Mean areal cover PHab wadeable: fish cover XFC ALG Filamentous algae Mean areal cover PHab boatable: fish cover XFC ALL Lit. cover-sum(all) (Areal Prop) PHab wadeable: fish cover XFC ALL Fish Cvr-All Types (Sum Areal Prop) PHab boatable: fish cover XFC AQM Aquatic macrophyte mean areal cover PHab wadeable: fish cover XFC\_AQM Aquatic macrophyte mean areal cover PHab boatable: fish cover XFC BIG Lit. cvr-sum(LWDRCKUCBHUM Area Prop) PHab wadeable: fish cover XFC BIG Fish Cvr-LWDRCKUCBorHUM(Sum Area Prop) PHab boatable: fish cover XFC BRS Lit. cvr-brush&small debris (Areal Prop) PHab wadeable: fish cover XFC BRS Fish Cvr-Brush&Small Debris (Areal Prop) PHab boatable: fish cover XFC\_HUM Lit. cover-artif. structs. (Areal Prop) XFC HUM Fish Cvr-Artif. Structs. (Areal Prop) PHab wadeable: fish cover XFC\_LVT PHab boatable: fish cover Fish Cvr-Artif. Structs. (Areal Prop) PHab wadeable: fish cover XFC LVT Fish Cvr-Artif. Structs. (Areal Prop) PHab boatable: fish cover XFC LWD Large woody debris areal cover PHab wadeable: fish cover XFC LWD Large woody debris areal cover PHab boatable: fish cover XFC\_NAT Sum of non-anthropogenic fish areal cover types PHab wadeable: fish cover XFC\_NAT Sum of non-anthropogenic fish areal cover types PHab boatable: fish cover XFC OHV Lit. cover-overhang veg (Areal Prop) XFC OHV PHab wadeable: fish cover Fish Cvr-Overhang Veg (Areal Prop) PHab boatable: fish cover XFC RCK Littoral fish cvr-boulders (Areal Prop) Fish Cvr-Boulders (Areal Prop) PHab wadeable: fish cover XFC\_RCK Lit. cover-undercut banks (Areal Prop) PHab boatable: fish cover XFC UCB PHab wadeable: fish cover XFC\_UCB Fish Cvr-Undercut Banks (Areal Prop) PHab boatable: riparian vegetation XG Riparian Veg Ground Layer Cover XG PHab wadeable: riparian vegetation Riparian Veg Ground Layer Cover PHab boatable: riparian vegetation XGB Barren ground layer areal cover PHab wadeable: riparian vegetation XGB Barren ground layer areal cover PHab boatable: riparian vegetation XGH Non-woody ground layer areal cover PHab wadeable: riparian vegetation XGH Non-woody ground layer areal cover PHab boatable: riparian vegetation XGW Woody ground layer areal cover PHab wadeable: riparian vegetation XGW Woody ground layer areal cover PHab boatable: channel morphology XINC H Terrace Height above water level (m) PHab wadeable: channel morphology Terrace Height above water level (m) XINC H PHab boatable: large woody debris **XLDIATOT** Count/reach all small dia lwd PHab wadeable: large woody debris **XLDIATOT** Count/reach all small dia lwd PHab boatable: large woody debris XLDRYDIA Count/reach all dry xlarge dia lwd PHab wadeable: large woody debris **XLDRYDIA** Count/reach all dry xlarge dia lwd PHab boatable: littoral depth XLIT Mean littoral depth (m) PHab boatable: large woody debris **XLWETDIA** Count/reach all wet xlarge dia lwd PHab wadeable: large woody debris **XLWETDIA** Count/reach all wet xlarge dia lwd PHab boatable: riparian vegetation XM Riparian Veg Mid Layer Cover

PHab wadeable: riparian vegetation

XM

Riparian Veg Mid Layer Cover

PHab boatable: riparian vegetation	XMH	Rip Mid Layer Herbaceous (Cover)
PHab wadeable: riparian vegetation	XMH	Rip Mid Layer Herbaceous (Cover)
PHab boatable: riparian vegetation	XMW	Rip Mid Layer Woody (Cover)
PHab wadeable: riparian vegetation	XMW	Rip Mid Layer Woody (Cover)

**XPCAN** Rip Canopy Present (Fraction of reach) PHab boatable: riparian vegetation **XPCAN** Rip Canopy Present (Fraction of reach) PHab wadeable: riparian vegetation PHab boatable: riparian vegetation **XPCM** Rip Can & MidLayer Present (Frac. reach) PHab wadeable: riparian vegetation **XPCM** Rip Can & MidLayer Present (Frac. reach) PHab boatable: riparian vegetation **XPCMG** Riparian 3-Layers Present (Fract. reach) PHab wadeable: riparian vegetation **XPCMG** Riparian 3-Layers Present (Fract. reach) Rip Ground Layer Present (Fract. reach) PHab boatable: riparian vegetation **XPGVEG** PHab wadeable: riparian vegetation **XPGVEG** Rip Ground Layer Present (Fract. reach) PHab boatable: riparian vegetation **XPMG** Riparian mid & gnd Present (Frac. reach) PHab wadeable: riparian vegetation **XPMG** Riparian mid & gnd Present (Frac. reach) PHab boatable: riparian vegetation **XPMGW** Rip. mid & gnd wood Present (Frac. reach) PHab wadeable: riparian vegetation **XPMGW** Rip. mid & gnd wood Present (Frac. reach) PHab boatable: riparian vegetation **XPMID** Rip MidLayer Present (Fraction of reach) PHab wadeable: riparian vegetation **XPMID** Rip MidLayer Present (Fraction of reach)

PHab boatable: channel characteristics XSHOR2VG Distance (m) from shoreline to vegetation Boatable only

PHab boatable: slope & bearing XSLOPE Mean Slope of water surface (%)
PHab wadeable: slope & bearing XSLOPE Mean Slope of water surface (%)

Reach mean channel slope according to field-based

PHab boatable: slope and bearing XSLOPE\_FIELD measurements

Reach mean channel slope according to field-based

PHab wadeable: slope and bearing XSLOPE\_FIELD measurements

PHab boatable: slope and bearing XSLOPE\_MAP Reach mean channel slope according to map-based calculations

PHab wadeable: slope and bearing XSLOPE\_MAP Reach mean channel slope according to map-based calculations

slope & bearing XSLOPE\_MAP Reach mean channel slope according to map-based calculations

PHab wadeable: bank morphology XUN Undercut Distance--Mean (m)

PHab boatable: channel morphology XWD\_RAT Mean Wetted Width/Thalweg Depth ratio
PHab wadeable: channel morphology XWD\_RAT Mean Wetted Width/Thalweg Depth ratio

PHab boatable: channel morphology XWIDTH Mean Wetted Width (m)
PHab wadeable: channel morphology XWIDTH Mean Wetted Width (m)

PHab boatable: channel morphology XWXD Mean Wetted Width x Thalweg depth (m2)
PHab wadeable: channel morphology XWXD Mean Wetted Width x Thalweg depth (m2)