

APPENDIX B:

REGIONAL TOLERANCE VALUES, FUNCTIONAL FEEDING GROUPS AND HABIT/BEHAVIOR ASSIGNMENTS FOR BENTHIC MACROINVERTEBRATES

APPENDIX B

Appendix B is a list of selected benthic macroinvertebrates of the United States in phylogenetic order. Included are the Taxonomic Serial Number (TSN) and the Parent Taxonomic Serial Number for each of the taxa listed according to the Integrated Taxonomic Information System (ITIS). The ITIS generates a national taxonomic list that is constantly updated and currently posted on the World Wide Web at <www.itis.usda.gov>. If you are viewing this document electronically, this page is linked to the ITIS web site.

This Appendix displays regional tolerance values, primary and secondary functional feeding group information, and primary and secondary habit designations for selected benthic macroinvertebrates. In an effort to provide regionally accurate tolerance information, lists included in this Appendix were taken from the following states (and workgroup): Idaho (Northwest), Ohio¹ (Midwest), North Carolina (Southeast), Wisconsin (Upper Midwest), and the MACS workgroup (Mid-Atlantic Coastal Streams). Tolerance values are on a 0 to 10 scale, 0 representing the tolerance value of an extremely sensitive organism and 10 for a tolerant organism. For functional feeding group and habit/behavior assignments, primary and secondary designations are listed, if both are known. Each characterization is based on the organisms' larval qualities, except a group of beetles (listed as 'adult') that are aquatic as adults. The following are lists of the abbreviations used in this appendix.

FUNCTIONAL FEEDING DESIGNATIONS

| | |
|-----------------------|---------------------|
| PA=parasite | FC=filter/collector |
| PR=predator | SC=scrapper |
| OM=omnivore | SH=shredder |
| GC=gatherer/collector | PI=piercer |

HABIT/BEHAVIOR DESIGNATIONS

| | |
|-------------|------------|
| cn=clinger | sw=swimmer |
| cb=climber | dv=diver |
| sp=sprawler | sk=skater |
| bu=burrower | |

Sources For Benthic Tolerance, Functional Feeding Group, and Habit/Behavior Designations ^(a)

ID= Idaho DEP (Northwest)

OH= Ohio EPA (Midwest)

NC = North Carolina DEM (Southeast)

WI = Wisconsin DNR (Upper Midwest)

MACS= Mid-Atlantic Coastal Streams Workgroup (NJ DEP, DE DNREC, MD DNR, VA DEC, NC DEM, SC DHES)

^(a) Habit/Behavior information is primarily based on Merritt and Cummins (1996) and pertains to insect larval forms (except for Dryopidae adults) and is mostly at genus level.

¹Ohio traditionally uses an inverted 60-point scale compared to the other states in this list. In order to be comparable to the other listed states, the Ohio values were converted to a 0-10 scale as discussed above.

Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|---------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 202423 | 59490 | Nematoda | | | | 5 | | PA | | | |
| 202423 | 64183 | Nematomorpha | | | | | | PA | | | |
| 202423 | 57411 | Nemertea | | | | 8 | | PR | | | |
| | 57412 | Rhynchocoela | | | | | | | | | |
| 57577 | 57578 | Prostoma graecense | 6.6 | | | | | PR | | | |
| 57577 | 193496 | Prostoma rubrum | | | | | | | | | |
| 202423 | 53963 | Platyhelminthes | | | | | | | | | |
| 53963 | 53964 | Turbellaria | | | | 4 | | PR | | | |
| 53965 | 54468 | Tricladida | | | | 4 | | GC | | | |
| 54552 | 54553 | Cura | | | | | | | | | |
| 54468 | 54502 | Planariidae | | | | 1 | | OM | | | |
| 54502 | 54503 | Dugesia | | | | 4 | | OM | | | |
| 54503 | 54504 | Dugesia tigrina | 7.5 | | | | | PR | | | |
| 54502 | 54510 | Polycelis | | | | 6 | | GC | | | |
| 54510 | 54512 | Polycelis coronata | | | | 1 | | OM | | | |
| 202423 | 46861 | Porifera | | | | | | FC | | | |
| 47690 | 47691 | Spongillidae | | | | | | FC | | | |
| 47691 | 47692 | Spongilla | | | | | | FC | | | |
| 47692 | 47696 | Spongilla aspinosa | | | | | | FC | | | |
| | 155470 | Ectoprocta | | | | | | | | | |
| 156691 | 156692 | Plumatella repens | | | | | | | | | |
| 174619 | 174662 | Hydrobates | | | | | | | | | |
| 202423 | 48738 | Cnidaria | | | | | | | | | |
| 50844 | 50845 | Hydra | | | | 5 | | PR | | | |
| 50845 | 50846 | Hydra americana | | | | | | | | | |
| 156753 | 156754 | Urnatella gracilis | | | | | | | | | |
| 69458 | 79118 | Bivalvia | | | | | | FC | | | |
| | 79119 | Pelecypoda | | | | 8 | | FC | | | |
| 79517 | 79519 | Brachidontes exustus | | | | | | FC | | | |
| 79912 | 79913 | Unionidae | | | | 8 | | FC | | | |
| 79913 | 79930 | Anodonta | | | | 8 | | FC | | | |
| 79930 | 79946 | Anodonta couperiana | | | | | | FC | | | |
| | | Anodonta nuttalliana idahoensis | | | | 8 | | FC | | | |
| 79913 | 79951 | Elliptio | | | | | | FC | | | |
| 79951 | 79975 | Elliptio buckleyi | | | | | | FC | | | |
| 79951 | 79952 | Elliptio complanata | 5.4 | | | | | | | | |
| 79951 | 79964 | Elliptio lanceolata | 1.9 | | | | | | | | |
| 79913 | 80032 | Gonidea | | | | 4 | | FC | | | |
| 80032 | 80033 | Gonidea angulata | | | | 8 | | FC | | | |
| 79986 | 80006 | Lampsilis teres | | | | | | FC | | | |
| 79913 | 80370 | Margaritifera | | | | 4 | | FC | | | |
| 80370 | 80371 | Margaritifera margaritifera | | | | 8 | | FC | | | |
| 80059 | 80067 | Quadrula cylindrica | | | | | | FC | | | |
| 81381 | 81385 | Corbicula | | | | | | FC | | | |
| 81385 | 81387 | Corbicula fluminea | 6.3 | | 3.2 | | | FC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|----------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 81385 | 81386 | Corbicula manilensis | | | | | | FC | | | |
| 81333 | 81335 | Mytilopsis leucophaeata | | | | | | FC | | | |
| 80384 | 81388 | Pisidiidae | | | | 8 | | GC | | | |
| | 81389 | Sphaeriidae | | | | 8 | 8 | FC | | | |
| 81388 | 81436 | Eupera | | | | | | | | | |
| | 205642 | Byssanodonta cubensis (= Eupera) | | | | | | FC | | | |
| 81436 | 81438 | Eupera cubensis | | | | | | FC | | | |
| 81388 | 81427 | Musculium | | | | | 5 | FC | | | |
| 81427 | 81430 | Musculium lacustre | | | | | 5 | FC | | | |
| | | Byssanodonta (= Eupera) | | | | | | FC | | | |
| 81427 | 81434 | Musculium securis | | | | | 5 | FC | | | |
| 81427 | 81428 | Musculium transversum | | | | | | | | | |
| 81388 | 81400 | Pisidium | 6.8 | | 4.6 | 8 | 8 | FC | | | |
| 81400 | 81405 | Pisidium casertanum | | | | 8 | | SC | | | |
| 81400 | | Pisidium lilljborgi | | | | | 8 | FC | | | |
| 81400 | 81406 | Pisidium compressum | | | | 8 | | FC | | | |
| 81400 | 81402 | Pisidium dubium | | | | | | FC | | | |
| 81400 | 81408 | Pisidium fallax | | | | 8 | | FC | | | |
| 81400 | 81403 | Pisidium idahoense | | | | 8 | | FC | | | |
| 81400 | 81424 | Pisidium punctatum | | | | 8 | | FC | | | |
| 81400 | 81425 | Pisidium punctiferum | | | | | | FC | | | |
| 81400 | 81420 | Pisidium walkeri | | | | 8 | | FC | | | |
| 81388 | 81391 | Sphaerium | 7.7 | | 4.7 | 6 | | GC | FC | | |
| 81391 | 81395 | Sphaerium patella | | | | 8 | | FC | | | |
| 81391 | 81398 | Sphaerium striatinum | | | | | | FC | | | |
| 69458 | 69459 | Gastropoda | | | | 7 | | SC | | | |
| 76437 | 76568 | Ancylidae | | | | 6 | | SC | | | |
| 76568 | 76569 | Ferrissia | 6.9 | | 5.2 | 6 | 7 | SC | | | |
| 76569 | 76573 | Ferrissia hendersoni | | | | | | SC | | | |
| 76569 | 76572 | Ferrissia rivularis | | | | | | SC | | | |
| 76569 | 76575 | Ferrissia walkeri | | | | | 7 | SC | | | |
| 76585 | 76586 | Hebetancylus excentricus | | | | | | SC | | | |
| 76568 | 76576 | Laevapex | | | | | | SC | | | |
| 76576 | 76578 | Laevapex diaphanus | | | | | | SC | | | |
| 76576 | 76577 | Laevapex fuscus | 7.3 | | 6.7 | | | SC | | | |
| 76576 | 76579 | Laevapex peninsulae | | | | | | SC | | | |
| 76476 | 76477 | Lanx | | | | 6 | | GC | | | |
| 76437 | 76483 | Lymnaeidae | | | 6.9 | 6 | 6 | SC | | | |
| 76483 | 76497 | Fossaria | | | 2.6 | 8 | | SC | | | |
| 76483 | 76484 | Lymnaea | | | | 8 | | SC | | | |
| 76483 | 76528 | Pseudosuccinea | | | | | | SC | | | |
| 76528 | 76529 | Pseudosuccinea columella | 7.2 | | | | | SC | | | |
| 76483 | 76525 | Radix | | | | | | | | | |
| 76483 | 76534 | Stagnicola | 8 | | | 10 | 7 | SC | | | |
| 76437 | 76676 | Physidae | | | | 8 | | SC | | | |
| 76676 | 76677 | Physa | | | | 8 | | SC | | | |
| 76676 | 76698 | Physella | 9.1 | | 7.6 | 8 | 8 | SC | | | |
| 76698 | 76707 | Physella cubensis | | | | | | SC | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 76698 | 76724 | Physella hendersoni | | | | | | SC | | | |
| 76698 | 76736 | Physella heterostropha | | | | | | SC | | | |
| 76437 | 76591 | Planorbidae | | | | 7 | | SC | | | |
| 76591 | 76592 | Gyraulus | | | | 8 | | SC | | | |
| 76592 | 76593 | Gyraulus circumstriatus | | | | | 7 | SC | | | |
| 76592 | 76595 | Gyraulus parvus | | | 5.5 | | | SC | | | |
| 76591 | 76599 | Helisoma | | | | | | SC | | | |
| 76599 | 76600 | Helisoma anceps | 6.5 | | 6 | | 7 | SC | | | |
| 76591 | 76626 | Menetus | | | | | | | | | |
| 76626 | 205210 | Menetus dilatatus | 8.4 | | 8.1 | | | SC | | | |
| 76591 | 76643 | Micromenetus | | | | | | SC | | | |
| 76643 | 76648 | Micromenetus dilatatus | | | | | | SC | | | |
| 76643 | 76646 | Micromenetus floridensis | | | | | | SC | | | |
| 76591 | 76654 | Planorbella | | | | 6 | | SC | | | |
| 76654 | 76662 | Planorbella duryi | | | | | | SC | | | |
| 76654 | 76667 | Planorbella pilsbryi | | | 7.4 | | | | | | |
| 76654 | 76668 | Planorbella scalaris | | | | | | SC | | | |
| 76671 | 205212 | Planorbella trivolvis | | | 9.5 | | | SC | | | |
| 76591 | 76621 | Promenetus | | | | | | GC | | | |
| 76591 | 76673 | Vorticifex | | | | 8 | | SC | | | |
| 76673 | | Vorticifex effusa | | | | 6 | | SC | | | |
| 77064 | 77300 | Limacidae | | | | | | | | | |
| 70160 | 70163 | Neritina reclinata | | | | | | SC | | | |
| 70745 | 70747 | Amnicola | 4.8 | | | 5 | | SC | | | |
| 70747 | 70764 | Amnicola dalli | | | | | | SC | | | |
| 70747 | | Amnicola grana | | | | | 8 | SC | | | |
| 70764 | 205008 | Amnicola dalli johnsoni | | | | | | SC | | | |
| 70747 | 70748 | Amnicola limosa | | | | | 8 | SC | | | |
| 70745 | 70778 | Fluminicola | | | | 5 | | SC | | | |
| 70778 | 70782 | Fluminicola hindsi | | | | 5 | | SC | | | |
| | 71549 | Pleurocera | | | 3.7 | | | | | | |
| 70298 | 70493 | Hydrobiidae | | | 7 | | | SC | | | |
| | | Pyrgulopsis idahoensis | | | | 8 | | SC | | | |
| 70493 | 70509 | Cincinnatia | | | | | | SC | | | |
| 70509 | 70513 | Cincinnatia floridana | | | | | | SC | | | |
| 70493 | 70643 | Fontelicella | | | | 8 | | SC | | | |
| 70493 | 70527 | Littoridinops | | | | | | SC | | | |
| 70527 | 70530 | Littoridinops monroensis | | | | | | SC | | | |
| 70633 | 70634 | Notogillia wetherbyi | | | | | | SC | | | |
| 70493 | 205005 | Potamopyrgus | | | | 10 | | SC | | | |
| 205005 | 205006 | Potamopyrgus antipodarum | | | | 8 | | SC | | | |
| 70699 | 70700 | Pyrgophorus platyrachis | | | | | | SC | | | |
| 70712 | 70713 | Rhapinema dacryon | | | | | | SC | | | |
| | 70548 | Somatogyrus | 6.5 | | | | | | | | |
| 70548 | 70582 | Somatogyrus walkerianus | | | | | | SC | | | |
| 70493 | 70702 | Spilochlamys | | | | | | SC | | | |
| 70702 | 70703 | Spilochlamys conica | | | | | | SC | | | |
| 71541 | 71654 | Elimia | 2.5 | | 3.6 | | 2 | SC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 71654 | 71858 | Elimia atearni | | | | | | SC | | | |
| 71654 | 71746 | Elimia curvicostata | | | | | | SC | | | |
| 71654 | 71761 | Elimia floridensis | | | | | | SC | | | |
| 71541 | 71542 | Goniobasis | | | | | | | | | |
| 71541 | 71570 | Juga | | | | 7 | | SC | | | |
| 71541 | 71601 | Leptoxis | 1.6 | | | | | | | | |
| 70298 | 71531 | Thiaridae | | | | | | SC | | | |
| 71531 | 71532 | Melanoides | | | | | | SC | | | |
| 71532 | 71533 | Melanoides tuberculata | | | | | | SC | | | |
| 70298 | 70345 | Valvatidae | | | | | | SC | | | |
| 70345 | 70346 | Valvata | | | | 8 | | SC | | | |
| 73194 | 73195 | Marisa cornuarietis | | | | | | | | | |
| 70342 | 70343 | Pomacea paludosa | | | | | | SC | | | |
| 331584 | 70304 | Viviparidae | | | | 6 | | SC | | | |
| 331600 | 70311 | Campeloma | | | | | | SC | | | |
| 70311 | 70312 | Campeloma decisum | 6.7 | | | 6 | | SC | | | |
| 70311 | 70322 | Campeloma floridense | | | | | | SC | | | |
| 70311 | 70315 | Campeloma geniculum | | | | | | SC | | | |
| 70311 | 70317 | Campeloma limum | | | | | | SC | | | |
| 70333 | 70336 | Lioplax pilsbryi | | | | | | SC | | | |
| 331585 | 70305 | Viviparus | | | | | | SC | | | |
| 70305 | 70307 | Viviparus georgianus | | | | | | SC | | | |
| 202423 | 64357 | Annelida | | | | | | GC | | | |
| 64357 | 68422 | Oligochaeta | | | | 5 | | GC | | | |
| 68498 | 69069 | Lumbricina | | | | 8 | | GC | | | |
| 68422 | 69168 | Branchiobdellida | | | | | | | | | |
| 69168 | 69169 | Branchiobdellidae | | | | 6 | | GC | | | |
| 69069 | 69080 | Glossoscolecidae | | | | | 10 | GC | | | |
| 69069 | 69165 | Lumbricidae | | | | | 10 | GC | | | |
| 68498 | 68499 | Sparganophilidae | | | | | | | | | |
| 68509 | 68510 | Enchytraeidae | 10 | | | 10 | 10 | GC | | | |
| 68509 | 68854 | Naididae | | | | | | GC | | | |
| 68423 | 68424 | Aelosoma | | | | | | | | | |
| 68854 | 68967 | Allonais | | | | | | GC | | | |
| 68967 | 68971 | Allonais inequalis | | | | | | GC | | | |
| 68854 | 69021 | Bratislavia | | | | | | GC | | | |
| 69021 | 69022 | Bratislavia bilongata | | | | | | GC | | | |
| 69021 | 69023 | Bratislavia unidentata | | | | | | GC | | | |
| 68934 | 68935 | Chaetogaster diaphanus | | | | | | | | | |
| 68854 | 68898 | Dero | 10 | | | | 10 | GC | | | |
| 68898 | 555636 | Dero botrytis | | | | | | GC | | | |
| 68898 | 68904 | Dero digitata | | | | | | GC | | | |
| 68898 | 68902 | Dero flabelliger | | | | | | GC | | | |
| 68898 | 68912 | Dero furcata | | | | | | GC | | | |
| 68898 | 68924 | Dero lodeni | | | | | | GC | | | |
| 68898 | 68900 | Dero nivea | | | | | | GC | | | |
| 68898 | 68907 | Dero obtusa | | | | | | GC | | | |
| 68898 | 68923 | Dero pectinata | | | | | | GC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|-------|-----------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 68898 | 68903 | <i>Dero trifida</i> | | | | | | GC | | | |
| 68898 | 68915 | <i>Dero vaga</i> | | | | | | GC | | | |
| 69003 | 69004 | <i>Haemonais waldvogeli</i> | | | | | | GC | | | |
| | 68946 | <i>Nais</i> | 9.1 | | | | | | | | |
| 68946 | 68949 | <i>Nais behningi</i> | | | | | | GC | | | |
| 68946 | 68950 | <i>Nais communis</i> | | | | | | GC | | | |
| 68946 | 68952 | <i>Nais elinguis</i> | | | | | | GC | | | |
| 68946 | 68954 | <i>Nais pardalis</i> | | | | | | GC | | | |
| 68946 | 68956 | <i>Nais pseudobtusa</i> | | | | | | GC | | | |
| 68946 | 68957 | <i>Nais simplex</i> | | | | | | GC | | | |
| 68946 | 68959 | <i>Nais variabilis</i> | | | | | | GC | | | |
| 68862 | 68863 | <i>Paranais litoralis</i> | | | | | | GC | | | |
| 68854 | 68876 | <i>Pristina</i> | 9.9 | | | | | GC | | | |
| 68876 | 68879 | <i>Pristina aequiseta</i> | | | | | | GC | | | |
| 68876 | 68880 | <i>Pristina breviseta</i> | | | | | | GC | | | |
| 68876 | 68881 | <i>Pristina foreli</i> | | | | | | GC | | | |
| 68876 | 68894 | <i>Pristina leidyi</i> | | | | | | GC | | | |
| 68876 | 68893 | <i>Pristina longisoma</i> | | | | | | GC | | | |
| 68876 | 68887 | <i>Pristina osborni</i> | | | | | | GC | | | |
| 68876 | 68891 | <i>Pristina plumaseta</i> | | | | | | GC | | | |
| 68876 | 68878 | <i>Pristina sima</i> | | | | | | GC | | | |
| 68876 | 68895 | <i>Pristina synclites</i> | | | | | | GC | | | |
| 68854 | 69024 | <i>Pristinella</i> | | | | | | GC | | | |
| 69024 | 69030 | <i>Pristinella jenkiniae</i> | | | | | | GC | | | |
| 69024 | 69025 | <i>Pristinella longisoma</i> | | | | | | GC | | | |
| 69024 | 69026 | <i>Pristinella osborni</i> | | | | | | GC | | | |
| 68854 | 68855 | <i>Slavina</i> | | | | | | GC | | | |
| 68855 | 68856 | <i>Slavina appendiculata</i> | 7.1 | | | | | GC | | | |
| 68984 | 68985 | <i>Specaria josinae</i> | | | | | | GC | | | |
| 69017 | 69018 | <i>Stephensoniana trivandrana</i> | | | | | | GC | | | |
| 68871 | 68873 | <i>Stylaria fossularis</i> | | | | | 8 | GC | | | |
| 68871 | 68872 | <i>Stylaria lacustris</i> | 8.5 | | | | | GC | | | |
| 68854 | 69009 | <i>Vejdovskyaella</i> | | | | | | GC | | | |
| 69009 | 69010 | <i>Vejdovskyaella comata</i> | | | | | | GC | | | |
| 68509 | 69041 | Opistocystidae | | | | | | | | | |
| 68509 | 68585 | Tubificidae | | | | 10 | 10 | GC | | | |
| | 68588 | <i>Peloscolex</i> | 8.8 | | | | | | | | |
| 68679 | 68683 | <i>Aulodrilus americanus</i> | | | | | | GC | | | |
| 68679 | 68682 | <i>Aulodrilus limnobius</i> | 5.2 | | | | | GC | | | |
| 68679 | 68680 | <i>Aulodrilus pigueti</i> | 4.7 | | | | | GC | | | |
| 68679 | 68684 | <i>Aulodrilus pluriseta</i> | | | | | 8 | GC | | | |
| 68619 | 68621 | <i>Branchiura sowerbyi</i> | 8.4 | | | | | GC | | | |
| 68585 | 68745 | <i>Haber</i> | | | | | | | | | |
| 68745 | 68746 | <i>Haber speciosus</i> | 2.8 | | | | | | | | |
| 68660 | 68662 | <i>Ilyodrilus templetoni</i> | 9.4 | | | | | GC | | | |
| 68808 | 68809 | <i>Isochaetides curvisetosus</i> | 7.2 | | | | | GC | | | |
| 68808 | 68810 | <i>Isochaetides freyi</i> | 7.6 | | | | | | | | |
| 68585 | 68638 | <i>Limnodrilus</i> | 9.6 | | | | | GC | | | |

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|------------|--------|------------------------------|---------------------------|--------------------------|-----------------|-------------------|------------------------|--------------------------|-----------|-----------------|-----------|
| | | | South east (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| | | | | | | | | | | | |
| 68638 | 68653 | Limnodrilus angustipenis | | | | | | GC | | | |
| 68638 | 68652 | Limnodrilus cervix | 10 | | | | | | | | |
| 68638 | 68639 | Limnodrilus hoffmeisteri | 9.8 | | | | | GC | | | |
| 68638 | 68649 | Limnodrilus profundicola | | | | | | GC | | | |
| 68638 | 68644 | Limnodrilus udekemianus | 9.7 | | | | | GC | | | |
| 68780 | 68610 | Spirosperma ferox | | | | | | GC | | | |
| 68780 | 68781 | Spirosperma nikolskyi | 7.7 | | | | | | | | |
| 68585 | 68751 | Psammoryctides | | | | | | | | | |
| 68751 | 68752 | Psammoryctides convolutus | | | | | | GC | | | |
| 68793 | 68794 | Quistradrilus multisetosus | | | | | 10 | GC | | | |
| 68839 | 68844 | Rhyacodrilus sodalis | | | | 10 | | GC | | | |
| 68585 | 68780 | Spirosperma | | | | | | GC | | | |
| 68780 | 68782 | Spirosperma carolinensis | | | | | 10 | GC | | | |
| 68585 | 68622 | Tubifex | | | | 10 | | GC | | | |
| 68622 | 68623 | Tubifex tubifex | 10 | | | | | GC | | | |
| 68439 | 68440 | Lumbriculidae | 7.3 | | | 8 | | GC | | | |
| 68440 | 68473 | Eclipidrilus | | | | | 8 | | | | |
| 68473 | 68476 | Eclipidrilus palustris | | | | | | GC | | | |
| 68440 | 68441 | Lumbriculus | | | | | | GC | | | |
| 68441 | 68447 | Lumbriculus inconstans | | | | | | GC | | | |
| 68441 | 68444 | Lumbriculus variegata | | | | | | GC | | | |
| 68422 | 69290 | Hirudinea | | | | 10 | | PR | | | |
| 69406 | 69407 | Hirudinidae | | | | 7 | | PR | | | |
| 69407 | 69408 | Haemopsis | | | | 10 | | PR | | | |
| 69408 | 69412 | Haemopsis marmorata | | | | | | PR | | | |
| 69418 | 69421 | Macrobodella ditetra | | | | | | | | | |
| 69407 | 69430 | Percymoorensis | | | | 10 | | PR | | | |
| 69407 | 69423 | Philobdella | | | | | | | | | |
| 69437 | 69438 | Erpobdellidae | | | | 8 | | PR | | | |
| 69438 | 69439 | Dina | | | | 8 | | PR | | | |
| 69438 | 69449 | Mooreobdella | 7.8 | | | | | PR | | | |
| 69449 | 69454 | Mooreobdella tetragon | 9.7 | | | | | PR | | | |
| 69455 | 69456 | Nephelopsis obscura | | | | | | PR | | | |
| 69295 | 69357 | Glossiphoniidae | | | | 8 | | PR | | | |
| 69388 | 69389 | Alboglossiphonia heteroclita | | | | | | PR | | | |
| 69380 | 69390 | Glossiphonia heteroclita | | | | | | | | | |
| 69357 | 69358 | Batracobdella | | | | | | PA | | | |
| 69358 | 69359 | Batracobdella paludosa | | | | | | PA | | | |
| 69357 | 69380 | Glossiphonia | | | | | | PR | | | |
| 555637 | 555638 | Desserobdella phalera | | | | | | PR | | | |
| 69380 | 69381 | Glossiphonia complanata | | | | | | PR | | | |
| 69357 | 69396 | Helobdella | | | | 6 | | PA | PR | | |
| | 204822 | Gloiobdella elongata | | | | | | PR | | | |
| 69396 | 69397 | Helobdella elongata | 9.9 | | | | | PR | | | |
| 69396 | 69401 | Helobdella fusca | | | | | | PA | | | |
| 69396 | 69398 | Helobdella stagnalis | 6.7 | | | | | PR | | | |
| 69396 | 69399 | Helobdella triserialis | 8.9 | | | | | PA | | | |
| 69357 | 69363 | Placobdella | | | | 6 | | PR | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 69363 | 69367 | Placobdella multilineata | | | | | | PR | | | |
| 69363 | 69364 | Placobdella papillifera | 9 | | | | | PA | | | |
| 69363 | 69365 | Placobdella parasitica | 6.6 | | | | | PA | | | |
| | 69374 | Batracobdella phalera | 7.1 | | | | | | | | |
| 69363 | 69372 | Placobdella translucens | | | | | | PA | | | |
| 69357 | 69375 | Theromyzon | | | | 10 | | PR | | | |
| 69315 | 69316 | Myzobdella lugubris | | | | | | PR | | | |
| 69296 | 69304 | Piscicola | | | | 10 | | PR | | | |
| 69304 | 69309 | Piscicola salmositica | | | | 7 | | PR | | | |
| | | Acari | | | | | | PR | | | |
| | | Acariformes | | | | | | PR | | | |
| | | Corticacarus delicatus | | | | 8 | | PR | | | |
| 83538 | 83544 | Oribatei | | | | | | | | | |
| | | Parasitengona | | | | | | | | | |
| | | Protzia californensis | | | | 8 | | PR | | | |
| 82754 | 82769 | Trombidiformes | | | | | | | | | |
| 82862 | 82864 | Arrenurus | | | | | | PR | | | |
| 82864 | 82907 | Arrenurus apetirolatus | | | | | | PR | | | |
| 82864 | 82953 | Arrenurus bicaudatus | | | | | | PR | | | |
| 82864 | 205790 | Arrenurus hovus | | | | | | PR | | | |
| 82864 | 205791 | Arrenurus problecornis | | | | | | PR | | | |
| 82864 | 205792 | Arrenurus zapus | | | | | | PR | | | |
| 83434 | 83435 | Albia | | | | | | PR | | | |
| 83176 | 83177 | Clathrosperchon | | | | | | PR | | | |
| 82770 | 82771 | Halacaridae | | | | | | | | | |
| 82770 | 83122 | Hydrachnidae | | | | | | | | | |
| 83122 | 83123 | Hydrachna | | | | | | PR | | | |
| 83224 | 83225 | Hydrodroma | | | | | | PR | | | |
| 82770 | 83281 | Hygrobatidae | | | | 8 | | PR | | | |
| 83281 | 83282 | Atractides | | | | | | PR | | | |
| 83281 | 83297 | Hygrobates | | | | | | PR | | | |
| 83297 | 83310 | Hygrobates occidentalis | | | | 8 | | PR | | | |
| 83499 | 83500 | Geayia | | | | | | | | | |
| 83499 | 83502 | Krendowskia | | | | | | | | | |
| 82770 | 83033 | Lebertiidae | | | | 8 | | PR | | | |
| 83033 | 83034 | Lebertia | | | | 8 | | PR | | | |
| 83050 | 205794 | Centrolimnesia | | | | | | PR | | | |
| 83050 | 83051 | Limnesia | | | | | | PR | | | |
| 83145 | 83146 | Limnochaes | | | | | | PR | | | |
| 83476 | 83479 | Mideopsis | | | | | | PR | | | |
| 83239 | 83240 | Frontipoda | | | | | | PR | | | |
| 83239 | 83244 | Oxus | | | | | | PR | | | |
| 82770 | 83159 | Piersigiidae | | | | 8 | | PR | | | |
| 83330 | 83350 | Piona | | | | | | PR | | | |
| 83164 | 83172 | Wandesia | | | | | | | | | |
| 82770 | 83005 | Sperchonidae | | | | 8 | | PR | | | |
| 83005 | 83006 | Sperchon | | | | | | PR | | | |
| 83006 | | Sperchon pseudoplumifer | | | | 8 | | PR | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-----------------------------|---------------------------|--------------------------|-----------------|-------------------|------------------------|--------------------------|-----------|-----------------|-----------|
| | | | South east (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| | | | | | | | | | | | |
| 83005 | 83029 | Sperchonopsis | | | | | | PR | | | |
| 83249 | 83254 | Torrenticola | | | | | | PR | | | |
| 83072 | 83093 | Koenikea | | | | | | | | | |
| 83093 | 205798 | Koenikea angulata | | | | | | | | | |
| 83093 | 193512 | Koenikea aphраста | | | | | | | | | |
| 83093 | 193513 | Koenikea elaphra | | | | | | | | | |
| 83099 | 205797 | Koenikea spinipes carella | | | | | | | | | |
| 83072 | 83103 | Neumania | | | | | | PR | | | |
| 83103 | 83106 | Neumania distincta | | | | | | PR | | | |
| 83072 | 83073 | Unionicola | | | | | | PR | | | |
| 82697 | 83677 | Crustacea | | | | 8 | | GC | | | |
| 95495 | 95599 | Decapoda | | | | 8 | | SH | | | |
| 98789 | 98790 | Rhithropanopeus harrisi | | | | | | | | | |
| 97250 | 97251 | Potimirim potimirim | | | | | | | | | |
| 96106 | 96213 | Palaemonidae | | | | | | | | | |
| 96213 | 96220 | Macrobrachium | | | | | | | | | |
| 96220 | 96225 | Macrobrachium acanthurus | | | | | | | | | |
| 96220 | 96221 | Macrobrachium ohione | | | | | | | | | |
| 96213 | 96383 | Palaemonetes | | | | | | | | | |
| 96383 | 96396 | Palaemonetes kadiakensis | | | | | 4 | OM | | | |
| 96383 | 96385 | Palaemonetes paludosus | | | | | 4 | | | | |
| 97306 | 97324 | Astacidae | 7.2 | | | 8 | | SC | | | |
| 97324 | 97325 | Pacifastacus | | | | 6 | | OM | | | |
| 97325 | | Pacifastacus cambilii | | | | 6 | | SH | | | |
| 97325 | 97328 | Pacifastacus connectens | | | | 6 | | SH | | | |
| 97325 | 97326 | Pacifastacus leniusculus | | | | 6 | | SH | | | |
| 97306 | 97336 | Cambaridae | | | | | 6 | GC | | | |
| 97336 | 97337 | Cambarus | 8.1 | | | | | | | | |
| 97336 | 97421 | Orconectes | 2.7 | | | | | | | | |
| 97421 | 97423 | Orconectes limosus | | | | | 6 | SH | | | |
| 97336 | 97490 | Procambarus | 9.5 | | | | | | | | |
| 97490 | 97492 | Procambarus acutus | | | | | 9 | SH | | | |
| 97490 | 97498 | Procambarus alleni | | | | | | | | | |
| 97490 | 97514 | Procambarus fallax | | | | | | | | | |
| 97490 | 97555 | Procambarus pygmaeus | | | | | | | | | |
| 97490 | 97566 | Procambarus spiculifer | | | | | | | | | |
| 89802 | 93294 | Amphipoda | | | | 4 | | GC | | | |
| 93584 | 93589 | Corophium | | | | | | FC | | | |
| 93589 | 93594 | Corophium lacustre | | | | | | FC | | | |
| 93641 | 93642 | Grandidierella bonnieroides | | | | | | GC | | | |
| 95080 | 95081 | Crangonyx | 8 | | | | 4 | GC | | | |
| 95081 | 95088 | Crangonyx richmondensis | | | | | | OM | | | |
| 95081 | 193517 | Crangonyx serratus | 8.1 | | | | | GC | | | |
| 93295 | 93745 | Gammaridae | | | | | | GC | | | |
| 93745 | 93747 | Anisogammarus | | | | 4 | | GC | | | |
| | 97160 | Argis | 8.7 | 8 | | | | | | | |
| 93745 | 93773 | Gammarus | | | | 4 | | OM | | | |
| 93773 | 93780 | Gammarus fasciatus | 6.9 | | | | 6 | GC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|---------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 93773 | 93789 | Gammarus lacustris | | | | | | OM | | | |
| 93773 | 93781 | Gammarus tigrinus | | | | | | GC | | | |
| | 93862 | Stygonectes | | | | | | | | | |
| 93947 | 93949 | Synurella chamberlaini | | | | | | GC | | | |
| 94022 | 94025 | Hyaella | | | | 8 | | GC | | | |
| 94025 | 94026 | Hyaella azteca | 7.9 | 8 | | | 8 | GC | | | |
| 93295 | 95032 | Talitridae | | | | 8 | | GC | | | |
| 89802 | 92120 | Isopoda | | | | 8 | | GC | | | |
| 92148 | 92149 | Cyathura polita | | | | | | GC | | | |
| 92650 | 92657 | Asellidae | | | | | | GC | | | |
| 92657 | 92658 | Asellus | 9.4 | 8 | | 8 | | GC | | | |
| 92658 | 92659 | Asellus occidentalis | | | | 8 | | GC | | | |
| 92657 | 92686 | Caecidotea | | | | 8 | 6 | GC | | | |
| 92686 | | Caecidotea attenuatus | | | | | 6 | | | | |
| 92686 | | Caecidotea communis | | | | 6 | | GC | | | |
| 92686 | 92701 | Caecidotea forbesi | | | | | 6 | | | | |
| 92686 | 92692 | Caecidotea racovitzai | | | | | 6 | | | | |
| 92692 | 92695 | Caecidotea racovitzai australis | | | | | | GC | | | |
| 92657 | 92666 | Lirceus | 7.7 | | | | 8 | GC | | | |
| | 92977 | Munna reynoldsi | | | | | | GC | | | |
| 92973 | 92976 | Uromunna reynoldsi | | | | | | GC | | | |
| 93207 | 93209 | Probopyris floridensis | | | | | | GC | | | |
| 93132 | 93133 | Probopyrus pandalicola | | | | | | GC | | | |
| 92224 | 92225 | Cirolanidae | | | | | | GC | | | |
| 92225 | 541967 | Anopsilana | | | | | | GC | | | |
| 92345 | 92348 | Cassinidea ovalis | | | | | | GC | | | |
| 92283 | 92301 | Exosphaeroma | | | | | | GC | | | |
| 92283 | 92337 | Sphaeroma | | | | | | GC | | | |
| 92337 | 92338 | Sphaeroma destructor | | | | | | GC | | | |
| 92337 | 92342 | Sphaeroma terebrans | | | | | | GC | | | |
| 206378 | 206379 | Oniscus asellus | | | | | | | | | |
| 92623 | 92624 | Edotea montosa | | | | | | GC | | | |
| 92564 | 92588 | Idotea | | | | | | GC | | | |
| 89802 | 89807 | Mysidacea | | | | | | | | | |
| 89856 | 90138 | Mysidopsis | | | | | | FC | | | |
| 89856 | 90041 | Mysis | | | | | | | | | |
| 90275 | 90277 | Taphromysis bowmani | | | | | | FC | | | |
| 89802 | 91061 | Tanaidacea | | | | | | FG | | | |
| | 92068 | Hargeria rapax | | | | | | FC | | | |
| 92026 | 92067 | Leptocheilia rapax | | | | | | | | | |
| | 91502 | Tanais cavolinii (part) | | | | | | | | | |
| | 91396 | Tanais cavolinii (part) | | | | | | | | | |
| | 91400 | Tanais cavolinii (part) | | | | | | | | | |
| | 91519 | Tanais cavolinii (part) | | | | | | | | | |
| 83677 | 85257 | Copepoda | | | | 8 | | GC | | | |
| 83677 | 84195 | Ostracoda | | | | 8 | | GC | | | |
| 83767 | 83832 | Cladocera | | | | 8 | | FC | | | |
| 83872 | 83873 | Daphnia | | | | 8 | | FC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 89599 | 89600 | Balanus | | | | | | FC | | | |
| 89600 | 89621 | Balanus eburneus | | | | | | FC | | | |
| 85780 | 85801 | Diaptomus pribilofensis | | | | | | | | | |
| 85257 | 88530 | Cyclopoida | | | | 8 | | FC | | | |
| 84409 | 84763 | Entocytheridae | | | | | | | | | |
| 82697 | 99208 | Insecta | | | | | | | | | |
| 99209 | 99237 | Collembola | | | | 10 | | GC | | | |
| 99239 | 99240 | Podura | | | | | | GC | | | |
| 99240 | 99241 | Podura aquatica | | | | | | | | | |
| 99917 | 99918 | Hypogastrura | | | | | | GC | | | |
| 99238 | 99245 | Isotomidae | | | | | | OM | | | |
| 99245 | 99246 | Isotomurus | | | | | | GC | | | |
| 99246 | 99247 | Isotomurus palustris | | | | | | GC | | | |
| 99238 | 99643 | Entomobryidae | | | | | | GC | | | |
| 100257 | 100258 | Sminthuridae | | | | | | | | | |
| 100258 | 100402 | Bourletiella | | | | | | GC | | | |
| 100402 | 100436 | Bourletiella spinata | | | | | | | | | |
| 100500 | 100502 | Ephemeroptera | | | | | | GC | | | |
| | | Polymitarcidae | | | | 2 | | GC | | | |
| 101569 | 101570 | Ephoron | | | | 2 | | GC | | bu | |
| 101570 | 101572 | Ephoron leukon | 1.5 | 2 | | | | | | | |
| 101459 | 101467 | Caenidae | | | | 7 | | GC | | | |
| 101467 | 101468 | Brachycercus | 3.5 | 3 | | | | GC | | | |
| 101468 | 101475 | Brachycercus maculatus | | | | | | GC | | | |
| 101468 | 101477 | Brachycercus prudens | | | | 3 | | GC | | | |
| 101467 | 101478 | Caenis | 7.6 | 7 | 3.1 | 7 | 7 | GC | | sp | cb |
| 101478 | 101480 | Caenis amica | | | | | | OM | | | |
| 101478 | 101488 | Caenis latipennis | | | | 7 | | GC | SC | | |
| 101478 | | Caenis macafferti | | | | | 7 | GC | | | |
| 101478 | 101483 | Caenis diminuta | | | | | | OM | | | |
| 101478 | 101486 | Caenis hilaris | | | | | | OM | | | |
| 101478 | 101489 | Caenis punctata | | | | | 7 | GC | | | |
| 101508 | 101525 | Ephemeridae | | | | 4 | | GC | | | |
| 101525 | 101526 | Ephemera | 2.2 | 1 | 3.1 | 4 | | GC | | bu | |
| 101526 | | Ephemera guttalata | 0 | | | | | | | | |
| 101525 | 101537 | Hexagenia | 4.7 | 6 | 3.6 | 6 | 6 | GC | | bu | |
| 101537 | 101538 | Hexagenia bilineata | | | | | | GC | | | |
| 101537 | 101552 | Hexagenia limbata | | | 2.6 | | | GC | | | |
| 101540 | 101549 | Hexagenia munda orlando | | | | | | GC | | | |
| 101566 | 101567 | Litobrancha recurvata | 0 | 6 | | | | | | | |
| 100503 | 100755 | Baetidae | | | | 4 | 4 | GC | | | |
| | 100801 | Acentrella | | | | 4 | 4 | GC | | sw | cn |
| 100801 | | Acentrella amplus | 3.6 | | | | | | | | |
| 100801 | | Acentrella insignificans | | | | 4 | | GC | | | |
| 100801 | | Acentrella turbida | | | | 4 | | GC | | | |
| | | Acerpenna | | | | | 4 | SH | | sw | cn |
| | | Acerpenna macdunnoughi | | | 1.1 | | 4 | SH | | | |
| | 206620 | Acerpenna pygmaeus | 3.7 | 4 | 2.3 | | | OM | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|----------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 100755 | 100800 | Baetis | | | 3.1 | 5 | 6 | GC | | sw | cb |
| | 100800 | Baetis diphetorhageni | | | | | | | | | |
| | 100800 | Baetisalachua | | | | | | OM | | | |
| | 100800 | Baetis alius | | | | 1 | | GC | SC | | |
| | 100800 | Baetis australis | | | | | | OM | | | |
| | 100800 | Baetis bicaudatus | | | | | | GC | | | |
| | 100800 | Baetis ephippiatus | 3.9 | | | | | OM | | | |
| | 100800 | Baetis flavistriga | 7.2 | 4 | 2.9 | 4 | | GC | | | |
| | 100800 | Baetis frondalis | 8 | 5 | | | | OM | | | |
| | 100800 | Baetis insignificans | | | | | | GC | | | |
| | 100800 | Baetis intercalaris | 5.8 | 6 | 2.7 | 5 | 6 | OM | GC | | |
| | 100800 | Baetis intermedius | | | | | | GC | | | |
| | 100800 | Baetis notos | | | | 4 | | GC | SC | | |
| | 100800 | Baetis pluto | 4.8 | | | | | | | | |
| | 100800 | Baetis propinquus | 6.2 | 6 | | | | OM | | | |
| | 100800 | Baetis pygmaeus | | | | | | OM | | | |
| | 100800 | Baetis tricaudatus | 1.8 | | | | | GC | | | |
| | 100800 | Baetis armillatus | | | 1.5 | | | OM | | | |
| | 100800 | Baetis punctiventris | | | | | | OM | | | |
| | | Barbaetis | | | | | | GC | | sw | cn |
| | | Plauditus | | | | | | | | | |
| | | Plauditus cestus | | | | | 4 | GC | | | |
| | 100755 | Callibaetis | 9.3 | 9 | 5.6 | 9 | 9 | GC | | sw | cn |
| | 100903 | Callibaetis floridanus | | | | | | GC | | | |
| | 100903 | Callibaetis pretiosus | | | | | | GC | | | |
| | | Camelobaetidius | | | | | | | | sw | cn |
| | 100755 | Centroptilum | 6.3 | 2 | 2.7 | 2 | 2 | GC | | | |
| | 100873 | Centroptilum hobbsi | | | | | | OM | | | |
| | 100873 | Centroptilum viridocularis | | | | | | OM | | | |
| | 100755 | Cloeon | 7.4 | 4 | 3.5 | | | OM | | sw | cn |
| | 100756 | Cloeon rubropictum | | | | | | OM | | | |
| | | Dipheter | | | | 5 | | GC | | sw | cn |
| | | Dipheter hageni | | | 2.3 | 5 | | GC | | | |
| | | Fallceon quilleri | | | | | | GC | | | |
| | 100794 | Heterocloeon | 3.6 | | | | | SC | | sw | cn |
| | | Labiobaetis | | | | 6 | | GC | | sw | cn |
| | | Labiobaetis frondalis | | | | | | | | | |
| | | Labiobaetis propinquus | | | | 6 | | GC | | | |
| | 100899 | Paracloeodes | 8.7 | | | | | SC | | | |
| | 206622 | Procloeon | | | | | | OM | GC | sw | cn |
| | 206622 | Procloeon rubropictum | | | | | | OM | | | |
| | 206622 | Procloeon viridocularis | | | | | | OM | | | |
| | 100755 | Pseudocloeon | 4.4 | 4 | 1.7 | 4 | | SC | | | |
| | 100771 | Pseudocloeon bimaculatum | | | | | | OM | | | |
| | 100771 | Pseudocloeon parvulum | | | | | | OM | | | |
| | 100771 | Pseudocloeon punctiventris | | | | | | OM | | | |
| | | Ametropodidae | | | | | | | | | |
| | 101073 | Ametropus | | | | | | GC | | bu | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southwest (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 100503 | 100504 | Heptageniidae | | | | 4 | | SC | | | |
| 100504 | 100598 | Cinygma | | | | 4 | | SC | | cn | |
| 100598 | 100600 | Cinygma integrum | | | | | | SC | | | |
| 100504 | 100557 | Cinygmula | | | | 4 | | SC | | cn | |
| 100557 | 100570 | Cinygmula subaequalis | 0 | | | | | | | | |
| 100504 | 100626 | Epeorus | 1.2 | 0 | | 0 | | SC | | cn | |
| 100626 | | Epeorus iron | | | | 0 | | SC | | | |
| 100626 | | Epeorus ironopis | | | | 1 | | SC | | | |
| 100626 | 100629 | Epeorus albertae | | | | 0 | | SC | | | |
| 100626 | 100632 | Epeorus deceptivus | | | | 0 | | SC | | | |
| 100626 | 100651 | Epeorus dispar | 1 | | | | | | | | |
| 100626 | 100635 | Epeorus grandis | | | | 0 | | SC | | | |
| 100626 | 100637 | Epeorus longimanus | | | | 0 | | SC | | | |
| 100626 | 100642 | Epeorus pleuralis | 2 | | | | | | | | |
| 100626 | 100645 | Epeorus rubidus | 1.4 | | | | | | | | |
| 100627 | 100636 | Ironopsis grandis | | | | 3 | | SC | | | |
| 100504 | 100602 | Heptagenia | 2.8 | 3 | | 4 | | SC | | cn | sw |
| 100602 | 100694 | Heptagenia criddlei | | | | | | SC | | | |
| 100602 | 100608 | Heptagenia diabasia | | | 1.9 | | | | | | |
| 100602 | 100604 | Heptagenia elegantula | | | | 4 | | SC | | | |
| 100602 | 100610 | Heptagenia flavescens | | | | | | OM | | | |
| 100602 | 100612 | Heptagenia julia | 0.5 | | | | | | | | |
| 100602 | 100616 | Heptagenia marginalis | 2.5 | | | | | | | | |
| 100602 | 100619 | Heptagenia pulla | 2.3 | | | | | | | | |
| 100602 | 100620 | Heptagenia simpliciodes | | | | | | SC | | | |
| 100504 | 100666 | Ironodes | | | | 4 | | SC | | cn | |
| 100504 | 100676 | Leucrocuta | 0 | 1 | 2.4 | 1 | | SC | GC | cn | |
| 100676 | | Leucrocuta aphrodite | 2.5 | 1 | | | | | | | |
| 100676 | 100677 | Leucrocuta hebe | | | 2.7 | | | | | | |
| 100676 | 100679 | Leucrocuta maculipennis | | | 2.1 | | | | | | |
| 100504 | 100692 | Nixe | | | | 4 | | SC | GC | cn | |
| 100692 | | Nixe simpliciodes | | | | 2 | | SH | | | |
| 100692 | 100693 | Nixe criddlei | | | | 2 | | SH | | | |
| 100692 | 100705 | Nixe perfida | | | 5.1 | | | | | | |
| 100504 | 100572 | Rhithrogena | 0.4 | 0 | | 0 | | SC | | cn | |
| 100572 | 100577 | Rhithrogena amica | 0 | | | | | | | | |
| 100572 | 100579 | Rhithrogena exilis | 0 | | | | | | | | |
| 100572 | 100595 | Rhithrogena fuscifrons | 0 | | | | | | | | |
| 100572 | 100583 | Rhithrogena hageni | | | | | | GC | | | |
| 100572 | 100575 | Rhithrogena morrisoni | | | | | | SC | | | |
| 100572 | 100589 | Rhithrogena robusta | | | | | | GC | | | |
| 100504 | 100713 | Stenacron | | | 3.1 | | 4 | SC | | cn | |
| 100713 | 100735 | Stenacron carolina | 1.7 | | | | | | | | |
| 100713 | 100739 | Stenacron floridense | | | | | | OM | | | |
| 100713 | 100714 | Stenacron interpunctatum | 7.1 | 7 | | | | OM | | | |
| 100713 | 100736 | Stenacron pallidum | 2.9 | | | | | | | | |
| 100504 | 100507 | Stenonema | | | | 2 | 4 | SC | | cn | |
| 100507 | 100513 | Stenonema carlsoni | 2.1 | | | | | | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-------------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 100507 | 100514 | <i>Stenonema exiguum</i> | | | 1.9 | | | OM | | | |
| 100507 | 100516 | <i>Stenonema femoratum</i> | 7.5 | 5 | 3.1 | | | | | | |
| 100507 | 100521 | <i>Stenonema integrum</i> | 5.5 | 4 | | | | OM | | | |
| 100507 | 100527 | <i>Stenonema ithaca</i> | 4.1 | | | | | | | | |
| 100507 | | <i>Stenonema lenati</i> | 2.3 | | | | | | | | |
| 100507 | 100530 | <i>Stenonema mediopunctatum</i> | 1.7 | 3 | 1.9 | | | | | | |
| 100507 | 100531 | <i>Stenonema meririvulanum</i> | 0.3 | | | | | | | | |
| 100507 | 206616 | <i>Stenonema mexicanum integrum</i> | | | 2.6 | | | OM | | | |
| 100507 | 100532 | <i>Stenonema modestum</i> | 5.8 | 1 | | | | SC | | | |
| 100507 | 100536 | <i>Stenonema pudicum</i> | 2.1 | | | | | | | | |
| 100507 | 100509 | <i>Stenonema pulchellum</i> | | | 2.3 | | | | | | |
| 100507 | 100541 | <i>Stenonema smithae</i> | | | | | | OM | | | |
| 100507 | 100542 | <i>Stenonema terminatum</i> | 4.5 | 4 | 2.3 | | | | | | |
| 100507 | 100548 | <i>Stenonema vicarium</i> | 1 | 2 | 2.3 | | | | | | |
| 100503 | 100951 | Siphonuridae | | | | 7 | | GC | | | |
| | 100953 | <i>Siphonurus</i> | 2.6 | 7 | | 7 | | GC | | sw | cb |
| 100953 | 100955 | <i>Siphonurus occidentalis</i> | | | | 7 | | GC | SC | | |
| | | Acanthametropodidae | | | | | | | | | |
| 100951 | 100996 | <i>Ameletus</i> | | | | 0 | | GC | | sw | cb |
| 100996 | 101019 | <i>Ameletus celer</i> | | | | 0 | | GC | SC | | |
| 100996 | 101009 | <i>Ameletus lineatus</i> | 2.1 | 0 | | | | | | | |
| 100996 | 101012 | <i>Ameletus similior</i> | | | | | | GC | | | |
| 100996 | 101005 | <i>Ameletus connectus</i> | | | | | | GC | | | |
| 100996 | 101006 | <i>Ameletus cooki</i> | | | | 0 | | GC | | | |
| 100996 | 101013 | <i>Ameletus sparsatus</i> | | | | | | GC | | | |
| 100996 | 101002 | <i>Ameletus validus</i> | | | | | | GC | | | |
| 100996 | 101003 | <i>Ameletus velox</i> | | | | 0 | | GC | | | |
| 101094 | 101232 | Ephemerellidae | | | | 1 | | GC | | | |
| 101232 | 101338 | <i>Attenella</i> | | | | 3 | | GC | | | |
| 101338 | 101340 | <i>Attenella attenuata</i> | 2.6 | 3 | | | | | | | |
| 101338 | 101345 | <i>Attenella delantala</i> | | | | 3 | | GC | | | |
| 101338 | 101343 | <i>Attenella margarita</i> | | | | | | GC | | | |
| 101232 | 101347 | <i>Caudatella</i> | | | | 1 | | GC | | cn | |
| 101347 | | <i>Caudatella cascadia</i> | | | | 1 | | GC | | | |
| 101347 | | <i>Caudatella edmundsi</i> | | | | | | SC | | | |
| 101347 | 101351 | <i>Caudatella heterocaudata</i> | | | | | | GC | | | |
| 101347 | 101348 | <i>Caudatella hystrix</i> | | | | | | SC | | | |
| | | <i>Caurinella</i> | | | | 0 | | GC | | | |
| | | <i>Caurinella idahoensis</i> | | | | 0 | | GC | | | |
| 101232 | 101365 | <i>Drunella</i> | | | | 0 | | PR | | cn | sp |
| 101365 | | <i>Drunella allegheniensis</i> | 1.3 | | | | | | | | |
| 101365 | 101389 | <i>Drunella coloradensis</i> | | | | | | PR | | | |
| 101365 | | <i>Drunella conestee</i> | 0 | | | | | | | | |
| 101365 | 101366 | <i>Drunella cornutella</i> | 0 | | | | | | | | |
| 101365 | 101368 | <i>Drunella doddsi</i> | | | | | | SC | | | |
| 101365 | 101392 | <i>Drunella flavilinea</i> | | | | | | SC | | | |
| 101365 | 101370 | <i>Drunella grandis</i> | | | | | | GC | | | |
| 101365 | 185972 | <i>Drunella lata</i> | 0.1 | | | | | | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 101365 | | <i>Drunella pelosa</i> | | | | | | SC | | | |
| 101365 | 101385 | <i>Drunella spinifera</i> | | | | | | PR | | | |
| 101365 | 185974 | <i>Drunella tuberculata</i> | 0.2 | | | | | | | | |
| 101365 | 185973 | <i>Drunella walkeri</i> | 1 | | | | | | | | |
| 101365 | | <i>Drunella wayah</i> | 0 | | | | | | | | |
| 101232 | 101233 | <i>Ephemerella</i> | | | 2.9 | 1 | | GC | | cn | sw |
| 101233 | 101251 | <i>Ephemerella alleni</i> | | | | | | GC | | | |
| 101233 | 101255 | <i>Ephemerella aurivillii</i> | | | | | | GC | | | |
| 101233 | 101259 | <i>Ephemerella beneri</i> | 0 | | | | | | | | |
| 101233 | 101262 | <i>Ephemerella catawba</i> | 4 | 1 | | | | | | | |
| 101233 | 101280 | <i>Ephemerella hispida</i> | 0.6 | | | | | | | | |
| 101233 | 101239 | <i>Ephemerella inermis</i> | | | | | | SH | | | |
| 101233 | 101240 | <i>Ephemerella infrequens</i> | | | | | | GC | | | |
| 101233 | 101282 | <i>Ephemerella invaria</i> | 2.2 | 1 | | | | | | | |
| 101233 | 101285 | <i>Ephemerella lacustris</i> | | | | 1 | | GC | | | |
| 101233 | 101291 | <i>Ephemerella needhami</i> | 0 | 2 | | | | | | | |
| 101233 | 101296 | <i>Ephemerella rotunda</i> | 2.8 | | | | | OM | | | |
| 101233 | 101299 | <i>Ephemerella septentrionalis</i> | 2 | | | | | | | | |
| 101233 | 101305 | <i>Ephemerella trilineata</i> | | | | | | OM | | | |
| 101232 | 101324 | <i>Eurylophella</i> | | | 2.1 | | 4 | SC | | cn | sp |
| 101324 | 101334 | <i>Eurylophella bicolor</i> | 5.1 | 1 | | | | | | | |
| 101324 | | <i>Eurylophella coxalis</i> | 2.6 | | | | | | | | |
| 101324 | | <i>Eurylophella doris</i> | | | | | | GC | | | |
| 101324 | 101332 | <i>Eurylophella funeralis</i> | 2.3 | | | | | | | | |
| 101324 | 101326 | <i>Eurylophella temporalis</i> | 4.6 | 5 | | | | GC | | | |
| 101324 | 193519 | <i>Eurylophella trilineata</i> | | | | | | GC | | | |
| 101324 | | <i>Eurylophella verisimilis</i> | 0.3 | | | | | | | | |
| 101232 | 101395 | <i>Serratella</i> | | | 0.6 | 2 | 2 | GC | | cn | |
| 101395 | | <i>Serratella carolina</i> | 0 | | | | | | | | |
| 101395 | 101396 | <i>Serratella deficiens</i> | 2.7 | 2 | 2.1 | | 2 | | | | |
| 101395 | | <i>Serratella micheneri</i> | | | | 1 | | GC | | | |
| 101395 | 185976 | <i>Serratella serrata</i> | 2.7 | | | 1 | | GC | | | |
| 101395 | 185975 | <i>Serratella serratoides</i> | 1.5 | | | | | | | | |
| 101395 | | <i>Serratella teresa</i> | | | | | | GC | | | |
| 101395 | 101399 | <i>Serratella tibialis</i> | | | | | | GC | | | |
| | 101317 | <i>Timpanoga</i> | | | | 7 | | GC | | | |
| 101317 | 101318 | <i>Timpanoga hecuba</i> | | | | 7 | | GC | | | |
| 101360 | 101361 | <i>Dannella lita</i> | 0 | 4 | | | | | | | |
| 101360 | 101363 | <i>Dannella simplex</i> | 3.9 | 2 | 1.2 | | | | | | |
| 101094 | 101095 | Leptophlebiidae | | | | 2 | | GC | | | |
| 101095 | 101108 | <i>Choroerpes</i> | | | 4 | | | GC | | cn | sp |
| 101108 | 101114 | <i>Choroerpes hubbelli</i> | | | | | | OM | | | |
| 101095 | 101183 | <i>Habrophlebia</i> | | | | | | | | sw | cn |
| 101183 | 101184 | <i>Habrophlebia vibrans</i> | 0 | | | | | OM | | | |
| 101095 | 101122 | <i>Habrophlebiodes</i> | | | | | | | | sw | cn |
| 101122 | 101124 | <i>Habrophlebiodes brunneipennis</i> | | | | | | | | | |
| 101095 | 101148 | <i>Leptophlebia</i> | 6.4 | 4 | | 2 | | GC | | sw | cn |
| 101148 | | <i>Leptophlebia bradleyi</i> | | | | | | OM | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 101148 | 101161 | <i>Leptophlebia intermedia</i> | | | | | | OM | | | |
| 101095 | 101187 | <i>Paraleptophlebia</i> | 1.2 | 1 | 2.8 | 1 | 1 | GC | | sw | cn |
| 101187 | 101206 | <i>Paraleptophlebia bicornuta</i> | | | | 4 | | GC | | | |
| 101187 | 101193 | <i>Paraleptophlebia debilis</i> | | | | | | GC | | | |
| 101187 | 101195 | <i>Paraleptophlebia gregalis</i> | | | | 4 | | GC | | | |
| 101187 | 101212 | <i>Paraleptophlebia heteronea</i> | | | | 2 | | GC | | | |
| 101187 | 101214 | <i>Paraleptophlebia memorialis</i> | | | | 4 | | GC | | | |
| 101187 | 101227 | <i>Paraleptophlebia vaciva</i> | | | | 4 | | GC | | | |
| 101187 | 101199 | <i>Paraleptophlebia volitans</i> | | | | | | OM | | | |
| 101094 | 101404 | Tricorythidae | | | | 4 | | GC | | | |
| 101404 | 101405 | <i>Tricorythodes</i> | 5.4 | 4 | 2.7 | 5 | 4 | GC | | sp | cn |
| 101405 | 101406 | <i>Tricorythodes albilineatus</i> | | | | | | GC | | | |
| 101405 | 101413 | <i>Tricorythodes minutus</i> | | | | 4 | | GC | | | |
| | 101429 | <i>Leptohyphes</i> | 2 | | | | | | | cn | |
| 101429 | 101432 | <i>Leptohyphes dolani</i> | | | | | | | | | |
| | | Baetiscidae | | | | | | | | | |
| 101493 | 101494 | <i>Baetisca</i> | | | | | 4 | GC | | sp | |
| 101494 | 101497 | <i>Baetisca becki</i> | | | | | | OM | | | |
| 101494 | | <i>Baetisca berneri</i> | 0.6 | | | | | | | | |
| 101494 | 101499 | <i>Baetisca carolina</i> | 3.6 | 5 | | | | | | | |
| 101494 | 101503 | <i>Baetisca gibbera</i> | 1.4 | | | | | | | | |
| 101494 | 101495 | <i>Baetisca obesa</i> | | | | | | OM | | | |
| 101494 | 101506 | <i>Baetisca rogersi</i> | | | | | | OM | | | |
| | | Metretopodidae | | | | | | | | | |
| | | <i>Siphloplectron</i> | 3.1 | 2 | | | 2 | PR | | sw | cn |
| | | Isonychiidae | | | | | | | | | |
| 101029 | 101041 | <i>Isonychia</i> | 3.8 | 2 | 1.9 | | 2 | FC | | sw | cn |
| 101041 | 101069 | <i>Isonychia arida</i> | | | | | | | | | |
| 101041 | 101060 | <i>Isonychia sayi</i> | | | | | | | | | |
| 101041 | 101062 | <i>Isonychia sicca</i> | | | | | | | | | |
| | | Neophemeridae | | | | | | | | | |
| 101460 | 101461 | <i>Neophemera</i> | | | | | | GC | | sp | cn |
| 101461 | 101463 | <i>Neophemera compressa</i> | | | | | | GC | | | |
| 101461 | 101464 | <i>Neophemera purpurea</i> | 2.1 | | | | | | | | |
| 101461 | 101465 | <i>Neophemera youngi</i> | | | | | | GC | | | |
| 101523 | 101524 | <i>Dolania americana</i> | | | | | | | | bu | |
| | | <i>Anthopotamus</i> | | | 3.2 | | | | | | |
| | 101510 | <i>Potamanthus</i> | 1.6 | 4 | | | | | | | |
| 109215 | 109216 | Coleoptera | | | | | | PR | | | |
| 111952 | 111953 | Amphizoa | | | | 1 | | PR | | cn | |
| 109226 | 109234 | Carabidae | | | | 4 | | PR | | | |
| 109234 | 111436 | Chlaenius | | | | | | | | | |
| 109226 | 111963 | Dytiscidae | | | | 5 | | PR | | | |
| 112072 | 112073 | <i>Agabetes acuductus</i> | | | | | | PR | | | |
| 111963 | 111966 | <i>Agabus</i> | | | | 8 | 5 | PR | | sw | dv |
| 111963 | 112319 | <i>Bidessonotus</i> | | | | | | | | sw | cb |
| 111963 | 112322 | <i>Bidessus</i> | | | | | | | | | |
| 111963 | 112362 | <i>Brachyvatus</i> | | | | | | | | sw | cb |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|----------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 111963 | 112136 | Celina | | | | | 5 | PR | | sw | dv |
| 112136 | 112142 | Celina contiger | | | | | | PR | | | |
| | 112379 | Colymbetes | | | | 5 | | PR | | sw | dv |
| 111963 | 112561 | Copelatus | 9.1 | | | | 5 | PR | | sw | dv |
| 112561 | 112567 | Copelatus caelatipennis | | | | | | PR | | | |
| 111963 | 112371 | Coptotomus | 9 | | | | | PR | | sw | dv |
| 112371 | 112375 | Coptotomus interrogatus | | | | | | PR | | | |
| 111963 | 112364 | Cybister | | | | | | PR | | sw | dv |
| 111963 | 112153 | Deronectes | | | | 5 | | PR | | sw | |
| 112153 | | Deronectes striatellus | | | | | | PR | | | |
| 111963 | 112159 | Derovatellus | | | | | | | | sw | cb |
| 111963 | 112145 | Desmopachria | | | | 5 | | PR | | sw | cb |
| | 112118 | Dytiscus | | | | 5 | | PR | | sw | dv |
| 111963 | 112172 | Hydaticus | | | | 5 | | PR | | sw | dv |
| 111963 | 112390 | Hydroporus | 8.9 | | 4.1 | 5 | 5 | PR | | sw | cb |
| 112390 | 112423 | Hydroporus mellitus | 1.8 | | | | | | | | |
| 112390 | 112418 | Hydroporus pilatei | | | | | | PR | | | |
| 111963 | 112257 | Hydrovatus | | | | | | PR | | | |
| 112257 | 112259 | Hydrovatus pustulatus | | | | | | PR | | | |
| 112257 | 112259 | Hydrovatus pustulatus | | | | | | PR | | | |
| 112259 | 112261 | Hydrovatus pustulatus compressus | | | | | | PR | | sw | cb |
| 111963 | 112200 | Hygrotus | | | | | | PR | | sw | dv |
| 111963 | 112181 | Ilybius | | | | | 5 | PR | | | |
| 111963 | 112268 | Laccodytes | | | | | | PR | | sw | dv |
| 111963 | 112278 | Laccophilus | 10 | | 7.9 | 5 | 5 | PR | | | |
| 112278 | 112281 | Laccophilus fasciatus | | | | | | PR | | | |
| 112281 | 112283 | Laccophilus fasciatus rufus | | | | | | PR | | | |
| 112278 | 112299 | Laccophilus gentilis | | | | | | PR | | | |
| 112278 | 112285 | Laccophilus proximus | | | | | | PR | | | |
| 112278 | 112298 | Laccophilus schwarzi | | | | | | PR | | | |
| 112270 | 112276 | Laccornis difformis | | | | | | | | sw | cb |
| 111963 | 112580 | Liodessus | | | | | | PR | | sw | cb |
| 111963 | 112595 | Neoclypeodytes | | | | | | PR | | sw | cb |
| 111963 | 112314 | Oreodytes | | | | 5 | | PR | | | |
| 112314 | | Oreodytes congruus | | | | 5 | | PR | | sw | dv |
| 111963 | 112086 | Rhantus | | | | | | | | | |
| 112109 | 112113 | Thermonectus basillaris | | | | | | PR | | sw | cb |
| 111963 | 112575 | Uvarus | | | | | | | | | |
| 109226 | 112653 | Gyrinidae | | | | 5 | | PR | | sw | dv |
| 112653 | 112711 | Dineutus | 5.5 | | 3.7 | 4 | 4 | PR | | | |
| 112711 | 112718 | Dineutus carolinus | | | | | | | | | |
| 112711 | 112715 | Dineutus ciliatus | | | | | | | | | |
| 112711 | 112713 | Dineutus discolor | | | | | | | | | |
| 112711 | 112727 | Dineutus emarginatus | | | | | | | | | |
| 112711 | 112719 | Dineutus nigrior | | | | | 4 | PR | | | |
| 112711 | 112717 | Dineutus serrulatus | | | | | | | | sw | dv |
| 112653 | 112706 | Cyretes | | | | | | | | | |
| 112706 | 112707 | Cyretes iricolor | | | | | | | | sw | dv |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 112653 | 112654 | Gyrinus | 6.3 | | 3.6 | 5 | 4 | PR | | | |
| 112654 | 112661 | Gyrinus aeneolus | | | | | 4 | PR | | | |
| 112654 | 112704 | Gyrinus lugens | | | | | | | | | |
| 112654 | 112701 | Gyrinus pachysomus | | | | | | | | | |
| 109226 | 111857 | Haliplidae | | | | 7 | | | | cn | |
| 111857 | 111947 | Brychius | | | | | | SC | | | |
| 111947 | 111948 | Brychius hornii | | | | | | | | cb | |
| 111857 | 111858 | Haliplus | | | | | | | | | |
| 111858 | 111872 | Haliplus fasciatus | | | | | 5 | SH | | cb | cn |
| 111857 | 111923 | Peltodytes | 8.5 | | 7 | | 5 | SH | | | |
| 111923 | 111926 | Peltodytes duodecimpunctatus | | | | | | | | | |
| 111923 | 111927 | Peltodytes floridensis | | | | | | | | | |
| 111923 | 111928 | Peltodytes lengi | | | | | | | | | |
| 111923 | 111929 | Peltodytes muticus | | | | | | | | | |
| 111923 | 111930 | Peltodytes oppositus | | | | | | | | | |
| 111923 | 111932 | Peltodytes sexmaculatus | | | | | | | | | |
| 109226 | 112606 | Noteridae | | | | | | PR | | cb | |
| 112606 | 112623 | Hydrocanthus | 6.9 | | | | | | | | |
| 112623 | 112626 | Hydrocanthus iricolor | | | | | | OM | | | |
| 112623 | 112624 | Hydrocanthus oblongus | | | | | | OM | | bu | |
| 112606 | 112621 | Notomicrus | | | | | | | | | |
| 112636 | 193587 | Suphis inflatus | | | | | | | | cb | |
| 112606 | 112607 | Suphisellus | | | | | | OM | | | |
| 112607 | 112614 | Suphisellus floridanus | | | | | | OM | | | |
| 112607 | 112613 | Suphisellus gibbulus | | | | | | | | | |
| 112607 | 193586 | Suphisellus insularis | | | | | | OM | | | |
| 112607 | 112610 | Suphisellus puncticollis | | | | | | OM | | | |
| | 112745 | Hydroscapha | | | | 7 | | SC | | | |
| 112736 | 112737 | Sphaeriidae | | | | 8 | 8 | FC | | | |
| 114496 | 114509 | Chrysomelidae | | | | | | SH | | cn | |
| 114509 | 114613 | Agasicles | | | | | | | | | |
| 114613 | 114614 | Agasicles hygrophila | | | | | | SH | | cn | |
| 114509 | 114615 | Disonycha | | | | | | SH | | cn | |
| 114509 | 114510 | Donacia | | | | | | SH | | cn | |
| 114509 | 114546 | Pyrrhalta | | | | | | | | | |
| 113844 | 113869 | Melyridae | | | | | | PR | | | |
| 114654 | 114666 | Curculionidae | | | | | | SH | | cn | cb |
| 114666 | 114667 | Anchytarsus | | | | | | SH | | | |
| 114667 | 114668 | Anchytarsus bicolor | 3.8 | | | | | SH | | sp | cn |
| | 114037 | Lutrochus | | | | | | | | | |
| 114037 | 114038 | Lutrochus laticeps | | | 2.9 | | | | | cn | |
| 114666 | 114779 | Bagous | | | | | | SH | | | |
| 114779 | | Bagous carinatus | | | | | | SH | | cn | cb |
| 114666 | 114676 | Phytobius | | | | | | SH | | | |
| | 114679 | Stenopelmus | | | | | | SH | | | |
| 206639 | 206640 | Tyloderma capitale | | | | | | | | | |
| 113918 | 113923 | Helodidae (= Scirtidae) | | | | | | | | | |
| | 113924 | Scirtidae | | | | | | | | cb | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 113923 | 113948 | Cyphon | | | | | 7 | SC | | cb | sp |
| 113923 | 113969 | Elodes | | | | | | | | cb | sp |
| 113923 | 113925 | Prionocyphon | | | | | | | | cb | |
| 113923 | 113929 | Scirtes | | | | | | | | | |
| 113998 | 114278 | Chelonariidae | | | | | | | | | |
| 114278 | 114279 | Chelonarium lecontei | | | | | | | | | |
| 113998 | 113999 | Dryopidae (adult) | | | | | | SH | | cb | |
| 113999 | 114025 | Dryops (adult) | | | | | | | | cn | |
| 113999 | 114006 | Helichus (adult) | 5.4 | 5 | 3.2 | | 5 | SH | | | |
| 114006 | 114011 | Helichus basalis (adult) | | | | | | | | | |
| 114006 | 114013 | Helichus fastigiatus (adult) | | | | | | | | | |
| 114006 | 114009 | Helichus lithophilus (adult) | | | | | | | | | |
| 114006 | 114017 | Helichus striatus (adult) | | | | | 5 | SH | | | |
| 114017 | 114019 | Helichus striatus foveatus (adult) | | | | | 5 | SH | | cb | |
| 113999 | 114001 | Pelonomus (adult) | | | | | | | | | |
| 114001 | 114004 | Pelonomus obscurus (adult) | | | | | | | | | |
| 113998 | 114093 | Elmidae | | | | | 4 | GC | | cn | bu |
| | 114196 | Ampumixis | | | | | 4 | GC | SC | cn | bu |
| 114196 | 114197 | Ampumixis dispar | | | | | 4 | GC | | cn | sp |
| 114093 | 114193 | Ancyronyx | | | | | | OM | | | |
| 114193 | 114194 | Ancyronyx variegatus | 6.9 | 6 | 4 | | | OM | | cn | |
| 114093 | 114251 | Atractelmis | | | | | 4 | GC | | cn | |
| 114093 | 114164 | Cleptelmis | | | | | 4 | GC | | | |
| 114164 | 114166 | Cleptelmis addenda | | | | | 4 | GC | SC | cn | |
| 114164 | 114165 | Cleptelmis ornata | | | | | 4 | GC | | cn | |
| 114093 | 114208 | Cylloepus | | | | | 4 | GC | SC | cn | cb |
| 114093 | 114126 | Dubiraphia | 6.4 | 6 | 4.7 | | 4 | 6 | GC | SC | |
| 114126 | 114129 | Dubiraphia bivittata | | | 3.1 | | | | OM | | |
| 114126 | | Dubiraphia giullianii | | | | | 6 | | SC | | |
| 114126 | 114130 | Dubiraphia quadrinotata | | | 3.2 | | | | OM | | |
| 114126 | 114131 | Dubiraphia vittata | | | | | | | OM | cn | cb |
| 114093 | 114216 | Gonielmis | | | | | 5 | | GC | | |
| 114216 | 114217 | Gonielmis dietrichi | | | | | | | OM | cn | |
| 114093 | 114237 | Heterelmis | | | | | 4 | | GC | cn | |
| 114093 | 114167 | Heterlimnius | | | | | 4 | | GC | | |
| 114167 | 114169 | Heterlimnius corpulentus | | | | | 4 | | GC | cn | bu |
| 114167 | 114168 | Heterlimnius koebelei | | | | | 4 | | GC | SC | cn |
| 114093 | 114137 | Lara | | | | | 4 | | SH | | |
| 114137 | 114139 | Lara avara | | | | | 4 | | SH | cn | |
| 114093 | 114212 | Macronychus | | | | | | | OM | | |
| 114212 | 114213 | Macronychus glabratus | 4.7 | 4 | 2.9 | | | | OM | cn | cb |
| 114093 | 114146 | Microcylloepus | | | | | 4 | | GC | SC | |
| 114146 | 114147 | Microcylloepus pusillus | 2.1 | 3 | | | 2 | | GC | | |
| 114147 | 114151 | Microcylloepus pusillus lodingi | | | | | | | OM | | |
| 114146 | 114160 | Microcylloepus similis | | | | | 2 | | GC | cn | |
| 114093 | 114142 | Narpus | | | | | 4 | | GC | | |
| 114142 | 114144 | Narpus concolor | | | | | 4 | | GC | cn | |
| 114093 | 114177 | Optioservus | 2.7 | 4 | 3.6 | | 4 | 4 | SC | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-----------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 114177 | 193732 | Optioservus castanipennis | | | | 4 | | SC | | | |
| 114177 | 114178 | Optioservus divergens | | | | 4 | | SC | | | |
| 114177 | 114190 | Optioservus fastiditus | | | 1.9 | 4 | 4 | SC | | | |
| 114177 | 114180 | Optioservus quadrimaculatus | | | | 4 | | SC | | | |
| 114177 | 114181 | Optioservus seriatus | | | | 4 | | SC | | cn | |
| 114093 | 114235 | Ordobrevia | | | | 4 | | | | | |
| 114235 | | Ordobrevia nubrifera | | | | 4 | | GC | | cn | |
| 114093 | 114244 | Oulimnius | | | | 4 | | SC | | | |
| 114244 | 114245 | Oulimnius latiusculus | 1.8 | | | | | | | cn | |
| 114093 | 114229 | Promoresia | | | | | 2 | SC | | | |
| 114229 | 114230 | Promoresia elegans | 2.2 | | | | | OM | | | |
| 114229 | 114231 | Promoresia tardella | 0 | | | | 2 | SC | | cn | |
| 114093 | 114198 | Rhizelmis | | | | 1 | | SC | | cn | |
| 114093 | 114095 | Stenelmis | 5.4 | 5 | 3 | 7 | 5 | SC | | | |
| 114095 | 114117 | Stenelmis antennalis | | | | | | OM | | | |
| 114095 | 114118 | Stenelmis convexula | | | | | | OM | | | |
| 114095 | 114102 | Stenelmis crenata | | | | | | OM | | | |
| 114095 | 114104 | Stenelmis decorata | | | | | 5 | SC | | | |
| 114095 | 114121 | Stenelmis fuscata | | | | | | OM | | | |
| 114095 | 114105 | Stenelmis humerosa | | | | | | OM | | | |
| 114095 | 114106 | Stenelmis hungerfordi | | | | | | SC | | | |
| 114095 | 114108 | Stenelmis markeli | | | | | 5 | SC | | | |
| 114095 | 114114 | Stenelmis sinuata | | | | | | OM | | | |
| 114095 | 114115 | Stenelmis vittipennis | | | | | | OM | | cn | |
| 114093 | 114205 | Zaitzevia | | | | 4 | | GC | | | |
| 114205 | 114207 | Zaitzevia milleri | | | | 4 | | GC | | | |
| 114205 | | Zaitzevia parvula | | | | 4 | | GC | | | |
| 113998 | 114069 | Psephenidae | | | | 4 | | SC | | cn | |
| 114069 | 114087 | Ectopria | | | | 4 | 5 | SC | | | |
| 114087 | 114088 | Ectopria nervosa | 4.3 | 5 | 4 | | | SC | | cn | |
| 114069 | 114085 | Eubrianax | | | | 4 | | SC | | | |
| 114085 | 114086 | Eubrianax edwardsi | | | | 4 | | SC | | cn | |
| 114069 | 114070 | Psephenus | | | | 4 | | SC | | | |
| 114070 | 114074 | Psephenus falli | | | | 4 | | SC | | bu | |
| 114070 | 114072 | Psephenus herricki | 2.5 | 4 | 3.5 | | | | | | |
| 114265 | 114266 | Anchycteis | | | | | | | | | |
| 114266 | 114267 | Anchycteis velutina | | | | | | | | | |
| 114265 | 114273 | Ptilodactyla | | | | | 5 | SH | | | |
| 112752 | 112756 | Hydraenidae | | | | 5 | | PR | | cn | cb |
| 112756 | 112757 | Hydraena | | | | 5 | | PR | | | |
| 112757 | 112758 | Hydraena pennsylvanica | | | | | | | | cn | |
| 112756 | 112777 | Ochthebius | | | | | | | | | |
| 112777 | 112793 | Ochthebius sculptus | | | | 5 | | PR | | | |
| 112752 | 112811 | Hydrophilidae | | | | 5 | | PR | | sw | dv |
| | 112890 | Ametor | | | | 5 | | | | | |
| 112811 | 112812 | Berosus | 8.6 | | 6.7 | 5 | | PR | PI | | |
| 112812 | 112824 | Berosus peregrinus | | | | | | | | | |
| 112812 | 112821 | Berosus striatus | | | | | | | | cb | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|---------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 112811 | 112845 | Chaetarthria | | | | 5 | | | | bu | |
| 112811 | 113220 | Crenitis | | | | 5 | | PR | | bu | |
| 112811 | 113017 | Cymbiodyta | | | | | | | | sw | dv |
| 112811 | 113087 | Derallus | | | | | | OM | | | |
| 113087 | 113088 | Derallus altus | | | | | | OM | | | |
| 113085 | 113086 | Dibolocelus ovatus | | | | | | | | bu | sp |
| 112811 | 112973 | Enochrus | 8.5 | | | 5 | | GC | | | |
| 112973 | 112990 | Enochrus ochraceus | | | | | | | | | |
| 112811 | 113162 | Helobata | | | | | | OM | | | |
| 113162 | 113165 | Helobata striata | | | | | | OM | | | |
| 112811 | 113150 | Helochares | | | | | | OM | | | |
| 112811 | 113106 | Helophorus | 7.9 | | | | | SH | | sw | dv |
| 112811 | 113244 | Hydrobiomorpha | | | | | | | | | |
| 113244 | 113245 | Hydrobiomorpha castus | | | | | | | | cb | cn |
| 112811 | 113196 | Hydrobius | | | | 8 | | PR | | | |
| 113196 | 113200 | Hydrobius tumidus | | | | | | OM | | cb | |
| 112811 | 113166 | Hydrochus | | | | | | SH | | sw | dv |
| 112811 | 113204 | Hydrophilus | | | | | | | | | |
| 112811 | 112858 | Laccobius | 8 | | 1.9 | | | PR | | | |
| 112811 | 112909 | Paracymus | | | | 5 | | PR | OM | cn | |
| 112811 | 112931 | Sperchopsis | | | | 5 | 5 | PR | CG | | |
| 112931 | 112932 | Sperchopsis tessellatus | 6.5 | | | | | OM | | cb | |
| 112811 | 112938 | Tropisternus | 9.8 | | | 5 | 10 | PR | | | |
| 112938 | 112951 | Tropisternus blatchleyi | | | | | | | | | |
| 112938 | 112944 | Tropisternus lateralis | | | | | | | | | |
| 112944 | 112946 | Tropisternus lateralis nimbatus | | | | | | | | | |
| 112938 | 193660 | Tropisternus striolatus | | | | | | | | | |
| 113264 | 113805 | Ptiliidae | | | | | | | | | |
| 113264 | 113265 | Staphylinidae | | | | 8 | | PR | | cn | |
| 113265 | 113304 | Bledius | | | | | | PR | | sk | |
| 113265 | 113576 | Stenus | | | | | | | | bu | |
| 113265 | 113440 | Thinopinus | | | | | | | | | |
| 114413 | 114429 | Salpingidae | | | | | | | | | |
| 109215 | 152741 | Hymenoptera | | | | 8 | | PA | | | |
| 109215 | 117232 | Lepidoptera | | | | 6 | | SH | SC | | |
| 117294 | 117318 | Noctuidae | | | | | | SH | | bu | |
| 117915 | 117952 | Pyroderces | | | | 5 | | | | | |
| 117639 | 117641 | Pyralidae | | | | 5 | | SH | | cb | |
| 117641 | 117741 | Acentria | | | | 1 | | SH | | cb | |
| 117641 | 117672 | Munroessa | | | | | | SH | | | |
| 117672 | 117677 | Munroessa gyralis | | | | | | SH | | cb | |
| 117641 | 117756 | Neargyractis | | | | | | SH | | cb | sw |
| 117641 | 117642 | Paraponyx | | | | | 5 | SH | | cn | |
| 117641 | 117682 | Petrophila | | | 2.7 | 5 | | SC | | cb | sw |
| 117654 | 117656 | Synclita oblitalis | | | | | | SH | | | |
| 117906 | 117909 | Prionoxystus | | | | 5 | | | | | |
| 117854 | 117856 | Tortricidae | | | | | | | | | |
| 109215 | 115000 | Megaloptera | | | | | | | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-----------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 115000 | 115023 | Corydalidae | | | | 0 | | PR | | cn | cb |
| 115023 | 115024 | Chauliodes | | | | | | PR | | | |
| 115024 | 115027 | Chauliodes pectinicornis | | | | | | PR | | | |
| 115024 | 115025 | Chauliodes rastricornis | | | | | | PR | | cn | cb |
| 115023 | 115033 | Corydalus | | | | | | PR | | | |
| 115033 | 115034 | Corydalus cornutus | 5.6 | 6 | 2.4 | | | PR | | cn | cb |
| 115023 | 115048 | Neohermes | | | | | | | | cn | cb |
| 115023 | 115028 | Nigronia | | | | | | PR | | | |
| 115028 | 115029 | Nigronia fasciatus | 6.2 | | 1.8 | | | PR | | | |
| 115028 | 115031 | Nigronia serricornis | 5.5 | 0 | 3.6 | | | PR | | cn | cb |
| 115023 | 115044 | Orohermes | | | | 0 | | PR | | cb | cn |
| 115085 | 115086 | Climacia | | | | | | | | | |
| 115086 | 115087 | Climacia areolaris | 6.5 | | | | | | | | |
| 115085 | 115090 | Sisyra | | | | | | PI | | | |
| 115000 | 115001 | Sialidae | | | | | | | | bu | cb |
| 115001 | 115002 | Sialis | 7.4 | 4 | 4.9 | 4 | 4 | PR | | | |
| 115002 | 193739 | Sialis americana | | | | | | PR | | | |
| 115002 | 115017 | Sialis iola | | | | | | PR | | | |
| 115002 | 115010 | Sialis mohri | | | | | | PR | | | |
| 109215 | 115095 | Trichoptera | | | | | | | | sp | |
| | | Beraeidae | | | | | | | | | |
| 116489 | 116490 | Beraea | | | | | | | | | |
| 115095 | 116905 | Brachycentridae | | | | 1 | | FC | | cn | cb |
| 116905 | 116933 | Amiocentrus | | | | 1 | | GC | | | |
| 116933 | 116934 | Amiocentrus aspilus | | | | 2 | | GC | | cn | |
| 116905 | 116906 | Brachycentrus | 2.2 | | | 1 | | FC | | | |
| 116906 | 116912 | Brachycentrus americanus | | | | 1 | | FC | | | |
| 116906 | 116921 | Brachycentrus appalachia | 1.1 | | | | | | | | |
| 116906 | 116922 | Brachycentrus chelatus | 0 | | | | | | | | |
| 116906 | 116914 | Brachycentrus lateralis | 0.4 | 1 | | | | | | | |
| 116906 | 116916 | Brachycentrus nigrosoma | 2.2 | | | | | | | | |
| 116906 | 116910 | Brachycentrus numerosus | 1.8 | 1 | | | | | | | |
| 116906 | 116918 | Brachycentrus occidentalis | | | | 1 | | FC | | cn | sp |
| 116906 | 116924 | Brachycentrus spinae | 0 | | | | | | | | |
| 116905 | 116958 | Micrasema | | | | 1 | 2 | | SH | | |
| 116958 | 116967 | Micrasema bactro | | | | 1 | | | | | |
| 116958 | | Micrasema bennetti | 0 | | | | | | | | |
| 116958 | 116966 | Micrasema burksi | 0 | | | | | | | | |
| 116958 | 116959 | Micrasema charonis | 0.3 | | | | | | | | |
| 116958 | | Micrasema rickeri | 0 | | | | | | | | |
| 116958 | 116961 | Micrasema rusticum | 0 | | | | | OM | | | |
| 116958 | 116960 | Micrasema wataga | 3.2 | 2 | | | | OM | | cn | |
| 116905 | 116973 | Oligoplectrum | | | | 1 | | GC | | | |
| 115095 | 116529 | Calamoceratidae | | | | | | | | sp | |
| 116529 | 116530 | Anisocentropus | | | | | | SH | | | |
| 116530 | 116531 | Anisocentropus pyraloides | 0.8 | | | | | SH | | sp | |
| 116537 | 553090 | Heteroplectron americanum | 2.9 | | | | 3 | SH | | | |
| 116537 | 116538 | Heteroplectron californicum | | | | 1 | | SH | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| | | Uenoidae | | | | 0 | | SC | | | |
| 115933 | 116331 | Farula | | | | | | SC | | | |
| 115933 | 116046 | Neophylax | 1.6 | 3 | | 3 | | SC | | | |
| 116046 | 116047 | Neophylax concinnus | 1.2 | | | | | | | | |
| 116046 | 116050 | Neophylax mitchelli | 0 | | | | | | | | |
| 116046 | 116065 | Neophylax occidentalis | | | | 3 | | SC | | | |
| 116046 | 116057 | Neophylax oligius | 2.6 | | | | | | | | |
| 116046 | 116052 | Neophylax ornatus | 1.6 | | | | | | | | |
| 116046 | 116054 | Neophylax rickeri | | | | 3 | | SC | | cn | |
| 116046 | 116063 | Neophylax splendens | | | | 3 | | SC | | | |
| 115933 | 116388 | Neothremma | | | | 0 | | SC | | cn | |
| 116388 | 116389 | Neothremma alicia | | | | 0 | | SC | | sp | |
| 115933 | 116039 | Oligophlebodes | | | | 1 | | SC | | | |
| | | Sericostriata | | | | 0 | | SC | | | |
| | | Sericostriata surdickae | | | | 0 | | SC | | | |
| 115095 | 117120 | Glossosomatidae | | | | 0 | | SC | | cn | |
| 117120 | 117121 | Agapetus | 0 | | | 0 | | SC | | | |
| 117120 | 117154 | Anagapetus | | | | 0 | | SC | | cn | |
| 115236 | 115238 | Culoptila cantha | | | | 0 | | SC | | cn | |
| 117120 | 117159 | Glossosoma | 1.5 | | | 0 | | SC | | | |
| 117159 | 117165 | Glossosoma penitus | | | | | | SC | | | |
| 117159 | 117167 | Glossosoma alascense | | | | | | SC | | | |
| 117159 | 117162 | Glossosoma intermedium | | | | 0 | | SC | | | |
| 117159 | 117160 | Glossosoma montana | | | | | | SC | | | |
| 117159 | 117202 | Glossosoma oregonense | | | | | | SC | | | |
| 117159 | 117220 | Glossosoma wenatchee | | | | | | SC | | | |
| 115246 | 115247 | Matrioptila jeanae | 0 | | | | | | | | |
| 115096 | 115221 | Protoptila | 2.8 | 1 | | 1 | | SC | | | |
| 115221 | 183768 | Protoptila coloma | | | | 1 | | SC | | | |
| 115221 | 115232 | Protoptila tenebrosa | | | | 1 | | SC | | sp | |
| 115095 | 117015 | Helicopsycheidae | | | | 3 | | SC | | cn | |
| 117015 | 117016 | Helicopsyche | | | | 3 | | SC | | | |
| 117016 | 117020 | Helicopsyche borealis | 0 | 3 | 1.8 | 3 | | SC | | | |
| 115095 | 115398 | Hydropsychidae | | | | 4 | 4 | FC | | | |
| | | Hydropsychidae | | | | | | | | | |
| | | Arctopsychinae | | | | 2 | | FC | | cn | |
| 115398 | 115529 | Arctopsyche | | | | 1 | | FC | | | |
| 115529 | 115538 | Arctopsyche californica | | | | 2 | | FC | OM | | |
| 115529 | 115530 | Arctopsyche grandis | | | | 2 | | FC | | cn | |
| 115529 | 115533 | Arctopsyche irrorata | 0 | | | | | | | | |
| | | Hydropsychinae | | | | | | FC | | | |
| 115398 | 115570 | Ceratopsyche | | | | | | FC | | cn | |
| 115570 | 115596 | Ceratopsyche alhedra | 0 | 3 | | | | | | | |
| 115570 | | Ceratopsyche bifida | 1 | | | | | | | | |
| 115570 | 115577 | Ceratopsyche bronta | 2.7 | 5 | | | | | | | |
| 115570 | | Ceratopsyche macleodi | 0.9 | | | | | | | | |
| 115570 | 115580 | Ceratopsyche morosa | 3.2 | 2 | 1.8 | | | | | | |
| 115570 | 115586 | Ceratopsyche slossonae | 0 | 4 | 2 | | | | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 115570 | 115589 | Ceratopsyche sparna | 3.2 | 1 | 3.2 | | | | | | |
| 115570 | | Ceratopsyche ventura | 0 | | | | | | | | |
| 115398 | 115408 | Cheumatopsyche | 6.6 | 5 | 2.9 | 5 | 5 | FC | | | |
| 115408 | 115409 | Cheumatopsyche campyla | | | | 6 | | FC | | | |
| 115408 | 115441 | Cheumatopsyche enonis | | | | 6 | | FC | | | |
| 115408 | 115426 | Cheumatopsyche pettiti | | | | 6 | | FC | | cn | |
| 115398 | 115399 | Diplectrona | | | | 0 | | FC | | | |
| 115399 | 115402 | Diplectrona modesta | 2.2 | | | | | FC | | cn | |
| 115398 | 115618 | Homoplectra | | | | | | | | cn | |
| 115398 | 115453 | Hydropsyche | | | | 4 | 4 | FC | | | |
| 115453 | 115456 | Hydropsyche aerata | | | 2.6 | | | | | | |
| 115453 | 115454 | Hydropsyche betteni | 8.1 | 6 | | | 4 | FC | | | |
| 115453 | 115458 | Hydropsyche bidens | | | 2.5 | | | | | | |
| 115453 | 115455 | Hydropsyche californica | | | | 4 | | FC | | | |
| 115453 | 115462 | Hydropsyche decalda | 4.1 | | | | | FC | | | |
| 115453 | 115463 | Hydropsyche demora | 1.8 | | | | | | | | |
| 115453 | 115465 | Hydropsyche dicantha | | | 3.5 | | | | | | |
| 115453 | 115488 | Hydropsyche elissoma | | | | | | FC | | | |
| 115453 | 115468 | Hydropsyche frisoni | | | 1.8 | | | | | | |
| 115453 | 115469 | Hydropsyche hageni | 0 | | | | | | | | |
| 115453 | 115471 | Hydropsyche incommoda | 5 | 7 | | | | | | | |
| 115453 | 115474 | Hydropsyche mississippiensis | | | | | | FC | | | |
| 115453 | 115513 | Hydropsyche occidentalis | | | | 4 | | FC | | | |
| 115453 | 115485 | Hydropsyche orris | | | 2.6 | | | | | | |
| 115453 | 115490 | Hydropsyche oslari | | | | 4 | | FC | | | |
| 115453 | 115477 | Hydropsyche phalerata | 3.7 | 1 | | | | | | | |
| 115453 | 206641 | Hydropsyche rossi | 4.9 | | | | | | | | |
| 115453 | 115480 | Hydropsyche scalaris | 3 | 2 | | | | | | | |
| 115453 | 115481 | Hydropsyche simulans | | | 2.4 | | | | | | |
| 115453 | 115527 | Hydropsyche sparna | | | | | 4 | FC | | cn | |
| 115453 | 115484 | Hydropsyche venularis | 5.3 | | 2.9 | | | | | | |
| 115453 | 115482 | Hydropsyche valanis | | | 3 | | | | | | |
| 115398 | 115603 | Macrostemum | 3.6 | 3 | | | 3 | FC | | | |
| 115603 | 115608 | Macrostemum carolina | | | | | | FC | | cn | |
| 115603 | 115606 | Macrostemum zebratum | | | 1.8 | | | | | | |
| 115398 | 115556 | Parapsyche | | | | 1 | | PR | | | |
| 115556 | 115563 | Parapsyche almota | | | | 3 | | PR | | | |
| 115556 | 115559 | Parapsyche cardis | 0 | | | | | | | | |
| 115556 | 115560 | Parapsyche elsis | | | | 1 | | PR | | cn | |
| 115398 | 115551 | Potamyia | | | | | | FC | | | |
| 115551 | 115552 | Potamyia flava | | | 2.5 | | | FC | | | |
| 115095 | 115629 | Hydroptilidae | | | | 4 | | | | cb | |
| 115629 | 115635 | Agraylea | | | 5.7 | 8 | | | | cn | |
| 115629 | 115826 | Dibusa | | | | | | | | cn | |
| 115826 | 115827 | Dibusa angata | | | 2.6 | | | | | | |
| 115629 | 115641 | Hydroptila | 6.2 | 6 | 3.2 | 6 | 6 | SC | PR | | |
| 115641 | 115643 | Hydroptila ajax | | | | 6 | | SC | | | |
| 115641 | 115695 | Hydroptila arctia | | | | 6 | | SC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|---------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 115641 | 115696 | Hydroptila argosa | | | | 6 | | SC | | cn | |
| 115629 | 115630 | Leucotrichia | | | | 6 | | SC | | cn | |
| 115630 | 115631 | Leucotrichia pictipes | 4.3 | 2 | | | | | | | |
| 115629 | 115811 | Mayatrichia | | | | 6 | | SC | | | |
| 115811 | 115812 | Mayatrichia ayama | | | | | | SC | | cn | |
| 115629 | 115833 | Neotrichia | | | 3.6 | | | SC | | | |
| 115833 | | Neotrichia halia | | | | 4 | | SH | | cn | |
| 115629 | 115714 | Ochrotrichia | 7.2 | | | 4 | | GC | | cn | |
| 115629 | 115714 | Ochrotrichia | | | | 4 | | GC | | cb | |
| 115629 | 115828 | Orthotrichia | | | | 6 | | SC | | cn | |
| 115629 | 115779 | Oxyethira | | | 5.2 | | | | | | |
| 115629 | 115817 | Stactobiella | | | | 2 | | SH | | cb | sp |
| | | Limnephiloidea | | | | | | | | | |
| 115095 | 116793 | Lepidostomatidae | | | | 3 | | SH | | | |
| 116793 | 116794 | Lepidostoma | 1 | 1 | | 1 | 1 | SH | | | |
| 116794 | 116888 | Lepidostoma cinereum | | | | 3 | | SH | | | |
| 116794 | 116870 | Lepidostoma quercinum | | | | 1 | | SH | | sp | cb |
| 115095 | 116547 | Leptoceridae | | | | 4 | | GC | | cb | sw |
| 116547 | 116684 | Ceraclea | | | 2.6 | 5 | 3 | GC | | cn | sp |
| 116684 | 116696 | Ceraclea ancylus | 2.5 | 3 | | | | | | | |
| 116684 | | Ceraclea flava | 0 | | | | | | | | |
| 116684 | 116725 | Ceraclea maculata | 6.4 | | 3.6 | | | | | | |
| 116684 | | Ceraclea transversa | 2.7 | | | | | | | | |
| 116547 | 116598 | Mystacides | | | | 4 | 4 | GC | | | |
| 116598 | 116599 | Mystacides sepulchralis | 3.5 | 4 | | | | | | | |
| 116547 | 116651 | Nectopsyche | | | 2.4 | 3 | 3 | SH | | | |
| 116651 | 116661 | Nectopsyche candida | 3.8 | | | | | OM | | | |
| 116651 | 116663 | Nectopsyche diarina | | | 3.2 | | | | | | |
| 116651 | 116659 | Nectopsyche exquisita | 4.2 | 3 | | | | OM | | | |
| 116651 | 116662 | Nectopsyche gracilis | | | | 3 | | SC | | | |
| 116651 | 116660 | Nectopsyche pavida | 4.2 | | 2.1 | | | OM | | | |
| 116651 | | Nectopsyche halia | | | | 3 | | SC | | | |
| 116651 | | Nectopsyche lahontanensis | | | | 3 | | SC | | sp | cb |
| 116651 | | Nectopsyche stigmatica | | | | 3 | | SC | | sp | cb |
| 116547 | 116607 | Oecetis | 5.7 | 8 | 3 | 8 | 8 | PR | | | |
| 116607 | | Oecetis parva | | | | | | | | | |
| 116607 | 116608 | Oecetis avara | | | | | | | | | |
| 116607 | 116609 | Oecetis cinerascens | | | | | | | | | |
| 116607 | 116643 | Oecetis georgia | | | | | 8 | | | | |
| 116607 | 116613 | Oecetis inconspicua | | | | | 8 | | | | |
| 116607 | 116631 | Oecetis nocturna | | | | | | | | sp | cn |
| 116607 | 116636 | Oecetis persimilis | | | | | 8 | | | sw | cb |
| 116547 | 116548 | Setodes | 0.9 | 2 | | | | OM | | | |
| 116547 | 116565 | Triaenodes | | | | 6 | 6 | | | | |
| 116565 | 206642 | Triaenodes abus | 4.3 | | | | | SH | | | |
| 116565 | 116569 | Triaenodes flavescens | | | | | | SH | | | |
| 116565 | 206643 | Triaenodes florida | | | | | | SH | | | |
| 116565 | 116571 | Triaenodes ignitus | | | | | | SH | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|---------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 116565 | 116574 | <i>Triaenodes injusta</i> | 2.2 | | | | | | | | |
| 116565 | 116575 | <i>Triaenodes marginatus</i> | | | | 6 | 6 | sh | | | |
| 116565 | 116577 | <i>Triaenodes ochraceus</i> | | | | | | SH | | | |
| 116565 | 206644 | <i>Triaenodes perna</i> | | | | | | SH | | | |
| 116565 | 116580 | <i>Triaenodes tardus</i> | 4.7 | 6 | | | | SH | | | |
| 115095 | 115933 | Limnephilidae | | | | 4 | 4 | SH | | | |
| 115969 | 115970 | <i>Allocosmoecus partitus</i> | | | | 0 | | SC | | cn | cb |
| 115867 | 115907 | <i>Cryptochia</i> | | | | 0 | | SH | | | |
| | 116438 | <i>Allomyia</i> | | | | 0 | | SC | | | |
| 115933 | 116253 | <i>Amphicosmoecus</i> | | | | | | SH | | sp | |
| | 115956 | <i>Anabolia</i> | | | | | | SH | | | |
| 115933 | 115935 | <i>Apatania</i> | 0.6 | | | 1 | | SC | | | |
| | | Apataniinae | | | | 1 | | SC | | | |
| | 116247 | <i>Arctopora</i> | | | | | | | | | |
| 115933 | 116017 | <i>Chyranda</i> | | | | 1 | | SH | | sp | |
| 116017 | 116018 | <i>Chyranda centralis</i> | | | | 1 | | SH | | sp | bu |
| 115933 | 116013 | <i>Clostoea</i> | | | | | | SH | | sp | |
| 115933 | 116023 | <i>Desmona</i> | | | | 1 | | SH | | | |
| | | Dicosmoecinae | | | | 1 | | SC | | | |
| 115933 | 116265 | <i>Dicosmoecus</i> | | | | 1 | | SH | | | |
| 116265 | 116266 | <i>Dicosmoecus atripes</i> | | | | 1 | | PR | | bu | |
| 116265 | 116268 | <i>Dicosmoecus gilvipes</i> | | | | 2 | | SC | | cn | |
| 116340 | 116342 | <i>Eclisocosmoecus scylla</i> | | | | 0 | | SH | | | |
| 115933 | 116025 | <i>Eclisomyia</i> | | | | 2 | | GC | | | |
| | | <i>Eocosmoecus</i> | | | | | | SH | | sp | |
| | | <i>Eocosmoecus schmidi</i> | | | | | | SH | | | |
| 115933 | 116030 | <i>Glyphopsyche</i> | | | | 1 | | | | cn | |
| 115933 | 116309 | <i>Grammotaulius</i> | | | | 4 | | SH | | sp | |
| 115933 | 116295 | <i>Grensia</i> | | | | 6 | | SH | | | |
| 115933 | 116001 | <i>Hesperophylax</i> | | | | 5 | | SH | | sp | cb |
| 115933 | 116286 | <i>Homophylax</i> | | | | 0 | | SH | | | |
| 115933 | 115995 | <i>Hydatophylax</i> | | | | 1 | | SH | | | |
| 115995 | 115997 | <i>Hydatophylax argus</i> | 2.3 | 2 | | | | SH | | sp | |
| 115933 | 116381 | <i>Imania</i> | | | | | | SC | | cb | sp |
| 115933 | 116382 | <i>Ironoquia</i> | | | | | | | | cn | |
| 116382 | 116385 | <i>Ironoquia punctatissima</i> | 7.3 | 3 | | | | | | | |
| | | Limnephilinae | | | | 4 | | SH | | sp | |
| 115933 | 116069 | <i>Limnephilus</i> | | | | 5 | | SH | | sp | |
| 115933 | 116344 | <i>Manophylax</i> | | | | | | SC | | cn | |
| 115933 | 116379 | <i>Moselyana</i> | | | | 4 | | GC | | cn | |
| 115933 | 116315 | <i>Onocosmoecus</i> | | | | 1 | | SH | | | |
| 116315 | 116318 | <i>Onocosmoecus unicolor</i> | | | | 2 | | SH | | cb | |
| 115972 | 115973 | <i>Pedomoecus sierra</i> | | | | 0 | | SC | | sp | |
| 115933 | 116407 | <i>Platycentropus</i> | | | | | | | | | |
| | 115989 | <i>Pseudostenophylax</i> | | | | 1 | | SH | | | |
| 115933 | 115974 | <i>Psychoglypha</i> | | | | 1 | | GC | | | |
| 115974 | 115977 | <i>Psychoglypha bella</i> | | | | 2 | | GC | | sp | cb |
| 115974 | 115981 | <i>Psychoglypha subborealis</i> | | | | 2 | | GC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|----------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 115933 | 116409 | Pycnopsyche | 2.3 | 4 | 3.3 | | 4 | SH | | | |
| 116409 | 116413 | Pycnopsyche gentilis | 0.8 | | | | | | | | |
| 116409 | 116414 | Pycnopsyche guttifer | 2.7 | | | | | SH | | sp | cn |
| 116409 | 116416 | Pycnopsyche lepida | 2.5 | | | | | | | | |
| 116409 | 116417 | Pycnopsyche scabripennis | 4 | | | | | SH | | | |
| | 116473 | Molannidae | | | | | | | | | |
| 116473 | 116474 | Molanna | | | | | 6 | SC | | sp | |
| 116474 | 116478 | Molanna blenda | 3.9 | | 4 | | | | | | |
| 116474 | 116479 | Molanna tryphena | | | | | | | | sp | |
| | 116496 | Odontoceridae | | | | | | | | | |
| 116496 | 116520 | Namamyia | | | | 0 | | OM | GC | | |
| 116496 | 116522 | Nerophilus | | | | 0 | | OM | | sp | |
| 116522 | 116523 | Nerophilus californicus | | | | 0 | | OM | | sp | |
| 116496 | 116527 | Pseudogoera | | | | 0 | | OM | PR | | |
| 116496 | 116497 | Psilotreta | 0 | 0 | | | 0 | SC | | | |
| 116497 | 116498 | Psilotreta frontalis | | | | | | | | cn | |
| 115095 | 115257 | Philopotamidae | | | | 3 | 3 | FC | | cn | |
| 115257 | 115273 | Chimarra | 2.8 | 4 | | | 4 | FC | | cn | |
| | 115278 | Chimarra aterrima | | | 1.9 | | | | | | |
| | 115276 | Chimarra obscura | | | 3.4 | | | | | | |
| 115257 | 115319 | Dolophilodes | 1 | | | 1 | | GC | | | |
| 115257 | 115258 | Wormaldia | 0.4 | | | 3 | | FC | | | |
| 115258 | 115261 | Wormaldia gabriella | | | | | | SC | | | |
| 115095 | 115867 | Phryganeidae | | | | | | SH | | cb | |
| | 115892 | Phryganea | | | | 4 | | OM | | | |
| 115867 | 115868 | Ptilostomis | 6.7 | 5 | | | 5 | SH | | cn | |
| | | Goerinae | | | | 1 | | SC | | | |
| 115933 | 116423 | Goera | 0.3 | | | | | | | sn | |
| 116423 | 116431 | Goera archaon | | | | 1 | | SC | | sb | |
| 115933 | 116298 | Goeracea | | | | 0 | | SC | | sp | |
| | | Goereilla | | | | | | SH | | | |
| 115095 | 117043 | Polycentropodidae | | | | | | FC | | cn | |
| 115334 | 115373 | Cernotina | | | | | | PR | | cn | |
| 115373 | 115375 | Cernotina spicata | | | | | | PR | | | |
| 117043 | 117091 | Cyrnellus | | | | | | FC | | cn | |
| 117091 | 117092 | Cyrnellus fraternus | 7.4 | 8 | 4 | | | FC | | | |
| 117043 | 117095 | Neureclipsis | 4.4 | 7 | 2.7 | | 7 | FC | | cn | |
| 117095 | 117098 | Neureclipsis crepuscularis | | | | | | | | | |
| 117043 | 117104 | Nyctiophylax | 0.9 | 5 | 2.5 | 5 | | FC | | cn | |
| | 117112 | Nyctiophylax moestus | 2.6 | | | 5 | 5 | PR | | | |
| | | Paranyctiophylax | | | | | | | | | |
| 117043 | 117044 | Polycentropus | 3.5 | 6 | 3.4 | 6 | 5 | PR | FC | cn | |
| 115334 | 115361 | Phylocentropus | 5.6 | 4 | | | 5 | FC | | cn | |
| 115334 | 115395 | Polyplectropus | | | | | | | | | |
| 115095 | 115334 | Psychomyiidae | | | | | | GC | | | |
| 115334 | 115391 | Lype | | | | | | SC | | bu | |
| 115391 | 115392 | Lype diversa | 4.3 | 2 | 2.8 | | | SC | | | |
| 115334 | 115335 | Psychomyia | | | | 2 | | SC | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|---------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 115335 | 115341 | <i>Psychomyia flavida</i> | 3.3 | 2 | 1.9 | | | | | | |
| 115335 | 115346 | <i>Psychomyia lumina</i> | | | | 2 | | SC | | | |
| 115335 | 115344 | <i>Psychomyia nomada</i> | 2 | | | | | | | | |
| 115334 | 115350 | <i>Tinodes</i> | | | | 2 | | SC | | | |
| 115095 | 115096 | Rhyacophilidae | | | | 0 | | PR | | cn | |
| 115096 | 115243 | <i>Himalopsyche</i> | | | | | | PR | | | |
| 115096 | 115097 | <i>Rhyacophila</i> | | | | 0 | | PR | | | |
| 115097 | 115098 | <i>Rhyacophila acropedes</i> | | | | 1 | | PR | | | |
| 115097 | 115160 | <i>Rhyacophila acutiloba</i> | 0 | | | | | | | | |
| 115097 | 115163 | <i>Rhyacophila alberta</i> | | | | | | PR | | | |
| 115097 | 115099 | <i>Rhyacophila angelita</i> | | | | | | PR | | | |
| 115097 | 115165 | <i>Rhyacophila arnaudi</i> | | | | | | PR | | | |
| 115097 | 115146 | <i>Rhyacophila atrata</i> | 0 | | | | | | | | |
| 115097 | 115101 | <i>Rhyacophila betteni</i> | | | | | | PR | | | |
| 115097 | 115102 | <i>Rhyacophila bifila</i> | | | | | | PR | | | |
| 115097 | 115153 | <i>Rhyacophila blarina</i> | | | | | | PR | | | |
| 115097 | 115151 | <i>Rhyacophila brunnea</i> | | | | | | PR | | | |
| 115097 | 115131 | <i>Rhyacophila carolina</i> | 0 | | | | | | | | |
| 115097 | 115156 | <i>Rhyacophila coloradensis</i> | | | | | | PR | | | |
| 115097 | 115133 | <i>Rhyacophila fuscula</i> | 2 | 0 | | | | | | | |
| 115097 | 115105 | <i>Rhyacophila grandis</i> | | | | 1 | | PR | | | |
| 115097 | 115159 | <i>Rhyacophila hyalinata</i> | | | | | | PR | | | |
| 115097 | 115177 | <i>Rhyacophila iranda</i> | | | | 0 | | PR | | | |
| 115097 | 115134 | <i>Rhyacophila ledra</i> | 3.4 | | | | | | | | |
| 115097 | 115147 | <i>Rhyacophila minor</i> | 0 | | | | | | | | |
| 115097 | 115155 | <i>Rhyacophila narvae</i> | | | | | | PR | | | |
| 115097 | 115111 | <i>Rhyacophila nevadensis</i> | | | | 1 | | PR | | | |
| 115097 | 115138 | <i>Rhyacophila nigrita</i> | 0 | | | | | | | | |
| 115097 | 115208 | <i>Rhyacophila oreia</i> | | | | | | PR | | | |
| 115097 | 115114 | <i>Rhyacophila pellisa</i> | | | | 0 | | PR | | | |
| 115097 | 115116 | <i>Rhyacophila rayneri</i> | | | | 0 | | PR | | | |
| 115097 | 115187 | <i>Rhyacophila robusta</i> | | | | | | | | | |
| 115097 | 115117 | <i>Rhyacophila rotunda</i> | | | | | | PR | | | |
| 115097 | | <i>Rhyacophila sibirica</i> | | | | 0 | | PR | | | |
| 115097 | 115144 | <i>Rhyacophila torva</i> | 1.8 | | | | | | | | |
| 115097 | | <i>Rhyacophila trisemani</i> | | | | 1 | | PR | | | |
| 115097 | 115189 | <i>Rhyacophila tucula</i> | | | | | | | | | |
| 115097 | 115120 | <i>Rhyacophila vaccua</i> | | | | | | PR | | | |
| 115097 | 115191 | <i>Rhyacophila vaefes</i> | | | | 1 | | PR | | | |
| 115097 | | <i>Rhyacophila vaeter</i> | | | | 1 | | PR | | | |
| 115097 | 115152 | <i>Rhyacophila vagrita</i> | | | | | | PR | | | |
| 115097 | 115121 | <i>Rhyacophila valuma</i> | | | | 1 | | PR | | | |
| 115097 | 115123 | <i>Rhyacophila velora</i> | | | | 1 | | PR | | | |
| 115097 | 115124 | <i>Rhyacophila vepulsa</i> | | | | | | | | | |
| 115097 | 115125 | <i>Rhyacophila verrula</i> | | | | | | | | | |
| 115097 | 115195 | <i>Rhyacophila visor</i> | | | | 1 | | PR | | cn | |
| 115097 | 115197 | <i>Rhyacophila vofixa</i> | | | | 0 | | PR | | | |
| 115097 | 115148 | <i>Rhyacophila vuphipes</i> | 0 | | | | | | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 115095 | 116982 | Sericostomatidae | | | | | | SH | | | |
| 116982 | 116983 | Agarodes | | | | | | | | sp | |
| 116983 | 116991 | Agarodes libalis | 0 | 3 | | | | | | | |
| 117012 | 117013 | Fattigia pele | 1.1 | | | | | | | | |
| 116982 | 117003 | Gumaga | | | | 3 | | SH | | | |
| 100900 | 103358 | Hemiptera | | | | | | PR | | cb | sw |
| 103358 | 103683 | Belostomatidae | | | | | | PR | | | |
| 103683 | 103717 | Abedus | | | | | | PR | | cb | sw |
| 103717 | 103739 | Abedus immaculatus | | | | | | PR | | | |
| 103683 | 103684 | Belostoma | 9.8 | | | | | PR | | | |
| 103684 | 103689 | Belostoma flumineum | | | | | | PR | | | |
| 103684 | 103687 | Belostoma lutarium | | | | | | PR | | cb | sw |
| 103684 | 103688 | Belostoma testaceum | | | | | | PR | | | |
| 103683 | 103699 | Lethocerus | | | | | | PR | | sw | |
| 103358 | 103364 | Corixidae | 9 | | | 10 | 5 | PR | | sw | |
| 103364 | 103514 | Callicorixa | | | | | | PR | | | |
| 103364 | 103501 | Cenocorixa | | | | | | PR | | sw | |
| 103501 | 103504 | Cenocorixa bifida | | | | 8 | | PR | | sw | |
| 103364 | 103484 | Corisella | | | | | | PR | | sw | |
| 103364 | 103525 | Cymatia | | | | 8 | | PI | | sw | cb |
| 103364 | 103547 | Graptocorixa | | | | | | PR | | sw | |
| 103364 | 103444 | Hesperocorixa | | | | | | | | sw | |
| 103364 | 103491 | Palmacorixa | | | | | 5 | PR | | sw | cb |
| 103364 | 103365 | Ramphocorixa | | | | | | | | | |
| 103364 | 103369 | Sigara | | | | | 9 | PR | | | |
| 103369 | 103370 | Sigara alternata | | | | | | | | sw | |
| 103369 | 103398 | Sigara washingtonensis | | | | 8 | | GC | | sw | cb |
| 103364 | 181192 | Tenagobia | | | | 8 | | | | | |
| 103364 | 103423 | Trichocorixa | | | | | 5 | PR | | | |
| 103423 | 103424 | Trichocorixa calva | | | | | | | | | |
| 103423 | 103429 | Trichocorixa sexcincta | | | | | | | | sp | |
| 103358 | 103768 | Gelastocoridae | | | | | | PR | | | |
| 103768 | 103769 | Gelastocoris | | | | | | PR | | sk | |
| 103358 | 103801 | Gerridae | | | | 5 | | PR | | | |
| 103801 | 103829 | Gerris | | | | | | PR | | | |
| 103829 | 103842 | Gerris buenoi | | | | 5 | | PR | | sk | |
| 103829 | 103841 | Gerris remigis | | | | 5 | | PR | | sk | |
| 103801 | 103872 | Limnopus | | | | | | PR | | | |
| 103801 | 103857 | Metrobates | | | | | | PR | | sk | |
| 103857 | 103859 | Metrobates hesperius | | | | | | PR | | | |
| 103801 | 103881 | Neogerris | | | | | | PR | | sk | |
| 103881 | 103882 | Neogerris hesione | | | | | | PR | | | |
| 103801 | 103802 | Rheumatobates | | | | | | PR | | | |
| 103802 | 103807 | Rheumatobates palosi | | | | | | | | sk | |
| 103802 | 103804 | Rheumatobates tenuipes | | | | | | | | | |
| 103801 | 103811 | Trepobates | | | | 10 | | PR | | cb | bu |
| 103811 | 103815 | Trepobates pictus | | | | | | PR | | cb | bu |
| 103964 | 103965 | Hebrus | | | | | | PR | | sk | cb |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 103964 | 103986 | Lipogomphus | | | | | | PR | | | |
| 103964 | 103983 | Merragata | | | | | | PR | | | |
| 103983 | 103984 | Merragata brunnea | | | | | | PR | | sk | |
| 103983 | 103985 | Merragata hebroides | | | | | | PR | | | |
| 103938 | 103939 | Hydrometra | | | | | | PR | | | |
| 103939 | 103944 | Hydrometra wileyae | | | | | | PR | | sk | cb |
| 103358 | 103953 | Mesoveliidae | | | | | | PR | | | |
| 103953 | 103954 | Mesovelia | | | | | | PR | | | |
| 103954 | 103955 | Mesovelia cryptophila | | | | | | PR | | | |
| 103954 | 103956 | Mesovelia mulsanti | | | | | | PR | | cn | sw |
| 103358 | 103613 | Naucoridae | | | | 5 | | PR | | cb | sw |
| 103613 | 103614 | Ambrysus | | | | | | PR | | | |
| 103613 | 103665 | Pelocoris | | | | | 7 | PR | | | |
| 103665 | 103667 | Pelocoris femoratus | | | | | | PR | | cb | |
| 103358 | 103747 | Nepidae | | | | | | PR | | | |
| 103747 | 103748 | Ranatra | 7.5 | | | | | PR | | | |
| 103748 | 103749 | Ranatra australis | | | | | | PR | | | |
| 103748 | 103750 | Ranatra buenoi | | | | | | PR | | | |
| 103748 | 103761 | Ranatra drakei | | | | | | PR | | | |
| 103748 | 103755 | Ranatra fusca | | | | | | PR | | | |
| 103748 | 103751 | Ranatra kirkaldyi | | | | | | PR | | | |
| 103748 | 103754 | Ranatra nigra | | | | | | PR | | sw | cb |
| 103358 | 103557 | Notonectidae | | | | | | PR | | | |
| 103557 | 103558 | Notonecta | | | | | | PR | | | |
| 103558 | 103573 | Notonecta irrorata | | | | | | PR | | | |
| 103558 | 103575 | Notonecta uhleri | | | | | | PR | | sw | cb |
| 103358 | 103602 | Pleidae | | | | | | PR | | | |
| 103602 | 103603 | Neoplea | | | | | | PI | | | |
| 103603 | 103604 | Neoplea striola | | | | | | PI | | cb | |
| 103358 | 104063 | Saldidae | | | | 10 | | PR | | | |
| 104063 | 104069 | Pentacora | | | | | | PR | | | |
| 104063 | 104140 | Saldula | | | | 10 | | PR | | sk | |
| 103358 | 103885 | Veliidae | | | | | | | | | |
| 103885 | 103900 | Microvelia | | | | | 6 | PR | | | |
| 103900 | 103908 | Microvelia hinei | | | | | | PR | | | |
| 103900 | 103910 | Microvelia pulchella | | | | | | PR | | | |
| 103885 | 103923 | Paravelia | | | | | | PR | | sk | |
| 103923 | 103924 | Paravelia brachialis | | | | | | PR | | | |
| 103885 | 103886 | Rhagovelia | | | | | 6 | PR | | | |
| 103886 | 103894 | Rhagovelia choreutes | | | | | | PR | | | |
| 103886 | 103895 | Rhagovelia disticta | | | | | | PR | | sk | |
| 103886 | 103887 | Rhagovelia obesa | | | | | | PR | | | |
| | 103935 | Trochopus | | | | | | PR | | | |
| 100500 | 102467 | Plecoptera | | | | | | PR | | cn | |
| 102468 | 102643 | Capniidae | | | | 1 | 1 | SH | | sp | cn |
| 102643 | 102644 | Allocaupnia | 2.8 | 3 | | | 3 | SH | | sp | cn |
| 102643 | 102688 | Capnia | | | | 1 | | SH | | | |
| 102785 | 102786 | Eucapnopsis brevicauda | | | | 1 | | SH | | sp | cn |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 102788 | 102804 | Paracapnia | | | | 1 | | SH | | sp | cn |
| 102804 | 102805 | Paracapnia angulata | 0.2 | 1 | | | | | | | |
| 102468 | 102840 | Leuctridae | | | | 0 | | SH | | | |
| 102840 | 102841 | Despaxia | | | | 0 | | SH | | cn | |
| 102841 | 102842 | Despaxia augusta | | | | 0 | | SH | | sp | cn |
| 102840 | 102844 | Leuctra | 0.7 | | | | 0 | SH | | sp | cn |
| 102840 | 102877 | Megaleuctra | | | | 0 | | SH | | sp | cn |
| 102909 | 102910 | Moselia infuscata | | | | 0 | | SH | | | |
| 102840 | 102887 | Paraleuctra | | | | 0 | | SH | | sp | cn |
| 102887 | 102890 | Paraleuctra occidentalis | | | | 0 | | SH | | | |
| 103202 | 103239 | Perlomyia | | | | 0 | | SH | | sp | cn |
| 102468 | 102517 | Nemouridae | | | | 2 | | SH | | | |
| 102517 | 102540 | Amphinemura | 3.4 | 3 | | 2 | | SH | | | |
| 102540 | 102541 | Amphinemura delosa | | | | | | | | sp | cn |
| 102540 | 102542 | Amphinemura nigritta | | | | | | | | sp | cn |
| 102517 | 102567 | Malenka | | | | 2 | | SH | | sp | cn |
| 102517 | 102526 | Nemoura | | | | | | | | sp | cn |
| 102517 | 102632 | Ostrocera | | | | | | | | sp | cn |
| 102517 | 102622 | Ostrocerca | | | | | | | | sp | cn |
| 102517 | 102605 | Podmosta | | | | 2 | | SH | | | |
| 102517 | 102584 | Prostoia | 6.1 | 2 | | 2 | | SH | | sp | cn |
| 102584 | 102585 | Prostoia besametsa | | | | 2 | | SH | | sp | cn |
| 102517 | 102640 | Shipsa | | | | | | | | sp | cn |
| 102640 | 102641 | Shipsa rotunda | 0.3 | 2 | | | | | | | |
| 102517 | 102556 | Soyedina | | | | 2 | | SH | | | |
| 102517 | 102614 | Visoka | | | | | | SC | | sp | cn |
| 102614 | 102615 | Visoka cataractae | | | | 1 | | SH | | | |
| 102517 | 102591 | Zapada | | | | 2 | | SH | | | |
| 102591 | 102594 | Zapada cinctipes | | | | 2 | | SH | | | |
| 102591 | 102596 | Zapada columbiana | | | | 2 | | SH | | | |
| 102591 | 102601 | Zapada frigida | | | | 2 | | SH | | | |
| 102591 | 102597 | Zapada oregonensis | | | | 2 | | SH | | cn | sp |
| 102468 | 102488 | Peltoperlidae | | | | 2 | | SH | | cn | sp |
| 102488 | 102489 | Peltoperla | | | | | | | | cn | sp |
| 102994 | 103142 | Soliperla | | | | 2 | | SH | | | |
| 102488 | 102500 | Tallaperla | 1.4 | | | | | | | cn | sp |
| 102500 | 102505 | Tallaperla cornelia | | | | | | | | | |
| 102488 | 102510 | Yoraperla | | | | 2 | | SH | | | |
| 102510 | | Yoraperla mariana | | | | 2 | | SH | | | |
| 102510 | 102512 | Yoraperla brevis | | | | 2 | | SH | | cn | sp |
| 102468 | 102470 | Pteronarcidae | | | | | | SH | | | |
| 102470 | 102485 | Pteronarcella | | | | 0 | | SH | | | |
| 102485 | 102486 | Pteronarcella badia | | | | 0 | | SH | | cn | sp |
| 102485 | 102487 | Pteronarcella regularis | | | | 0 | | SH | | | |
| 102470 | 102471 | Pteronarcys | 1.7 | | 2.2 | 0 | | SH | | | |
| 102471 | 102473 | Pteronarcys californica | | | | 0 | | SH | | | |
| 102471 | 102478 | Pteronarcys dorsata | 1.8 | | | | | SH | | | |
| 102471 | 102484 | Pteronarcys princeps | | | | 0 | | SH | | sp | cn |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 102468 | 102788 | Taeniopterygidae | | | | 2 | | SH | | sp | cn |
| 102838 | 102839 | Doddsia occidentalis | | | | 2 | | SC | | sp | cn |
| 102788 | 102830 | Oemopteryx | | | | | | | | sp | cn |
| 102788 | 102808 | Strophopteryx | 2.5 | 3 | | | | | | | |
| 102788 | 102816 | Taenionema | | | | 2 | | SC | | sp | cn |
| 102816 | 102827 | Taenionema pallidum | | | | 2 | | SC | | | |
| 102788 | 102789 | Taeniopteryx | 6.3 | 2 | | | 2 | SH | | | |
| 102789 | 102791 | Taeniopteryx burksi | 5.8 | | | | | OM | | | |
| 102789 | 102792 | Taeniopteryx lita | | | | | | OM | | cn | |
| 102789 | 102795 | Taeniopteryx metequi | 1.4 | | | | | | | | |
| 102912 | 103202 | Chloroperlidae | | | | 1 | | PR | | cn | |
| | 103236 | Kathroperla | | | | 0 | | PR | | | |
| 103236 | 103237 | Kathroperla perdita | | | | 1 | | GC | | cn | |
| | | Chloroperlinae | | | | 1 | | PR | | | |
| 103202 | 103203 | Alloperla | 1.4 | | | 1 | | PR | | cn | |
| 103202 | 103260 | Haploperla | | | | | | | | cn | |
| 103260 | 103263 | Haploperla brevis | 1.3 | 1 | | | | | | | |
| 103202 | 103303 | Neaviperla | | | | | | PR | | cn | |
| 103303 | 103304 | Neaviperla forcipata | | | | 1 | | PR | | cn | |
| 103202 | 103233 | Paraperla | | | | 1 | | PR | | cn | |
| 103233 | 103234 | Paraperla frontalis | | | | | | PR | | | |
| 103202 | 103305 | Plumiperla | | | | | | PR | | cn | |
| 103202 | 103254 | Suwallia | 0 | | | 1 | | PR | | cn | |
| 103202 | 103273 | Sweltsa | 0 | | | 1 | | PR | | | |
| 103202 | 103308 | Triznaka | | | | 1 | | PR | | cn | |
| 102912 | 102914 | Perlidae | | | | 1 | 1 | PR | | | |
| 102914 | 102917 | Acroneuria | | | | | 0 | PR | | | |
| 102917 | 102919 | Acroneuria abnormis | 2.2 | 0 | | | | PR | | | |
| 102917 | 102920 | Acroneuria arenosa | 2.2 | | | | | PR | | | |
| 102917 | 102922 | Acroneuria carolinensis | 0 | | 2.3 | | | | | | |
| 102917 | 102923 | Acroneuria evoluta | | | 2.8 | | | | | | |
| 102917 | 102925 | Acroneuria internata | | | 2.2 | | | | | | |
| 102917 | 102918 | Acroneuria lycorias | 1.5 | | 2.4 | | | PR | | | |
| 102917 | 102926 | Acroneuria mela | 0.9 | | | | | PR | | cn | |
| 102917 | 102927 | Acroneuria perplexa | | | | | | PR | | cn | |
| 102914 | 102975 | Agetina | | | 1.8 | | 2 | PR | | cn | |
| 102975 | 102983 | Agetina annulipes | 0 | | | | 2 | | | cn | |
| 102975 | 102979 | Agetina capitata | | | | | | PR | | cn | |
| 102975 | 102984 | Agetina flavescens | 0 | | | | | | | | |
| 102954 | 102955 | Attaneuria ruralis | | | | | | PR | | cn | |
| 102914 | 102934 | Beloneuria | 0 | | | 3 | | PR | | cn | |
| 102914 | 102985 | Calineuria | | | | 3 | | PR | | cn | |
| 102985 | 102986 | Calineuria californica | | | | 1 | | PR | | cn | |
| 102994 | 103121 | Doroneuria | | | | 1 | | PR | | cn | |
| 103121 | 103123 | Doroneuria baumanni | | | | 1 | | PR | | cn | |
| 103121 | 103122 | Doroneuria theodora | | | | 1 | | PR | | cn | |
| 102914 | 102930 | Claassenia | | | | 3 | | PR | | cn | |
| 102930 | 102932 | Claassenia sabulosa | | | | 3 | | PR | | cn | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 102914 | 102939 | Eccopectura | | | | | | | | cn | |
| 102939 | 102940 | Eccopectura xanthenes | 4.1 | | | | | | | cn | |
| 102914 | 102971 | Hesperoperla | | | | | | PR | | cn | |
| 102971 | 102972 | Hesperoperla pacifica | | | | 1 | | PR | | cn | |
| 102914 | 102942 | Neoperla | 1.6 | 1 | 3.1 | | | PR | | cn | |
| 102942 | 102944 | Neoperla clymene | | | | | | PR | | | |
| 102914 | 102962 | Paragnetina | | | | | | PR | | | |
| 102962 | 102965 | Paragnetina fumosa | 3.5 | | | | | PR | | | |
| 102962 | 102970 | Paragnetina ichusa | 0 | | | | | | | | |
| 102962 | 102966 | Paragnetina immarginata | 1.7 | | | | | | | | |
| 102962 | 102967 | Paragnetina kansensis | 2 | | | | | PR | | cn | sp |
| 102962 | 102968 | Paragnetina media | | | 2.1 | | | | | | |
| 103202 | 103251 | Perlesta | 0 | | 4.5 | 5 | | PR | | cn | |
| 103251 | 103253 | Perlesta placida | 4.9 | 5 | | | | OM | | | |
| 103202 | 103244 | Perlinella | | | | | | PR | | | |
| 103244 | 103246 | Perlinella drymo | 0 | 1 | | | | PR | | cn | |
| 103244 | 103248 | Perlinella ephyre | | | | | | PR | | cn | |
| 102912 | 102994 | Perlodidae | | | | 2 | 2 | PR | | cn | sp |
| 102994 | 103155 | Calliperla | | | | 2 | | PR | | cn | sp |
| 102994 | 103157 | Cascadoperla | | | | 2 | | PR | | | |
| 102994 | 103118 | Clioperla | | | | | | | | cn | |
| 103118 | 103119 | Clioperla clio | 4.8 | 1 | | | | | | cn | |
| 102994 | 103137 | Cultus | | | | 2 | | PR | | cn | |
| 103137 | 103139 | Cultus decisus | 1.6 | | | | | | | | |
| 102994 | 103166 | Diploperla | 2 | | | | | | | cn | |
| 103166 | 103167 | Diploperla duplicata | 2.7 | | | | | | | | |
| 103166 | 103169 | Diploperla morgani | 1.5 | | | | | | | | |
| | 103094 | Diura | | | | 2 | | PR | | | |
| 103094 | 103096 | Diura knowltoni | | | | 2 | | SC | | cn | |
| 103171 | 103172 | Frisonia picticeps | | | | 2 | | PR | | cn | |
| 102994 | 103084 | Helopicus | | | | | | | | cn | |
| 103084 | 103087 | Helopicus bogaloosa | 0 | | | | | | | cn | |
| 103084 | 103085 | Helopicus subvarians | 0.8 | | | | | | | | |
| | 103124 | Isogenoides | | | | 2 | | PR | | | |
| 103124 | | Isogenoides hansonii | 0 | | | | | | | | |
| 102994 | 103070 | Isogenus | | | | 2 | | PR | | | |
| 102994 | 102995 | Isoperla | | | | 2 | 2 | PR | | | |
| 102995 | 103012 | Isoperla bilineata | 5.5 | | | | | | | | |
| 102995 | 103021 | Isoperla dicala | 2.2 | 2 | | | | | | | |
| 102995 | 103004 | Isoperla fulva | | | | 2 | | PR | | | |
| 102995 | 103029 | Isoperla fusca | | | | 2 | | PR | | | |
| 102995 | 103020 | Isoperla holochlora | 0 | | | | | | | | |
| 102995 | 103007 | Isoperla mormona | | | | 2 | | PR | | | |
| 102995 | 103017 | Isoperla namata | 1.8 | | | | | | | | |
| 102995 | 103018 | Isoperla orata | 0 | | | | | OM | | | |
| 102995 | 103009 | Isoperla pinta | | | | 2 | | PR | | | |
| 102995 | 103019 | Isoperla similis | 0.7 | | | | | | | | |
| 102995 | 103035 | Isoperla slossonae | 2.6 | | | | | | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 102995 | 103036 | <i>Isoperla transmarina</i> | 5.6 | | | | | | | | |
| 102994 | 103149 | <i>Kogotus</i> | | | | 2 | | PR | | cn | |
| 103174 | 103175 | <i>Malirekus hastatus</i> | 1.4 | | | | | | | | |
| 102994 | 103110 | <i>Megarcys</i> | | | | 2 | | PR | | cn | |
| 102994 | 103180 | <i>Oroperla</i> | | | | 2 | | PR | | cn | |
| 102994 | 103134 | <i>Perlinodes</i> | | | | | | PR | | cn | |
| 103134 | 103135 | <i>Perlinodes aureus</i> | | | | 2 | | PR | | cn | |
| 102994 | 103186 | <i>Pictetiella</i> | | | | 2 | | PR | | cn | |
| 103186 | 103188 | <i>Pictetiella expansa</i> | | | | 2 | | PR | | cn | |
| 103099 | 103100 | <i>Remenus bilobatus</i> | 0.3 | | | | | | | | |
| 102994 | 103189 | <i>Rickera</i> | | | | | | PR | | cn | |
| 103189 | 103190 | <i>Rickera sorpta</i> | | | | 2 | | PR | | cn | |
| 102994 | 103193 | <i>Setvena</i> | | | | 2 | | PR | | cn | |
| 103193 | 103194 | <i>Setvena bradleyi</i> | | | | 2 | | PR | | cn | |
| 102994 | 103102 | <i>Skwala</i> | | | | 2 | | PR | | | |
| 102994 | 103197 | <i>Yugus</i> | | | | 2 | | PR | | cn | sp |
| 103197 | 103200 | <i>Yugus arinus</i> | 0 | | | | | | | | |
| 103197 | 103198 | <i>Yugus bulbosus</i> | 0 | | | | | | | | |
| 100500 | 101593 | <i>Odonata</i> | | | | | | PR | | cb | |
| 101595 | 101596 | <i>Aeshnidae</i> | | | | 3 | | PR | | | |
| | 101602 | <i>Aeshna</i> | | | | 5 | | PR | | | |
| 101596 | 101597 | <i>Anax</i> | | | | 8 | 5 | PR | | | |
| 101597 | 101598 | <i>Anax junius</i> | | | | | | PR | | cb | sp |
| 101597 | 101599 | <i>Anax longipes</i> | | | | | | PR | | cb | sp |
| 101596 | 101648 | <i>Basiaeschna</i> | | | | | | | | cb | sp |
| 101648 | 101649 | <i>Basiaeschna janata</i> | 7.7 | 6 | | | | PR | | | |
| 101596 | 101645 | <i>Boyeria</i> | | | | | | PR | | cb | |
| 101645 | 101646 | <i>Boyeria grafiana</i> | 6.3 | | | | | | | | |
| 101645 | 101647 | <i>Boyeria vinosa</i> | 6.3 | 2 | 3.5 | | | PR | | cb | sp |
| 101639 | 101640 | <i>Coryphaeschna ingens</i> | | | | | | PR | | cb | cn |
| 101637 | 101638 | <i>Epiaeschna heros</i> | | | | | | PR | | cb | cn |
| 101634 | 101635 | <i>Gomphaeschna furcillata</i> | | | | | | PR | | | |
| 101653 | 101654 | <i>Nasiaeschna pentacantha</i> | 8 | | | | | PR | | bu | |
| 101595 | 101664 | <i>Gomphidae</i> | | | | 1 | | PR | | bu | |
| 101715 | 101716 | <i>Aphylla williamsoni</i> | | | | | | PR | | | |
| 101664 | 101770 | <i>Arigomphus</i> | | | | | | | | bu | |
| 101770 | 101771 | <i>Arigomphus pallidus</i> | | | | | | PR | | | |
| 101664 | 101730 | <i>Dromogomphus</i> | 6.3 | | | | | PR | | | |
| 101730 | 101731 | <i>Dromogomphus armatus</i> | | | | | | PR | | | |
| 101730 | 101732 | <i>Dromogomphus spinosus</i> | | | | | | PR | | bu | |
| | 101725 | <i>Erpetogomphus</i> | | | | 4 | | PR | | | |
| 101777 | 101780 | <i>Gomphus dilatatus</i> | 6.2 | 5 | 2.5 | | | PR | | | |
| 101664 | 101665 | <i>Gomphus</i> | | | | | 5 | PR | | | |
| 101665 | 101677 | <i>Gomphus dilatatus</i> | | | | | | PR | | | |
| 101665 | 101668 | <i>Gomphus geminatus</i> | | | | | | PR | | | |
| 101665 | 101685 | <i>Gomphus lividus</i> | | | | | 5 | PR | | | |
| 101665 | 101686 | <i>Gomphus minutus</i> | | | | | | PR | | | |
| 101665 | 101689 | <i>Gomphus pallidus</i> | | | | | | PR | | sp | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/Behavior | |
|------------|--------|------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 101665 | 101694 | Gomphus spiniceps | 4.9 | | | | | | | | |
| 101734 | 101735 | Hagenius brevistylus | 4 | 1 | | | | PR | | bu | |
| 101791 | 206625 | Hylogomphus geminatus | | | | | | PR | | bu | |
| 101664 | 101766 | Lanthus | 2.7 | | | | | | | bu | |
| 101664 | 101736 | Octogomphus | | | | 1 | | PR | | bu | |
| 101664 | 101738 | Ophiogomphus | 6.2 | 1 | | 1 | | PR | | bu | |
| 101664 | 101718 | Progomphus | | | | | | PR | | bu | |
| 101718 | 101720 | Progomphus obscurus | 8.7 | | | | | PR | | bu | |
| 101664 | 101761 | Stylogomphus | | | | | | | | bu | |
| 101761 | 101762 | Stylogomphus albistylus | 4.8 | | | | | | | | |
| 101664 | 206626 | Stylurus | | | | | | PR | | sp | |
| 206626 | 206627 | Stylurus ivae | | | | | | PR | | | |
| | 101594 | Anisoptera | | | | | | PR | | | |
| 101659 | 101660 | Tachopteryx | | | | 10 | | PR | | bu | |
| 102025 | 102026 | Cordulegastridae | | | | | | PR | | bu | |
| 102026 | 102027 | Cordulegaster | 6.1 | 3 | | 0 | 3 | PR | | | |
| 102027 | 102031 | Cordulegaster maculata | | | | | | PR | | sp | |
| 101796 | 102020 | Corduliidae | | | | 2 | 5 | PR | | cb | sp |
| 101851 | 101852 | Didymops transversa | | | | | | PR | | cb | sp |
| | 101862 | Epicordulia | 5.6 | | | | | | | | |
| 101862 | 101863 | Epicordulia princeps | | | | | | PR | | sp | |
| 101862 | 101864 | Epicordulia regina | | | | | | PR | | sp | |
| 101797 | 101918 | Macromia | 6.7 | 2 | | | 2 | PR | | sp | |
| 101918 | 101920 | Macromia georgiana | | | | | | PR | | sp | |
| 101918 | 101924 | Macromia georgina | | | | | | PR | | cb | cn |
| 101918 | 101922 | Macromia taeniolata | | | | | | PR | | | |
| 101797 | 101934 | Neurocordulia | 5.8 | | | | | PR | | | |
| 101934 | 101938 | Neurocordulia alabamensis | | | | | | PR | | | |
| 101934 | 101936 | Neurocordulia molesta | 3.3 | 5 | | | | PR | | | |
| 101934 | 101939 | Neurocordulia obsoleta | 5.4 | 0 | | | | PR | | sp | |
| 101934 | 101935 | Neurocordulia virginienensis | 1.6 | | | | | PR | | sp | |
| 101797 | 101947 | Somatochlora | 8.9 | 1 | | 9 | 1 | PR | | cb | sp |
| 101947 | 101949 | Somatochlora linearis | | | | | | PR | | | |
| 102026 | 102035 | Epitheca | | | | | 4 | PR | | | |
| 102035 | 206629 | Epitheca princeps | | | | | | PR | | | |
| 102035 | | Epitheca sepia | | | | | | PR | | | |
| 206629 | 206631 | Epitheca princeps regina | | | | | | PR | | cb | sp |
| 102035 | 185986 | Epitheca cynosura | | | | | | PR | | | |
| 101797 | 101994 | Tetragoneuria | 8.5 | | | | | PR | | | |
| 101994 | 101996 | Tetragoneuria cynosura | | | | | | PR | | sp | |
| 101796 | 101797 | Libellulidae | | | | 9 | 9 | PR | | sp | |
| 101830 | 101831 | Brachymesia gravida | | | | | | PR | | sp | |
| 101797 | 101865 | Erythemis | | | | | | PR | | cb | |
| 101865 | 101866 | Erythemis simplicicollis | 7.7 | | | | | PR | | cb | |
| 101797 | 101870 | Erythrodiplax | | | | | | PR | | cb | |
| 101870 | 101872 | Erythrodiplax minuscula | | | | | | PR | | sp | |
| 101797 | 101885 | Leucorrhinia | | | | | | | | | |
| 101797 | 101893 | Libellula | 9.8 | 9 | | 9 | 8 | PR | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 101893 | 101901 | Libellula auripennis | | | | | | PR | | | |
| 101893 | 101900 | Libellula incesa | | | | | | PR | | | |
| 101893 | 101903 | Libellula semifasciata | | | | | | PR | | sp | |
| 101893 | 101904 | Libellula vibrans | | | | | | PR | | sp | cb |
| 102009 | 102010 | Miathyria marcella | | | | | | PR | | sp | |
| 101932 | 101933 | Nannothemis bella | | | | | | PR | | sp | |
| 101797 | 101945 | Orthemis | | | | | | PR | | sp | |
| 101945 | 101946 | Orthemis ferruginea | | | | | | PR | | sp | |
| 101798 | 101799 | Pachydiplax longipennis | 9.6 | | | | | PR | | sp | |
| 101797 | 101803 | Perithemis | 10 | | | | 4 | PR | | sp | |
| 101803 | 101805 | Perithemis seminola | | | | | | PR | | sp | |
| 101803 | 101804 | Perithemis tenera | | | | | | PR | | sp | cb |
| 101808 | 101809 | Plathemis lydia | 10 | 8 | 8.2 | | | PR | | | |
| 101797 | 101976 | Sympetrum | 7.3 | 10 | | | 4 | PR | | sp | |
| 101976 | 101977 | Sympetrum ambiguum | | | | | | PR | | | |
| 101818 | 101820 | Tramea carolina | | | | | | PR | | | |
| 100500 | 102042 | Zygoptera | | | | | | PR | | cb | |
| 102042 | 102043 | Calopterygidae | | | | | 5 | PR | | cb | |
| 102043 | 102052 | Calopteryx | 8.3 | 5 | 3.7 | 6 | 6 | PR | | cb | |
| 102052 | 102054 | Calopteryx dimidiata | | | | | | PR | | cb | cn |
| 102052 | 102055 | Calopteryx maculata | | | | | | PR | | | |
| 102043 | 102048 | Hetaerina | 6.2 | 6 | 2.8 | | | PR | | | |
| 102048 | 102050 | Hetaerina americana | | | | | | PR | | | |
| 102048 | 102049 | Hetaerina titia | | | | | | PR | | cb | sw |
| 102042 | 102077 | Coenagrionidae | | | 6.1 | 9 | 9 | PR | | cb | |
| 102077 | 102093 | Amphiagrion | | | | 5 | | PR | | cn | cb |
| 102077 | 102139 | Argia | | | 5.1 | 7 | 6 | PR | | | |
| 102139 | 102140 | Argia apicalis | | | | | | PR | | | |
| 102139 | 102143 | Argia fumipennis | | | | | | PR | | | |
| 102139 | 102146 | Argia moesta | | | | | | PR | | | |
| 102139 | 102147 | Argia sedula | | | | | | PR | | | |
| 102139 | 102148 | Argia tibialis | | | | | | PR | | cb | |
| 102139 | 102154 | Argia violacea | | | | | | PR | | cb | |
| 102077 | 102133 | Chromagrion | | | | 6 | | PR | | cb | |
| 102077 | 102102 | Enallagma | 9 | 9 | | 9 | 8 | PR | | cb | |
| 102102 | 102103 | Enallagma antennuatus | | | | | | PR | | cb | |
| 102102 | 102104 | Enallagma cardenium | | | | | | PR | | cb | |
| 102102 | 102106 | Enallagma daeckii | | | | | | PR | | cb | |
| 102102 | 102108 | Enallagma divagans | | | | | | PR | | cb | |
| 102102 | 102110 | Enallagma dubium | | | | | | PR | | cb | |
| 102102 | 181184 | Enallagma pallidum | | | | | | PR | | cb | |
| 102102 | 102114 | Enallagma pollutum | | | | | | PR | | cb | |
| 102102 | 102115 | Enallagma signatum | | | | | | PR | | cb | |
| 102102 | 102119 | Enallagma vesperum | | | | | | PR | | cb | |
| 102102 | 102120 | Enallagma weewa | | | | | | PR | | cb | |
| 102077 | 102078 | Ischnura | 9.4 | 9 | | 9 | 9 | PR | | cb | |
| 102078 | 206632 | Ischnura hastata | | | | | | PR | | | |
| 102078 | 102082 | Ischnura posita | | | | | | PR | | cb | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/Behavior | |
|------------|--------|---------------------------|---------------------------|--------------------------|-----------------|-------------------|------------------------|--------------------------|-----------|----------------|-----------|
| | | | South east (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| | | | | | | | | | | | |
| 102078 | 102084 | Ischnura ramburi | | | | | | PR | | cb | |
| 102077 | 102135 | Nehalennia | | | | | | PR | | cb | |
| 102135 | 102136 | Nehalennia intergricollis | | | | | | PR | | cb | |
| 102096 | 102099 | Telebasis byersi | | | | | | PR | | | |
| 102077 | 102100 | Zoniagrion | | | | 9 | | PR | | | |
| 102058 | 102061 | Lestes | | | | 9 | | PR | | cb | |
| 109215 | 118831 | Diptera | | | | 7 | | | | | |
| 121226 | 121227 | Blephariceridae | | | | 0 | | SC | | | |
| 121229 | 121230 | Agathon | | | | 0 | | SC | | cn | |
| 121229 | 121250 | Bibiocephala | | | | 0 | | SC | | | |
| 121229 | 121255 | Blepharicera | 0.2 | 0 | | 0 | | SC | | sp | bu |
| 121229 | 121278 | Philorus | | | | 0 | | SC | | sp | cb |
| 125808 | 127076 | Ceratopogonidae | | | 5.7 | 6 | | PR | | | |
| 127277 | 127278 | Dasyhelea | | | | | | GC | | sp | cn |
| 127076 | 127112 | Forcipomyiinae | | | | 6 | | PR | GC | sp | |
| 127112 | 127113 | Atrichopogon | 6.8 | | 4.5 | 6 | | PR | GC | | |
| 127113 | 127150 | Atrichopogon websteri | | | 4.4 | | | | | | |
| 127112 | 127152 | Forcipomyia | | | | 6 | | SC | PR | bu | |
| 127076 | 127338 | Ceratopogoninae | | | | 6 | | PR | | bu | |
| 127526 | 127533 | Alluaudomyia | | | | | | PR | | | |
| 127774 | 127778 | Bezzia | | | | 6 | 6 | GC | PR | bu | |
| 127526 | 127564 | Ceratopogon | | | | | 6 | PR | | bu | |
| 127339 | 127340 | Culicoides | 6.5 | 10 | | | 10 | PR | GC | bu | |
| 127683 | 127720 | Nilobezzia | | | | | | PR | | | |
| 127774 | 127859 | Palpomyia | | | | 6 | | PR | GC | bu | |
| 127859 | 127905 | Palpomyia tibialis | | | | | | | | bu | |
| 127683 | 127729 | Probezzia | | | | | 6 | PR | | bu | |
| 127526 | 127614 | Serromyia | | | | | 6 | PR | | bu | |
| 127683 | 127761 | Sphaeromyias | | | | | | PR | GC | | |
| 127526 | 127619 | Stilobezzia | | | | | | PR | | sp | sw |
| 125808 | 125886 | Chaoboridae | | | | | | PR | | | |
| 125892 | 125904 | Chaoborus | | | | | | PR | | | |
| 125904 | 125923 | Chaoborus punctipennis | 8.5 | 8 | | | | PR | | | |
| 125887 | 125888 | Eucorethra | | | | 7 | | PR | | | |
| 125808 | 127917 | Chironomidae | | | | 6 | | GC | | bu | |
| 127917 | 127994 | Tanypodinae | | | | 7 | | PR | | bu | |
| 127995 | 127996 | Clinotanypus | | | | | 8 | PR | | | |
| 127996 | 127998 | Clinotanypus pinguis | 9.8 | 8 | 7.5 | | | | | | |
| 127995 | 128010 | Coelotanypus | 6.2 | | | | | PR | | | |
| 128010 | 128012 | Coelotanypus concinnus | 7.7 | | | | | PR | | | |
| 128010 | 128016 | Coelotanypus scapularis | | | | | | PR | | bu | |
| 128010 | 128018 | Coelotanypus tricolor | | | | | | PR | | bu | |
| | 128020 | Macropelopiini | | | | | | PR | | | |
| 127995 | 206646 | Alotanypus | | | | | | | | | |
| 128020 | 128021 | Apsectrotanypus | | | | | | PR | | bu | |
| 128021 | 128024 | Apsectrotanypus johnsoni | 0 | | | | | PR | | | |
| 128020 | 128026 | Brundiniella | | | | 6 | | PR | | sp | |
| 128026 | 128028 | Brundiniella eumorpha | 3.8 | | | | | | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | | |
|------------|--------|--------------------------|---------------------------|--------------------------|-----------------|-----------------------|------------------------|--------------------------|-----------|-----------------|-----------|----|
| | | | South east (NC) | Upper Midwest (WI) | Midwest (OH) | North west (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary | |
| | | | | | | | | | | | | |
| 206647 | 206648 | Fittkauimyia serta | | | | | | | | | sp | bu |
| 128020 | 128034 | Macropelopia | | | | 6 | | PR | | | | |
| 128020 | 128048 | Psectrotanypus | | | 8.1 | 10 | 10 | PR | | | sp | |
| 128048 | 128056 | Psectrotanypus dyari | 10 | 10 | 8.6 | | | | | | | |
| 128270 | 128271 | Djalmabatista | | | | | | PR | | | sp | |
| 128271 | 128272 | Djalmabatista pulcher | | | | | | PR | | | | |
| 128270 | 128277 | Procladius | 9.3 | 9 | 6.5 | 9 | 9 | PR | GC | | sp | |
| 128277 | 128285 | Procladius bellus | | | | | | PR | | | | |
| 128069 | 128070 | Natarsia | 10 | 8 | 5.9 | | 8 | PR | | | sp | |
| 128070 | 128071 | Natarsia baltimoreus | | | 5.6 | | | | | | | |
| 127994 | 128078 | Pentaneurini | | | | 6 | | PR | | | | |
| 128078 | 128079 | Ablabesmyia | | | 5.2 | | 8 | GC | PR | | | |
| 128079 | 128081 | Ablabesmyia annulata | | | 4.1 | | | OM | | | | |
| 128079 | 128083 | Ablabesmyia aspera | | | | | | OM | | | | |
| 128079 | 128087 | Ablabesmyia cinctipes | | | | | | OM | | | | |
| 128079 | 128089 | Ablabesmyia hauberi | | | | | | OM | | | | |
| 128079 | 128090 | Ablabesmyia ideii | | | | | | OM | | | | |
| 128079 | 128093 | Ablabesmyia janta | 7.1 | | 4.9 | | | OM | | | | |
| 128079 | 128097 | Ablabesmyia mallochi | 7.6 | 8 | 5 | | | OM | | | | |
| 128079 | 128113 | Ablabesmyia peleensis | 4.6 | | | | | OM | | | sp | |
| 128079 | 128121 | Ablabesmyia rhamphe | | | | | | OM | | | | |
| 128078 | 128130 | Conchapelopia | 8.7 | 6 | 4.3 | 6 | 6 | PR | | | | |
| | | Denopelopia atria | | | | | | | | | | |
| 128161 | 128162 | Guttipelopia guttipennis | | | | | | PR | | | | |
| | 128237 | Hayesomyia | | | | | | PR | | | sp | |
| 128237 | 128249 | Hayesomyia senata | | | 4.6 | | | | | | | |
| | 128131 | Helopelopia | | | 3.9 | | 6 | PR | | | sp | |
| 128078 | 128167 | Hudsonimyia | | | | | | PR | | | | |
| 128078 | 128170 | Krenopelopia | | | | | | PR | | | sp | |
| 128170 | 128171 | Krenopelopia hudsoni | | | | | | PR | | | | |
| 128078 | 128173 | Labrundinia | | | 3.8 | | | PR | | | | |
| 128173 | 128174 | Labrundinia becki | | | | | | PR | | | | |
| 128173 | 128175 | Labrundinia johannseni | | | | | | PR | | | | |
| 128173 | 128176 | Labrundinia maculata | | | | | | PR | | | | |
| 128173 | 128177 | Labrundinia neopilosella | | | | | 7 | PR | | | | |
| 128173 | 128178 | Labrundinia pilosella | 6 | 7 | 3.1 | | | PR | | | sp | |
| 128173 | 128182 | Labrundinia virescens | 4.5 | | | | | PR | | | | |
| 128078 | 128183 | Larsia | 8.3 | 6 | 4.3 | 6 | 6 | PR | | | | |
| 128183 | 128184 | Larsia berneri | | | | | | PR | | | | |
| 128183 | 128186 | Larsia decolorata | | | | | | PR | | | | |
| 128183 | 128189 | Larsia indistincta | | | | | | PR | | | sp | |
| | 128132 | Meropelopia | | | 2.7 | | 7 | | | | | |
| 128078 | 128199 | Monopelopia | | | | 6 | | PR | | | sp | |
| 128199 | 128200 | Monopelopia boliekae | | | | | | PR | | | | |
| 128078 | 128202 | Nilotanypus | 4 | 6 | | 6 | | PR | | | sp | |
| 128202 | 128203 | Nilotanypus fimbriatus | | | 2.8 | | | PR | | | | |
| 128078 | 128207 | Paramerina | 2.8 | | | 6 | 4 | PR | | | sp | |
| 128207 | 128208 | Paramerina anomala | | | | | | | | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/Behavior | |
|------------|--------|------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 128207 | 128209 | Paramerina fragilis | | | 4.7 | | | | | | |
| 128078 | 128215 | Pentaneura | 4.6 | 6 | | 6 | | PR | GC | | |
| 128215 | 128216 | Pentaneura inconspicua | | | 4.9 | | | PR | | sp | |
| 128215 | 128218 | Pentaneura inculta | | | | | | PR | | sp | |
| 128078 | 128226 | Rheopelopia | | | | | | PR | | sp | |
| 128226 | 128229 | Rheopelopia paramaculipennis | | | 2.9 | | | | | | |
| | 128234 | Telopelopia okoboji | | | 4 | | | | | | |
| 128078 | 128236 | Thienemannimyia | | | | 6 | 6 | PR | | sp | |
| 128078 | 128251 | Trissopelopia | | | | | | PR | | | |
| 128078 | 128259 | Zavreliomyia | 9.3 | 8 | 4.1 | 8 | 8 | PR | | sp | |
| 128259 | 128262 | Zavreliomyia sinuosa | | | | | | PR | | | |
| 128323 | 128324 | Tanypus | 9.6 | 10 | 8.8 | | 10 | PR | GC | | |
| 128324 | 128329 | Tanypus neopunctipennis | | | 7.5 | | | OM | | | |
| 128324 | 128335 | Tanypus carinatus | | | | | | OM | | | |
| 128324 | 128333 | Tanypus punctipennis | | | | | | OM | | sp | |
| 128324 | 128336 | Tanypus stellatus | | | | | | OM | | | |
| 127953 | 127954 | Boreochlus | | | | 6 | | GC | SC | | |
| 127917 | 128341 | Diamesinae | | | | | | GC | | sp | |
| 128342 | 128343 | Boreoheptagyia | | | | 6 | | GC | | | |
| | 128351 | Diamesini | | | | 2 | | GC | | | |
| 128351 | 128355 | Diamesa | 7.7 | 8 | | 5 | | GC | SC | sp | |
| 128351 | 128401 | Pagastia | 2.2 | 1 | | 1 | | GC | | | |
| 128351 | 128408 | Potthastia | | | | 2 | | OM | GC | | |
| 128408 | 128409 | Potthastia gaedii | 2 | | | 6 | | GC | | sp | |
| 128408 | 128412 | Potthastia longimana | 7.4 | | | 2 | | GC | | sp | |
| 128351 | 128416 | Pseudodiamesa | | | | 6 | | GC | | sp | |
| 128351 | 128426 | Sympotthastia | 5.7 | 2 | | 2 | | GC | SC | sp | |
| 128437 | 128440 | Monodiamesa | | | | 7 | | GC | | bu | sp |
| 128437 | 128446 | Odontomesa | | | | 4 | | GC | | | |
| 128446 | 128447 | Odontomesa fulva | 5.9 | 4 | | | | | | | |
| 128437 | 128452 | Prodiamesa | | | | 3 | | GC | | sp | |
| 128452 | 128454 | Prodiamesa olivacea | 7.9 | 3 | | | | | | | |
| 125808 | 128457 | Orthoclaadiinae | | | | 5 | | GC | | bu | |
| 128457 | 128563 | Corynoneura | 6.2 | 7 | 3.5 | 7 | 7 | GC | | | |
| 128563 | 128565 | Corynoneura celeripes | | | 2.3 | | | GC | | sp | |
| 128563 | 128567 | Corynoneura lobata | | | 3.3 | | | | | | |
| 128563 | 128570 | Corynoneura taris | | | | | | GC | | | |
| 128457 | 129182 | Thienemanniella | 6 | 6 | 3.7 | 6 | 6 | GC | | | |
| 129182 | 129193 | Thienemanniella fusca | | | | | | GC | | | |
| 129182 | 129189 | Thienemanniella similis | | | 2.4 | | | GC | | | |
| 129182 | 129190 | Thienemanniella xena | | | 3.6 | | | GC | | | |
| | | Orthoclaadiini | | | | 6 | | GC | | | |
| 128457 | 128460 | Acamptocladus | | | | | | GC | | bu | sp |
| 128457 | 128470 | Antillocladius | | | | | | | | | |
| 128457 | 128477 | Brillia | 5.2 | 5 | | 5 | 5 | SH | GC | | |
| 128477 | 128478 | Brillia flavifrons | | | | 5 | | SH | | | |
| 128477 | 128487 | Brillia par | | | | | | | | bu | cn |
| 128477 | 128482 | Brillia retifinis | | | | 5 | | SH | | sp | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 128457 | 128511 | Cardiocladius | 6.2 | 5 | | 5 | | PR | | cn | bu |
| 128511 | 128515 | Cardiocladius obscurus | | | 2.2 | | | | | | |
| 128457 | 128520 | Chaetocladius | | | | 6 | | GC | | | |
| 128457 | 128575 | Cricotopus | | 7 | 4.3 | 7 | 7 | SH | GC | | |
| 128575 | 128583 | Cricotopus bicinctus | 8.7 | | 6.7 | | 7 | OM | | | |
| 128575 | 128594 | Cricotopus festivellus | | | | 7 | | SH | | | |
| 128575 | 128610 | Cricotopus infuscatus | 9 | | | | | | | | |
| 128575 | | Cricotopus Isocladius | | | | 7 | | SH | | | |
| 128575 | | Cricotopus Nostococladius | | | | 7 | | SH | | | |
| 128575 | 128640 | Cricotopus politus | | | | | | OM | | | |
| 128575 | | Cricotopus sylvestris | 10 | | | | | OM | | | |
| 128575 | 128651 | Cricotopus tremulus | | | | 7 | 7 | SH | | sp | |
| 128575 | 128659 | Cricotopus trifascia | | | | 7 | | OM | | | |
| 128575 | 128664 | Cricotopus varipes | 8.1 | | | | | | | | |
| 128575 | 128666 | Cricotopus vierriensis | 4.8 | | 4.2 | | | | | | |
| 128457 | 128670 | Diplocladius | | | | | | GC | | sp | |
| 128670 | 128671 | Diplocladius cultriger | 7.7 | 8 | | | | GC | | | |
| 128680 | 128681 | Doncricotopus bicaudatus | | | 4.8 | | | | | | |
| 128457 | 128689 | Eukiefferiella | | | | 8 | | GC | SC | | |
| 128689 | 128704 | Eukiefferiella brehmi | 3.7 | | | 8 | | GC | | | |
| 128689 | 128703 | Eukiefferiella brevicealcar | 1.7 | | | 8 | | GC | | | |
| 128689 | 128693 | Eukiefferiella claripennis | 5.7 | 8 | | 8 | | GC | | | |
| 128689 | 128695 | Eukiefferiella devonica | 2.6 | | | 8 | | GC | | | |
| 128689 | 128705 | Eukiefferiella gracei | 2.7 | | | 8 | | GC | | | |
| 128689 | 128706 | Eukiefferiella pseudomontana | | | | 8 | | GC | | sp | |
| 128457 | 128712 | Georthocladius | | | | | | | | sp | |
| 128457 | 128718 | Gymnometriocnemus | | | | | 7 | GC | | sp | bu |
| 128457 | 128730 | Heleniella | 0 | | | 6 | | GC | | | |
| 128457 | 128737 | Heterotrissocladius | 5.4 | 0 | | 4 | | GC | SC | sp | |
| 128737 | 128746 | Heterotrissocladius subpilosus | | | | 0 | | GC | | sp | |
| 128457 | 128750 | Hydrobaenus | 9.6 | 8 | | 8 | 8 | SC | GC | sp | |
| | 128771 | Krenosmittia | | | | 1 | | GC | | | |
| 128457 | 128776 | Limnophyes | | | 3.1 | 8 | 8 | GC | | | |
| 128457 | 128811 | Lopescladius | 2.2 | 4 | | 6 | | GC | | bu | sp |
| 128457 | 128818 | Mesosmittia | | | | | | | | sp | |
| 128457 | 128821 | Metriocnemus | | | | | | OM | GC | | |
| 128457 | 128844 | Nanocladius | 7.2 | 3 | 5.3 | 3 | 3 | GC | | | |
| 128844 | 128852 | Nanocladius crassicornus | | | 4.3 | | 3 | GC | | | |
| 128844 | 128853 | Nanocladius distinctus | | | 6.1 | | | GC | | | |
| 128844 | 128855 | Nanocladius downesi | 2.6 | | | | | | | | |
| 128844 | 128859 | Nanocladius minimus | | | 4.5 | | | | | | |
| 128844 | 128860 | Nanocladius rectinervis | | | | | | GC | | sp | bu |
| 128844 | 128862 | Nanocladius spiniplenus | | | 3.5 | | | | | | |
| 128457 | 128867 | Oliveridia | | | | 6 | | GC | | | |
| 128457 | 128874 | Orthocladius | | 6 | 3.9 | | | GC | | | |
| 128874 | | Orthocladius Eudactylocladius | | | | 6 | | GC | | | |
| 128874 | | Orthocladius Euorthocladius | 6.3 | | | 6 | | GC | | | |
| 128874 | | Orthocladius Pogonocladius | | | | 6 | | GC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/Behavior | |
|------------|--------|-----------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 128874 | 128878 | Orthocladius annectens | | | | | | GC | | sp | |
| 128874 | 128882 | Orthocladius carlatus | | | 2 | | | | | | |
| 128874 | 128885 | Orthocladius clarkei | 5.8 | | | | | | | | |
| 128874 | 128898 | Orthocladius dorenius | 6.7 | | | | | | | | |
| 128874 | 128913 | Orthocladius lignicola | | | | | | GC | | sp | |
| 128874 | 128920 | Orthocladius nigrinus | 0.9 | | | | | | | | |
| 128874 | 128923 | Orthocladius obumbratus | 8.8 | | | | | | | | |
| 128874 | 128929 | Orthocladius robacki | 7.2 | | | | | | | | |
| 128457 | 128951 | Parachaetocladus | 0 | | | 6 | 2 | GC | | sp | |
| 128457 | 128968 | Parakiefferiella | 5.9 | | 4.8 | 6 | 4 | GC | | | |
| 128457 | 128978 | Parametricnemus | | | 2.8 | 5 | 5 | GC | | sp | |
| 128978 | 128982 | Parametricnemus lundbecki | 3.7 | 5 | | | | GC | | sp | |
| 128457 | 128989 | Paraphaenocladus | | | | 5 | 4 | GC | | sp | |
| 128457 | 129005 | Paratrithocladus | | | 2 | 6 | | GC | | sp | bu |
| 128457 | 129011 | Parorthocladus | | | | 6 | | GC | | | |
| 128457 | 129018 | Psectrocladius | 3.8 | 8 | 5.7 | 8 | 8 | GC | SH | | |
| 129018 | 129027 | Psectrocladius elatus | | | | | | OM | | | |
| 129018 | 129031 | Psectrocladius limbatellus | | | | 8 | | GC | | sp | |
| 129018 | 129051 | Psectrocladius sordidellus | | | | 8 | | GC | | | |
| 128457 | 129052 | Pseudorthocladus | 0 | 0 | | 0 | 0 | GC | | sp | |
| 128457 | 129071 | Pseudosmittia | | | | | | GC | | sp | |
| 128457 | 129083 | Psilometricnemus | | | | | | GC | | | |
| 128457 | 129086 | Rheocricotopus | | | 4.9 | 6 | 6 | GC | SH | | |
| 129086 | 129101 | Rheocricotopus pauciseta | | | | | 6 | GC | | | |
| 129086 | 129102 | Rheocricotopus robacki | 7.7 | 6 | 3.8 | | | | | | |
| 129086 | 129105 | Rheocricotopus tuberculatus | 6.8 | | | | | | | bu | |
| 128457 | 129107 | Rheosmittia | | | | | | GC | | | |
| 128457 | 129110 | Smittia | | | | | | GC | | | |
| 128457 | 129152 | Stilocladus | | | | | | GC | | sp | |
| 128457 | 129156 | Symbiocladus | | | | 6 | | PA | | | |
| | 128877 | Symposiocladus | | | | | | | | sp | |
| 128877 | 128915 | Symposiocladus lignicola | 5.4 | | | | | | | | |
| 128457 | 129161 | Synorthocladus | 4.7 | 2 | | 2 | | GC | SC | | |
| 129161 | 129162 | Synorthocladus semivirens | | | 2.5 | | | | | | |
| 128457 | 129197 | Tvetenia | | 5 | | 5 | 5 | GC | | | |
| 129197 | 129205 | Tvetenia bavarica | 4 | | | 5 | | GC | | | |
| 129197 | 189327 | Tvetenia discoloripes | 3.9 | | | 5 | | GC | | | |
| 128457 | 129206 | Unniella | | | | | 4 | GC | | bu | |
| 129206 | 129207 | Unniella multivirga | 0 | | | | | GC | | | |
| 128457 | 129208 | Xylotopus | 6.6 | 2 | | | | | | bu | |
| 129208 | 129209 | Xylotopus par | | | | | 2 | | | | |
| 128457 | 129213 | Zalutschia | | | | | 7 | SH | | | |
| 128457 | 129228 | Chironominae | | | | 6 | | GC | | | |
| 129228 | 129229 | Chironomini | | | | 6 | | GC | | | |
| | 206655 | Apedilum | | | | | | | | | |
| 206655 | 129618 | Apedilum elachista | | | | | | | | sp | bu |
| 129231 | 129234 | Asheum beckae | | | | | | GC | | | |
| 129229 | 129236 | Axarus | | | | | | GC | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 129229 | 206657 | Beardius | | | | | | | | bu | |
| 206657 | 206658 | Beardius truncatus | | | | | | | | | |
| 129229 | 129254 | Chironomus | 9.8 | 10 | 8.1 | 10 | 10 | GC | SH | | |
| 129254 | 129280 | Chironomus decorus | | | | | | OM | | | |
| 129254 | 129313 | Chironomus riparius | | | | | | OM | | bu | |
| 129254 | 129322 | Chironomus stigmaterus | | | | | | OM | | sp | bu |
| 129229 | 129350 | Cladopelma | 2.5 | 9 | | | 7 | GC | | | |
| 129229 | 129368 | Cryptochironomus | | | 4.9 | 8 | 8 | PR | | sp | |
| 129368 | 129370 | Cryptochironomus blarina | 8 | 8 | | | | | | | |
| 129368 | 129376 | Cryptochironomus fulvus | 6.7 | 8 | | | | PR | | bu | |
| 129229 | 129394 | Cryptotendipes | 6.1 | 6 | 4.2 | | 6 | GC | | bu | |
| 129229 | 129421 | Demicryptochironomus | 2.1 | | | | 8 | GC | | | |
| 129229 | 129428 | Dicrotendipes | 7.9 | | 5.6 | 8 | 8 | GC | FC | | |
| 129428 | 129436 | Dicrotendipes fumidus | | | 5.8 | | | | | | |
| 129428 | 129441 | Dicrotendipes leucoscelis | | | | | | FG | | | |
| 129428 | 129445 | Dicrotendipes lobus | | | | | | FG | | | |
| 129428 | 129458 | Dicrotendipes lucifer | | | 6.3 | | | | | | |
| 129428 | 129448 | Dicrotendipes modestus | 9.2 | 5 | 5.9 | | | FG | | | |
| 129428 | 129450 | Dicrotendipes neomodestus | 8.3 | | 4.5 | | | FG | | | |
| 129428 | 129452 | Dicrotendipes nervosus | 10 | | | | | FG | | | |
| 129428 | 193743 | Dicrotendipes simpsoni | 10 | | 7.4 | | | FG | | | |
| 129428 | 206649 | Dicrotendipes thanatogratus | | | | | | FG | | bu | |
| 129428 | 183774 | Dicrotendipes tritonus | | | | | | FG | | | |
| 129229 | 129459 | Einfeldia | | | | 8 | | GC | | | |
| 129459 | 129460 | Einfeldia austini | | | | | | GC | | cn | |
| 129459 | 129463 | Einfeldia natchitochaeae | | | | | | GC | | | |
| 129229 | 129470 | Endochironomus | | | 5.6 | 10 | 10 | SH | GC | | |
| 129470 | 129471 | Endochironomus nigricans | 7.5 | 8 | 5.3 | | | | | | |
| 129470 | 129474 | Endochironomus subtendens | | | | | | | | | |
| 128457 | 130046 | Endotribelos | | | | | | GC | | bu | cn |
| 130046 | 130047 | Endotribelos hesperium | | | | | | GC | | | |
| 129229 | 129483 | Glyptotendipes | 8.5 | 10 | 6.2 | | 10 | FC | GC | | |
| 129483 | 129484 | Glyptotendipes amplus | | | 3.2 | | | | | | |
| 129483 | 129485 | Glyptotendipes barbipes | | | | | 10 | FC | | | |
| 129483 | 129493 | Glyptotendipes meridionalis | | | | | | | | | |
| 129483 | 129494 | Glyptotendipes paripes | | | | | | | | bu | |
| 129483 | 129496 | Glyptotendipes seminole | | | | | | | | | |
| 129229 | 129506 | Goeldichironomus | | | | | 8 | GC | | | |
| 129506 | 206650 | Goeldichironomus amazonicus | | | | | | GC | | | |
| 129506 | 129508 | Goeldichironomus carus | | | | | | GC | | | |
| 129506 | 206651 | Goeldichironomus fluctuans | | | | | | GC | | | |
| 129506 | 129512 | Goeldichironomus holoprasinus | 10 | | | | | GC | | cb | cn |
| 129506 | 206652 | Goeldichironomus natans | | | | | | GC | | bu | |
| 129229 | 129516 | Harnischia | 7.5 | 8 | | | | GC | SC | | |
| 129516 | 129517 | Harnischia curtilamellata | | | 3.5 | | | | | | |
| 129229 | 129522 | Kiefferulus | | | | | 10 | GC | | | |
| 129522 | 129523 | Kiefferulus dux | 10 | 10 | 5.2 | | | GC | | cn | |
| 129525 | 129526 | Lauterborniella agrayloides | | | | | | GC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 129229 | 129535 | Microtendipes | 6.2 | 7 | | 6 | | FC | GC | | |
| 129535 | 129540 | Microtendipes caelum | | | 2.7 | | | | | | |
| 129535 | 129541 | Microtendipes pedellus | | | | | | FG | | | |
| 129535 | 129547 | Microtendipes rydalensis | | | 2 | | | FG | | | |
| 129229 | 129548 | Nilothauma | 5.5 | 2 | 3.1 | | 2 | | | | |
| 129548 | 129551 | Nilothauma bicorne | | | | | | GC | | | |
| 129229 | 129561 | Pagastiella | | | | | | GC | | sp | |
| 129561 | 206654 | Pagastiella orophila | | | | | | GC | | | |
| 129561 | 129562 | Pagastiella ostansa | 2.6 | | | | | | | | |
| 129229 | 129564 | Parachironomus | 9.2 | 10 | 4.1 | | | PR | GC | | |
| 129564 | 129565 | Parachironomus abortivus | | | 8 | | | | | | |
| 129564 | 129569 | Parachironomus carinatus | | | 5.3 | | | | | | |
| 129564 | 129573 | Parachironomus directus | | | 7.9 | | | | | | |
| 129564 | 129579 | Parachironomus frequens | | | 3.8 | | | | | | |
| 129564 | 129595 | Parachironomus hirtalatus | | | | | | | | | |
| 129564 | 129581 | Parachironomus monochromus | 7.9 | | | | | | | | |
| 129564 | 129583 | Parachironomus pectinatellae | | | 3.7 | | | | | | |
| 129564 | 129587 | Parachironomus schneideri | | | | | | | | sp | |
| 129564 | 129588 | Parachironomus sublettei | | | | | | | | | |
| 129229 | 129597 | Paracladopelma | 6.4 | 7 | | | | GC | | | |
| 129597 | 129608 | Paracladopelma nereis | 1.8 | | | | | GC | | cn | |
| 129597 | 129612 | Paracladopelma undine | 5.2 | | | | | GC | | | |
| 129229 | 129616 | Paralauterborniella | | | | | 8 | GC | | bu | |
| 129616 | 129619 | Paralauterborniella nigrohalterale | | | | | | | | | |
| 129229 | 129623 | Paratendipes | 5.3 | 8 | 5.7 | 8 | 8 | GC | | | |
| 129623 | 129624 | Paratendipes albimanus | | | 4.3 | | | GC | | cn | |
| 129623 | 129632 | Paratendipes subaequalis | | | | | | GC | | | |
| 129229 | 129637 | Phaenopsectra | 6.8 | 7 | | 7 | 7 | SC | GC | | |
| 129637 | 129642 | Phaenopsectra flavipes | 8.5 | | 5.7 | | | | | | |
| 129637 | 129647 | Phaenopsectra obediens | | | | | | OM | | cb | cn |
| 129637 | 129652 | Phaenopsectra punctipes | | | 3.5 | | | SC | | | |
| 129229 | 129657 | Polypedilum | | | | 6 | 6 | SH | GC | | |
| 129657 | | Polypedilum Pentapedilum | | | | 6 | | SH | | | |
| 129657 | 129725 | Polypedilum angulum | 5.6 | | | | | | | | |
| 129657 | 129666 | Polypedilum aviceps | 4 | | 1.9 | | | | | | |
| 129657 | 129726 | Polypedilum bergi | | | | | 6 | SH | | | |
| 129657 | 129671 | Polypedilum convictum | 5.3 | | 3.6 | | | | | | |
| 129657 | 129676 | Polypedilum fallax | 6.7 | | | | | | | | |
| 129657 | 129684 | Polypedilum halterale | 7.2 | | | | | | | | |
| 129657 | 129686 | Polypedilum illinoense | 9.2 | | 6.9 | | | | | | |
| 129657 | 129692 | Polypedilum laetum | | | | | | | | | |
| 129657 | 129698 | Polypedilum ontario | | | 2.6 | | | | | | |
| 129657 | 129708 | Polypedilum scalaenum | 8.7 | | | | | | | | |
| 129657 | 129718 | Polypedilum trigonum | | | | | | | | bu | |
| 129657 | 129719 | Polypedilum tritum | | | | | | | | | |
| 129229 | 129730 | Robackia | | | | | | GC | | | |
| 129730 | 129731 | Robackia claviger | 2.4 | | | | | GC | | bu | |
| 129730 | 129733 | Robackia demeijerei | 4.3 | | | 7 | | GC | | | |

Appendix B: Regional Tolerance Values, Functional Feeding Groups, and Habit/Behavior Assignments for Benthic Macroinvertebrates

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|--------------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 129229 | 129735 | Saetheria | | | | | | GC | | wood | |
| 129735 | 129736 | Saetheria hirta | | | | | | GC | | | |
| 129735 | 129737 | Saetheria tylus | 8.1 | 4 | | | | | | | |
| 129229 | 129743 | Stelechomyia | | | | | 7 | GC | | bu | |
| 129743 | 129744 | Stelechomyia perpulchra | 4.6 | | | | | GC | | bu | |
| 129229 | 129746 | Stenochironomus | 6.4 | 5 | 3.6 | | 5 | SH | GC | | |
| 129229 | 129785 | Stictochironomus | 6.7 | 9 | 4 | | | OM | GC | bu | |
| 129785 | 129790 | Stictochironomus devinctus | | | | | | OM | | | |
| 129229 | 129820 | Tribelos | 6.6 | 5 | | | 5 | GC | | | |
| 129820 | 206656 | Tribelos atrum | | | | | | GC | | | |
| 129820 | 129823 | Tribelos fuscicorne | | | 5.1 | | | GC | | bu | |
| 129820 | 129827 | Tribelos jucundus | | | 5.6 | | | GC | | | |
| 129229 | 129837 | Xenochironomus | | | | | | PR | | | |
| 129837 | 129838 | Xenochironomus xenolabis | 7 | 0 | | | | PR | | | |
| 129229 | 129842 | Xestochironomus | | | | | | OM | | | |
| 129842 | 129844 | Xestochironomus subletti | | | | | | OM | | | |
| 129872 | 130040 | Zavreliella | | | | | | | | bu | |
| 130040 | 189328 | Zavreliella marmorata | | | | | | | | | |
| 129850 | 129851 | Pseudochironomus | 4.2 | 5 | 4.7 | 5 | | GC | | | |
| 129228 | 129872 | Tanytarsini | | | | 6 | | FC | | | |
| 129872 | 129873 | Cladotanytarsus | 3.7 | 7 | 4.4 | 7 | 7 | GC | FC | cb | sp |
| 129872 | 129884 | Constempellina | | | | 6 | | GC | | | |
| 129872 | 129890 | Micropsectra | 1.4 | 7 | 3.5 | 7 | 7 | GC | | | |
| 129872 | 129932 | Nimbocera | | | | 6 | | FC | | sp | |
| 129932 | 206659 | Nimbocera limnetica | | | | | | FG | | | |
| 129872 | 129935 | Paratanytarsus | 7.7 | 6 | 4.2 | 6 | 6 | GC | | cn | |
| 129935 | | Paratanytarsus inopterus | | | | | 6 | GC | | | |
| 129872 | 129952 | Rheotanytarsus | 6.4 | 6 | 3.3 | 6 | 6 | FC | | | |
| 129952 | 129955 | Rheotanytarsus distinctissimus | | | | | | FC | | cb | sp |
| 129952 | 129955 | Rheotanytarsus distinctissimus | | | | | | FC | | cb | sp |
| 129952 | 129957 | Rheotanytarsus exiguus | | | | | | FC | | | |
| 129872 | 129962 | Stempellina | 2 | 2 | | 2 | | GC | | cb | cn |
| 129872 | 129969 | Stempellinella | 5.3 | 4 | 2.6 | 4 | 4 | GC | | | |
| 129872 | 129975 | Sublettea | | | | 6 | | FC | | | |
| 129975 | 129976 | Sublettea coffmani | 1.7 | | 2.2 | | | | | | |
| 129872 | 129978 | Tanytarsus | 6.7 | 6 | 3.5 | 6 | 6 | FC | GC | | |
| 129978 | 130030 | Tanytarsus glabrescens | | | | | | FG | | cb | sp |
| 129978 | 129997 | Tanytarsus guerlus | | | | | | FG | | | |
| | | Thienemanniola | | | | 6 | | GC | | | |
| 129872 | 130038 | Zavrelia | 2.7 | | | 8 | | GC | | sw | |
| 125875 | 125877 | Corethrella | | | | | | | | sw | |
| 125808 | 125930 | Culicidae | | | | 8 | | GC | | sw | |
| 126233 | 126234 | Aedes | | | | | 8 | FC | | | |
| 125955 | 125956 | Anopheles | 9.1 | | | | 6 | FC | | | |
| 126233 | 126455 | Culex | 10 | | | | 8 | FC | | | |
| 126233 | 126518 | Deinocerites | | | | | | FC | | | |
| 125931 | 125932 | Toxorhynchites | | | | | | PR | | | |
| 121226 | 121286 | Deuterophlebiidae | | | | | | SC | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/Behavior | |
|------------|--------|-----------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 121286 | 121287 | Deuterophlebia | | | | 0 | | SC | | sw | cb |
| 121287 | 121290 | Deuterophlebia nielsoni | | | | | | SC | | | |
| 125808 | 125809 | Dixidae | | | | 1 | 1 | GC | | | |
| 125809 | 125810 | Dixa | 2.8 | | | 1 | | GC | | | |
| 125809 | 125854 | Dixella | | | | | | GC | | | |
| 125809 | 125873 | Meringodixa | | | | 2 | | GC | | bu | |
| 125350 | 125351 | Psychodidae | | | | 10 | | GC | | | |
| 125391 | 125392 | Maruina | | | | 1 | | SC | | | |
| 125391 | 125514 | Pericoma | | | 5.6 | 4 | 4 | GC | | | |
| 125391 | 125468 | Psychoda | 9.9 | | 3.7 | 10 | | GC | | | |
| 125468 | 125469 | Psychoda alternata | | | | | | GC | | bu | |
| 125399 | 125400 | Telmatoscopus albipunctatus | | | | | | | | | |
| 125762 | 125763 | Ptychopteridae | | | | 7 | | GC | | | |
| 125764 | 125765 | Bittacomorpha | | | | | | | | | |
| 125785 | 125786 | Ptychoptera | | | | 7 | | GC | | | |
| 125808 | 126640 | Simuliidae | | | | 6 | | FC | | cn | |
| | 126658 | Cnephia mutata | 4 | | 5 | | | | | | |
| 126648 | 126674 | Gymnopais | | | | | | SC | | cn | |
| 126648 | 126687 | Metacnephia | | | | 6 | | FC | | | |
| | 126642 | Parasimulium | | | | | | FC | | | |
| 126648 | 126703 | Prosimulium | 2.6 | | | 3 | | FC | | | |
| 126703 | 126736 | Prosimulium mixtum | 3.3 | 3 | | | | | | | |
| 126773 | 126774 | Simulium | 4.4 | | 4.8 | 6 | 6 | FC | | | |
| 126774 | 126790 | Simulium bivittatum | | | | 6 | | FC | | | |
| 126774 | 126832 | Simulium jenningsi | | | | | 6 | FC | | | |
| 126774 | 126834 | Simulium jonesi | | | | | 6 | FC | | | |
| 126774 | 126841 | Simulium meridionale | | | | 6 | | FC | | | |
| 126774 | 126870 | Simulium rivuli | | | | | 6 | FC | | | |
| 126774 | 126873 | Simulium slossonae | | | | | | FC | | | |
| 126774 | 126883 | Simulium tuberosum | | | | | 6 | FC | | cn | |
| 126774 | 126892 | Simulium venustum | 7.4 | 5 | | | 6 | FC | | | |
| 126774 | 126903 | Simulium vittatum | 8.7 | 7 | | 6 | 6 | FC | | | |
| 126648 | 126761 | Stegopterna | | | | | | | | | |
| 126648 | 126767 | Twinnia | | | | 6 | | FC | | | |
| 125762 | 125799 | Tanyderidae | | | | | | | | | |
| | 125802 | Protanyderus | | | | 1 | | | | sp | bu |
| 125799 | 125800 | Protoplasa | | | | 5 | | GC | | | |
| 125800 | 125801 | Protoplasa fitchii | 5 | | | | | | | | |
| 125808 | 126624 | Thaumaleidae | | | | | | OM | | | |
| 126624 | 126629 | Thaumalea | | | | | | OM | | | |
| 126629 | 126631 | Thaumalea elnora | | | | | | OM | | | |
| 126629 | 126632 | Thaumalea fusca | | | | | | OM | | | |
| 118839 | 118840 | Tipulidae | | | | 3 | | SH | | bu | |
| 118841 | 118905 | Megistocera | | | | | | | | | |
| 118841 | 119008 | Prionocera | | | | 4 | | SH | | cn | |
| 118841 | 119037 | Tipula | 7.7 | 4 | 7.2 | 4 | 4 | SH | | | |
| 119037 | 119041 | Tipula abdominalis | | | 4 | | | | | | |
| 119037 | | Tipula ormosia | | | | 4 | | OM | | | |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|------------------------|---------------------------|--------------------|--------------|----------------|---------------------|--------------------------|-----------|-----------------|-----------|
| | | | Southeast (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| 119655 | 119656 | Antocha | 4.6 | 3 | 2.2 | 3 | | GC | | | |
| 119656 | 119660 | Antocha monticola | | | | 3 | | GC | | | |
| | 120488 | Cryptolabis | | | | | | SH | GC | bu | |
| 121026 | 121027 | Dicranota | 0 | 3 | | 3 | | PR | | | |
| 120030 | 120076 | Elephantomyia | | | | | | SH | | sp | bu |
| 120397 | 120503 | Erioptera | | | | 3 | | GC | | | |
| 120397 | 120640 | Gonomyia | | | | | | GC | | bu | sp |
| 119655 | 119690 | Helius | | | | | 4 | GC | | bu | sp |
| 120397 | 120732 | Hesperoconopa | | | | 1 | | GC | | bu | |
| 120030 | 120094 | Hexatoma | 4.7 | 2 | 2.3 | 2 | 2 | PR | | bu | sp |
| | 120095 | Eriocera | | | | | | PR | | bu | sp |
| 120030 | 120164 | Limnophila | | | | 4 | | PR | | bu | |
| 119655 | 119704 | Limonia | 10 | 6 | | 6 | | SH | | bu | |
| | 119706 | Geranomyia | | | | | 3 | SH | | | |
| 120397 | 120758 | Molophilus | | | | 4 | | SH | | bu | |
| 120397 | 120830 | Ormosia | 6.5 | | | 3 | | GC | | bu | |
| 121026 | 121118 | Pedicia | | | | 6 | | PR | | bu | |
| 120030 | 120335 | Pilaria | | | | 7 | 7 | PR | | | |
| 120030 | 120365 | Pseudolimnophila | 7.3 | 2 | | | 2 | PR | | | |
| 120397 | 120968 | Rhabdomastix | | | | 8 | | PR | | sp | bu |
| 120968 | 120977 | Rhabdomastix fascigera | | | | 3 | | GC | | bu | |
| 120968 | 120995 | Rhabdomastix setigera | | | | 3 | | GC | | bu | |
| 120030 | 120387 | Ulomorpha | | | | | | | | | |
| 118831 | 130052 | Brachycera | | | | | | | | | |
| 130928 | 130929 | Atherix | | | | 2 | 2 | PR | | | |
| 130929 | 130930 | Atherix lantha | 2.1 | 2 | 3.1 | | | PR | | | |
| 130929 | 130932 | Atherix variegata | | | | 2 | | PR | | | |
| 130741 | 130914 | Pelecorhynchidae | | | | 3 | | PR | | | |
| 130914 | 130915 | Glutops | | | | 3 | | PR | | | |
| 131750 | 136824 | Dolichopodidae | 9.7 | 4 | | 4 | | PR | | | |
| 137952 | 137953 | Dolichopus | | | | | | | | cn | |
| 131750 | 135830 | Empididae | 8.1 | 6 | 3.5 | 6 | | PR | | sp | bu |
| 136304 | 136305 | Chelifera | | | | 6 | | GC | | | |
| 135844 | 135849 | Clinocera | | | | 6 | | PR | | | |
| 136304 | 136327 | Hemerodromia | | | | 6 | 6 | PR | | | |
| 136361 | 136377 | Oreogeton | | | | 5 | | PA | | | |
| 135844 | 135881 | Oreothalia | | | | 6 | | PR | | | |
| 135930 | 136123 | Rhamphomyia | | | | 6 | | PR | | sp | bu |
| 135844 | 135920 | Wiedemannia | | | | 6 | | PR | | | |
| 130130 | 130150 | Stratiomyidae | | | | 8 | | GC | | | |
| 130155 | 130160 | Allognosta | | | | 7 | | GC | | | |
| 130408 | 130409 | Caloparyphus | | | | 7 | | GC | | sp | |
| 130408 | 130436 | Euparyphus | | | | | | GC | | | |
| 130685 | 130694 | Nemotelus | | | | | | | | sp | bu |
| 130483 | 130573 | Odontomyia | | | | | 7 | GC | | | |
| 130408 | 130461 | Oxycera | | | | | | | | sp | bu |
| 130483 | 130627 | Stratiomys | | | | | | FG | | | |
| 130741 | 130934 | Tabanidae | | | | 8 | | PR | | sp | bu |

| Parent TSN | TSN | Scientific Name | Regional Tolerance Values | | | | | Functional Feeding Group | | Habit/ Behavior | |
|------------|--------|-----------------|---------------------------|--------------------------|-----------------|-------------------|------------------------|--------------------------|-----------|-----------------|-----------|
| | | | South east (NC) | Upper Midwest (WI) | Midwest (OH) | Northwest (ID) | Mid-Atlantic (MACS) | primary | secondary | primary | secondary |
| | | | | | | | | | | | |
| 131061 | 131078 | Chrysops | 7.3 | 6 | 4.6 | | 7 | GC | PR | | |
| 131061 | 131062 | Silvius | | | | | | PR | | | |
| 131318 | 131527 | Tabanus | 9.7 | 5 | | 5 | 5 | PR | | | |
| 131750 | 148316 | Canaceidae | | | | | | SC | | bu | |
| 131750 | 146893 | Ephydriidae | | | | 6 | | GC | | | |
| 131750 | 150025 | Muscidae | | | | 6 | | PR | | | |
| 150729 | 150730 | Limnophora | 7 | | | | | PR | | | |
| 138933 | 139013 | Dohnniphora | | | | | | | | | |
| 131750 | 144653 | Sciomyzidae | | | | 6 | | PR | | bu | |
| 144770 | 144898 | Sepedon | | | | | | PR | | | |
| 131750 | 139621 | Syrphidae | | | | 10 | | GC | | | |
| 141029 | 141049 | Chrysogaster | | | | | | | | | |
| | 140904 | Eristalis | 10 | | 0 | | | GC | | bu | |