

Benthic Macroinvertebrate Family Level Data Sheet

School/Group _____ River/Stream _____

Site _____ Sampling Date _____

Name of person(s) conducting analysis _____

T= Family Tolerance Value

D= Density (# of organisms found in sub-sample)

TxD=Product of Tolerance Value X Density

%C= Percent Composition

L= lesser of two %C values (for calculating Percent Similarity between replicates)

Families in Major Groups	T	Replicate 1			Replicate 2			L
		D	TxD	%C	D	TxD	%C	
EPHEMEROPTERA (E)								
Baetidae	6							
Baetiscidae	4							
Caenidae	6							
Ephemerellidae	2							
Ephemeridae	4							
Heptageniidae	3							
Leptophlebiidae	4							
Metretopodidae	2							
Oligoneuriidae	2							
Polymitarcylidae	2							
Potomanthidae	4							
Siphonuridae	7							
Tricorythidae	4							
Isonychiidae	2							
Other								
Subtotal E								
PLECOPTERA (P)								
Capniidae	3							
Chloroperlidae	0							
Leuctridae	0							
Nemouridae	2							
Peltoperlidae	0							
Perlidae	3							
Perlodidae	2							
Pteronarcyidae	0							
Taeniopterygidae	2							
Other								
Subtotal P								
MEGALOPTERA (M)								
Corydalidae	4							
Sialidae	4							
Other								
Subtotal M								
LEPIDOPTERA (L)								
Pyralidae	5							
Other								
Subtotal L								

Families in Major Groups	T	Replicate 1			Replicate 2			L
		D	TxD	%C	D	TxD	%C	
TRICHOPTERA (T)								
Brachycentridae	2							
Glossosomatidae	1							
Helicopsychidae	3							
Hydropsychidae	5							
Hydroptilidae	6							
Lepidostomatidae	1							
Leptoceridae	4							
Limnephilidae	4							
Molannidae	6							
Odontoceridae	0							
Philopotamidae	3							
Phryganeidae	4							
Polycentropodidae	6							
Psychomyiidae	2							
Rhyacophilidae	1							
Sericostomatidae	3							
Other								
Subtotal T								
DIPTERA (D)								
Anthericidae	4							
Blephariceridae	0							
Ceratopogonidae	6							
Chironomidae	6							
Tipulidae	4							
Empididae	6							
Simuliidae	5							
Tabanidae	5							
Other								
Subtotal D								
ISOPODA (I)								
Asellidae	8							
Other								
Subtotal I								

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Families in Major Groups	Replicate 1				Replicate 2				L
	T	D	TxD	%C	D	TxD	%C		
COLEOPTERA (C)									
Dryopidae	5								
Elmidae	5								
Gyrinidae	4								
Haliplidae	5								
Psephenidae	4								
Other									
Subtotal C									
ODONATA (O)									
Aeshnidae	5								
Calopterygidae	6								
Coenagrionidae	8								
Cordulegastridae	3								
Corduliidae	2								
Gomphidae	4								
Lestidae	9								
Libellulidae	2								
Macromiidae	2								
Other									
Subtotal E									
AMPHIPODA (A)									
Crangonyctidae	6								
Gammaridae	6								
Talitridae	8								
Other									
Subtotal A									

Families in Major Groups	Replicate 1				Replicate 2				L
	T	D	TxD	%C	D	TxD	%C		
DECAPODA (DE)									
Cambaridae	6								
Astacidae	6								
Other									
Subtotal DE									
OTHER									
Oligochaeta	9								
Hirudinea	7								
Gastropoda	7								
Pelecypoda	6								
Turbellaria	6								
Nemertea	8								
Other									
Subtotal Other									
TOTALS									

Organism Density/Sample

Total D x Total # squares picked
squares in tray

Rep 1	Rep 2

EPT Family Richness

Total # EPT families

Rep 1	Rep 2

>7 non-impacted 1-2 moderately impacted
3-7 slightly impacted 0 severely impacted

Total Family Richness

Total # families

Rep 1	Rep 2

>13 non-impacted 7-9 moderately impacted
10-13 slightly impacted <7 severely impacted

Family Biotic Index
(Total T x D) ÷ Total D

Rep 1	Rep 2

0-4.5 non-impacted
4.51-5.50 slightly impacted
5.51-7.00 moderately impacted
7.01-10.00 severely impacted

Percent Model Affinity
Use Tier 2 worksheet

Rep 1	Rep 2

EPT/EPT + Chironomidae Ratio

Total # EPT families

Total # EPT families + D value for Chironomidae

>0.65 non-impacted

Rep 1	Rep 2

Percent Contribution of the Dominant Family
The family with the largest %C value

Family	Rep 1 %C	Rep 2 %C

Percent Similarity

Sum of the lesser values (L)

Goal for Tier 3 is 65%

If using to compare volunteer and outside evaluator results, check here and indicate replicate # _____

(Use Rep 1 column for volunteer results and Rep 2 column for outside evaluator results)