

APPENDIX E. Stress Rankings and Problems Affecting GCN Species

Terrestrial Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV	
1	Invertebrate- Gastropod	IMGAS53110	Anguispira alabama (Alabama Tigersnail)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High				Yes		6.5
1	Invertebrate- Gastropod	IMGAS53110	Anguispira alabama (Alabama Tigersnail)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes		3
1	Invertebrate- Gastropod	IMGAS53110	Anguispira alabama (Alabama Tigersnail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Gastropod	IMGAS53020	Anguispira cumberlandiana (Cumberland Tigersnail)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High				Yes		6.5
1	Invertebrate- Gastropod	IMGAS53020	Anguispira cumberlandiana (Cumberland Tigersnail)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes		3
1	Invertebrate- Gastropod	IMGAS53020	Anguispira cumberlandiana (Cumberland Tigersnail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Gastropod	IMGAS53020	Anguispira cumberlandiana (Cumberland Tigersnail)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes		4.75
1	Invertebrate- Gastropod	IMGAS53060	Anguispira knoxensis (Rustic Tigersnail or Black Range Disc)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High				Yes		6.5
1	Invertebrate- Gastropod	IMGAS53060	Anguispira knoxensis (Rustic Tigersnail or Black Range Disc)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High				Yes		14.25
1	Invertebrate- Gastropod	IMGAS53060	Anguispira knoxensis (Rustic Tigersnail or Black Range Disc)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Gastropod	IMGAS53060	Anguispira knoxensis (Rustic Tigersnail or Black Range Disc)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High				Yes		14.25
1	Invertebrate- Gastropod	IMGAS53070	Anguispira kochi (Banded Tigershell)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes					6.5
1	Invertebrate- Gastropod	IMGAS53070	Anguispira kochi (Banded Tigershell)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes					6
1	Invertebrate- Gastropod	IMGAS53070	Anguispira kochi (Banded Tigershell)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes					6
1	Invertebrate- Gastropod	IMGAS96020	Daedalochila auriformis (Rockpile Liptooth)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes			6.5
1	Invertebrate- Gastropod	IMGAS96020	Daedalochila auriformis (Rockpile Liptooth)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High			Yes			4
1	Invertebrate- Gastropod	IMGAS96020	Daedalochila auriformis (Rockpile Liptooth)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Gastropod	IMGAS96020	Daedalochila auriformis (Rockpile Liptooth)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes		4.75
1	Invertebrate- Gastropod	IMGAS54010	Discus bryanti (Sawtooth Disc)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High					Yes	3.25
1	Invertebrate- Gastropod	IMGAS54010	Discus bryanti (Sawtooth Disc)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes	6
1	Invertebrate- Gastropod	IMGAS54010	Discus bryanti (Sawtooth Disc)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes	Yes	4.75
1	Invertebrate- Gastropod	IMGAS54040	Discus clappi (Channelled Disc)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes			6.5
1	Invertebrate- Gastropod	IMGAS54040	Discus clappi (Channelled Disc)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Gastropod	IMGASSWG03	Euchemotrema fraternum montanum (a pillsnail)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High					Yes	3.25
1	Invertebrate- Gastropod	IMGASSWG03	Euchemotrema fraternum montanum (a pillsnail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes	6
1	Invertebrate- Gastropod	IMGASSWG03	Euchemotrema fraternum montanum (a pillsnail)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Low					Yes	2.75
1	Invertebrate- Gastropod	IMGASSWG03	Euchemotrema fraternum montanum (a pillsnail)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes		4.75
1	Invertebrate- Gastropod	IMGAS94040	Fumonelix archeri (Ocoee Covert)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Gastropod	IMGAS94040	Fumonelix archeri (Ocoee Covert)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Low					Yes	2.75
1	Invertebrate- Gastropod	IMGAS94070	Fumonelix christyi (Glossy Covert)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Gastropod	IMGAS94070	Fumonelix christyi (Glossy Covert)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Medium					Yes	3
1	Invertebrate- Gastropod	IMGAS95170	Fumonelix jonesiana (Big-tooth Covert (= Newfound Gap Helix))	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25
1	Invertebrate- Gastropod	IMGAS95170	Fumonelix jonesiana (Big-tooth Covert (= Newfound Gap Helix))	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Gastropod	IMGAS95170	Fumonelix jonesiana (Big-tooth Covert (= Newfound Gap Helix))	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Low					Yes	2.75
1	Invertebrate- Gastropod	IMGAS95240	Fumonelix orestes (Engraved Covert)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25
1	Invertebrate- Gastropod	IMGAS95240	Fumonelix orestes (Engraved Covert)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Gastropod	IMGAS95240	Fumonelix orestes (Engraved Covert)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Low					Yes	2.75
1	Invertebrate- Gastropod	IMGAS95360	Fumonelix wetherbyi (Clifty Covert)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes			3
1	Invertebrate- Gastropod	IMGAS95360	Fumonelix wetherbyi (Clifty Covert)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Gastropod	IMGAS95360	Fumonelix wetherbyi (Clifty Covert)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High			Yes			4
1	Invertebrate- Gastropod	IMGAS95370	Fumonelix wheatleyi (Cinnamon Covert)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25
1	Invertebrate- Gastropod	IMGAS95370	Fumonelix wheatleyi (Cinnamon Covert)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Gastropod	IMGAS95370	Fumonelix wheatleyi (Cinnamon Covert)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Low					Yes	2.75
1	Invertebrate- Gastropod	IMGAS95371	Fumonelix wheatleyi clingmanicus (Clingman Covert)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25
1	Invertebrate- Gastropod	IMGAS95371	Fumonelix wheatleyi clingmanicus (Clingman Covert)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High					Yes	3
1	Invertebrate- Gastropod	IMGAS95371	Fumonelix wheatleyi clingmanicus (Clingman Covert)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Low					Yes	2.75
1	Invertebrate- Gastropod	IMGAS73070	Glyphyalinia junaluskana (Dark Glyph)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Gastropod	IMGAS73070	Glyphyalinia junaluskana (Dark Glyph)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Low					Yes	2.75
1	Invertebrate- Gastropod	IMGAS73110	Glyphyalinia ocoae (Blue-gray Glyph)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Gastropod	IMGAS73110	Glyphyalinia ocoae (Blue-gray Glyph)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Medium					Yes	3
1	Invertebrate- Gastropod	IMGAS73130	Glyphyalinia pentadelphia (Pink Glyph)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High				Yes		3.25
1	Invertebrate- Gastropod	IMGAS73130	Glyphyalinia pentadelphia (Pink Glyph)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes	6
1	Invertebrate- Gastropod	IMGAS73130	Glyphyalinia pentadelphia (Pink Glyph)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	High	Current	Low	Medium					Yes	3
1	Invertebrate- Gastropod	IMGAS73130	Glyphyalinia pentadelphia (Pink Glyph)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes		4.75
1	Invertebrate- Gastropod	IMGAS73180	Glyphyalinia rimula (Tongued Glyph)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes	Yes		6.5
1	Invertebrate- Gastropod	IMGAS73180	Glyphyalinia rimula (Tongued Glyph)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes		6
1	Invertebrate- Gastropod	IMGAS73180	Glyphyalinia rimula (Tongued Glyph)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Low	High				Yes		3.5
1	Invertebrate- Gastropod	IMGAS73180	Glyphyalinia rimula (Tongued Glyph)	Oil or Natural Gas Drilling	Alt Phys Hab Struc	0- 25%	High	Current	Low	High				Yes		3.25
1	Invertebrate- Gastropod	IMGAS73180	Glyphyalinia rimula (Tongued Glyph)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes		4.75
1	Invertebrate- Gastropod	IMGAS73230	Glyphyalinia vanattai (Honey Glyph)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Gastropod	IMGAS36080	Haplotrema kendeighi (Blue-footed Lancetooth)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25
1	Invertebrate- Gastropod	IMGAS36080	Haplotrema kendeighi (Blue-footed Lancetooth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values						Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV	SBR	
1	Invertebrate- Gastropod	IMGAS36080	Haplotrema kendeighi (Blue-footed Lanceetooth)	Invasive Exotic Species	Alt Bio ComplInt	0- 25%	High	Current	Low	Low					Yes	2.75	
1	Invertebrate- Gastropod	IMGAS50210	Helicodiscus aldrichianus (Burrowing Coil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGAS50050	Helicodiscus enneodon (Bluff Coil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High				Yes		6.5	
1	Invertebrate- Gastropod	IMGAS50050	Helicodiscus enneodon (Bluff Coil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGAS50050	Helicodiscus enneodon (Bluff Coil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes		4.75	
1	Invertebrate- Gastropod	IMGAS50060	Helicodiscus fimbriatus (Fringed Coil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Gastropod	IMGAS50060	Helicodiscus fimbriatus (Fringed Coil)	Invasive Exotic Species	Alt Bio ComplInt	0- 25%	High	Current	Low	Low					Yes	2.75	
1	Invertebrate- Gastropod	IMGAS50080	Helicodiscus hexodon (Toothy Coil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes			6.5	
1	Invertebrate- Gastropod	IMGAS50080	Helicodiscus hexodon (Toothy Coil)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes			3	
1	Invertebrate- Gastropod	IMGAS50080	Helicodiscus hexodon (Toothy Coil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGAS50080	Helicodiscus hexodon (Toothy Coil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
1	Invertebrate- Gastropod	IMGAS95110	Inflectarius downieanus (Dwarf Globelet)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes			3	
1	Invertebrate- Gastropod	IMGAS95110	Inflectarius downieanus (Dwarf Globelet)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		Yes	6	
1	Invertebrate- Gastropod	IMGAS95110	Inflectarius downieanus (Dwarf Globelet)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High			Yes			3.25	
1	Invertebrate- Gastropod	IMGAS95140	Inflectarius ferrissi (Smokey Mountain Covert)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High				Yes		4.25	
1	Invertebrate- Gastropod	IMGAS95140	Inflectarius ferrissi (Smokey Mountain Covert)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High					Yes	3	
1	Invertebrate- Gastropod	IMGAS95140	Inflectarius ferrissi (Smokey Mountain Covert)	Invasive Exotic Species	Alt Bio ComplInt	0- 25%	High	Current	Low	Low					Yes	2.75	
1	Invertebrate- Gastropod	IMGAS95180	Inflectarius kalmianus (Brown Globelet)	Agricultural Conversion	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes			6.5	
1	Invertebrate- Gastropod	IMGAS95180	Inflectarius kalmianus (Brown Globelet)	Commercial/Industrial Development	Alt Phys Env Reg	0- 25%	V.High	Current	None	V.High		Yes				4.75	
1	Invertebrate- Gastropod	IMGAS95180	Inflectarius kalmianus (Brown Globelet)	Forest Type Conversion	Alt Phys Env Reg	0- 25%	High	Current	Medium	High		Yes	Yes			3	
1	Invertebrate- Gastropod	IMGAS95180	Inflectarius kalmianus (Brown Globelet)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes			6	
1	Invertebrate- Gastropod	IMGAS95180	Inflectarius kalmianus (Brown Globelet)	Primary Residential Development	Alt Phys Env Reg	0- 25%	V.High	Current	None	V.High		Yes	Yes			4.75	
1	Invertebrate- Gastropod	IMGAS95330	Inflectarius smithi (Alabama Shagreen)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes			3	
1	Invertebrate- Gastropod	IMGAS95330	Inflectarius smithi (Alabama Shagreen)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGAS95340	Inflectarius subpalliatius (Velvet Covert)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Gastropod	IMGASQ0030	Megapallifera wetherbyi (Blotchy Mantleslug)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes			6.5	
1	Invertebrate- Gastropod	IMGASQ0030	Megapallifera wetherbyi (Blotchy Mantleslug)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes			3	
1	Invertebrate- Gastropod	IMGASQ0030	Megapallifera wetherbyi (Blotchy Mantleslug)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGASQ0030	Megapallifera wetherbyi (Blotchy Mantleslug)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
1	Invertebrate- Gastropod	IMGAS95390	Mesodon altivagus (Wandering Globe)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25	
1	Invertebrate- Gastropod	IMGAS95390	Mesodon altivagus (Wandering Globe)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes			3	
1	Invertebrate- Gastropod	IMGAS95390	Mesodon altivagus (Wandering Globe)	Invasive Exotic Species	Alt Bio ComplInt	0- 25%	High	Current	Low	Low				Yes		2.75	
1	Invertebrate- Gastropod	IMGAS95010	Mesodon andrewsae (Balsam Globe)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25	
1	Invertebrate- Gastropod	IMGAS95010	Mesodon andrewsae (Balsam Globe)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Gastropod	IMGAS95010	Mesodon andrewsae (Balsam Globe)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes		4.75	
1	Invertebrate- Gastropod	IMGAS95300	Mesodon sanus (Squat Globelet)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High			Yes			3.25	
1	Invertebrate- Gastropod	IMGAS95300	Mesodon sanus (Squat Globelet)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes			3	
1	Invertebrate- Gastropod	IMGAS95300	Mesodon sanus (Squat Globelet)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGAS75010	Mesomphix andrewsae (Mountain Button)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High				Yes		4.25	
1	Invertebrate- Gastropod	IMGAS75010	Mesomphix andrewsae (Mountain Button)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High					Yes	3	
1	Invertebrate- Gastropod	IMGAS75010	Mesomphix andrewsae (Mountain Button)	Invasive Exotic Species	Alt Bio ComplInt	0- 25%	High	Current	Low	Low				Yes		2.75	
1	Invertebrate- Gastropod	IMGAS75130	Mesomphix rugeli (Wrinkled Button)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High				Yes		4.25	
1	Invertebrate- Gastropod	IMGAS75130	Mesomphix rugeli (Wrinkled Button)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High			Yes			3.25	
1	Invertebrate- Gastropod	IMGAS75130	Mesomphix rugeli (Wrinkled Button)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
1	Invertebrate- Gastropod	IMGAS75130	Mesomphix rugeli (Wrinkled Button)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes		6	
1	Invertebrate- Gastropod	IMGAS75130	Mesomphix rugeli (Wrinkled Button)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
1	Invertebrate- Gastropod	IMGAS75140	Mesomphix subplanus (Flat Button)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25	
1	Invertebrate- Gastropod	IMGAS75140	Mesomphix subplanus (Flat Button)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Gastropod	IMGAS75140	Mesomphix subplanus (Flat Button)	Invasive Exotic Species	Alt Bio ComplInt	0- 25%	High	Current	Low	Low				Yes		2.75	
1	Invertebrate- Gastropod	IMGAS78010	Paravitrea alethia (Goddess Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes			6.5	
1	Invertebrate- Gastropod	IMGAS78010	Paravitrea alethia (Goddess Supercoil)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
1	Invertebrate- Gastropod	IMGAS78010	Paravitrea alethia (Goddess Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGAS78010	Paravitrea alethia (Goddess Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
1	Invertebrate- Gastropod	IMGAS78030	Paravitrea andrewsae (High Mountain Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Gastropod	IMGAS78050	Paravitrea bellona (Club Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGAS78050	Paravitrea bellona (Club Supercoil)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High			Yes			4	
1	Invertebrate- Gastropod	IMGAS78050	Paravitrea bellona (Club Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
1	Invertebrate- Gastropod	IMGAS78070	Paravitrea blarina (Shrew Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes	Yes		6.5	
1	Invertebrate- Gastropod	IMGAS78070	Paravitrea blarina (Shrew Supercoil)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
1	Invertebrate- Gastropod	IMGAS78070	Paravitrea blarina (Shrew Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes		6	
1	Invertebrate- Gastropod	IMGAS78070	Paravitrea blarina (Shrew Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes	Yes		4.75	
1	Invertebrate- Gastropod	IMGAS78080	Paravitrea calcicola (Pearl Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes			6.5	

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score	
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV		SBR
1	Invertebrate- Gastropod	IMGAS78080	Paravitrea calcicola (Pearl Supercoil)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS78080	Paravitrea calcicola (Pearl Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
1	Invertebrate- Gastropod	IMGAS78080	Paravitrea calcicola (Pearl Supercoil)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High				Yes			4
1	Invertebrate- Gastropod	IMGAS78080	Paravitrea calcicola (Pearl Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes			4.75
1	Invertebrate- Gastropod	IMGAS78110	Paravitrea clappi (Mirey Ridge Supercoil)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High						Yes	4.25
1	Invertebrate- Gastropod	IMGAS78110	Paravitrea clappi (Mirey Ridge Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS78110	Paravitrea clappi (Mirey Ridge Supercoil)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS78170	Paravitrea lamellidens (Cherokee Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS78170	Paravitrea lamellidens (Lamellate Supercoil)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS78180	Paravitrea lapilla (Gem Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes					6.5
1	Invertebrate- Gastropod	IMGAS78180	Paravitrea lapilla (Gem Supercoil)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High		Yes					4.75
1	Invertebrate- Gastropod	IMGAS78180	Paravitrea lapilla (Gem Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes					6
1	Invertebrate- Gastropod	IMGAS78180	Paravitrea lapilla (Gem Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High		Yes					4.75
1	Invertebrate- Gastropod	IMGAS78190	Paravitrea metallacta (Caney Fork Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes				6.5
1	Invertebrate- Gastropod	IMGAS78190	Paravitrea metallacta (Caney Fork Supercoil)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS78190	Paravitrea metallacta (Caney Fork Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes				6
1	Invertebrate- Gastropod	IMGAS78190	Paravitrea metallacta (Caney Fork Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High		Yes	Yes				4.75
1	Invertebrate- Gastropod	IMGAS78220	Paravitrea petrophila (Cherokee Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes	Yes			6.5
1	Invertebrate- Gastropod	IMGAS78220	Paravitrea petrophila (Cherokee Supercoil)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes				3
1	Invertebrate- Gastropod	IMGAS78220	Paravitrea petrophila (Cherokee Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes	Yes		6
1	Invertebrate- Gastropod	IMGAS78220	Paravitrea petrophila (Cherokee Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes	Yes		4.75
1	Invertebrate- Gastropod	IMGAS78390	Paravitrea placentula (Glossy Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High				Yes			3.25
1	Invertebrate- Gastropod	IMGAS78390	Paravitrea placentula (Glossy Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes		6
1	Invertebrate- Gastropod	IMGAS78390	Paravitrea placentula (Glossy Supercoil)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS78390	Paravitrea placentula (Glossy Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High					Yes		4.75
1	Invertebrate- Gastropod	IMGAS78250	Paravitrea reesei (Round Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS78250	Paravitrea reesei (Round Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High					Yes		4.75
1	Invertebrate- Gastropod	IMGAS78300	Paravitrea subtilis (Slender Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High		Yes					3.25
1	Invertebrate- Gastropod	IMGAS78300	Paravitrea subtilis (Slender Supercoil)	Forest Type Conversion	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes				6
1	Invertebrate- Gastropod	IMGAS78300	Paravitrea subtilis (Slender Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes				6
1	Invertebrate- Gastropod	IMGAS78300	Paravitrea subtilis (Slender Supercoil)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Low	High			Yes	Yes			3.5
1	Invertebrate- Gastropod	IMGAS78300	Paravitrea subtilis (Slender Supercoil)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High		Yes	Yes				4.75
1	Invertebrate- Gastropod	IMGAS78310	Paravitrea tantilla (Teasing Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes	Yes			6.5
1	Invertebrate- Gastropod	IMGAS78310	Paravitrea tantilla (Teasing Supercoil)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS78310	Paravitrea tantilla (Teasing Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes		6
1	Invertebrate- Gastropod	IMGAS78310	Paravitrea tantilla (Teasing Supercoil)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Low	High			Yes	Yes			3.5
1	Invertebrate- Gastropod	IMGAS78310	Paravitrea tantilla (Teasing Supercoil)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High			Yes	Yes			9.5
1	Invertebrate- Gastropod	IMGAS78320	Paravitrea ternaria (Sculpted Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS78350	Paravitrea tridens (White-foot Supercoil)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High				Yes			3.25
1	Invertebrate- Gastropod	IMGAS78350	Paravitrea tridens (White-foot Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes		6
1	Invertebrate- Gastropod	IMGAS78350	Paravitrea tridens (White-foot Supercoil)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High				Yes			9.5
1	Invertebrate- Gastropod	IMGAS78360	Paravitrea umbilicaris (Open Supercoil)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS78360	Paravitrea umbilicaris (Open Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes		6
1	Invertebrate- Gastropod	IMGAS78360	Paravitrea umbilicaris (Open Supercoil)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High			Yes				4
1	Invertebrate- Gastropod	IMGAS78360	Paravitrea umbilicaris (Open Supercoil)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low					Yes		2.75
1	Invertebrate- Gastropod	IMGAS78370	Paravitrea variabilis (Variable Supercoil)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS78370	Paravitrea variabilis (Variable Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
1	Invertebrate- Gastropod	IMGAS78370	Paravitrea variabilis (Variable Supercoil)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High			Yes				4
1	Invertebrate- Gastropod	IMGAS78380	Paravitrea variidens (Roan Supercoil)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes		6
1	Invertebrate- Gastropod	IMGAS95080	Patera clarki (Dwarf Proud Globe)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes		6
1	Invertebrate- Gastropod	IMGAS95080	Patera clarki (Dwarf Proud Globe)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low					Yes		2.75
1	Invertebrate- Gastropod	IMGAS64060	Phiomycus sellatus (Alabama Mantleslug)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS64060	Phiomycus sellatus (Alabama Mantleslug)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
1	Invertebrate- Gastropod	IMGAS64040	Phiomycus virginicus (Virginia Mantleslug)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High					Yes		6.5
1	Invertebrate- Gastropod	IMGAS64040	Phiomycus virginicus (Virginia Mantleslug)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
1	Invertebrate- Gastropod	IMGAS64040	Phiomycus virginicus (Virginia Mantleslug)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes			4.75
1	Invertebrate- Gastropod	IMGAS79010	Pilsbryna aurea (Ornate Bud)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS79020	Pilsbryna castanea (Prominent Bud)	Forest Type Conversion	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High				Yes			6
1	Invertebrate- Gastropod	IMGAS79020	Pilsbryna castanea (Prominent Bud)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
1	Invertebrate- Gastropod	IMGAS79020	Pilsbryna castanea (Prominent Bud)	Incompatible Mining Practices	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High				Yes			8
1	Invertebrate- Gastropod	IMGAS98020	Stenotrema altispira (Highland Slitmouth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes		6
1	Invertebrate- Gastropod	IMGAS98010	Stenotrema angellum (Kentucky Slitmouth)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes				6.5

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score	
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV		SBR
1	Invertebrate- Gastropod	IMGAS98010	Stenotrema angellum (Kentucky Siltmouth)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High							4.75
1	Invertebrate- Gastropod	IMGAS98010	Stenotrema angellum (Kentucky Siltmouth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes			6
1	Invertebrate- Gastropod	IMGAS98010	Stenotrema angellum (Kentucky Siltmouth)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Low	High				Yes			3.5
1	Invertebrate- Gastropod	IMGAS98010	Stenotrema angellum (Kentucky Siltmouth)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes	Yes			4.75
1	Invertebrate- Gastropod	IMGAS98070	Stenotrema calvescens (Chattanooga Siltmouth)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High				Yes	Yes		6.5
1	Invertebrate- Gastropod	IMGAS98070	Stenotrema calvescens (Chattanooga Siltmouth)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High				Yes	Yes		9.5
1	Invertebrate- Gastropod	IMGAS98070	Stenotrema calvescens (Chattanooga Siltmouth)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High				Yes	Yes		6
1	Invertebrate- Gastropod	IMGAS98070	Stenotrema calvescens (Chattanooga Siltmouth)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High				Yes	Yes		9.5
1	Invertebrate- Gastropod	IMGAS98080	Stenotrema cohuttense (Cohutta Siltmouth)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High						Yes	3
1	Invertebrate- Gastropod	IMGAS98080	Stenotrema cohuttense (Cohutta Siltmouth)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS98100	Stenotrema depilatum (Great Smoky Siltmouth)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High						Yes	4.25
1	Invertebrate- Gastropod	IMGAS98100	Stenotrema depilatum (Great Smoky Siltmouth)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High						Yes	3
1	Invertebrate- Gastropod	IMGAS98100	Stenotrema depilatum (Great Smoky Siltmouth)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS98110	Stenotrema edgarianum (Sequatchie Siltmouth)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS98110	Stenotrema edgarianum (Sequatchie Siltmouth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
1	Invertebrate- Gastropod	IMGAS98110	Stenotrema edgarianum (Sequatchie Siltmouth)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High				Yes			4
1	Invertebrate- Gastropod	IMGAS98130	Stenotrema exodon (Alabama Siltmouth)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS98130	Stenotrema exodon (Alabama Siltmouth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
1	Invertebrate- Gastropod	IMGAS98130	Stenotrema exodon (Alabama Siltmouth)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High				Yes			4
1	Invertebrate- Gastropod	IMGAS98170	Stenotrema magnafumosum (Appalachian Siltmouth)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS98170	Stenotrema magnafumosum (Appalachian Siltmouth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS98200	Stenotrema pilula (Pygmy Siltmouth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS98200	Stenotrema pilula (Pygmy Siltmouth)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS98200	Stenotrema pilula (Pygmy Siltmouth)	Secondary Home/Resort Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High						Yes	4.75
1	Invertebrate- Gastropod	IMGAS98250	Stenotrema waldense (Doaks Creek Siltmouth)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High					Yes		3.25
1	Invertebrate- Gastropod	IMGAS98250	Stenotrema waldense (Doaks Creek Siltmouth)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High					Yes		3
1	Invertebrate- Gastropod	IMGAS98250	Stenotrema waldense (Doaks Creek Siltmouth)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High					Yes		4.75
1	Invertebrate- Gastropod	IMGAS81010	Striatura exigua (Ribbed Striate)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS81010	Striatura exigua (Ribbed Striate)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS68260	Succinea greenii (Dryland Ambersnail)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High						Yes	3.25
1	Invertebrate- Gastropod	IMGAS68260	Succinea greenii (Dryland Ambersnail)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes				3
1	Invertebrate- Gastropod	IMGAS68260	Succinea greenii (Dryland Ambersnail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes				3
1	Invertebrate- Gastropod	IMGASA2060	Triodopsis anteridon (Carter Three-tooth or Buttress Three-tooth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGASA1070	Triodopsis claibornensis (Claiborne Three-tooth)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High					Yes		6.5
1	Invertebrate- Gastropod	IMGASA1070	Triodopsis claibornensis (Claiborne Three-tooth)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes		6
1	Invertebrate- Gastropod	IMGASA1070	Triodopsis claibornensis (Claiborne Three-tooth)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High					Yes		3
1	Invertebrate- Gastropod	IMGASA1070	Triodopsis claibornensis (Claiborne Three-tooth)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High					Yes		4.75
1	Invertebrate- Gastropod	IMGAS82050	Ventridens coelaxis (Bidentate Dome)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High					Yes		3.25
1	Invertebrate- Gastropod	IMGAS82050	Ventridens coelaxis (Bidentate Dome)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes		6
1	Invertebrate- Gastropod	IMGAS82050	Ventridens coelaxis (Bidentate Dome)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High					Yes		9.5
1	Invertebrate- Gastropod	IMGAS82070	Ventridens decussatus (Crossed Dome)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes		6
1	Invertebrate- Gastropod	IMGAS82070	Ventridens decussatus (Crossed Dome)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS82070	Ventridens decussatus (Crossed Dome)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High					Yes		4.75
1	Invertebrate- Gastropod	IMGAS82090	Ventridens eutropis (Carinate Dome)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High			Yes				3.25
1	Invertebrate- Gastropod	IMGAS82090	Ventridens eutropis (Carinate Dome)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes			6
1	Invertebrate- Gastropod	IMGAS82090	Ventridens eutropis (Carinate Dome)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes	Yes		4.75
1	Invertebrate- Gastropod	IMGAS82120	Ventridens lasmodon (Hollow Dome)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High					Yes		3.25
1	Invertebrate- Gastropod	IMGAS82120	Ventridens lasmodon (Hollow Dome)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3
1	Invertebrate- Gastropod	IMGAS82120	Ventridens lasmodon (Hollow Dome)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	Medium	Current	Medium	High				Yes	Yes	Yes	5.5
1	Invertebrate- Gastropod	IMGAS82120	Ventridens lasmodon (Hollow Dome)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High				Yes			4
1	Invertebrate- Gastropod	IMGAS82120	Ventridens lasmodon (Hollow Dome)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High					Yes	Yes	9.5
1	Invertebrate- Gastropod	IMGAS82160	Ventridens percallosus (Tennessee Dome)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes		Yes		6.5
1	Invertebrate- Gastropod	IMGAS82160	Ventridens percallosus (Tennessee Dome)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		Yes		6
1	Invertebrate- Gastropod	IMGAS82160	Ventridens percallosus (Tennessee Dome)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High					Yes	Yes	9.5
1	Invertebrate- Gastropod	IMGAS20100	Vertigo clappi (Cupped Vertigo)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High				Yes	Yes		6.5
1	Invertebrate- Gastropod	IMGAS20100	Vertigo clappi (Cupped Vertigo)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		Yes		6
1	Invertebrate- Gastropod	IMGAS20100	Vertigo clappi (Cupped Vertigo)	Invasive Exotic Species	Alt Bio Complnt	0- 25%	High	Current	Low	Low						Yes	2.75
1	Invertebrate- Gastropod	IMGAS20100	Vertigo clappi (Cupped Vertigo)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High				Yes	Yes		4.75
1	Invertebrate- Gastropod	IMGAS20270	Vertigo parvula (Smallmouth Vertigo)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Invertebrate- Gastropod	IMGAS20360	Vertigo teskeyae (Swamp Vertigo)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High				Yes			6.5
1	Invertebrate- Gastropod	IMGAS20360	Vertigo teskeyae (Swamp Vertigo)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High				Yes			7
1	Invertebrate- Gastropod	IMGAS20360	Vertigo teskeyae (Swamp Vertigo)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High			Yes				6

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values						Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV	SBR	
1	Invertebrate- Gastropod	IMGAS20360	Vertigo teskeyae (Swamp Vertigo)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High							6
1	Invertebrate- Gastropod	IMGAS20360	Vertigo teskeyae (Swamp Vertigo)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes				4.75
1	Invertebrate- Gastropod	IMGASA1250	Webbhelix multilineata (Striped Whitelip)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes						6.5
1	Invertebrate- Gastropod	IMGASA1250	Webbhelix multilineata (Striped Whitelip)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High	Yes						7
1	Invertebrate- Gastropod	IMGASA1250	Webbhelix multilineata (Striped Whitelip)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes						6
1	Invertebrate- Gastropod	IMGASA1250	Webbhelix multilineata (Striped Whitelip)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes						6
1	Invertebrate- Gastropod	IMGASA1250	Webbhelix multilineata (Striped Whitelip)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes						4.75
1	Invertebrate- Gastropod	IMGASA1280	Xolotrema obstrictum (Sharp Wedge)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	V.High			Yes	Yes			7.5
1	Invertebrate- Gastropod	IMGASA1280	Xolotrema obstrictum (Sharp Wedge)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes	Yes			3
1	Invertebrate- Gastropod	IMGASA1280	Xolotrema obstrictum (Sharp Wedge)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes			6
1	Invertebrate- Gastropod	IMGASA1280	Xolotrema obstrictum (Sharp Wedge)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes	Yes			4.75
1	Invertebrate- Gastropod	IMGAS85040	Zonitoides lateumblicatus (Striate Gloss)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High					Yes		3
1	Invertebrate- Gastropod	IMGAS85040	Zonitoides lateumblicatus (Striate Gloss)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes		6
1	Vertebrate- Amphibian	AAABC01020	Acris gryllus (Southern Cricket Frog)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes	Yes					4.75
1	Vertebrate- Amphibian	AAABC01020	Acris gryllus (Southern Cricket Frog)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes					6.5
1	Vertebrate- Amphibian	AAABC01020	Acris gryllus (Southern Cricket Frog)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes					6.5
1	Vertebrate- Amphibian	AAABC01020	Acris gryllus (Southern Cricket Frog)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes					6.5
1	Vertebrate- Amphibian	AAABC01020	Acris gryllus (Southern Cricket Frog)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes					6
1	Vertebrate- Amphibian	AAABC01020	Acris gryllus (Southern Cricket Frog)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes	Yes					4.75
1	Vertebrate- Amphibian	AAAAA01170	Ambystoma barbouri (Streamside Salamander)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High			Yes				9.5
1	Vertebrate- Amphibian	AAAAA01170	Ambystoma barbouri (Streamside Salamander)	Construction of Roads/Railroads/Utilities	Alt Phys Env Reg	26- 50%	High	Current	Low	V.High			Yes	Yes	Yes		7.5
1	Vertebrate- Amphibian	AAAAA01170	Ambystoma barbouri (Streamside Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes				6
1	Vertebrate- Amphibian	AAAAA01170	Ambystoma barbouri (Streamside Salamander)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes			6
1	Vertebrate- Amphibian	AAAAA01170	Ambystoma barbouri (Streamside Salamander)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High			Yes				9.5
1	Vertebrate- Amphibian	AAAAD01010	Aneides aeneus (Green Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes	Yes		6
1	Vertebrate- Amphibian	AAAAD01010	Aneides aeneus (Green Salamander)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	None	High					Yes		4.5
1	Vertebrate- Amphibian	AAAAD03010	Desmognathus aeneus (Seepage Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Vertebrate- Amphibian	AAAAD03100	Desmognathus wrighti (Pigmy Salamander)	Acid Rain	Alt Chem Env Reg	26- 50%	High	Current	Low	High						Yes	6.5
1	Vertebrate- Amphibian	AAAAD03100	Desmognathus wrighti (Pigmy Salamander)	Acid Rain	Alt Phys Hab Struc	26- 50%	V.High	Current	None	High						Yes	8.5
1	Vertebrate- Amphibian	AAAAD03100	Desmognathus wrighti (Pigmy Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Vertebrate- Amphibian	AAAAD03100	Desmognathus wrighti (Pigmy Salamander)	Parasites/Pathogens	Alt Bio ComplInt	26- 50%	High	Current	Low	Medium						Yes	6
1	Vertebrate- Amphibian	AAAAD08010	Hemidactylum scutatum (Four-toed Salamander)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High			Yes	Yes	Yes	Yes	9.5
1	Vertebrate- Amphibian	AAAAD08010	Hemidactylum scutatum (Four-toed Salamander)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High			Yes	Yes	Yes		7
1	Vertebrate- Amphibian	AAAAD08010	Hemidactylum scutatum (Four-toed Salamander)	Forest Type Conversion	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes		6
1	Vertebrate- Amphibian	AAAAD08010	Hemidactylum scutatum (Four-toed Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes	Yes	Yes	6
1	Vertebrate- Amphibian	AAAAD08010	Hemidactylum scutatum (Four-toed Salamander)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High			Yes	Yes	Yes	Yes	9.5
1	Vertebrate- Amphibian	AAABC02100	Hyla gratiola (Barking Treefrog)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes			4.75
1	Vertebrate- Amphibian	AAABC02100	Hyla gratiola (Barking Treefrog)	Forest Type Conversion	Alt Phys Hab Struc	26- 50%	V.High	Current	Low	High			Yes	Yes	Yes		7.5
1	Vertebrate- Amphibian	AAABC02100	Hyla gratiola (Barking Treefrog)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes	Yes		6
1	Vertebrate- Amphibian	AAABC02100	Hyla gratiola (Barking Treefrog)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes				6.5
1	Vertebrate- Amphibian	AAABC02100	Hyla gratiola (Barking Treefrog)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes			4.75
1	Vertebrate- Amphibian	AAABC02130	Hyla versicolor (Gray Treefrog)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes					7
1	Vertebrate- Amphibian	AAABC02130	Hyla versicolor (Gray Treefrog)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes					6.5
1	Vertebrate- Amphibian	AAABC02130	Hyla versicolor (Gray Treefrog)	Incompatible Species Management Practices	Alt Bio ComplInt	76- 100%	Low	Current	High	High	Yes	Yes					9
1	Vertebrate- Amphibian	AAAAD12250	Plethodon aureolus (Tellico Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Vertebrate- Amphibian	AAAAD12090	Plethodon jordani (Red-cheeked Salamander)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio ComplInt	0- 25%	V.High	Current	Medium	Low						Yes	3
1	Vertebrate- Amphibian	AAAAD12090	Plethodon jordani (Red-cheeked Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High						Yes	9
1	Vertebrate- Amphibian	AAAAD12150	Plethodon richmondi (Ravine Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes			6
1	Vertebrate- Amphibian	AAAAD12150	Plethodon richmondi (Ravine Salamander)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	None	High			Yes				4.5
1	Vertebrate- Amphibian	AAAAD12220	Plethodon wehrlei (Wehrle's Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
1	Vertebrate- Amphibian	AAAAD12220	Plethodon wehrlei (Wehrle's Salamander)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	None	High			Yes				4.5
1	Vertebrate- Amphibian	AAAAD12230	Plethodon welleri (Weller's Salamander)	Acid Rain	Alt Chem Env Reg	51- 75%	High	Current	None	High						Yes	11.25
1	Vertebrate- Amphibian	AAAAD12230	Plethodon welleri (Weller's Salamander)	Acid Rain	Alt Phys Hab Struc	51- 75%	V.High	Current	None	High						Yes	12.75
1	Vertebrate- Amphibian	AAAAD12230	Plethodon welleri (Weller's Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High						Yes	9
1	Vertebrate- Amphibian	AAAAD12240	Plethodon yonahlossee (Yonahlossee Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Vertebrate- Amphibian	AAABC05010	Pseudacris brachyphona (Mountain Chorus Frog)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	V.High	Current	Low	High				Yes			3.75
1	Vertebrate- Amphibian	AAABC05010	Pseudacris brachyphona (Mountain Chorus Frog)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		Yes	6
1	Vertebrate- Amphibian	AAAAD13010	Pseudotriton montanus (Mud Salamander)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes	Yes	Yes	Yes	4.75
1	Vertebrate- Amphibian	AAAAD13010	Pseudotriton montanus (Mud Salamander)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	V.High	Current	Low	High				Yes			3.75
1	Vertebrate- Amphibian	AAAAD13010	Pseudotriton montanus (Mud Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes	Yes	Yes	6
1	Vertebrate- Amphibian	AAAAD13010	Pseudotriton montanus (Mud Salamander)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes	Yes	Yes	Yes	4.75
1	Vertebrate- Amphibian	AAABH01010	Rana areolata (Crawfish Frog)	Agricultural Conversion	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	V.High	Yes	Yes					13.5

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values						Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV	SBR	
1	Vertebrate- Amphibian	AAABH01010	Rana areolata (Crawfish Frog)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes				7	
1	Vertebrate- Amphibian	AAABH01010	Rana areolata (Crawfish Frog)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes				6.5	
1	Vertebrate- Amphibian	AAABH01010	Rana areolata (Crawfish Frog)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	V.High	Current	Low	High	Yes	Yes				7.5	
1	Vertebrate- Bird	ABNKC12020	Accipiter striatus (Sharp-shinned Hawk)	Agricultural Conversion	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	Yes	11.25	
1	Vertebrate- Bird	ABNKC12020	Accipiter striatus (Sharp-shinned Hawk)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Bird	ABNKC12020	Accipiter striatus (Sharp-shinned Hawk)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Bird	ABNKC12020	Accipiter striatus (Sharp-shinned Hawk)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Bird	ABNSB15020	Aegolius acadicus (Northern Saw-whet Owl)	Acid Rain	Alt Phys Hab Struc	26- 50%	V.High	Current	None	High					Yes	8.5	
1	Vertebrate- Bird	ABNSB15020	Aegolius acadicus (Northern Saw-whet Owl)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High					Yes	6	
1	Vertebrate- Bird	ABPBX91050	Aimophila aestivalis (Bachman's Sparrow)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Bird	ABPBX91050	Aimophila aestivalis (Bachman's Sparrow)	Fire Suppression	Alt Phys Hab Struc	26- 50%	High	Current	Medium	Medium		Yes	Yes	Yes	Yes	5.5	
1	Vertebrate- Bird	ABPBX91050	Aimophila aestivalis (Bachman's Sparrow)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	51- 75%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	9	
1	Vertebrate- Bird	ABPBX91050	Aimophila aestivalis (Bachman's Sparrow)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Bird	ABPBX91050	Aimophila aestivalis (Bachman's Sparrow)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Bird	ABPBXA0030	Ammodramus henslowii (Henslow's Sparrow)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes	Yes			9.5	
1	Vertebrate- Bird	ABPBXA0030	Ammodramus henslowii (Henslow's Sparrow)	Fire Suppression	Alt Phys Hab Struc	26- 50%	High	Current	Medium	Medium		Yes	Yes			5.5	
1	Vertebrate- Bird	ABPBXA0030	Ammodramus henslowii (Henslow's Sparrow)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes			6	
1	Vertebrate- Bird	ABPBXA0030	Ammodramus henslowii (Henslow's Sparrow)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes				6	
1	Vertebrate- Bird	ABPBXA0030	Ammodramus henslowii (Henslow's Sparrow)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes	Yes			9.5	
1	Vertebrate- Bird	ABPBXA0020	Ammodramus savannarum (Grasshopper Sparrow)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	Yes	6.5	
1	Vertebrate- Bird	ABPBXA0020	Ammodramus savannarum (Grasshopper Sparrow)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Bird	ABPBXA0020	Ammodramus savannarum (Grasshopper Sparrow)	Fire Suppression	Alt Phys Hab Struc	26- 50%	High	Current	Medium	Medium	Yes	Yes	Yes	Yes	Yes	5.5	
1	Vertebrate- Bird	ABPBXA0020	Ammodramus savannarum (Grasshopper Sparrow)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Bird	ABPBXA0020	Ammodramus savannarum (Grasshopper Sparrow)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Bird	ABPBXA0020	Ammodramus savannarum (Grasshopper Sparrow)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Bird	ABNFE01010	Anhinga anhinga (Anhinga)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes					9.75	
1	Vertebrate- Bird	ABNFE01010	Anhinga anhinga (Anhinga)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	Medium	Within 5- 10 Years	Low	Medium	Yes					6	
1	Vertebrate- Bird	ABNFE01010	Anhinga anhinga (Anhinga)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes					9	
1	Vertebrate- Bird	ABNFE01010	Anhinga anhinga (Anhinga)	Recreational Use of Habitats (non-vehicular)	Alt Bio Complnt	0- 25%	Medium	Current	High	Medium	Yes					2.25	
1	Vertebrate- Bird	ABNKC22010	Aquila chrysaetos (Golden Eagle)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High					Yes	9.5	
1	Vertebrate- Bird	ABNKC22010	Aquila chrysaetos (Golden Eagle)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High					Yes	6	
1	Vertebrate- Bird	ABNKC22010	Aquila chrysaetos (Golden Eagle)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High					Yes	9.5	
1	Vertebrate- Bird	ABNGA04040	Ardea alba (Great Egret)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Medium	High	Yes					7.5	
1	Vertebrate- Bird	ABNGA04040	Ardea alba (Great Egret)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes					8	
1	Vertebrate- Bird	ABNGA04040	Ardea alba (Great Egret)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes					6	
1	Vertebrate- Bird	ABNGA04040	Ardea alba (Great Egret)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes					6.5	
1	Vertebrate- Bird	ABNGA04040	Ardea alba (Great Egret)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes					6.5	
1	Vertebrate- Bird	ABNSB13040	Asio flammeus (Short-eared Owl)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes				6.5	
1	Vertebrate- Bird	ABNSB13040	Asio flammeus (Short-eared Owl)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes				9.5	
1	Vertebrate- Bird	ABNSB13040	Asio flammeus (Short-eared Owl)	Fire Suppression	Alt Phys Hab Struc	26- 50%	High	Current	Medium	Medium		Yes				5.5	
1	Vertebrate- Bird	ABNSB13040	Asio flammeus (Short-eared Owl)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High						6	
1	Vertebrate- Bird	ABNSB13040	Asio flammeus (Short-eared Owl)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes				6	
1	Vertebrate- Bird	ABNSB13040	Asio flammeus (Short-eared Owl)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes				9.5	
1	Vertebrate- Bird	ABNNF06010	Bartramia longicauda (Upland Sandpiper)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High	Yes					12	
1	Vertebrate- Bird	ABNNF06010	Bartramia longicauda (Upland Sandpiper)	Incompatible Species Management Practices	Alt Bio Complnt	51- 75%	Medium	Current	Medium	Medium	Yes					7.5	
1	Vertebrate- Bird	ABNNF06010	Bartramia longicauda (Upland Sandpiper)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes					9.75	
1	Vertebrate- Bird	ABNGA01020	Botaurus lentiginosus (American Bittern)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes	Yes	Yes			8	
1	Vertebrate- Bird	ABNGA01020	Botaurus lentiginosus (American Bittern)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes	Yes	Yes			8	
1	Vertebrate- Bird	ABNGA01020	Botaurus lentiginosus (American Bittern)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes			6.5	
1	Vertebrate- Bird	ABNGA01020	Botaurus lentiginosus (American Bittern)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium	Yes	Yes	Yes			3	
1	Vertebrate- Bird	ABNNF11020	Calidris canutus (Red Knot)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes					10.5	
1	Vertebrate- Bird	ABNNF11020	Calidris canutus (Red Knot)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High	Yes					12	
1	Vertebrate- Bird	ABNNF11020	Calidris canutus (Red Knot)	Incompatible Species Management Practices	Alt Bio Complnt	51- 75%	Medium	Current	Medium	Medium	Yes					7.5	
1	Vertebrate- Bird	ABNNF11190	Calidris himantopus (Stilt Sandpiper)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High	Yes					12	
1	Vertebrate- Bird	ABNNF11190	Calidris himantopus (Stilt Sandpiper)	Incompatible Species Management Practices	Alt Bio Complnt	51- 75%	Medium	Current	Medium	Medium	Yes					7.5	
1	Vertebrate- Bird	ABNNF11190	Calidris himantopus (Stilt Sandpiper)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes					9.75	
1	Vertebrate- Bird	ABNNF11050	Calidris mauri (Western Sandpiper)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High	Yes					12	
1	Vertebrate- Bird	ABNNF11050	Calidris mauri (Western Sandpiper)	Incompatible Species Management Practices	Alt Bio Complnt	51- 75%	Medium	Current	Medium	Medium	Yes					7.5	
1	Vertebrate- Bird	ABNNF11050	Calidris mauri (Western Sandpiper)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes					9.75	
1	Vertebrate- Bird	ABNTA07010	Caprimulgus carolinensis (Chuck-will's-widow)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Bird	ABNTA07010	Caprimulgus carolinensis (Chuck-will's-widow)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	51- 75%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	9	
1	Vertebrate- Bird	ABNTA07010	Caprimulgus carolinensis (Chuck-will's-widow)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes	Yes	Yes	6.5	

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values						Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV	SBR	
1	Vertebrate- Bird	ABNTA07010	Caprimulgus carolinensis (Chuck-will's-widow)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Bird	ABNTA07010	Caprimulgus carolinensis (Chuck-will's-widow)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	9.5		
1	Vertebrate- Bird	ABNTA07070	Caprimulgus vociferus (Whip-poor-will)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	9.5		
1	Vertebrate- Bird	ABNTA07070	Caprimulgus vociferus (Whip-poor-will)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High	Yes	Yes	Yes	Yes	3		
1	Vertebrate- Bird	ABNTA07070	Caprimulgus vociferus (Whip-poor-will)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes	Yes	6.5		
1	Vertebrate- Bird	ABNTA07070	Caprimulgus vociferus (Whip-poor-will)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Low	High	Yes	Yes	Yes	Yes	6.5		
1	Vertebrate- Bird	ABNTA07070	Caprimulgus vociferus (Whip-poor-will)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	9.5		
1	Vertebrate- Bird	ABPBA01010	Certhia americana (Brown Creeper)	Acid Rain	Alt Phys Hab Struc	51- 75%	V.High	Current	None	High					12.75		
1	Vertebrate- Bird	ABNNB03040	Charadrius wilsonia (Wilson's Plover)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High	Yes				12		
1	Vertebrate- Bird	ABNNB03040	Charadrius wilsonia (Wilson's Plover)	Incompatible Species Management Practices	Alt Bio Compl/Int	51- 75%	Medium	Current	Medium	Medium	Yes				7.5		
1	Vertebrate- Bird	ABNNB03040	Charadrius wilsonia (Wilson's Plover)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes				9.75		
1	Vertebrate- Bird	ABPBX96010	Chondestes grammacus (Lark Sparrow)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High	Yes	Yes	Yes		14.25		
1	Vertebrate- Bird	ABPBX96010	Chondestes grammacus (Lark Sparrow)	Excessive Competition/Predation by Native Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Medium	Yes	Yes	Yes		2.75		
1	Vertebrate- Bird	ABPBX96010	Chondestes grammacus (Lark Sparrow)	Fire Suppression	Alt Phys Hab Struc	26- 50%	High	Current	Medium	Medium	Yes	Yes	Yes		5.5		
1	Vertebrate- Bird	ABPBX96010	Chondestes grammacus (Lark Sparrow)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes		6		
1	Vertebrate- Bird	ABPBX96010	Chondestes grammacus (Lark Sparrow)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High	Yes	Yes	Yes		14.25		
1	Vertebrate- Bird	ABNKC11010	Circus cyaneus (Northern Harrier)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes			6.5		
1	Vertebrate- Bird	ABNKC11010	Circus cyaneus (Northern Harrier)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes		9.5		
1	Vertebrate- Bird	ABNKC11010	Circus cyaneus (Northern Harrier)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes				8		
1	Vertebrate- Bird	ABNKC11010	Circus cyaneus (Northern Harrier)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes				9.5		
1	Vertebrate- Bird	ABPBG10010	Cistothorus platensis (Sedge Wren or Short-billed Marsh Wren)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes				6.5		
1	Vertebrate- Bird	ABPBG10010	Cistothorus platensis (Sedge Wren or Short-billed Marsh Wren)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes			9.5		
1	Vertebrate- Bird	ABPBG10010	Cistothorus platensis (Sedge Wren or Short-billed Marsh Wren)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes				8		
1	Vertebrate- Bird	ABPBG10010	Cistothorus platensis (Sedge Wren or Short-billed Marsh Wren)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes				9.5		
1	Vertebrate- Bird	ABNRB02020	Coccyzus americanus (Yellow-billed Cuckoo)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	6.5		
1	Vertebrate- Bird	ABNRB02020	Coccyzus americanus (Yellow-billed Cuckoo)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	9.5		
1	Vertebrate- Bird	ABNRB02020	Coccyzus americanus (Yellow-billed Cuckoo)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High		Yes	Yes		3		
1	Vertebrate- Bird	ABNRB02020	Coccyzus americanus (Yellow-billed Cuckoo)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	6		
1	Vertebrate- Bird	ABNRB02020	Coccyzus americanus (Yellow-billed Cuckoo)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	9.5		
1	Vertebrate- Bird	ABPAE32060	Contopus cooperi (Olive-sided Flycatcher)	Acid Rain	Alt Phys Hab Struc	51- 75%	V.High	Current	None	High					12.75		
1	Vertebrate- Bird	ABPAE32060	Contopus virens (Eastern Wood-pewee)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Medium	High		Yes	Yes		7.5		
1	Vertebrate- Bird	ABPAE32060	Contopus virens (Eastern Wood-pewee)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes	Yes		9.5		
1	Vertebrate- Bird	ABPAE32060	Contopus virens (Eastern Wood-pewee)	Forest Type Conversion	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes		6		
1	Vertebrate- Bird	ABPAE32060	Contopus virens (Eastern Wood-pewee)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes		6		
1	Vertebrate- Bird	ABPAE32060	Contopus virens (Eastern Wood-pewee)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes		9.5		
1	Vertebrate- Bird	ABPAV10110	Corvus corax (Common Raven)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High		Yes	Yes		14.25		
1	Vertebrate- Bird	ABPAV10110	Corvus corax (Common Raven)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High	Yes	Yes	Yes		14.25		
1	Vertebrate- Bird	ABPAV10110	Corvus corax (Common Raven)	Recreational Use of Habitats (non-vehicular)	Alt Bio Compl/Int	0- 25%	Medium	Current	High	Low				Yes	2		
1	Vertebrate- Bird	ABPAV10110	Corvus corax (Common Raven)	Secondary Home/Resort Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High		Yes	Yes		14.25		
1	Vertebrate- Bird	ABPBX03050	Dendroica caerulescens (Black-throated Blue Warbler)	Construction of Roads/Railroads/Utilities	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High		Yes	Yes		8.5		
1	Vertebrate- Bird	ABPBX03050	Dendroica caerulescens (Black-throated Blue Warbler)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes		6		
1	Vertebrate- Bird	ABPBX03050	Dendroica caerulescens (Black-throated Blue Warbler)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High		Yes			4		
1	Vertebrate- Bird	ABPBX03050	Dendroica caerulescens (Black-throated Blue Warbler)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High		Yes	Yes		8.5		
1	Vertebrate- Bird	ABPBX03050	Dendroica caerulescens (Black-throated Blue Warbler)	Secondary Home/Resort Development	Alt Phys Hab Struc	0- 25%	High	Current	None	V.High				Yes	4.25		
1	Vertebrate- Bird	ABPBX03240	Dendroica cerulea (Cerulean Warbler)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	6.5		
1	Vertebrate- Bird	ABPBX03240	Dendroica cerulea (Cerulean Warbler)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High	Yes	Yes	Yes	Yes	8.5		
1	Vertebrate- Bird	ABPBX03240	Dendroica cerulea (Cerulean Warbler)	Construction of Roads/Railroads/Utilities	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High	Yes	Yes	Yes	Yes	8.5		
1	Vertebrate- Bird	ABPBX03240	Dendroica cerulea (Cerulean Warbler)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High		Yes	Yes		3		
1	Vertebrate- Bird	ABPBX03240	Dendroica cerulea (Cerulean Warbler)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	6		
1	Vertebrate- Bird	ABPBX03240	Dendroica cerulea (Cerulean Warbler)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Low	High		Yes			3.5		
1	Vertebrate- Bird	ABPBX03240	Dendroica cerulea (Cerulean Warbler)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High	Yes	Yes	Yes	Yes	8.5		
1	Vertebrate- Bird	ABPBX03240	Dendroica cerulea (Cerulean Warbler)	Secondary Home/Resort Development	Alt Phys Hab Struc	0- 25%	High	Current	None	V.High				Yes	4.25		
1	Vertebrate- Bird	ABPBX03190	Dendroica discolor (Prairie Warbler)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes	Yes	6.5		
1	Vertebrate- Bird	ABPBX03190	Dendroica discolor (Prairie Warbler)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes	Yes	Yes	9.5		
1	Vertebrate- Bird	ABPBX03190	Dendroica discolor (Prairie Warbler)	Fire Suppression	Alt Phys Hab Struc	0- 25%	High	Current	Medium	Medium	Yes	Yes	Yes	Yes	2.75		
1	Vertebrate- Bird	ABPBX03190	Dendroica discolor (Prairie Warbler)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	6		
1	Vertebrate- Bird	ABPBX03190	Dendroica discolor (Prairie Warbler)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	9.5		
1	Vertebrate- Bird	ABPBX03130	Dendroica dominica (Yellow-throated Warbler)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes		6.5		
1	Vertebrate- Bird	ABPBX03130	Dendroica dominica (Yellow-throated Warbler)	Excessive Competition/Predation by Native Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low		Yes	Yes	Yes	2.5		
1	Vertebrate- Bird	ABPBX03130	Dendroica dominica (Yellow-throated Warbler)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High		Yes			3		
1	Vertebrate- Bird	ABPBX03130	Dendroica dominica (Yellow-throated Warbler)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	6		
1	Vertebrate- Bird	ABPBX03100	Dendroica virens (Black-throated Green Warbler)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Medium	High		Yes			7.5		

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score	
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV		SBR
1	Vertebrate- Bird	ABPB07010	Thryomanes bewickii (Bewick's Wren)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High		Yes	Yes	Yes	Yes	Yes	14.25
1	Vertebrate- Bird	ABPB07010	Thryomanes bewickii (Bewick's Wren)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	51- 75%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	9
1	Vertebrate- Bird	ABPB07010	Thryomanes bewickii (Bewick's Wren)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	51- 75%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	9
1	Vertebrate- Bird	ABPB07010	Thryomanes bewickii (Bewick's Wren)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High		Yes	Yes	Yes	Yes	Yes	14.25
1	Vertebrate- Bird	ABPB09050	Troglodytes troglodytes (Winter Wren)	Acid Rain	Alt Phys Hab Struc	51- 75%	V.High	Current	None	High						Yes	12.75
1	Vertebrate- Bird	ABNNF14010	Tryngites subruficollis (Buff-breasted Sandpiper)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	V.High	Yes						15
1	Vertebrate- Bird	ABNNF14010	Tryngites subruficollis (Buff-breasted Sandpiper)	Incompatible Species Management Practices	Alt Bio Compl/Int	51- 75%	Medium	Current	Medium	Medium	Yes						7.5
1	Vertebrate- Bird	ABNNF14010	Tryngites subruficollis (Buff-breasted Sandpiper)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes						9.75
1	Vertebrate- Bird	ABNLC13010	Tympanuchus cupido (Greater Prairie-chicken)	Agricultural Conversion	Alt Phys Hab Struc	76- 100%	V.High	Historic- Continuing	Low	High		Yes					16
1	Vertebrate- Bird	ABPAE52100	Tyrannus forficatus (Scissor-tailed Flycatcher)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes	Yes	Yes	Yes	Yes	6
1	Vertebrate- Bird	ABNSA01010	Tyto alba (Barn Owl)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	9.5
1	Vertebrate- Bird	ABNSA01010	Tyto alba (Barn Owl)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	51- 75%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	9
1	Vertebrate- Bird	ABNSA01010	Tyto alba (Barn Owl)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	3
1	Vertebrate- Bird	ABNSA01010	Tyto alba (Barn Owl)	Incompatible Species Management Practices	Alt Chem Env Reg	0- 25%	High	Current	Medium	Low	Yes	Yes	Yes	Yes	Yes	Yes	2.5
1	Vertebrate- Bird	ABNSA01010	Tyto alba (Barn Owl)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	9.5
1	Vertebrate- Bird	ABPBX01030	Vermivora chrysoptera (Golden-winged Warbler)	Excessive Competition/Predation by Native Species	Alt Bio Compl/Int	51- 75%	Medium	Current	None	Low				Yes	Yes	Yes	9
1	Vertebrate- Bird	ABPBX01030	Vermivora chrysoptera (Golden-winged Warbler)	Fire Suppression	Alt Phys Env Reg	51- 75%	High	Current	Medium	Medium				Yes	Yes	Yes	8.25
1	Vertebrate- Bird	ABPBX01030	Vermivora chrysoptera (Golden-winged Warbler)	Incompatible Species Management Practices	Alt Bio Compl/Int	51- 75%	V.High	Current	Medium	Medium				Yes	Yes	Yes	9.75
1	Vertebrate- Bird	ABPBX01020	Vermivora pinus (Blue-winged Warbler)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	4.75
1	Vertebrate- Bird	ABPBX01020	Vermivora pinus (Blue-winged Warbler)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6
1	Vertebrate- Bird	ABPBX01020	Vermivora pinus (Blue-winged Warbler)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6
1	Vertebrate- Bird	ABPBX01020	Vermivora pinus (Blue-winged Warbler)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	4.75
1	Vertebrate- Bird	ABPBW01110	Vireo bellii (Bell's Vireo)	Agricultural Conversion	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Medium	High	Yes	Yes					11.25
1	Vertebrate- Bird	ABPBW01110	Vireo bellii (Bell's Vireo)	Incompatible Forestry Practices	Alt Phys Hab Struc	51- 75%	High	Current	Medium	High	Yes	Yes					9
1	Vertebrate- Bird	ABPBW01170	Vireo flavifrons (Yellow-throated Vireo)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes	Yes	Yes	Yes	6.5
1	Vertebrate- Bird	ABPBW01170	Vireo flavifrons (Yellow-throated Vireo)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High		Yes	Yes	Yes	Yes	Yes	8.5
1	Vertebrate- Bird	ABPBW01170	Vireo flavifrons (Yellow-throated Vireo)	Construction of Roads/Railroads/Utilities	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High		Yes	Yes	Yes	Yes	Yes	8.5
1	Vertebrate- Bird	ABPBW01170	Vireo flavifrons (Yellow-throated Vireo)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	3
1	Vertebrate- Bird	ABPBW01170	Vireo flavifrons (Yellow-throated Vireo)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	6
1	Vertebrate- Bird	ABPBW01170	Vireo flavifrons (Yellow-throated Vireo)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High		Yes	Yes	Yes	Yes	Yes	8.5
1	Vertebrate- Bird	ABPBW01170	Vireo flavifrons (Yellow-throated Vireo)	Secondary Home/Resort Development	Alt Phys Hab Struc	0- 25%	High	Current	None	V.High						Yes	4.25
1	Vertebrate- Bird	ABPBW01020	Vireo griseus (White-eyed Vireo)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes						6.5
1	Vertebrate- Bird	ABPBW01020	Vireo griseus (White-eyed Vireo)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes						9.5
1	Vertebrate- Bird	ABPBW01020	Vireo griseus (White-eyed Vireo)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes						6
1	Vertebrate- Bird	ABPBW01020	Vireo griseus (White-eyed Vireo)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes						9.5
1	Vertebrate- Bird	ABPBX16010	Wilsonia citrina (Hooded Warbler)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	7.5
1	Vertebrate- Bird	ABPBX16010	Wilsonia citrina (Hooded Warbler)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	8.5
1	Vertebrate- Bird	ABPBX16010	Wilsonia citrina (Hooded Warbler)	Construction of Roads/Railroads/Utilities	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	8.5
1	Vertebrate- Bird	ABPBX16010	Wilsonia citrina (Hooded Warbler)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	3
1	Vertebrate- Bird	ABPBX16010	Wilsonia citrina (Hooded Warbler)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6
1	Vertebrate- Bird	ABPBX16010	Wilsonia citrina (Hooded Warbler)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	8.5
1	Vertebrate- Bird	ABPBX16010	Wilsonia citrina (Hooded Warbler)	Secondary Home/Resort Development	Alt Phys Hab Struc	26- 50%	High	Current	None	V.High						Yes	8.5
1	Vertebrate- Mammal	AMABB05010	Condylura cristata (Star-nosed Mole)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High						Yes	9
1	Vertebrate- Mammal	AMABB05010	Condylura cristata (Star-nosed Mole)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Vertebrate- Mammal	AMACC08020	Corynorhinus rafinesquii (Rafinesque's Big-eared Bat)	Incompatible Forestry Practices	Alt Phys Hab Struc	51- 75%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	9
1	Vertebrate- Mammal	AMACC08020	Corynorhinus rafinesquii (Rafinesque's Big-eared Bat)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes	Yes	Yes	Yes	6.5
1	Vertebrate- Mammal	AMAJF01020	Martes pennanti (Fisher)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High				Yes			9.5
1	Vertebrate- Mammal	AMAJF01020	Martes pennanti (Fisher)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High				Yes			6
1	Vertebrate- Mammal	AMAJF01020	Martes pennanti (Fisher)	Incompatible Species Management Practices	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low				Yes			3
1	Vertebrate- Mammal	AMAJF01020	Martes pennanti (Fisher)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High				Yes			9.5
1	Vertebrate- Mammal	AMAFF11091	Microtus chrolorhinus carolinensis (Southern Rock Vole)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High						Yes	4.25
1	Vertebrate- Mammal	AMAFF11091	Microtus chrolorhinus carolinensis (Southern Rock Vole)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High						Yes	6
1	Vertebrate- Mammal	AMAJF02020	Mustela nivalis (Least Weasel)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High				Yes	Yes	Yes	9.5
1	Vertebrate- Mammal	AMAJF02020	Mustela nivalis (Least Weasel)	Construction of Roads/Railroads/Utilities	Alt Conn	26- 50%	High	Current	Low	V.High				Yes	Yes	Yes	7.5
1	Vertebrate- Mammal	AMAJF02020	Mustela nivalis (Least Weasel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High				Yes	Yes	Yes	6
1	Vertebrate- Mammal	AMAJF02020	Mustela nivalis (Least Weasel)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High				Yes	Yes	Yes	6
1	Vertebrate- Mammal	AMAJF02020	Mustela nivalis (Least Weasel)	Incompatible Species Management Practices	Alt Chem Env Reg	0- 25%	V.High	Current	Medium	Low				Yes	Yes	Yes	3
1	Vertebrate- Mammal	AMAJF02020	Mustela nivalis (Least Weasel)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High				Yes	Yes	Yes	9.5
1	Vertebrate- Mammal	AMACC01030	Myotis austroriparius (Southeastern Bat)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes					6.5
1	Vertebrate- Mammal	AMACC01030	Myotis austroriparius (Southeastern Bat)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes					6
1	Vertebrate- Mammal	AMACC01030	Myotis austroriparius (Southeastern Bat)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes					6.5
1	Vertebrate- Mammal	AMACC01130	Myotis leibii (Eastern Small-footed Bat)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High				Yes			3

Terrestrial Species																		
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score		
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV		SBR	
1	Vertebrate- Mammal	AMAFF17010	Synaptomys cooperi (Southern Bog Lemming)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Medium	High								7.5
1	Vertebrate- Mammal	AMAFF17010	Synaptomys cooperi (Southern Bog Lemming)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes	Yes	Yes	Yes	7	
1	Vertebrate- Mammal	AMAFF17010	Synaptomys cooperi (Southern Bog Lemming)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Mammal	AMAFF17010	Synaptomys cooperi (Southern Bog Lemming)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	Medium	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	5.5	
1	Vertebrate- Mammal	AMAFH01010	Zapus hudsonius (Meadow Jumping Mouse)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Mammal	AMAFH01010	Zapus hudsonius (Meadow Jumping Mouse)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Mammal	AMAFH01010	Zapus hudsonius (Meadow Jumping Mouse)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Mammal	AMAFH01010	Zapus hudsonius (Meadow Jumping Mouse)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARACF01010	Anolis carolinensis (Green Anole)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes	Yes	Yes	Yes	6.5	
1	Vertebrate- Reptile	ARACF01010	Anolis carolinensis (Green Anole)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes	Yes			3	
1	Vertebrate- Reptile	ARACF01010	Anolis carolinensis (Green Anole)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Low	Low		Yes	Yes	Yes	Yes	Yes	3.25	
1	Vertebrate- Reptile	ARACF01010	Anolis carolinensis (Green Anole)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARACF01010	Anolis carolinensis (Green Anole)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6.5	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Construction of Roads/Railroads/Utilities	Alt Conn	26- 50%	High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	8.5	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low	Yes	Yes	Yes	Yes	Yes	Yes	3	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Low	High				Yes	Yes		3.5	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADE02040	Crotalus horridus (Timber Rattlesnake)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARACH01010	Eumeces anthracinus (Coal Skink)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARACH01010	Eumeces anthracinus (Coal Skink)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes	Yes			3	
1	Vertebrate- Reptile	ARACH01010	Eumeces anthracinus (Coal Skink)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARACH01010	Eumeces anthracinus (Coal Skink)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Low	High				Yes	Yes		3.5	
1	Vertebrate- Reptile	ARACH01010	Eumeces anthracinus (Coal Skink)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARAAD02040	Glyptemys muhlenbergii (Bog Turtle)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High					Yes		8	
1	Vertebrate- Reptile	ARAAD02040	Glyptemys muhlenbergii (Bog Turtle)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Low	Low					Yes		3.25	
1	Vertebrate- Reptile	ARAAD02040	Glyptemys muhlenbergii (Bog Turtle)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High					Yes		6	
1	Vertebrate- Reptile	ARAAD02040	Glyptemys muhlenbergii (Bog Turtle)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High					Yes		6	
1	Vertebrate- Reptile	ARAAD02040	Glyptemys muhlenbergii (Bog Turtle)	Invasive Exotic Species	Alt Phys Env Reg	0- 25%	Medium	Current	Low	Low					Yes		2.5	
1	Vertebrate- Reptile	ARAAD02040	Glyptemys muhlenbergii (Bog Turtle)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High					Yes		4.75	
1	Vertebrate- Reptile	ARADB17020	Heterodon platirhinos (Eastern Hognosed Snake)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6.5	
1	Vertebrate- Reptile	ARADB17020	Heterodon platirhinos (Eastern Hognosed Snake)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low		Yes	Yes	Yes	Yes	Yes	3	
1	Vertebrate- Reptile	ARADB17020	Heterodon platirhinos (Eastern Hognosed Snake)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADB17020	Heterodon platirhinos (Eastern Hognosed Snake)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADB17020	Heterodon platirhinos (Eastern Hognosed Snake)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADB21020	Masticophis flagellum (Coachwhip)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes					9.5	
1	Vertebrate- Reptile	ARADB21020	Masticophis flagellum (Coachwhip)	Fire Suppression	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High		Yes					3	
1	Vertebrate- Reptile	ARADB21020	Masticophis flagellum (Coachwhip)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Low	Low				Yes			3.25	
1	Vertebrate- Reptile	ARADB21020	Masticophis flagellum (Coachwhip)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High				Yes			9.5	
1	Vertebrate- Reptile	ARADB22010	Nerodia cyclopion (Green Water Snake)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes					6.5	
1	Vertebrate- Reptile	ARADB22010	Nerodia cyclopion (Green Water Snake)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes	Yes					8	
1	Vertebrate- Reptile	ARADB22010	Nerodia cyclopion (Green Water Snake)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low	Yes	Yes					3	
1	Vertebrate- Reptile	ARADB22010	Nerodia cyclopion (Green Water Snake)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes					6	
1	Vertebrate- Reptile	ARADB22022	Nerodia erythrogaster flavigaster (Yellowbelly Water Snake)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes					6.5	
1	Vertebrate- Reptile	ARADB22022	Nerodia erythrogaster flavigaster (Yellowbelly Water Snake)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes	Yes					8	
1	Vertebrate- Reptile	ARADB22022	Nerodia erythrogaster flavigaster (Yellowbelly Water Snake)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low	Yes	Yes					3	
1	Vertebrate- Reptile	ARADB22022	Nerodia erythrogaster flavigaster (Yellowbelly Water Snake)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes					6	
1	Vertebrate- Reptile	ARACB02012	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	7.5	
1	Vertebrate- Reptile	ARACB02012	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARACB02012	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)	Construction of Roads/Railroads/Utilities	Alt Conn	26- 50%	High	Current	Low	V.High	Yes	Yes	Yes	Yes	Yes	Yes	7.5	
1	Vertebrate- Reptile	ARACB02012	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)	Fire Suppression	Alt Phys Hab Struc	26- 50%	Medium	Current	Medium	Medium	Yes	Yes	Yes	Yes	Yes	Yes	5	
1	Vertebrate- Reptile	ARACB02012	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low	Yes	Yes	Yes	Yes	Yes	Yes	3	
1	Vertebrate- Reptile	ARACB02012	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARACB02012	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARACB02012	Ophisaurus attenuatus longicaudus (Eastern Slender Glass Lizard)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Medium	High		Yes	Yes	Yes	Yes	Yes	7.5	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High		Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Construction of Roads/Railroads/Utilities	Alt Conn	26- 50%	High	Current	Low	V.High		Yes	Yes	Yes	Yes	Yes	7.5	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Fire Suppression	Alt Phys Hab Struc	26- 50%	Medium	Current	Medium	Medium		Yes	Yes	Yes	Yes	Yes	5	

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values						Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV	SBR	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	Medium	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	2.75	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Complnt	0- 25%	V.High	Current	Medium	Low	Yes	Yes	Yes	Yes	Yes	3	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	6	
1	Vertebrate- Reptile	ARADB26012	Pituophis melanoleucus melanoleucus (Northern Pine Snake)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARADE03023	Sistrurus miliarius streckeri (Western Pigmy Rattlesnake)	Commercial/Industrial Development	Alt Conn	26- 50%	High	Current	None	V.High	Yes	Yes				8.5	
1	Vertebrate- Reptile	ARADE03023	Sistrurus miliarius streckeri (Western Pigmy Rattlesnake)	Construction of Roads/Railroads/Utilities	Alt Conn	26- 50%	High	Current	None	V.High	Yes	Yes				8.5	
1	Vertebrate- Reptile	ARADE03023	Sistrurus miliarius streckeri (Western Pigmy Rattlesnake)	Forest Type Conversion	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes				6	
1	Vertebrate- Reptile	ARADE03023	Sistrurus miliarius streckeri (Western Pigmy Rattlesnake)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Complnt	0- 25%	V.High	Current	Medium	Low	Yes	Yes				3	
1	Vertebrate- Reptile	ARADE03023	Sistrurus miliarius streckeri (Western Pigmy Rattlesnake)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes				6	
1	Vertebrate- Reptile	ARADE03023	Sistrurus miliarius streckeri (Western Pigmy Rattlesnake)	Primary Residential Development	Alt Conn	26- 50%	High	Current	None	V.High	Yes	Yes				8.5	
1	Vertebrate- Reptile	ARAAD08010	Terrapene carolina (Eastern Box Turtle)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARAAD08010	Terrapene carolina (Eastern Box Turtle)	Construction of Roads/Railroads/Utilities	Alt Conn	26- 50%	High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	8.5	
1	Vertebrate- Reptile	ARAAD08010	Terrapene carolina (Eastern Box Turtle)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Complnt	0- 25%	V.High	Current	Low	Low	Yes	Yes	Yes	Yes	Yes	3.25	
1	Vertebrate- Reptile	ARAAD08010	Terrapene carolina (Eastern Box Turtle)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
1	Vertebrate- Reptile	ARADB39010	Virginia striatula (Rough Earth Snake)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes	Yes				9	
1	Vertebrate- Reptile	ARADB39010	Virginia striatula (Rough Earth Snake)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes				9.5	
1	Vertebrate- Reptile	ARADB39010	Virginia striatula (Rough Earth Snake)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Complnt	0- 25%	V.High	Current	Medium	Low	Yes	Yes				3	
1	Vertebrate- Reptile	ARADB39010	Virginia striatula (Rough Earth Snake)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes				6	
1	Vertebrate- Reptile	ARADB39010	Virginia striatula (Rough Earth Snake)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes				6	
1	Vertebrate- Reptile	ARADB39010	Virginia striatula (Rough Earth Snake)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes				9.5	
2	Invertebrate- Insect	IILEP80050	Amblyscirtes linda (Linda's Roadside Skipper)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes				6.5	
2	Invertebrate- Insect	IILEP80050	Amblyscirtes linda (Linda's Roadside Skipper)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes				6	
2	Invertebrate- Insect	IILEP80050	Amblyscirtes linda (Linda's Roadside Skipper)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes				6	
2	Invertebrate- Insect	IILEPE2220	Callophrys irus (Frosted Elf)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes	Yes	Yes	6.5	
2	Invertebrate- Insect	IILEPE2220	Callophrys irus (Frosted Elf)	Commercial/Industrial Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High		Yes		Yes		4.75	
2	Invertebrate- Insect	IILEPE2220	Callophrys irus (Frosted Elf)	Fire Suppression	Alt Phys Env Reg	26- 50%	High	Current	Medium	Medium		Yes	Yes	Yes	Yes	5.5	
2	Invertebrate- Insect	IILEPE2220	Callophrys irus (Frosted Elf)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	6	
2	Invertebrate- Insect	IILEPE2220	Callophrys irus (Frosted Elf)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	6	
2	Invertebrate- Insect	IILEPE2220	Callophrys irus (Frosted Elf)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High		Yes		Yes		4.75	
2	Invertebrate- Insect	IICOL02070	Cicindela anocisconensis (a tiger beetle)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes		Yes		6.5	
2	Invertebrate- Insect	IICOL02070	Cicindela anocisconensis (a tiger beetle)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes				6	
2	Invertebrate- Insect	IILEUOD200	Semiothisa fraserata (Fraser Fir Geometrid Moth)	Acid Rain	Alt Chem Env Reg	26- 50%	High	Current	None	V.High					Yes	8.5	
2	Invertebrate- Insect	IILEUOD200	Semiothisa fraserata (Fraser Fir Geometrid Moth)	Acid Rain	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High					Yes	9.5	
2	Invertebrate- Insect	IILEPJ6010	Speyeria diana (Diana Fritillary)	Forest Type Conversion	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High		Yes	Yes		Yes	6	
2	Invertebrate- Insect	IILEPJ6010	Speyeria diana (Diana Fritillary)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High			Yes	Yes	Yes	6	
2	Invertebrate- Insect	IILEPJ6010	Speyeria diana (Diana Fritillary)	Incompatible Mining Practices	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes			7	
2	Invertebrate- Tardigrade	IRPRT02010	Calohypsibius schusteri (Schuster's Tardigrade)	Acid Rain	Alt Chem Env Reg	0- 25%	V.High	Current	None	High				Yes	Yes	4.25	
2	Invertebrate- Tardigrade	IRPRT02010	Calohypsibius schusteri (Schuster's Tardigrade)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High				Yes	Yes	4.25	
2	Invertebrate- Tardigrade	IRPRT03010	Hypsibius roanensis (Roan Tardigrade)	Acid Rain	Alt Chem Env Reg	0- 25%	V.High	Current	None	High				Yes	Yes	4.25	
2	Invertebrate- Tardigrade	IRPRT03010	Hypsibius roanensis (Roan Tardigrade)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High				Yes	Yes	4.25	
3	Invertebrate- Arachnid	ILARA33010	Microhexura montivaga (Spruce-Fir Moss Spider or North Carolina Funnelweb Tarantula)	Acid Rain	Alt Chem Env Reg	26- 50%	High	Current	None	High					Yes	7.5	
3	Invertebrate- Arachnid	ILARA33010	Microhexura montivaga (Spruce-Fir Moss Spider or North Carolina Funnelweb Tarantula)	Acid Rain	Alt Phys Hab Struc	51- 75%	V.High	Current	None	High					Yes	12.75	
3	Invertebrate- Gastropod	IMGAS53080	Anguispira picta (Painted Tigershell or Painted Disc)	Agricultural Conversion	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Medium	High		Yes				3.25	
3	Invertebrate- Gastropod	IMGAS53080	Anguispira picta (Painted Tigershell or Painted Disc)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes				6	
3	Invertebrate- Gastropod	IMGAS53080	Anguispira picta (Painted Tigershell or Painted Disc)	Incompatible Mining Practices	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	Low	High			Yes			4	
3	Invertebrate- Gastropod	IMGAS53080	Anguispira picta (Painted Tigershell or Painted Disc)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High			Yes			4.75	
3	Invertebrate- Insect	IICOL42010	Nicrophorus americanus (American Burying Beetle)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes				6.5	
3	Invertebrate- Insect	IICOL42010	Nicrophorus americanus (American Burying Beetle)	Incompatible Grazing/Pasture Management Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes				6	
3	Invertebrate- Insect	IICOL42010	Nicrophorus americanus (American Burying Beetle)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes	Yes				6	
3	Vertebrate- Bird	ABNNB03030	Charadrius alexandrinus (Snowy Plover)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High	Yes	Yes				12	
3	Vertebrate- Bird	ABNNB03030	Charadrius alexandrinus (Snowy Plover)	Incompatible Species Management Practices	Alt Bio Complnt	51- 75%	Medium	Current	Medium	Medium	Yes	Yes				7.5	
3	Vertebrate- Bird	ABNNB03030	Charadrius alexandrinus (Snowy Plover)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes	Yes				9.75	
3	Vertebrate- Bird	ABNNB03070	Charadrius melodus melodus (Piping Plover)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	V.High	Yes	Yes				15	
3	Vertebrate- Bird	ABNNB03070	Charadrius melodus melodus (Piping Plover)	Incompatible Species Management Practices	Alt Bio Complnt	51- 75%	Medium	Current	Medium	Medium	Yes	Yes				7.5	
3	Vertebrate- Bird	ABNNB03070	Charadrius melodus melodus (Piping Plover)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes	Yes				9.75	
3	Vertebrate- Bird	ABNKD06070	Falco peregrinus (Peregrine Falcon)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High		Yes	Yes	Yes	Yes	6.5	
3	Vertebrate- Bird	ABNKD06070	Falco peregrinus (Peregrine Falcon)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes	Yes	Yes	7	
3	Vertebrate- Bird	ABNKD06070	Falco peregrinus (Peregrine Falcon)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes	Yes	Yes	Yes	10.5	
3	Vertebrate- Bird	ABNMK01030	Grus americana (Whooping Crane)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	0- 25%	Medium	Current	Medium	High			Yes			2.75	
3	Vertebrate- Bird	ABNMK01030	Grus americana (Whooping Crane)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	0- 25%	Medium	Current	Medium	High			Yes		Yes	2.75	
3	Vertebrate- Bird	ABNKC10010	Haliaeetus leucocephalus (Bald Eagle)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes	Yes	Yes	Yes	Yes	13	

Terrestrial Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability						Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MAP	UGCP	ILP	CPM	RV	SBR	
3	Vertebrate- Bird	ABNKC10010	Haliaeetus leucocephalus (Bald Eagle)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes	Yes	Yes	Yes	9.75	
3	Vertebrate- Bird	ABNKC10010	Haliaeetus leucocephalus (Bald Eagle)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes	Yes	Yes	Yes	9.75	
3	Vertebrate- Bird	ABNKC10010	Haliaeetus leucocephalus (Bald Eagle)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	4.75	
3	Vertebrate- Bird	ABNKC10010	Haliaeetus leucocephalus (Bald Eagle)	Recreational Use of Habitats (non-vehicular)	Alt Bio Compl/Int	0- 25%	Medium	Current	Medium	Low	Yes	Yes	Yes	Yes	Yes	2.25	
3	Vertebrate- Bird	ABNKC10010	Haliaeetus leucocephalus (Bald Eagle)	Secondary Home/Resort Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	4.75	
3	Vertebrate- Bird	ABNKF19020	Scolopax minor (American Woodcock)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Medium	High	Yes	Yes	Yes	Yes	Yes	7.5	
3	Vertebrate- Bird	ABNKF19020	Scolopax minor (American Woodcock)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
3	Vertebrate- Bird	ABNKF19020	Scolopax minor (American Woodcock)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes	Yes	Yes	Yes	Yes	8	
3	Vertebrate- Bird	ABNKF19020	Scolopax minor (American Woodcock)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High	Yes	Yes	Yes	Yes	Yes	9.5	
3	Vertebrate- Bird	ABNNM08102	Sterna antillarum athalassos (Interior Least Tern)	Operation of Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes					9.75	
3	Vertebrate- Bird	ABNNM08102	Sterna antillarum athalassos (Interior Least Tern)	Recreational Vehicles	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low	Yes					3	
3	Vertebrate- Mammal	AMAFB09022	Glaucomys sabrinus coloratus (Carolina Northern Flying Squirrel)	Acid Rain	Alt Phys Hab Struc	26- 50%	V.High	Current	None	High					Yes	8.5	
3	Vertebrate- Mammal	AMAFB09022	Glaucomys sabrinus coloratus (Carolina Northern Flying Squirrel)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High					Yes	6	
3	Vertebrate- Mammal	AMACC01040	Myotis grisescens (Gray Bat)	Incompatible Forestry Practices	Alt Phys Hab Struc	0- 25%	Medium	Current	Medium	High	Yes	Yes	Yes	Yes	Yes	2.75	
3	Vertebrate- Mammal	AMACC01040	Myotis grisescens (Gray Bat)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes	Yes	Yes	6.5	
3	Vertebrate- Mammal	AMACC01100	Myotis sodalis (Indiana Bat)	Forest Type Conversion	Alt Phys Hab Struc	0- 25%	High	Current	Medium	High			Yes	Yes		3	
3	Vertebrate- Mammal	AMACC01100	Myotis sodalis (Indiana Bat)	Incompatible Forestry Practices	Alt Phys Hab Struc	51- 75%	High	Current	Medium	High			Yes	Yes	Yes	9	
3	Vertebrate- Mammal	AMACC01100	Myotis sodalis (Indiana Bat)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	0- 25%	High	Current	Low	High			Yes	Yes	Yes	3.25	
3	Vertebrate- Mammal	AMAEB01050	Sylvilagus transitionalis (Appalachian Cottontail (= New England Cottontail))	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
3	Vertebrate- Mammal	AMAEB01050	Sylvilagus transitionalis (Appalachian Cottontail (= New England Cottontail))	Incompatible Species Management Practices	Alt Bio Compl/Int	0- 25%	V.High	Current	None	Low					Yes	3.75	
3	Vertebrate- Mammal	AMAFB08010	Tamiasciurus hudsonicus (Red Squirrel)	Acid Rain	Alt Phys Hab Struc	0- 25%	V.High	Current	None	High					Yes	4.25	
3	Vertebrate- Mammal	AMAFB08010	Tamiasciurus hudsonicus (Red Squirrel)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High					Yes	6	
3	Vertebrate- Reptile	ARADB22023	Nerodia erythrogaster neglecta (Copperbelly Water Snake)	Agricultural Conversion	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Medium	High			Yes			6.5	
3	Vertebrate- Reptile	ARADB22023	Nerodia erythrogaster neglecta (Copperbelly Water Snake)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High			Yes			7	
3	Vertebrate- Reptile	ARADB22023	Nerodia erythrogaster neglecta (Copperbelly Water Snake)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low			Yes			3	
3	Vertebrate- Reptile	ARADB22023	Nerodia erythrogaster neglecta (Copperbelly Water Snake)	Incompatible Row Crop Agricultural Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High			Yes			6	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	Medium		Yes	Yes		8.5	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	0- 25%	Medium	Current	Medium	Medium		Yes	Yes		2.5	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes		3	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Incompatible Mining Practices	Alt Chem Env Reg	0- 25%	High	Historic- Continuing	Low	High			Yes		3.5	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Incompatible Mining Practices	Alt Phys Env Reg	0- 25%	High	Historic- Continuing	Low	High			Yes		3.5	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	0- 25%	High	Current	Medium	High		Yes	Yes		3	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Industrial Discharge	Alt Chem Env Reg	0- 25%	High	Current	Medium	High		Yes	Yes		3	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium		Yes	Yes		3	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Phys Env Reg	26- 50%	High	Current	Medium	Medium		Yes	Yes		5.5	
1	Invertebrate- Bivalve	IMBIV02040	Alasmidonta marginata (Elktoe)	Oil or Natural Gas Drilling	Alt Chem Env Reg	0- 25%	High	Current	Low	High			Yes		3.25	
1	Invertebrate- Bivalve	IMBIV02110	Alasmidonta viridis (Slippershell Mussel)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV02110	Alasmidonta viridis (Slippershell Mussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV02110	Alasmidonta viridis (Slippershell Mussel)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Bivalve	IMBIV02110	Alasmidonta viridis (Slippershell Mussel)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Bivalve	IMBIV02110	Alasmidonta viridis (Slippershell Mussel)	Oil or Natural Gas Drilling	Alt Chem Env Reg	0- 25%	High	Current	Low	High			Yes		3.25	
1	Invertebrate- Bivalve	IMBIV08010	Cumberlandia monodonta (Spectaclecase)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	Medium		Yes	Yes		8.5	
1	Invertebrate- Bivalve	IMBIV08010	Cumberlandia monodonta (Spectaclecase)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV08010	Cumberlandia monodonta (Spectaclecase)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV08010	Cumberlandia monodonta (Spectaclecase)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Bivalve	IMBIV08010	Cumberlandia monodonta (Spectaclecase)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Bivalve	IMBIV08010	Cumberlandia monodonta (Spectaclecase)	Industrial Discharge	Alt Chem Env Reg	0- 25%	High	Current	Low	High			Yes		3.25	
1	Invertebrate- Bivalve	IMBIV08010	Cumberlandia monodonta (Spectaclecase)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV14030	Elliptio arca (Alabama Spike)	Elliptio arca (Alabama Spike)	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV14030	Elliptio arca (Alabama Spike)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV14030	Elliptio arca (Alabama Spike)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV14030	Elliptio arca (Alabama Spike)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High				Yes	6.5	
1	Invertebrate- Bivalve	IMBIV14030	Elliptio arca (Alabama Spike)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes	9	
1	Invertebrate- Bivalve	IMBIV14040	Elliptio arcata (Delicate Spike)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV14040	Elliptio arcata (Delicate Spike)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV14040	Elliptio arcata (Delicate Spike)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV14040	Elliptio arcata (Delicate Spike)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High				Yes	6.5	
1	Invertebrate- Bivalve	IMBIV14040	Elliptio arcata (Delicate Spike)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes	9	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High		Yes	Yes		3	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium		Yes	Yes		3	
1	Invertebrate- Bivalve	IMBIV16190	Epioblasma triquetra (Snuffbox)	Residential Sewage/Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium		Yes	Yes		3	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes			6	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes			9	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Forest Type Conversion	Alt Phys Env Reg	0- 25%	High	Current	Medium	High		Yes			3	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
1	Invertebrate- Bivalve	IMBIV17020	Fusconaia barnesiana (Tennessee Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes			9
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes			6
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes			6
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes			7
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes			7
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes			6.5
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes	Yes			6.5
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes			6.5
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low		Yes	Yes			2.5
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes			6.5
1	Invertebrate- Bivalve	IMBIV17120	Fusconaia subrotunda (Longsolid)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes			6
1	Invertebrate- Bivalve	IMBIV21211	Lampsilis straminea clabornensis (Southern Fatmucket)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High				Yes		12
1	Invertebrate- Bivalve	IMBIV21211	Lampsilis straminea clabornensis (Southern Fatmucket)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High				Yes		12
1	Invertebrate- Bivalve	IMBIV21211	Lampsilis straminea clabornensis (Southern Fatmucket)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High				Yes		12
1	Invertebrate- Bivalve	IMBIV21211	Lampsilis straminea clabornensis (Southern Fatmucket)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium				Yes		12
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes			7
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	None	High		Yes	Yes	Yes		8
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes	Yes		6.5
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes	Yes	Yes		6.5
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low		Yes	Yes			2.5
1	Invertebrate- Bivalve	IMBIV22012	Lasmigona complanata complanata (White Heelsplitter)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22050	Lasmigona holstonia (Tennessee Heelsplitter)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22050	Lasmigona holstonia (Tennessee Heelsplitter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes			9
1	Invertebrate- Bivalve	IMBIV22050	Lasmigona holstonia (Tennessee Heelsplitter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22050	Lasmigona holstonia (Tennessee Heelsplitter)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22050	Lasmigona holstonia (Tennessee Heelsplitter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22050	Lasmigona holstonia (Tennessee Heelsplitter)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High				Yes		9.75
1	Invertebrate- Bivalve	IMBIV22050	Lasmigona holstonia (Tennessee Heelsplitter)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV22060	Lasmigona subviridis (Green Floater)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High		Yes				13.5
1	Invertebrate- Bivalve	IMBIV22060	Lasmigona subviridis (Green Floater)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes				9
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Medium	High		Yes				6
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Construction of Dams/Impoundments	Alt Phys Env Reg	26- 50%	V.High	Historic- Continuing	None	High		Yes				9
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes				6
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes				6
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes				7
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes				7
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes				6.5
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes				6.5
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes				6.5
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg							Yes				
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium		Yes				6
1	Invertebrate- Bivalve	IMBIV25010	Lexingtonia dolabelloides (Slabside Pearlymussel)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes				6
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes			6
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes			9
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes			6
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes			6
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes			7
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes			7
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes			6.5
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes	Yes			6.5
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes			6
1	Invertebrate- Bivalve	IMBIV28020	Medionidus conradicus (Cumberland Moccasinshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes			6.5
1	Invertebrate- Bivalve	IMBIV31010	Obovaria jacksoniana (Southern Hickorynut)	Channelization of Rivers/Streams	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes				7
1	Invertebrate- Bivalve	IMBIV31010	Obovaria jacksoniana (Southern Hickorynut)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes				9.75
1	Invertebrate- Bivalve	IMBIV31010	Obovaria jacksoniana (Southern Hickorynut)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes				9.75

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Invertebrate- Bivalve	IMBIV31020	Obovaria olivaria (Hickorynut)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV31020	Obovaria olivaria (Hickorynut)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV31020	Obovaria olivaria (Hickorynut)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV31020	Obovaria olivaria (Hickorynut)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV31020	Obovaria olivaria (Hickorynut)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV31020	Obovaria olivaria (Hickorynut)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low	Yes	Yes	Yes		2.5	
1	Invertebrate- Bivalve	IMBIV31020	Obovaria olivaria (Hickorynut)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Channelization of Rivers/Streams	Alt Phys Hab Struc	0- 25%	High	Current	Low	High		Yes			3.25	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	0- 25%	High	Current	Medium	High		Yes			3	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low		Yes	Yes		2.5	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV31050	Obovaria subrotunda (Round Hickorynut)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Channelization of Rivers/Streams	Alt Phys Env Reg	0- 25%	High	Historic- Continuing	Low	High	Yes				3.5	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	High	Current	Low	High		Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High		Yes	Yes		13.5	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes	Yes		9.75	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes	Yes	Yes		9.75	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes	Yes		9.75	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low		Yes	Yes		2.5	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV34030	Plethobasus cyphus (Sheepnose)	Operation of Dams/Reservoirs	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes			6	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High		Yes	Yes		13.5	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes	Yes		9.75	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Invertebrate- Bivalve	IMBIV35070	Pleurobema coccineum (Round Pigtoe)	Recreational Use of Habitats (non-vehicular)	Alt Bio Compl/Int	0- 25%	V.High	Current	High	Medium		Yes			3	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Channelization of Rivers/Streams	Alt Phys Env Reg	0- 25%	High	Historic- Continuing	Low	High	Yes				3.5	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Channelization of Rivers/Streams	Alt Phys Hab Struc	0- 25%	V.High	Current	Low	High		Yes	Yes		3.75	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Commercial Collection of Species	Alt Bio Compl/Int	26- 50%	V.High	Current	Medium	Medium		Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Incompatible Mining Practices	Alt Chem Env Reg	0- 25%	High	Historic- Continuing	Low	High		Yes			3.5	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low	Yes	Yes	Yes		2.5	
1	Invertebrate- Bivalve	IMBIV35090	Pleurobema cordatum (Ohio Pigtoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35160	Pleurobema hanleyianum (Georgia Pigtoe)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
1	Invertebrate- Bivalve	IMBIV35160	Pleurobema hanleyianum (Georgia Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High			Yes	Yes	9	
1	Invertebrate- Bivalve	IMBIV35160	Pleurobema hanleyianum (Georgia Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes	Yes	9	
1	Invertebrate- Bivalve	IMBIV35160	Pleurobema hanleyianum (Georgia Pigtoe)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High			Yes	9.75		
1	Invertebrate- Bivalve	IMBIV35160	Pleurobema hanleyianum (Georgia Pigtoe)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High			Yes	9.75		
1	Invertebrate- Bivalve	IMBIV35160	Pleurobema hanleyianum (Georgia Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes	9		
1	Invertebrate- Bivalve	IMBIV35170	Pleurobema johannis (Alabama Pigtoe)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Invertebrate- Bivalve	IMBIV35170	Pleurobema johannis (Alabama Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium				Yes	12	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Industrial Discharge	Alt Chem Env Reg							Yes	Yes			
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35220	Pleurobema oviforme (Tennessee Clubshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35280	Pleurobema rubellum (Warrior Pigtoe)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High				Yes	12	
1	Invertebrate- Bivalve	IMBIV35280	Pleurobema rubellum (Warrior Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium				Yes	12	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35250	Pleurobema rubrum (Pyramid Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV35310	Pleurobema troschelianum (Alabama Clubshell)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV35310	Pleurobema troschelianum (Alabama Clubshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV35310	Pleurobema troschelianum (Alabama Clubshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Invertebrate- Bivalve	IMBIV35310	Pleurobema troschelianum (Alabama Clubshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High				Yes	9.75	
1	Invertebrate- Bivalve	IMBIV35310	Pleurobema troschelianum (Alabama Clubshell)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High				Yes	9.75	
1	Invertebrate- Bivalve	IMBIV35310	Pleurobema troschelianum (Alabama Clubshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes	9	
1	Invertebrate- Bivalve	IMBIV38050	Ptychobranthus subtentum (Fluted Kidneyshell)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Current	Low	Medium		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV38050	Ptychobranthus subtentum (Fluted Kidneyshell)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High		Yes	Yes		13.5	
1	Invertebrate- Bivalve	IMBIV38050	Ptychobranthus subtentum (Fluted Kidneyshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV38050	Ptychobranthus subtentum (Fluted Kidneyshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV38050	Ptychobranthus subtentum (Fluted Kidneyshell)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes	Yes		10.5	
1	Invertebrate- Bivalve	IMBIV38050	Ptychobranthus subtentum (Fluted Kidneyshell)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes	Yes		10.5	
1	Invertebrate- Bivalve	IMBIV38050	Ptychobranthus subtentum (Fluted Kidneyshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes		9	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	0- 25%	High	Current	Medium	High		Yes	Yes		3	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High		Yes	Yes		3	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes		6.5	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Invasive Exotic Species	Alt Bio Compl/Int	26- 50%	Medium	Current	Low	Low		Yes	Yes		5	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV39041	Quadrula cylindrica cylindrica (Rabbitsfoot)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Invertebrate- Bivalve	IMBIV42010	Strophitus connasugaensis (Alabama Creekmussel)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High				Yes	9.75	
1	Invertebrate- Bivalve	IMBIV42010	Strophitus connasugaensis (Alabama Creekmussel)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes	9	
1	Invertebrate- Bivalve	IMBIV42030	Strophitus undulatus (Squawfoot or Creeper)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High		Yes			8	
1	Invertebrate- Bivalve	IMBIV42030	Strophitus undulatus (Squawfoot or Creeper)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Bivalve	IMBIV42030	Strophitus undulatus (Squawfoot or Creeper)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Bivalve	IMBIV42030	Strophitus undulatus (Squawfoot or Creeper)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes			9.75	
1	Invertebrate- Bivalve	IMBIV42030	Strophitus undulatus (Squawfoot or Creeper)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High		Yes			9.75	
1	Invertebrate- Bivalve	IMBIV42030	Strophitus undulatus (Squawfoot or Creeper)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
1	Invertebrate- Bivalve	IMBIV42030	Strophitus undulatus (Squawfoot or Creeper)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
1	Invertebrate- Bivalve	IMBIV43030	Toxolasma lividus (Purple Lilliput)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High		Yes	Yes		9.75	
1	Invertebrate- Bivalve	IMBIV43030	Toxolasma lividus (Purple Lilliput)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes		9	

Aquatic Species															
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability				Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	
1	Invertebrate- Bivalve	IMBIV43030	Toxolasma lividus (Purple Lilliput)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes		9
1	Invertebrate- Bivalve	IMBIV43030	Toxolasma lividus (Purple Lilliput)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes	Yes		9.75
1	Invertebrate- Bivalve	IMBIV43030	Toxolasma lividus (Purple Lilliput)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes	Yes		9.75
1	Invertebrate- Bivalve	IMBIV43030	Toxolasma lividus (Purple Lilliput)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes	Yes		9
1	Invertebrate- Bivalve	IMBIV46020	Unioemerus declivis (Tapered Pondhom)	Channelization of Rivers/Streams	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High	Yes				12
1	Invertebrate- Bivalve	IMBIV46020	Unioemerus declivis (Tapered Pondhom)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75
1	Invertebrate- Bivalve	IMBIV46020	Unioemerus declivis (Tapered Pondhom)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75
1	Invertebrate- Bivalve	IMBIV47050	Villosa fabalis (Rayed Bean)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9
1	Invertebrate- Bivalve	IMBIV47050	Villosa fabalis (Rayed Bean)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9
1	Invertebrate- Bivalve	IMBIV47050	Villosa fabalis (Rayed Bean)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75
1	Invertebrate- Bivalve	IMBIV47050	Villosa fabalis (Rayed Bean)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes				9.75
1	Invertebrate- Bivalve	IMBIV47050	Villosa fabalis (Rayed Bean)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes			9
1	Invertebrate- Bivalve	IMBIV47070	Villosa lienosa (Little Spectaclecase)	Channelization of Rivers/Streams	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5
1	Invertebrate- Bivalve	IMBIV47070	Villosa lienosa (Little Spectaclecase)	Channelization of Rivers/Streams	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High	Yes				12
1	Invertebrate- Bivalve	IMBIV47070	Villosa lienosa (Little Spectaclecase)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6
1	Invertebrate- Bivalve	IMBIV47070	Villosa lienosa (Little Spectaclecase)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6
1	Invertebrate- Bivalve	IMBIV47070	Villosa lienosa (Little Spectaclecase)	Villosa lienosa (Little Spectaclecase)	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75
1	Invertebrate- Bivalve	IMBIV47070	Villosa lienosa (Little Spectaclecase)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes				9.75
1	Invertebrate- Bivalve	IMBIV47070	Villosa lienosa (Little Spectaclecase)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5
1	Invertebrate- Bivalve	IMBIV47080	Villosa nebulosa (Alabama Rainbow)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High				Yes	9.75
1	Invertebrate- Bivalve	IMBIV47080	Villosa nebulosa (Alabama Rainbow)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High			Yes		9
1	Invertebrate- Bivalve	IMBIV47080	Villosa nebulosa (Alabama Rainbow)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9
1	Invertebrate- Bivalve	IMBIV47080	Villosa nebulosa (Alabama Rainbow)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High			Yes		9.75
1	Invertebrate- Bivalve	IMBIV47080	Villosa nebulosa (Alabama Rainbow)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High			Yes		9.75
1	Invertebrate- Bivalve	IMBIV47080	Villosa nebulosa (Alabama Rainbow)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes		9
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes	Yes		9
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Villosa taeniata (Painted Creekshell)	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Incompatible Mining Practices	Alt Chem Env Reg	0- 25%	High	Historic- Continuing	Low	High			Yes		3.5
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Incompatible Mining Practices	Alt Phys Env Reg	0- 25%	High	Historic- Continuing	Low	High			Yes		3.5
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes			6.5
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Oil or Natural Gas Drilling	Alt Chem Env Reg	0- 25%	High	Current	Low	High			Yes		3.25
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV47130	Villosa taeniata (Painted Creekshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6
1	Invertebrate- Bivalve	IMBIV47152	Villosa vanuxemensis umbrans (Coosa Creekshell)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9
1	Invertebrate- Bivalve	IMBIV47152	Villosa vanuxemensis umbrans (Coosa Creekshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High				Yes	9
1	Invertebrate- Bivalve	IMBIV47152	Villosa vanuxemensis umbrans (Coosa Creekshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9
1	Invertebrate- Bivalve	IMBIV47152	Villosa vanuxemensis umbrans (Coosa Creekshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High			Yes		9.75
1	Invertebrate- Bivalve	IMBIV47152	Villosa vanuxemensis umbrans (Coosa Creekshell)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High			Yes		9.75
1	Invertebrate- Bivalve	IMBIV47152	Villosa vanuxemensis umbrans (Coosa Creekshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes		9
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Channelization of Rivers/Streams	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes				6.5
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	High	Yes				8
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	6
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes			Yes	9
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes			Yes	9
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Villosa vibex (Southern Rainbow)	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes			Yes	9.75
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes			Yes	9.75
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5
1	Invertebrate- Bivalve	IMBIV47170	Villosa vibex (Southern Rainbow)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes			Yes	9
1	Invertebrate- Crustacean	ICMAL49010	Barbicambarus comutus (Bottlebrush Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6
1	Invertebrate- Crustacean	ICMAL49010	Barbicambarus comutus (Bottlebrush Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High			Yes		6
1	Invertebrate- Crustacean	ICMAL49010	Barbicambarus comutus (Bottlebrush Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6
1	Invertebrate- Crustacean	ICMAL49010	Barbicambarus comutus (Bottlebrush Crayfish)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes		6
1	Invertebrate- Crustacean	ICMAL07890	Cambarus angularis (Angled Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Crustacean	ICMAL07890	Cambarus angularis (Angled Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Invertebrate- Crustacean	ICMAL07890	Cambarus angularis (Angled Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL07890	Cambarus angularis (Angled Crayfish)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Crustacean	ICMAL07890	Cambarus angularis (Angled Crayfish)	Invasive Exotic Species	Alt Bio Compl/Int	26- 50%	High	Current	Low	Low		Yes			5.5	
1	Invertebrate- Crustacean	ICMAL07890	Cambarus angularis (Angled Crayfish)	Oil or Natural Gas Drilling	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Invertebrate- Crustacean	ICMAL07890	Cambarus angularis (Angled Crayfish)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
1	Invertebrate- Crustacean	ICMAL07030	Cambarus bouchardi (Big South Fork Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Invertebrate- Crustacean	ICMAL07030	Cambarus bouchardi (Big South Fork Crayfish)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High			Yes		10.5	
1	Invertebrate- Crustacean	ICMAL07030	Cambarus bouchardi (Big South Fork Crayfish)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Invertebrate- Crustacean	ICMAL07370	Cambarus brachydactylus (Shortfingered Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL07370	Cambarus brachydactylus (Shortfingered Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Invertebrate- Crustacean	ICMAL07370	Cambarus brachydactylus (Shortfingered Crayfish)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes		6	
1	Invertebrate- Crustacean	ICMAL07140	Cambarus crinipes (Bouchards's Crayfish or Hairylegged Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Crustacean	ICMAL07140	Cambarus crinipes (Bouchards's Crayfish or Hairylegged Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Crustacean	ICMAL07140	Cambarus crinipes (Bouchards's Crayfish or Hairylegged Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Invertebrate- Crustacean	ICMAL07140	Cambarus crinipes (Bouchards's Crayfish or Hairylegged Crayfish)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Crustacean	ICMAL07140	Cambarus crinipes (Bouchards's Crayfish or Hairylegged Crayfish)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
1	Invertebrate- Crustacean	ICMAL07140	Cambarus crinipes (Bouchards's Crayfish or Hairylegged Crayfish)	Oil or Natural Gas Drilling	Alt Chem Env Reg	0- 25%	High	Current	Low	High		Yes	Yes		3.25	
1	Invertebrate- Crustacean	ICMAL07450	Cambarus cymatilis (Conasauga Blue Burrower Crayfish)	Invasive Exotic Species	Alt Bio Compl/Int	26- 50%	High	Current	Low	Low				Yes	5.5	
1	Invertebrate- Crustacean	ICMAL07450	Cambarus cymatilis (Conasauga Blue Burrower Crayfish)	Primary Residential Development	Alt Phys Hab Struc	76- 100%	V.High	Next 1- 5 Years	Low	High				Yes	13	
1	Invertebrate- Crustacean	ICMAL07460	Cambarus deweesae (Valley Flame Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL07460	Cambarus deweesae (Valley Flame Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL07460	Cambarus deweesae (Valley Flame Crayfish)	Invasive Exotic Species	Alt Bio Compl/Int	26- 50%	High	Current	Low	Low		Yes			5.5	
1	Invertebrate- Crustacean	ICMAL07460	Cambarus deweesae (Valley Flame Crayfish)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Next 1- 5 Years	Low	High		Yes			3.25	
1	Invertebrate- Crustacean	ICMAL07190	Cambarus extraneus (Chickamauga Crayfish)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
1	Invertebrate- Crustacean	ICMAL07190	Cambarus extraneus (Chickamauga Crayfish)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Hab Struc	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
1	Invertebrate- Crustacean	ICMAL07190	Cambarus extraneus (Chickamauga Crayfish)	Industrial Discharge	Alt Chem Env Reg	76- 100%	High	Current	Low	High		Yes			13	
1	Invertebrate- Crustacean	ICMAL07190	Cambarus extraneus (Chickamauga Crayfish)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium		Yes			12	
1	Invertebrate- Crustacean	ICMAL07190	Cambarus extraneus (Chickamauga Crayfish)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	High	Current	Low	V.High		Yes			7.5	
1	Invertebrate- Crustacean	ICMAL07570	Cambarus hiwasseeensis (a crayfish)	Construction of Dams/Impoundments	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	None	High		Yes			4.5	
1	Invertebrate- Crustacean	ICMAL07570	Cambarus hiwasseeensis (a crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL07630	Cambarus manningi (a crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	6	
1	Invertebrate- Crustacean	ICMAL07630	Cambarus manningi (a crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High				Yes	6	
1	Invertebrate- Crustacean	ICMAL07630	Cambarus manningi (a crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	6	
1	Invertebrate- Crustacean	ICMAL07630	Cambarus manningi (a crayfish)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High				Yes	6.5	
1	Invertebrate- Crustacean	ICMAL07630	Cambarus manningi (a crayfish)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes	6	
1	Invertebrate- Crustacean	ICMAL07200	Cambarus obeyensis (Obey River Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Invertebrate- Crustacean	ICMAL07200	Cambarus obeyensis (Obey River Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL07200	Cambarus obeyensis (Obey River Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Invertebrate- Crustacean	ICMAL07200	Cambarus obeyensis (Obey River Crayfish)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High			Yes		7	
1	Invertebrate- Crustacean	ICMAL07200	Cambarus obeyensis (Obey River Crayfish)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High			Yes		7	
1	Invertebrate- Crustacean	ICMAL07690	Cambarus pristinus (Caney Fork Crayfish)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Low	High		Yes			8.25	
1	Invertebrate- Crustacean	ICMAL07690	Cambarus pristinus (Caney Fork Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
1	Invertebrate- Crustacean	ICMAL07690	Cambarus pristinus (Caney Fork Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
1	Invertebrate- Crustacean	ICMAL07690	Cambarus pristinus (Caney Fork Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
1	Invertebrate- Crustacean	ICMAL07690	Cambarus pristinus (Caney Fork Crayfish)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes		9	
1	Invertebrate- Crustacean	ICMAL07X10	Cambarus sp. 1 (Emory River Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL07X10	Cambarus sp. 1 (Emory River Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL07X10	Cambarus sp. 1 (Emory River Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Invertebrate- Crustacean	ICMAL07X10	Cambarus sp. 1 (Emory River Crayfish)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Crustacean	ICMAL07X10	Cambarus sp. 1 (Emory River Crayfish)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High			Yes		7	
1	Invertebrate- Crustacean	ICMAL07920	Cambarus williami (Stones River Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
1	Invertebrate- Crustacean	ICMAL07920	Cambarus williami (Stones River Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
1	Invertebrate- Crustacean	ICMAL07920	Cambarus williami (Stones River Crayfish)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes		6	
1	Invertebrate- Crustacean	ICMAL15140	Fallicambarus horti (Hatchie Burrowing Crayfish)	Channelization of Rivers/Streams	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	High		Yes			12	
1	Invertebrate- Crustacean	ICMAL15140	Fallicambarus horti (Hatchie Burrowing Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High		Yes			12	
1	Invertebrate- Crustacean	ICMAL11320	Orconectes alabamensis (Stalene Crayfish)	Forest Type Conversion	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes		3	
1	Invertebrate- Crustacean	ICMAL11320	Orconectes alabamensis (Stalene Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Crustacean	ICMAL11330	Orconectes barrenensis (a crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	6	

Aquatic Species															
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability				Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	
1	Invertebrate- Crustacean	ICMAL11330	Orconectes barrenensis (a crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High					6
1	Invertebrate- Crustacean	ICMAL11330	Orconectes barrenensis (a crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6
1	Invertebrate- Crustacean	ICMAL11330	Orconectes barrenensis (a crayfish)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes		6
1	Invertebrate- Crustacean	ICMAL11800	Orconectes burri (Blood River Crayfish)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes			9
1	Invertebrate- Crustacean	ICMAL11800	Orconectes burri (Blood River Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Crustacean	ICMAL11800	Orconectes burri (Blood River Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Crustacean	ICMAL11800	Orconectes burri (Blood River Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Crustacean	ICMAL11800	Orconectes burri (Blood River Crayfish)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5
1	Invertebrate- Crustacean	ICMAL11800	Orconectes burri (Blood River Crayfish)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes			6.5
1	Invertebrate- Crustacean	ICMAL11800	Orconectes burri (Blood River Crayfish)	Residential Sewage/Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium		Yes			3
1	Invertebrate- Crustacean	ICMAL11370	Orconectes cooperi (Flintbriar Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9
1	Invertebrate- Crustacean	ICMAL11370	Orconectes cooperi (Flintbriar Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9
1	Invertebrate- Crustacean	ICMAL11370	Orconectes cooperi (Flintbriar Crayfish)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5
1	Invertebrate- Crustacean	ICMAL11370	Orconectes cooperi (Flintbriar Crayfish)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes			6.5
1	Invertebrate- Crustacean	ICMAL11410	Orconectes forceps (Surgeon Crayfish)	Invasive Exotic Species	Alt Bio Compl/Int	26- 50%	High	Current	Low	Low		Yes			5.5
1	Invertebrate- Crustacean	ICMAL11820	Orconectes pagei (Big Sandy Crayfish)	Forest Type Conversion	Alt Phys Env Reg	0- 25%	High	Current	Medium	High		Yes			3
1	Invertebrate- Crustacean	ICMAL11820	Orconectes pagei (Big Sandy Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Crustacean	ICMAL11820	Orconectes pagei (Big Sandy Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Crustacean	ICMAL11820	Orconectes pagei (Big Sandy Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current		High		Yes			6
1	Invertebrate- Crustacean	ICMAL11820	Orconectes pagei (Big Sandy Crayfish)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5
1	Invertebrate- Crustacean	ICMAL11820	Orconectes pagei (Big Sandy Crayfish)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes			6.5
1	Invertebrate- Crustacean	ICMAL11820	Orconectes pagei (Big Sandy Crayfish)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6
1	Invertebrate- Crustacean	ICMAL11550	Orconectes wrighti (Hardin County Crayfish)	Forest Type Conversion	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Crustacean	ICMAL11550	Orconectes wrighti (Hardin County Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9
1	Invertebrate- Crustacean	ICMAL11550	Orconectes wrighti (Hardin County Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9
1	Invertebrate- Crustacean	ICMAL11550	Orconectes wrighti (Hardin County Crayfish)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9
1	Invertebrate- Crustacean	ICMAL11550	Orconectes wrighti (Hardin County Crayfish)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6
1	Invertebrate- Gastropod	IMGASK2010	Elimia acuta (Acute Elimia)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12
1	Invertebrate- Gastropod	IMGASK2010	Elimia acuta (Acute Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High			Yes		12
1	Invertebrate- Gastropod	IMGASK2010	Elimia acuta (Acute Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12
1	Invertebrate- Gastropod	IMGASK2010	Elimia acuta (Acute Elimia)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High			Yes		13
1	Invertebrate- Gastropod	IMGASK2010	Elimia acuta (Acute Elimia)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High			Yes		13
1	Invertebrate- Gastropod	IMGASK2010	Elimia acuta (Acute Elimia)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium			Yes		12
1	Invertebrate- Gastropod	IMGASK2060	Elimia arachnoidea (Spider Elimia)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes			9
1	Invertebrate- Gastropod	IMGASK2060	Elimia arachnoidea (Spider Elimia)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Gastropod	IMGASK2060	Elimia arachnoidea (Spider Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Gastropod	IMGASK2060	Elimia arachnoidea (Spider Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Gastropod	IMGASK2060	Elimia arachnoidea (Spider Elimia)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7
1	Invertebrate- Gastropod	IMGASK2060	Elimia arachnoidea (Spider Elimia)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6
1	Invertebrate- Gastropod	IMGASK2070	Elimia aterina (Coal Elimia)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Gastropod	IMGASK2070	Elimia aterina (Coal Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Gastropod	IMGASK2070	Elimia aterina (Coal Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6
1	Invertebrate- Gastropod	IMGASK2070	Elimia aterina (Coal Elimia)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6
1	Invertebrate- Gastropod	IMGASK2430	Elimia interrupta (Knotty Elimia)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High		Yes			13.5
1	Invertebrate- Gastropod	IMGASK2430	Elimia interrupta (Knotty Elimia)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9
1	Invertebrate- Gastropod	IMGASK2430	Elimia interrupta (Knotty Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9
1	Invertebrate- Gastropod	IMGASK2430	Elimia interrupta (Knotty Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9
1	Invertebrate- Gastropod	IMGASK2430	Elimia interrupta (Knotty Elimia)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes			9
1	Invertebrate- Gastropod	IMGASK2540	Elimia porrecta (Nymph Elimia)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6
1	Invertebrate- Gastropod	IMGASK2540	Elimia porrecta (Nymph Elimia)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7
1	Invertebrate- Gastropod	IMGASK2540	Elimia porrecta (Nymph Elimia)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7
1	Invertebrate- Gastropod	IMGASK2540	Elimia porrecta (Nymph Elimia)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes	Yes		6.5
1	Invertebrate- Gastropod	IMGASK2630	Elimia striatula (File Elimia)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes		Yes	6
1	Invertebrate- Gastropod	IMGASK2630	Elimia striatula (File Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes		Yes	6
1	Invertebrate- Gastropod	IMGASK2630	Elimia striatula (File Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes		Yes	6
1	Invertebrate- Gastropod	IMGASK2630	Elimia striatula (File Elimia)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High			Yes		6.5
1	Invertebrate- Gastropod	IMGASK2630	Elimia striatula (File Elimia)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High			Yes		6.5
1	Invertebrate- Gastropod	IMGASK2630	Elimia striatula (File Elimia)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes		Yes	6

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Invertebrate- Gastropod	IMGASK2640	Elimia strigosa (Brook Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK2640	Elimia strigosa (Brook Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK2640	Elimia strigosa (Brook Elimia)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
1	Invertebrate- Gastropod	IMGASK2640	Elimia strigosa (Brook Elimia)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Medium	Medium	Yes				8.25	
1	Invertebrate- Gastropod	IMGASK2640	Elimia strigosa (Brook Elimia)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Current	Low	V.High	Yes				11.25	
1	Invertebrate- Gastropod	IMGASK2670	Elimia teres (Elegant Elimia)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Invertebrate- Gastropod	IMGASK2670	Elimia teres (Elegant Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Invertebrate- Gastropod	IMGASK2670	Elimia teres (Elegant Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Invertebrate- Gastropod	IMGASK2680	Elimia troostiana (Mossy Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK2680	Elimia troostiana (Mossy Elimia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK2680	Elimia troostiana (Mossy Elimia)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
1	Invertebrate- Gastropod	IMGASK2680	Elimia troostiana (Mossy Elimia)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
1	Invertebrate- Gastropod	IMGASK2680	Elimia troostiana (Mossy Elimia)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg						Yes					
1	Invertebrate- Gastropod	IMGASK2680	Elimia troostiana (Mossy Elimia)	Operation of Dams/Reservoirs	Alt Phys Hab Struc						Yes					
1	Invertebrate- Gastropod	IMGASK2680	Elimia troostiana (Mossy Elimia)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Incompatible Forestry Practices	Alt Phys Env Reg						Yes					
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Invertebrate- Gastropod	IMGASK3010	Io fluvialis (Spiny Riversnail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Invertebrate- Gastropod	IMGASK5140	Leptoxis crassa (Boulder Snail)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes				13.5	
1	Invertebrate- Gastropod	IMGASK5140	Leptoxis crassa (Boulder Snail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK5140	Leptoxis crassa (Boulder Snail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK5140	Leptoxis crassa (Boulder Snail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK5140	Leptoxis crassa (Boulder Snail)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
1	Invertebrate- Gastropod	IMGASK5140	Leptoxis crassa (Boulder Snail)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
1	Invertebrate- Gastropod	IMGASK5140	Leptoxis crassa (Boulder Snail)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASK5140	Leptoxis crassa (Boulder Snail)	Operation of Dams/Reservoirs	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASK5120	Leptoxis umbilicata (Umbilicate Rocksnail)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes	Yes			13.5	
1	Invertebrate- Gastropod	IMGASK5120	Leptoxis umbilicata (Umbilicate Rocksnail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK5120	Leptoxis umbilicata (Umbilicate Rocksnail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK5120	Leptoxis umbilicata (Umbilicate Rocksnail)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes			9.75	
1	Invertebrate- Gastropod	IMGASK5120	Leptoxis umbilicata (Umbilicate Rocksnail)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes			9.75	
1	Invertebrate- Gastropod	IMGASK5120	Leptoxis umbilicata (Umbilicate Rocksnail)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
1	Invertebrate- Gastropod	IMGASK5120	Leptoxis umbilicata (Umbilicate Rocksnail)	Operation of Dams/Reservoirs	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes				13.5	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Operation of Dams/Reservoirs	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASK5210	Leptoxis virgata (Smooth Mudalia)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASK6010	Lithasia armigera (Armored Rocksnail)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes			9	
1	Invertebrate- Gastropod	IMGASK6010	Lithasia armigera (Armored Rocksnail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Gastropod	IMGASK6010	Lithasia armigera (Armored Rocksnail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Gastropod	IMGASK6010	Lithasia armigera (Armored Rocksnail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Invertebrate- Gastropod	IMGASK6010	Lithasia armigera (Armored Rocksnail)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing				Yes				
1	Invertebrate- Gastropod	IMGASK6010	Lithasia armigera (Armored Rocksnail)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Invertebrate- Gastropod	IMGASK6010	Lithasia armigera (Armored Rocksnail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Invertebrate- Gastropod	IMGASK7190	Pleurocera walkeri (Telescope Hornsnail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
1	Invertebrate- Gastropod	IMGASJ2030	Somatogyrus aureus (Golden Pebblesnail)	Construction of Dams/Impoundments	Alt Phys Hab Struc	76- 100%	V.High	Historic- Continuing	None	High	Yes	Yes			18	
1	Invertebrate- Gastropod	IMGASJ2030	Somatogyrus aureus (Golden Pebblesnail)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes				13	
1	Invertebrate- Gastropod	IMGASJ2030	Somatogyrus aureus (Golden Pebblesnail)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High	Yes				13	
1	Invertebrate- Gastropod	IMGASJ2030	Somatogyrus aureus (Golden Pebblesnail)	Industrial Discharge	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes				13	
1	Invertebrate- Gastropod	IMGASJ2030	Somatogyrus aureus (Golden Pebblesnail)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium	Yes				12	
1	Invertebrate- Gastropod	IMGASJ2200	Somatogyrus parvulus (Sparrow Pebblesnail)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes				13.5	
1	Invertebrate- Gastropod	IMGASJ2200	Somatogyrus parvulus (Sparrow Pebblesnail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2200	Somatogyrus parvulus (Sparrow Pebblesnail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2200	Somatogyrus parvulus (Sparrow Pebblesnail)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
1	Invertebrate- Gastropod	IMGASJ2200	Somatogyrus parvulus (Sparrow Pebblesnail)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
1	Invertebrate- Gastropod	IMGASJ2200	Somatogyrus parvulus (Sparrow Pebblesnail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2380	Somatogyrus sp. 2 (Hiwassee Pebblesnail)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes				13.5	
1	Invertebrate- Gastropod	IMGASJ2380	Somatogyrus sp. 2 (Hiwassee Pebblesnail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2380	Somatogyrus sp. 2 (Hiwassee Pebblesnail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2380	Somatogyrus sp. 2 (Hiwassee Pebblesnail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2380	Somatogyrus sp. 2 (Hiwassee Pebblesnail)	Operation of Dams/Reservoirs	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2380	Somatogyrus sp. 2 (Hiwassee Pebblesnail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2310	Somatogyrus tennesseensis (Opaque Pebblesnail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2310	Somatogyrus tennesseensis (Opaque Pebblesnail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Invertebrate- Gastropod	IMGASJ2310	Somatogyrus tennesseensis (Opaque Pebblesnail)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
1	Invertebrate- Gastropod	IMGASJ2310	Somatogyrus tennesseensis (Opaque Pebblesnail)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
1	Invertebrate- Gastropod	IMGASJ2310	Somatogyrus tennesseensis (Opaque Pebblesnail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Vertebrate- Amphibian	AAAAC01010	Cryptobranchus alleganiensis (Hellbender)	Construction of Dams/Impoundments	Alt Phys Env Reg	0- 25%	V.High	Next 1- 5 Years	Medium	V.High	Yes	Yes			3.5	
1	Vertebrate- Amphibian	AAAAC01010	Cryptobranchus alleganiensis (Hellbender)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Amphibian	AAAAC01010	Cryptobranchus alleganiensis (Hellbender)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
1	Vertebrate- Amphibian	AAAAC01010	Cryptobranchus alleganiensis (Hellbender)	Incompatible Mining Practices	Alt Chem Env Reg	0- 25%	V.High	Current	Low	V.High	Yes	Yes			4.25	
1	Vertebrate- Amphibian	AAAAC01010	Cryptobranchus alleganiensis (Hellbender)	Incompatible Mining Practices	Alt Phys Env Reg	0- 25%	High	Current	Low	V.High	Yes	Yes			3.75	
1	Vertebrate- Amphibian	AAAAC01010	Cryptobranchus alleganiensis (Hellbender)	Residential Sewage/Septic Systems	Alt Chem Env Reg	0- 25%	Medium	Current	Low	Low	Yes	Yes			2.5	
1	Vertebrate- Amphibian	AAAAD03090	Desmognathus weltersi (Black Mountain Salamander)	Desmognathus weltersi (Black Mountain Salamander)	Alt Phys Env Reg	26- 50%	High	Current	Low	V.High	Yes	Yes			7.5	
1	Vertebrate- Amphibian	AAAAD03090	Desmognathus weltersi (Black Mountain Salamander)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
1	Vertebrate- Amphibian	AAAAD03090	Desmognathus weltersi (Black Mountain Salamander)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
1	Vertebrate- Amphibian	AAAAD05020	Eurycea junaluska (Junaluska Salamander)	Construction of Dams/Impoundments	Alt Conn	51- 75%	Medium	Historic- Continuing	None	V.High	Yes				12.75	
1	Vertebrate- Amphibian	AAAAD05020	Eurycea junaluska (Junaluska Salamander)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	V.High	Yes				15	
1	Vertebrate- Amphibian	AAAAD05020	Eurycea junaluska (Junaluska Salamander)	Construction of Roads/Railroads/Utilities	Alt Conn	26- 50%	Medium	Historic- Continuing	None	Low	Yes				6.5	
1	Vertebrate- Amphibian	AAAAD05020	Eurycea junaluska (Junaluska Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
1	Vertebrate- Fish	AFCOA01020	Acipenser fulvescens (Lake Sturgeon)	Construction of Dams/Impoundments	Alt Conn	76- 100%	High	Historic- Continuing	None	V.High	Yes	Yes			18	
1	Vertebrate- Fish	AFCQC01040	Ammocrypta clara (Western Sand Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes				9	
1	Vertebrate- Fish	AFCQC01040	Ammocrypta clara (Western Sand Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	Medium	Historic- Continuing	Medium	High	Yes				9	
1	Vertebrate- Fish	AFCQC01040	Ammocrypta clara (Western Sand Darter)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	V.High	Yes				12	
1	Vertebrate- Fish	AFCJC01030	Carpiodes velifer (Highfin Carpsucker)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
1	Vertebrate- Fish	AFCJC01030	Carpiodes velifer (Highfin Carpsucker)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	Medium	Current	Medium	High	Yes	Yes			5.5	
1	Vertebrate- Fish	AFCJB05021	Clinostomus funduloides ssp. 1 (Smoky Dace)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Vertebrate- Fish	AFCQC01010	Crystallaria asprella (Crystal Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	Medium	Current	Low	High		Yes			6	
1	Vertebrate- Fish	AFCQC01010	Crystallaria asprella (Crystal Darter)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	V.High		Yes			8	
1	Vertebrate- Fish	AFCQC01010	Crystallaria asprella (Crystal Darter)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	V.High		Yes			8	
1	Vertebrate- Fish	AFCQC01010	Crystallaria asprella (Crystal Darter)	Oil or Natural Gas Drilling	Alt Chem Env Reg	0- 25%	Medium	Current	Low	Medium		Yes			2.75	
1	Vertebrate- Fish	AFCJC04010	Cycleptus elongatus (Blue sucker)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Historic- Continuing	None	High	Yes	Yes	Yes		12	
1	Vertebrate- Fish	AFCJC04010	Cycleptus elongatus (Blue sucker)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	0- 25%	Medium	Next 1- 5 Years	Medium	Medium	Yes	Yes	Yes		2	
1	Vertebrate- Fish	AFCJC04010	Cycleptus elongatus (Blue sucker)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes	Yes		6	
1	Vertebrate- Fish	AFCJC04010	Cycleptus elongatus (Blue sucker)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes	Yes		6	
1	Vertebrate- Fish	AFCJB60010	Ericymba buccata (Silverjaw Minnow)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
1	Vertebrate- Fish	AFCJB60010	Ericymba buccata (Silverjaw Minnow)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
1	Vertebrate- Fish	AFCJB60010	Ericymba buccata (Silverjaw Minnow)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Vertebrate- Fish	AFCJB60010	Ericymba buccata (Silverjaw Minnow)	Oil or Natural Gas Drilling	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Vertebrate- Fish	AFCJB50020	Erimystax dissimilis (Streamline Chub)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCJB50020	Erimystax dissimilis (Streamline Chub)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCJB50020	Erimystax dissimilis (Streamline Chub)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Vertebrate- Fish	AFCJB50020	Erimystax dissimilis (Streamline Chub)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
1	Vertebrate- Fish	AFCJB50040	Erimystax insignis (Blotched Chub)	Agricultural Conversion	Alt Phys Env Reg	26- 50%	Low	Historic- Continuing	Medium	High	Yes	Yes			5.5	
1	Vertebrate- Fish	AFCJB50040	Erimystax insignis (Blotched Chub)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	Low	Historic- Continuing	Medium	High	Yes	Yes			5.5	
1	Vertebrate- Fish	AFCQC02890	Etheostoma acuticeps (Sharphead Darter)	Construction of Dams/Impoundments	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
1	Vertebrate- Fish	AFCQC02890	Etheostoma acuticeps (Sharphead Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	None	High	Yes				8	
1	Vertebrate- Fish	AFCQC02890	Etheostoma acuticeps (Sharphead Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Vertebrate- Fish	AFCQC02890	Etheostoma acuticeps (Sharphead Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Vertebrate- Fish	AFCQC02010	Etheostoma aquali (Coppercheek Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	76- 100%	V.High	Within 5- 10 Years	Medium	High	Yes				11	
1	Vertebrate- Fish	AFCQC02010	Etheostoma aquali (Coppercheek Darter)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Low	Medium	Yes				5	
1	Vertebrate- Fish	AFCQC02910	Etheostoma baileyi (Emerald Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Vertebrate- Fish	AFCQC02910	Etheostoma baileyi (Emerald Darter)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
1	Vertebrate- Fish	AFCQC02910	Etheostoma baileyi (Emerald Darter)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
1	Vertebrate- Fish	AFCQC02040	Etheostoma barbouri (Teardrop Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Medium		Yes			7.5	
1	Vertebrate- Fish	AFCQC02040	Etheostoma barbouri (Teardrop Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Medium			Yes		7.5	
1	Vertebrate- Fish	AFCQC02040	Etheostoma barbouri (Teardrop Darter)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	Low	V.High			Yes		7.5	
1	Vertebrate- Fish	AFCQC02900	Etheostoma barrenense (Splendid Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Medium			Yes		7.5	
1	Vertebrate- Fish	AFCQC02900	Etheostoma barrenense (Splendid Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Medium			Yes		7.5	
1	Vertebrate- Fish	AFCQC02900	Etheostoma barrenense (Splendid Darter)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	Low	V.High			Yes		7.5	
1	Vertebrate- Fish	AFCQC02050	Etheostoma bellum (Orangefin Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Medium			Yes		7.5	
1	Vertebrate- Fish	AFCQC02050	Etheostoma bellum (Orangefin Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Medium			Yes		7.5	
1	Vertebrate- Fish	AFCQC02050	Etheostoma bellum (Orangefin Darter)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	Low	V.High			Yes		7.5	
1	Vertebrate- Fish	AFCQC02061	Etheostoma blennioides gutselli (Tuckasegee Darter)	Construction of Dams/Impoundments	Alt Conn	0- 25%	High	Historic- Continuing	None	High	Yes				4	
1	Vertebrate- Fish	AFCQC02061	Etheostoma blennioides gutselli (Tuckasegee Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	None	High	Yes				4.5	
1	Vertebrate- Fish	AFCQC02061	Etheostoma blennioides gutselli (Tuckasegee Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Medium	High	Yes				6.5	
1	Vertebrate- Fish	AFCQC02061	Etheostoma blennioides gutselli (Tuckasegee Darter)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
1	Vertebrate- Fish	AFCQC02070	Etheostoma blennioides sequatchiense (Sequatchie Blenny Darter)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	0- 25%	Medium	Next 1- 5 Years	Low	High	Yes				2.5	
1	Vertebrate- Fish	AFCQC02070	Etheostoma blennioides sequatchiense (Sequatchie Blenny Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High	Yes				3	
1	Vertebrate- Fish	AFCQC02070	Etheostoma blennioides sequatchiense (Sequatchie Blenny Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	Medium	Yes				5.5	
1	Vertebrate- Fish	AFCQC02070	Etheostoma blennioides sequatchiense (Sequatchie Blenny Darter)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	0- 25%	V.High	Historic- Continuing	Medium	Medium	Yes				3.5	
1	Vertebrate- Fish	AFCQC02A40	Etheostoma brevirostrum (Holiday or Ellijay Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Vertebrate- Fish	AFCQC02E60	Etheostoma cervus (Chickasaw Darter)	Channelization of Rivers/Streams	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	V.High	Yes				8	
1	Vertebrate- Fish	AFCQC02E60	Etheostoma cervus (Chickasaw Darter)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	V.High	Current	Medium	High	Yes				7	
1	Vertebrate- Fish	AFCQC02E60	Etheostoma cervus (Chickasaw Darter)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
1	Vertebrate- Fish	AFCQC02130	Etheostoma cinereum (Ashy Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	None	High	Yes	Yes			4.5	
1	Vertebrate- Fish	AFCQC02130	Etheostoma cinereum (Ashy Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC02130	Etheostoma cinereum (Ashy Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC02130	Etheostoma cinereum (Ashy Darter)	Incompatible Mining Practices	Alt Chem Env Reg	0- 25%	High	Historic- Continuing	Low	High	Yes	Yes			3.5	
1	Vertebrate- Fish	AFCQC02130	Etheostoma cinereum (Ashy Darter)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
1	Vertebrate- Fish	AFCQC02130	Etheostoma cinereum (Ashy Darter)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	High	Yes	Yes			3.25	
1	Vertebrate- Fish	AFCQC02A50	Etheostoma corona (Crown Darter)	Incompatible Animal Production Practices	Alt Chem Env Reg	51- 75%	High	Next 1- 5 Years	Medium	Medium	Yes				6.75	
1	Vertebrate- Fish	AFCQC02A50	Etheostoma corona (Crown Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Vertebrate- Fish	AFCQC02A50	Etheostoma corona (Crown Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
1	Vertebrate- Fish	AFCQC02C20	Etheostoma denoncouri (Golden Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	V.High	Yes				7	
1	Vertebrate- Fish	AFCQC02C20	Etheostoma denoncouri (Golden Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Vertebrate- Fish	AFCQC02C20	Etheostoma denoncouri (Golden Darter)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	V.High	Yes				8	
1	Vertebrate- Fish	AFCQC02190	Etheostoma ditrema (Coldwater Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Vertebrate- Fish	AFCQC02190	Etheostoma ditrema (Coldwater Darter)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	V.High	Current	Medium	High			Yes		7	
1	Vertebrate- Fish	AFCQC02190	Etheostoma ditrema (Coldwater Darter)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Vertebrate- Fish	AFCQC02B30	Etheostoma forbesi (Barrens Darter)	Excessive Groundwater Withdrawal	Alt Phys Env Reg	26- 50%	Medium	Current	Low	High		Yes			6	
1	Vertebrate- Fish	AFCQC02B30	Etheostoma forbesi (Barrens Darter)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
1	Vertebrate- Fish	AFCQC02B30	Etheostoma forbesi (Barrens Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
1	Vertebrate- Fish	AFCQC02440	Etheostoma microlepidum (Finescale Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	V.High	Yes				10	
1	Vertebrate- Fish	AFCQC02440	Etheostoma microlepidum (Finescale Darter)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	Medium	Current	Low	Medium		Yes			5.5	
1	Vertebrate- Fish	AFCQC02470	Etheostoma neopterum (Lollypop Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	Medium	Yes				5.5	
1	Vertebrate- Fish	AFCQC02470	Etheostoma neopterum (Lollypop Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	Medium	Yes				5.5	
1	Vertebrate- Fish	AFCQC02530	Etheostoma olivaceum (Sooty Darter or Dirty Darter)	Construction of Dams/Impoundments	Alt Conn	0- 25%	High	Historic- Continuing	None	V.High		Yes			4.5	
1	Vertebrate- Fish	AFCQC02530	Etheostoma olivaceum (Sooty Darter or Dirty Darter)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	0- 25%	Medium	Current	Low	High		Yes			3	
1	Vertebrate- Fish	AFCQC02530	Etheostoma olivaceum (Sooty Darter or Dirty Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Vertebrate- Fish	AFCQC02530	Etheostoma olivaceum (Sooty Darter or Dirty Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Vertebrate- Fish	AFCQC02530	Etheostoma olivaceum (Sooty Darter or Dirty Darter)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium			Yes		6	
1	Vertebrate- Fish	AFCQC02A60	Etheostoma pseudovulatum (Egg-mimic Darter)	Construction of Dams/Impoundments	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Low	V.High		Yes			9.75	
1	Vertebrate- Fish	AFCQC02A60	Etheostoma pseudovulatum (Egg-mimic Darter)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	Medium	Historic- Continuing	Medium	High		Yes			9	
1	Vertebrate- Fish	AFCQC02A60	Etheostoma pseudovulatum (Egg-mimic Darter)	Incompatible Mining Practices	Alt Phys Hab Struc	51- 75%	High	Historic- Continuing	Medium	High		Yes			9.75	
1	Vertebrate- Fish	AFCQC02990	Etheostoma pyrrhogaster (Firebelly Darter)	Channelization of Rivers/Streams	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	V.High	Yes				8	
1	Vertebrate- Fish	AFCQC02990	Etheostoma pyrrhogaster (Firebelly Darter)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	V.High	Yes				8	
1	Vertebrate- Fish	AFCQC02990	Etheostoma pyrrhogaster (Firebelly Darter)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	Medium	Yes				5.5	
1	Vertebrate- Fish	AFCQC02650	Etheostoma rupestre (Rock Darter)	Incompatible Forestry Practices	Alt Phys Hab Struc	0- 25%	Medium	Current	Medium	Medium				Yes	2.5	
1	Vertebrate- Fish	AFCQC02660	Etheostoma sagitta (Arrow Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes		3	
1	Vertebrate- Fish	AFCQC02660	Etheostoma sagitta (Arrow Darter)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High			Yes		7	
1	Vertebrate- Fish	AFCQC02660	Etheostoma sagitta (Arrow Darter)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Medium	High			Yes		6.5	
1	Vertebrate- Fish	AFCQC02750	Etheostoma striatulum (Striated Darter)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	V.High	Current	Medium	High		Yes			10.5	
1	Vertebrate- Fish	AFCQC02750	Etheostoma striatulum (Striated Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
1	Vertebrate- Fish	AFCQC02750	Etheostoma striatulum (Striated Darter)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
1	Vertebrate- Fish	AFCQC02D40	Etheostoma susanae (Cumberland Johnny Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
1	Vertebrate- Fish	AFCQC02D40	Etheostoma susanae (Cumberland Johnny Darter)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
1	Vertebrate- Fish	AFCQC02D40	Etheostoma susanae (Cumberland Johnny Darter)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
1	Vertebrate- Fish	AFCQC02800	Etheostoma tippecanoe (Tippecanoe Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	V.High		Yes	Yes		10	
1	Vertebrate- Fish	AFCQC02800	Etheostoma tippecanoe (Tippecanoe Darter)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Vertebrate- Fish	AFCQC02800	Etheostoma tippecanoe (Tippecanoe Darter)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Vertebrate- Fish	AFCQC02800	Etheostoma tippecanoe (Tippecanoe Darter)	Oil or Natural Gas Drilling	Alt Chem Env Reg	0- 25%	High	Historic- Continuing	Low	High			Yes		3.5	
1	Vertebrate- Fish	AFCQC02810	Etheostoma trisella (Trispot Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFCQC02A10	Etheostoma vulneratum (Wounded Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes			9	
1	Vertebrate- Fish	AFCQC02A10	Etheostoma vulneratum (Wounded Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Vertebrate- Fish	AFCQC02A10	Etheostoma vulneratum (Wounded Darter)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Vertebrate- Fish	AFCNB04030	Fundulus chrysotus (Golden Topminnow)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	Medium	Yes				8.25	
1	Vertebrate- Fish	AFCJB14010	Hemitremia flammea (Flame Chub)	Construction of Roads/Railroads/Utilities	Alt Conn	0- 25%	High	Current	Low	Medium		Yes	Yes		3	
1	Vertebrate- Fish	AFCJB14010	Hemitremia flammea (Flame Chub)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	Medium		Yes	Yes		5.5	
1	Vertebrate- Fish	AFCJB14010	Hemitremia flammea (Flame Chub)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
1	Vertebrate- Fish	AFCJB14010	Hemitremia flammea (Flame Chub)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
1	Vertebrate- Fish	AFCJB14010	Hemitremia flammea (Flame Chub)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	Medium		Yes	Yes		5.5	
1	Vertebrate- Fish	AFCJB14010	Hemitremia flammea (Flame Chub)	Primary Residential Development	Alt Phys Hab Struc	0- 25%	V.High	Current	None	V.High		Yes	Yes		4.75	
1	Vertebrate- Fish	AFCJB15040	Hybopsis lineapunctata (Lined Chub)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFCJB15040	Hybopsis lineapunctata (Lined Chub)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFBAA01040	Ichthyomyzon gagei (Southern Brook Lamprey)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFBAA01040	Ichthyomyzon gagei (Southern Brook Lamprey)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFCBA02010	Lepisosteus spatula (Alligator Gar)	Channelization of Rivers/Streams	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
1	Vertebrate- Fish	AFCBA02010	Lepisosteus spatula (Alligator Gar)	Channelization of Rivers/Streams	Alt Phys Hab Struc	51- 75%	High	Historic- Continuing	Low	Medium	Yes				9.75	
1	Vertebrate- Fish	AFCBA02010	Lepisosteus spatula (Alligator Gar)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
1	Vertebrate- Fish	AFCJB53020	Machybopsis gelida (Sturgeon Chub)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Vertebrate- Fish	AFCJB53020	Machybopsis gelida (Sturgeon Chub)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Vertebrate- Fish	AFCJB53030	Machybopsis meeki (Sicklefin Chub)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Vertebrate- Fish	AFCJB53030	Machybopsis meeki (Sicklefin Chub)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Vertebrate- Fish	AFCJB53030	Machybopsis meeki (Sicklefin Chub)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Vertebrate- Fish	AFCJB28110	Notropis asperifrons (Burrhead Shiner)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	6	
1	Vertebrate- Fish	AFCJB28110	Notropis asperifrons (Burrhead Shiner)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	6	
1	Vertebrate- Fish	AFCJB28360	Notropis chrosomus (Rainbow Shiner)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFCJB28360	Notropis chrosomus (Rainbow Shiner)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFCJB28B20	Notropis rupestris (Bedrock Shiner)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	V.High			Yes		10	
1	Vertebrate- Fish	AFCJB28B20	Notropis rupestris (Bedrock Shiner)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	Medium	Current	Low	Medium			Yes		5.5	
1	Vertebrate- Fish	AFCJB28B20	Notropis rupestris (Bedrock Shiner)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium			Yes		6	
1	Vertebrate- Fish	AFCKA02170	Noturus munitus (Frecklebelly Madtom)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFCKA02170	Noturus munitus (Frecklebelly Madtom)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
1	Vertebrate- Fish	AFCKA02260	Noturus sp. 3 (Saddled Madtom)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
1	Vertebrate- Fish	AFCKA02260	Noturus sp. 3 (Saddled Madtom)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Vertebrate- Fish	AFCKA02270	Noturus sp. 4 (Chucky Madtom)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High		Yes			12	
1	Vertebrate- Fish	AFCKA02270	Noturus sp. 4 (Chucky Madtom)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High		Yes			12	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
1	Vertebrate- Fish	AFCKA02220	Noturus stigmosus (Northern Madtom)	Channelization of Rivers/Streams	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Vertebrate- Fish	AFCKA02220	Noturus stigmosus (Northern Madtom)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	Medium	Yes				6.5	
1	Vertebrate- Fish	AFCKA02220	Noturus stigmosus (Northern Madtom)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
1	Vertebrate- Fish	AFCKA02220	Noturus stigmosus (Northern Madtom)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium	Yes				3	
1	Vertebrate- Fish	AFCQC04020	Percina aurantiaca (Tangerine Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	0- 25%	V.High	Historic- Continuing	None	High	Yes				4.5	
1	Vertebrate- Fish	AFCQC04020	Percina aurantiaca (Tangerine Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC04020	Percina aurantiaca (Tangerine Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC04020	Percina aurantiaca (Tangerine Darter)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
1	Vertebrate- Fish	AFCQC04020	Percina aurantiaca (Tangerine Darter)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Medium	High	Yes	Yes			6.5	
1	Vertebrate- Fish	AFCQC04020	Percina aurantiaca (Tangerine Darter)	Primary Residential Development	Alt Phys Env Reg	0- 25%	High	Current	Medium	High	Yes				3	
1	Vertebrate- Fish	AFCQC04040	Percina burtoni (Blotchside Logperch)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes	Yes			9	
1	Vertebrate- Fish	AFCQC04040	Percina burtoni (Blotchside Logperch)	Incompatible Animal Production Practices	Alt Chem Env Reg	0- 25%	High	Historic- Continuing	Medium	High	Yes				3.25	
1	Vertebrate- Fish	AFCQC04040	Percina burtoni (Blotchside Logperch)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC04040	Percina burtoni (Blotchside Logperch)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC04040	Percina burtoni (Blotchside Logperch)	Industrial Discharge	Alt Chem Env Reg	0- 25%	High	Historic- Continuing	Low	Medium	Yes				3.25	
1	Vertebrate- Fish	AFCQC04040	Percina burtoni (Blotchside Logperch)	Primary Residential Development	Alt Phys Env Reg	0- 25%	High	Current	Medium	High	Yes				3	
1	Vertebrate- Fish	AFCQC04120	Percina macrocephala (Longhead Darter)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC04120	Percina macrocephala (Longhead Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC04120	Percina macrocephala (Longhead Darter)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Medium	High	Yes	Yes			3	
1	Vertebrate- Fish	AFCQC04120	Percina macrocephala (Longhead Darter)	Primary Residential Development	Alt Phys Env Reg	0- 25%	High	Current	Low	V.High	Yes	Yes			3.75	
1	Vertebrate- Fish	AFCQC04X30	Percina sp. 3 (Muscadine Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Vertebrate- Fish	AFCQC04X30	Percina sp. 3 (Muscadine Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes		6	
1	Vertebrate- Fish	AFCQC04X30	Percina sp. 3 (Muscadine Darter)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes		6	
1	Vertebrate- Fish	AFCQC04340	Percina sp. 9 (Upland Bridled Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
1	Vertebrate- Fish	AFCQC04340	Percina sp. 9 (Upland Bridled Darter)	Landfill Construction/Operation	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
1	Vertebrate- Fish	AFCQC04280	Percina squamata (Olive Darter)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Historic- Continuing	None	High	Yes				8	
1	Vertebrate- Fish	AFCQC04280	Percina squamata (Olive Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC04280	Percina squamata (Olive Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
1	Vertebrate- Fish	AFCQC04280	Percina squamata (Olive Darter)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
1	Vertebrate- Fish	AFCQC04280	Percina squamata (Olive Darter)	Incompatible Mining Practices	Alt Chem Env Reg	0- 25%	High	Current	Low	High	Yes				3.25	
1	Vertebrate- Fish	AFCQC04280	Percina squamata (Olive Darter)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Medium	Medium	Yes				5.5	
1	Vertebrate- Fish	AFCQC04280	Percina squamata (Olive Darter)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
1	Vertebrate- Fish	AFCJB30010	Phenacobius catostomus (Rifle Minnow)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	0- 25%	Medium	Current	Medium	Medium				Yes	2.5	
1	Vertebrate- Fish	AFCJB31070	Phoxinus saylori (Laurel Dace)	Construction of Dams/Impoundments	Alt Phys Hab Struc	0- 25%	V.High	Next 1- 5 Years	Medium	High	Yes				3	
1	Vertebrate- Fish	AFCJB31070	Phoxinus saylori (Laurel Dace)	Forest Type Conversion	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Medium	High	Yes				9.75	
1	Vertebrate- Fish	AFCJB31070	Phoxinus saylori (Laurel Dace)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Vertebrate- Fish	AFCJB31060	Phoxinus tennesseensis (Tennessee Dace)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
1	Vertebrate- Fish	AFCJB31060	Phoxinus tennesseensis (Tennessee Dace)	Incompatible Forestry Practices	Alt Phys Hab Struc	26- 50%	High	Current	Medium	High	Yes				6	
1	Vertebrate- Fish	AFCJB31060	Phoxinus tennesseensis (Tennessee Dace)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	Medium	Historic- Continuing	Medium	High	Yes				6	
1	Vertebrate- Fish	AFCJC13010	Thoburnia atripinnis (Blackfin Sucker)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	Medium	Current	Medium	High			Yes		5.5	
1	Vertebrate- Fish	AFCJC13010	Thoburnia atripinnis (Blackfin Sucker)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	Low	High			Yes		6.5	
1	Vertebrate- Reptile	ARAAG01020	Apalone mutica (Smooth Softshell Turtle)	Channelization of Rivers/Streams	Alt Phys Hab Struc	0- 25%	High	Historic- Continuing	Low	Medium	Yes				3.25	
1	Vertebrate- Reptile	ARAAG01020	Apalone mutica (Smooth Softshell Turtle)	Commercial Collection of Species	Alt Bio Comp/Int	0- 25%	V.High	Historic- Continuing	Medium	Low	Yes				3.25	
1	Vertebrate- Reptile	ARAAG01020	Apalone mutica (Smooth Softshell Turtle)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Comp/Int	0- 25%	V.High	Historic- Continuing	Medium	Low	Yes	Yes			3.25	
1	Vertebrate- Reptile	ARAAG01030	Apalone spinifer (Spiny Softshell Turtle)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Comp/Int	0- 25%	V.High	Historic- Continuing	Medium	Low	Yes	Yes			3.25	
1	Vertebrate- Reptile	ARAAB02010	Macrochelys temminckii (Alligator Snapping Turtle)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
1	Vertebrate- Reptile	ARAAB02010	Macrochelys temminckii (Alligator Snapping Turtle)	Construction of Dams/Impoundments	Alt Phys Env Reg	0- 25%	High	Historic- Continuing	None	High	Yes	Yes			4	
1	Vertebrate- Reptile	ARAAB02010	Macrochelys temminckii (Alligator Snapping Turtle)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	None	Medium	Yes				7.5	
1	Vertebrate- Reptile	ARAAB02010	Macrochelys temminckii (Alligator Snapping Turtle)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Comp/Int	26- 50%	V.High	Historic- Continuing	Medium	Low	Yes	Yes			6.5	
2	Invertebrate- Insect	IITRI1H030	Agarodes stannardi (Stannard's Agarodes Caddisfly)	Forest Type Conversion	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	IITRI1H030	Agarodes stannardi (Stannard's Agarodes Caddisfly)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	IITRI1H030	Agarodes stannardi (Stannard's Agarodes Caddisfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	IITRI1H030	Agarodes stannardi (Stannard's Agarodes Caddisfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	IITRI1H030	Agarodes stannardi (Stannard's Agarodes Caddisfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
2	Invertebrate- Insect	IIPLE01010	Allocaupnia brooksi (Sevier Snowfly)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	IIPLE01010	Allocaupnia brooksi (Sevier Snowfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	IIPLE01010	Allocaupnia brooksi (Sevier Snowfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	IIPLE01010	Allocaupnia brooksi (Sevier Snowfly)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
2	Invertebrate- Insect	IIPLE01010	Allocaupnia brooksi (Sevier Snowfly)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Next 1- 5 Years	Low	V.High		Yes			7.5	
2	Invertebrate- Insect	IIPLE01010	Allocaupnia brooksi (Sevier Snowfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
2	Invertebrate- Insect	IIPLE01010	Allocaupnia brooksi (Sevier Snowfly)	Secondary Home/Resort Development	Alt Phys Hab Struc	26- 50%	V.High	Next 1- 5 Years	Low	V.High		Yes			7.5	
2	Invertebrate- Insect	IIPLE01030	Allocaupnia cunninghami (Karst Snowfly)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	V.High	Next 1- 5 Years	Low	V.High			Yes		11.25	
2	Invertebrate- Insect	IIPLE01030	Allocaupnia cunninghami (Karst Snowfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIPLE01030	Allocaupnia cunninghami (Karst Snowfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIPLE01030	Allocaupnia cunninghami (Karst Snowfly)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes			9	
2	Invertebrate- Insect	IIPLE01030	Allocaupnia cunninghami (Karst Snowfly)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	V.High	Next 1- 5 Years	Low	V.High		Yes			11.25	
2	Invertebrate- Insect	IIPLE01030	Allocaupnia cunninghami (Karst Snowfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes			9	
2	Invertebrate- Insect	IIPLE01250	Allocaupnia perplexa (Perplexing Snowfly)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	V.High	Next 1- 5 Years	Low	V.High		Yes			11.25	
2	Invertebrate- Insect	IIPLE01250	Allocaupnia perplexa (Perplexing Snowfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIPLE01250	Allocaupnia perplexa (Perplexing Snowfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIPLE01250	Allocaupnia perplexa (Perplexing Snowfly)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes			9.75	
2	Invertebrate- Insect	IIPLE01250	Allocaupnia perplexa (Perplexing Snowfly)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes			9	
2	Invertebrate- Insect	IIPLE01250	Allocaupnia perplexa (Perplexing Snowfly)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	V.High	Next 1- 5 Years	Low	V.High		Yes			11.25	
2	Invertebrate- Insect	IIPLE01250	Allocaupnia perplexa (Perplexing Snowfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes			9	
2	Invertebrate- Insect	IIPLE0H060	Amphinemura mockfordi (Tennessee Forestfly)	Forest Type Conversion	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
2	Invertebrate- Insect	IIPLE0H060	Amphinemura mockfordi (Tennessee Forestfly)	Incompatible Grazing/Pasture Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
2	Invertebrate- Insect	IIPLE0H060	Amphinemura mockfordi (Tennessee Forestfly)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
2	Invertebrate- Insect	IIPLE0H060	Amphinemura mockfordi (Tennessee Forestfly)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes	Yes		7	
2	Invertebrate- Insect	IIPLE0H060	Amphinemura mockfordi (Tennessee Forestfly)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Next 1- 5 Years	Low	V.High		Yes	Yes		7.5	
2	Invertebrate- Insect	IIPLE0H060	Amphinemura mockfordi (Tennessee Forestfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes		6	
2	Invertebrate- Insect	IIPLE0H060	Amphinemura mockfordi (Tennessee Forestfly)	Secondary Home/Resort Development	Alt Phys Hab Struc	26- 50%	V.High	Next 1- 5 Years	Low	V.High		Yes	Yes		7.5	
2	Invertebrate- Insect	IITRI36120	Ceratopsyche ethieri (Buffalo Springs Caddisfly)	Incompatible Species Management Practices	Alt Bio Comp/Int	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IITRI14020	Glyphopsyche sequatchie (Sequatchie Caddisfly)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IITRI14020	Glyphopsyche sequatchie (Sequatchie Caddisfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IITRI14020	Glyphopsyche sequatchie (Sequatchie Caddisfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IITRI14020	Glyphopsyche sequatchie (Sequatchie Caddisfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes			9	
2	Invertebrate- Insect	IIODO08080	Gomphus consanguis (Cherokee Clubtail Dragonfly)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes		Yes	6	
2	Invertebrate- Insect	IIODO08080	Gomphus consanguis (Cherokee Clubtail Dragonfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes		Yes	6	
2	Invertebrate- Insect	IIODO08080	Gomphus consanguis (Cherokee Clubtail Dragonfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes		Yes	6	
2	Invertebrate- Insect	IIODO08080	Gomphus consanguis (Cherokee Clubtail Dragonfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes		Yes	6	
2	Invertebrate- Insect	IIODO08390	Gomphus sandrius (Tennessee Clubtail Dragonfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIODO08390	Gomphus sandrius (Tennessee Clubtail Dragonfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIODO08390	Gomphus sandrius (Tennessee Clubtail Dragonfly)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	V.High	Next 1- 5 Years	Low	V.High		Yes			11.25	
2	Invertebrate- Insect	IIODO08390	Gomphus sandrius (Tennessee Clubtail Dragonfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes			9	
2	Invertebrate- Insect	IIODO08190	Gomphus septima (Septima's Clubtail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIODO08190	Gomphus septima (Septima's Clubtail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIODO08190	Gomphus septima (Septima's Clubtail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIPLE2P040	Hydroperla rickeri (Tennessee Springfly)	Commercial/Industrial Development	Alt Phys Hab Struc	26- 50%	V.High	Next 1- 5 Years	Low	V.High		Yes			7.5	
2	Invertebrate- Insect	IIPLE2P040	Hydroperla rickeri (Tennessee Springfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
2	Invertebrate- Insect	IIPLE2P040	Hydroperla rickeri (Tennessee Springfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	IIPLE2P040	Hydroperla rickeri (Tennessee Springfly)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Next 1- 5 Years	Low	V.High		Yes			7.5	
2	Invertebrate- Insect	IIPLE2P040	Hydroperla rickeri (Tennessee Springfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
2	Invertebrate- Insect	IIODO26070	Macromia margarita (Mountain River Cruiser)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
2	Invertebrate- Insect	IIODO26070	Macromia margarita (Mountain River Cruiser)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
2	Invertebrate- Insect	IIODO26070	Macromia margarita (Mountain River Cruiser)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
2	Invertebrate- Insect	IIODO26070	Macromia margarita (Mountain River Cruiser)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
2	Invertebrate- Insect	IIPLE0G060	Megaleuctra williamsae (Williams' Rare Winter Stonefly)	Acid Rain	Alt Chem Env Reg	76- 100%	Medium	Current	None	Medium		Yes			13	
2	Invertebrate- Insect	IIPLE0G060	Megaleuctra williamsae (Williams' Rare Winter Stonefly)	Invasive Exotic Species	Alt Bio Comp/Int	26- 50%	High	Current	Medium	Low		Yes			5	
2	Invertebrate- Insect	IIPLE25010	Oconoperla innubila (a stonefly)	Acid Rain	Alt Chem Env Reg	76- 100%	Medium	Current	None	Medium		Yes			13	
2	Invertebrate- Insect	IIPLE25010	Oconoperla innubila (a stonefly)	Invasive Exotic Species	Alt Bio Comp/Int	76- 100%	High	Current	Medium	Low		Yes			10	
2	Invertebrate- Insect	IIODO12010	Ophiogomphus acuminatus (Tennessee Snaketail or Acuminate Snaketail)	Forest Type Conversion	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
2	Invertebrate- Insect	IIODO12010	Ophiogomphus acuminatus (Tennessee Snaketail or Acuminate Snaketail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes		6	
2	Invertebrate- Insect	IIODO12210	Ophiogomphus alleghaniensis (Allegheny Snaketail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	6	
2	Invertebrate- Insect	IIODO12210	Ophiogomphus alleghaniensis (Allegheny Snaketail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	6	
2	Invertebrate- Insect	IIODO12210	Ophiogomphus alleghaniensis (Allegheny Snaketail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	6	
2	Invertebrate- Insect	IIODO12210	Ophiogomphus alleghaniensis (Allegheny Snaketail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes	Yes	6	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
2	Invertebrate- Insect	I1ODO12080	Ophiogomphus edmundo (Edmund's Snaketail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
2	Invertebrate- Insect	I1ODO12080	Ophiogomphus edmundo (Edmund's Snaketail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes	9	
2	Invertebrate- Insect	I1ODO12090	Ophiogomphus howei (Howe's Dragonfly)	Channelization of Rivers/Streams	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
2	Invertebrate- Insect	I1ODO12090	Ophiogomphus howei (Howe's Dragonfly)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
2	Invertebrate- Insect	I1ODO12090	Ophiogomphus howei (Howe's Dragonfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	I1ODO12090	Ophiogomphus howei (Howe's Dragonfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	I1ODO12090	Ophiogomphus howei (Howe's Dragonfly)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
2	Invertebrate- Insect	I1ODO12090	Ophiogomphus howei (Howe's Dragonfly)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
2	Invertebrate- Insect	I1IEPH33270	Paraleptophlebia kirchneri (a mayfly)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	V.High	Next 1- 5 Years	Low	V.High		Yes			11.25	
2	Invertebrate- Insect	I1IEPH33270	Paraleptophlebia kirchneri (a mayfly)	Construction of Roads/Railroads/Utilities	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	V.High		Yes			12	
2	Invertebrate- Insect	I1IEPH33270	Paraleptophlebia kirchneri (a mayfly)	Construction of Roads/Railroads/Utilities	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	Low	V.High		Yes			13.5	
2	Invertebrate- Insect	I1IEPH33270	Paraleptophlebia kirchneri (a mayfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	I1IEPH33270	Paraleptophlebia kirchneri (a mayfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	I1IEPH33270	Paraleptophlebia kirchneri (a mayfly)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes			9.75	
2	Invertebrate- Insect	I1IEPH33270	Paraleptophlebia kirchneri (a mayfly)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	V.High	Next 1- 5 Years	Low	V.High		Yes			11.25	
2	Invertebrate- Insect	I1IEPH33270	Paraleptophlebia kirchneri (a mayfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes			9.75	
2	Invertebrate- Insect	I1IEPH78150	Plautidius grandis (a mayfly)	Commercial/Industrial Development	Alt Phys Hab Struc	51- 75%	High	Current	Low	V.High		Yes			11.25	
2	Invertebrate- Insect	I1IEPH78150	Plautidius grandis (a mayfly)	Construction of Roads/Railroads/Utilities	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	V.High		Yes			12	
2	Invertebrate- Insect	I1IEPH78150	Plautidius grandis (a mayfly)	Construction of Roads/Railroads/Utilities	Alt Phys Hab Struc	51- 75%	High	Historic- Continuing	Low	V.High		Yes			12	
2	Invertebrate- Insect	I1IEPH78150	Plautidius grandis (a mayfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
2	Invertebrate- Insect	I1IEPH78150	Plautidius grandis (a mayfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
2	Invertebrate- Insect	I1IEPH78150	Plautidius grandis (a mayfly)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes			9.75	
2	Invertebrate- Insect	I1IEPH78150	Plautidius grandis (a mayfly)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes			9.75	
2	Invertebrate- Insect	I1IEPH78150	Plautidius grandis (a mayfly)	Primary Residential Development	Alt Phys Hab Struc	51- 75%	High	Current	Low	V.High		Yes			11.25	
2	Invertebrate- Insect	I1IEPH40050	Stenonema sinclairii (a mayfly)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	I1IEPH40050	Stenonema sinclairii (a mayfly)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	I1IEPH40050	Stenonema sinclairii (a mayfly)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
2	Invertebrate- Insect	I1IEPH40050	Stenonema sinclairii (a mayfly)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
2	Invertebrate- Insect	I1IPLE0010	Zapada chila (a stonefly)	Acid Rain	Alt Chem Env Reg	76- 100%	Medium	Current	None	Medium	Yes				13	
2	Invertebrate- Insect	I1IPLE0010	Zapada chila (a stonefly)	Invasive Exotic Species	Alt Bio Comp/Int	26- 50%	V.High	Current	Medium	Low	Yes				6	
3	Invertebrate- Bivalve	I1MBIV02020	Alasmidonta atropurpurea (Cumberland Elktoe)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes			6	
3	Invertebrate- Bivalve	I1MBIV02020	Alasmidonta atropurpurea (Cumberland Elktoe)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
3	Invertebrate- Bivalve	I1MBIV02020	Alasmidonta atropurpurea (Cumberland Elktoe)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
3	Invertebrate- Bivalve	I1MBIV02020	Alasmidonta atropurpurea (Cumberland Elktoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	I1MBIV02020	Alasmidonta atropurpurea (Cumberland Elktoe)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
3	Invertebrate- Bivalve	I1MBIV02060	Alasmidonta raveneliana (Appalachian Elktoe)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	Medium	Yes				6.5	
3	Invertebrate- Bivalve	I1MBIV10020	Cyprogenia stegaria (Eastern Fanshell Pearlymussel)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	Medium	Yes	Yes			8.5	
3	Invertebrate- Bivalve	I1MBIV10020	Cyprogenia stegaria (Eastern Fanshell Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	I1MBIV10020	Cyprogenia stegaria (Eastern Fanshell Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	I1MBIV10020	Cyprogenia stegaria (Eastern Fanshell Pearlymussel)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Low	Yes	Yes			5.5	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	Medium	Yes	Yes			8.5	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	0- 25%	High	Current	Low	High	Yes	Yes			3.25	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Industrial Discharge	Alt Chem Env Reg	0- 25%	High	Current	Low	High	Yes	Yes			3.25	
3	Invertebrate- Bivalve	I1MBIV12010	Dromus dromas (Dromedary Pearlymussel)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium	Yes	Yes			3	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes	Yes			9	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	0- 25%	High	Current	Low	High	Yes	Yes			3.25	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Operation of Dams/Reservoirs	Alt Phys Env Reg	0- 25%	High	Current	Low	Medium	Yes	Yes			3	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Recreational Use of Habitats (non-vehicular)	Alt Bio Comp/Int	0- 25%	High	Current	High	Medium	Yes	Yes			2.5	
3	Invertebrate- Bivalve	I1MBIV16030	Epioblasma brevidens (Cumberlandian Combshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium	Yes	Yes			3	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	0- 25%	High	Current	Low	High	Yes	Yes			3.25	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV16040	<i>Epiblasma capsaeformis</i> (Oyster Mussel)	Residential Sewage/Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium	Yes	Yes			3	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Construction of Dams/Impoundments	Alt Conn	0- 25%	High	Current	Low	Medium	Yes	Yes			3	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes	Yes			7	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Operation of Dams/Reservoirs	Alt Phys Env Reg	0- 25%	High	Current	Low	Medium	Yes				3	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Recreational Use of Habitats (non-vehicular)	Alt Bio Comp/Int	0- 25%	High	Current	High	Medium		Yes			2.5	
3	Invertebrate- Bivalve	IMBIV16062	<i>Epiblasma florentina walker</i> (Tan Riffleshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium	Yes	Yes			3	
3	Invertebrate- Bivalve	IMBIV16111	<i>Epiblasma obliquata obliquata</i> (Catspaw or Purple Cat's Paw Pearly Mussel)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium		Yes			6	
3	Invertebrate- Bivalve	IMBIV16111	<i>Epiblasma obliquata obliquata</i> (Catspaw or Purple Cat's Paw Pearly Mussel)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes			9	
3	Invertebrate- Bivalve	IMBIV16111	<i>Epiblasma obliquata obliquata</i> (Catspaw or Purple Cat's Paw Pearly Mussel)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV16111	<i>Epiblasma obliquata obliquata</i> (Catspaw or Purple Cat's Paw Pearly Mussel)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
3	Invertebrate- Bivalve	IMBIV16111	<i>Epiblasma obliquata obliquata</i> (Catspaw or Purple Cat's Paw Pearly Mussel)	Invasive Exotic Species	Alt Bio Comp/Int	0- 25%	Medium	Current	Low	Low		Yes			2.5	
3	Invertebrate- Bivalve	IMBIV16111	<i>Epiblasma obliquata obliquata</i> (Catspaw or Purple Cat's Paw Pearly Mussel)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
3	Invertebrate- Bivalve	IMBIV16111	<i>Epiblasma obliquata obliquata</i> (Catspaw or Purple Cat's Paw Pearly Mussel)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium		Yes			6	
3	Invertebrate- Bivalve	IMBIV16120	<i>Epiblasma othcaloagensis</i> (Southern Acornshell)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV16120	<i>Epiblasma othcaloagensis</i> (Southern Acornshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV16120	<i>Epiblasma othcaloagensis</i> (Southern Acornshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV16120	<i>Epiblasma othcaloagensis</i> (Southern Acornshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High			Yes		13	
3	Invertebrate- Bivalve	IMBIV16120	<i>Epiblasma othcaloagensis</i> (Southern Acornshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium			Yes		12	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High			Yes		6.5	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV17050	<i>Fusconaia cuneolus</i> (Fine-rayed Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium	Yes				3	
3	Invertebrate- Bivalve	IMBIV17040	<i>Fusconaia edgariana</i> (Shiny Pigtoe)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV17040	<i>Fusconaia edgariana</i> (Shiny Pigtoe)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV17040	<i>Fusconaia edgariana</i> (Shiny Pigtoe)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV17040	<i>Fusconaia edgariana</i> (Shiny Pigtoe)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV17040	<i>Fusconaia edgariana</i> (Shiny Pigtoe)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
3	Invertebrate- Bivalve	IMBIV17040	<i>Fusconaia edgariana</i> (Shiny Pigtoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV17040	<i>Fusconaia edgariana</i> (Shiny Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV20010	<i>Hemistena lata</i> (Cracking Pearlymussel)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV20010	<i>Hemistena lata</i> (Cracking Pearlymussel)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes	Yes			13.5	
3	Invertebrate- Bivalve	IMBIV20010	<i>Hemistena lata</i> (Cracking Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV20010	<i>Hemistena lata</i> (Cracking Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV20010	<i>Hemistena lata</i> (Cracking Pearlymussel)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes	Yes			10.5	
3	Invertebrate- Bivalve	IMBIV20010	<i>Hemistena lata</i> (Cracking Pearlymussel)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes	Yes			10.5	
3	Invertebrate- Bivalve	IMBIV20010	<i>Hemistena lata</i> (Cracking Pearlymussel)	Operation of Dams/Reservoirs	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV20010	<i>Hemistena lata</i> (Cracking Pearlymussel)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV21110	<i>Lampsilis abrupta</i> (Pink Mucket)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV21110	<i>Lampsilis abrupta</i> (Pink Mucket)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV21110	<i>Lampsilis abrupta</i> (Pink Mucket)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Comp/Int	0- 25%	High	Current	Medium	Medium	Yes	Yes			2.75	
3	Invertebrate- Bivalve	IMBIV21110	<i>Lampsilis abrupta</i> (Pink Mucket)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
3	Invertebrate- Bivalve	IMBIV21110	Lampsilis abrupta (Pink Mucket)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV21110	Lampsilis abrupta (Pink Mucket)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV21110	Lampsilis abrupta (Pink Mucket)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV21110	Lampsilis abrupta (Pink Mucket)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV21110	Lampsilis abrupta (Pink Mucket)	Invasive Exotic Species	Alt Bio Comp/Int	0- 25%	Medium	Current	Low	Low	Yes	Yes			2.5	
3	Invertebrate- Bivalve	IMBIV21110	Lampsilis abrupta (Pink Mucket)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV21110	Lampsilis abrupta (Pink Mucket)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV21010	Lampsilis altilis (Fine-lined Pocketbook)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
3	Invertebrate- Bivalve	IMBIV21010	Lampsilis altilis (Fine-lined Pocketbook)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
3	Invertebrate- Bivalve	IMBIV21010	Lampsilis altilis (Fine-lined Pocketbook)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
3	Invertebrate- Bivalve	IMBIV21010	Lampsilis altilis (Fine-lined Pocketbook)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High			Yes		9.75	
3	Invertebrate- Bivalve	IMBIV21260	Lampsilis virescens (Alabama Lampmussel)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High	Yes				12	
3	Invertebrate- Bivalve	IMBIV21260	Lampsilis virescens (Alabama Lampmussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High	Yes				12	
3	Invertebrate- Bivalve	IMBIV21260	Lampsilis virescens (Alabama Lampmussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High	Yes				12	
3	Invertebrate- Bivalve	IMBIV21260	Lampsilis virescens (Alabama Lampmussel)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes				13	
3	Invertebrate- Bivalve	IMBIV21260	Lampsilis virescens (Alabama Lampmussel)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High	Yes				13	
3	Invertebrate- Bivalve	IMBIV21260	Lampsilis virescens (Alabama Lampmussel)	Recreational Vehicles	Alt Phys Hab Struc	76- 100%	High	Current	Medium	Medium	Yes				11	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes				13.5	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV23010	Lemiox rimosus (Birdwing Pearly Mussel)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV24020	Leptodea leptodon (Scaleshell)	Construction of Dams/Impoundments	Alt Conn	76- 100%	High	Current	Low	Medium	Yes	Yes			12	
3	Invertebrate- Bivalve	IMBIV24020	Leptodea leptodon (Scaleshell)	Construction of Dams/Impoundments	Alt Phys Hab Struc	76- 100%	V.High	Historic- Continuing	None	High	Yes	Yes			18	
3	Invertebrate- Bivalve	IMBIV24020	Leptodea leptodon (Scaleshell)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High	Yes	Yes			12	
3	Invertebrate- Bivalve	IMBIV24020	Leptodea leptodon (Scaleshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High	Yes	Yes			12	
3	Invertebrate- Bivalve	IMBIV24020	Leptodea leptodon (Scaleshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High	Yes	Yes			12	
3	Invertebrate- Bivalve	IMBIV24020	Leptodea leptodon (Scaleshell)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High	Yes	Yes			13	
3	Invertebrate- Bivalve	IMBIV28010	Medionidus acutissimus (Alabama Moccasinshell)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
3	Invertebrate- Bivalve	IMBIV28010	Medionidus acutissimus (Alabama Moccasinshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes		9	
3	Invertebrate- Bivalve	IMBIV28040	Medionidus parvulus (Coosa Moccasinshell)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
3	Invertebrate- Bivalve	IMBIV28040	Medionidus parvulus (Coosa Moccasinshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes		9	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	Medium	Yes	Yes			7.5	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Comp/Int	0- 25%	V.High	Current	Medium	Low	Yes	Yes			3	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Invasive Exotic Species	Alt Bio Comp/Int	0- 25%	Medium	Current	Low	Low	Yes	Yes			2.5	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV31030	Obovaria retusa (Ring Pink)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV32010	Pegias fabula (Little-wing Pearlymussel)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV32010	Pegias fabula (Little-wing Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV32010	Pegias fabula (Little-wing Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV32010	Pegias fabula (Little-wing Pearlymussel)	Incompatible Mining Practices	Alt Chem Env Reg	76- 100%	High	Historic- Continuing	Low	High	Yes	Yes			14	
3	Invertebrate- Bivalve	IMBIV32010	Pegias fabula (Little-wing Pearlymussel)	Incompatible Mining Practices	Alt Phys Env Reg	76- 100%	High	Historic- Continuing	Low	High	Yes	Yes			14	
3	Invertebrate- Bivalve	IMBIV32010	Pegias fabula (Little-wing Pearlymussel)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV32010	Pegias fabula (Little-wing Pearlymussel)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
3	Invertebrate- Bivalve	IMBIV32010	Pegias fabula (Little-wing Pearlymussel)	Recreational Use of Habitats (non-vehicular)	Alt Bio Comp/Int	0- 25%	V.High	Current	High	Medium		Yes			3	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Channelization of Rivers/Streams	Alt Phys Hab Struc	76- 100%	High	Current	Low	High	Yes				13	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Construction of Dams/Impoundments	Alt Conn	76- 100%	High	Current	Low	Medium	Yes				12	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Construction of Dams/Impoundments	Alt Phys Hab Struc	76- 100%	V.High	Historic- Continuing	None	High	Yes				18	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes				13	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High	Yes				13	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Industrial Discharge	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes				13	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low	Yes				2.5	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium	Yes				12	
3	Invertebrate- Bivalve	IMBIV34010	Plethobasus cicatricosus (White Wartyback)	Operation of Dams/Reservoirs	Alt Phys Env Reg	76- 100%	High	Current	Low	Medium	Yes				12	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Channelization of Rivers/Streams	Alt Phys Hab Struc	51- 75%	V.High	Current	Low	High	Yes	Yes			11.25	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes	Yes			13.5	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes			9.75	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes	Yes			9.75	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes			9.75	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low	Yes	Yes			2.5	
3	Invertebrate- Bivalve	IMBIV34020	Plethobasus cooperianus (Orange-foot Pimpleback)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV35060	Pleurobema clava (Clubshell)	Channelization of Rivers/Streams	Alt Phys Hab Struc	76- 100%	V.High	Current	Low	High	Yes	Yes			15	
3	Invertebrate- Bivalve	IMBIV35060	Pleurobema clava (Clubshell)	Construction of Dams/Impoundments	Alt Conn	76- 100%	High	Current	Low	Medium	Yes	Yes			12	
3	Invertebrate- Bivalve	IMBIV35060	Pleurobema clava (Clubshell)	Construction of Dams/Impoundments	Alt Phys Hab Struc	76- 100%	V.High	Historic- Continuing	None	High	Yes	Yes			18	
3	Invertebrate- Bivalve	IMBIV35060	Pleurobema clava (Clubshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes	Yes			13	
3	Invertebrate- Bivalve	IMBIV35060	Pleurobema clava (Clubshell)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High	Yes	Yes			13	
3	Invertebrate- Bivalve	IMBIV35060	Pleurobema clava (Clubshell)	Industrial Discharge	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes	Yes			13	
3	Invertebrate- Bivalve	IMBIV35060	Pleurobema clava (Clubshell)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low	Yes	Yes			2.5	
3	Invertebrate- Bivalve	IMBIV35060	Pleurobema clava (Clubshell)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium	Yes	Yes			12	
3	Invertebrate- Bivalve	IMBIV35110	Pleurobema decisum (Southern Clubshell)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV35110	Pleurobema decisum (Southern Clubshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV35110	Pleurobema decisum (Southern Clubshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV35110	Pleurobema decisum (Southern Clubshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High			Yes		13	
3	Invertebrate- Bivalve	IMBIV35110	Pleurobema decisum (Southern Clubshell)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High			Yes		13	
3	Invertebrate- Bivalve	IMBIV35110	Pleurobema decisum (Southern Clubshell)	Industrial Discharge	Alt Chem Env Reg	76- 100%	High	Current	Low	High	Yes	Yes			13	
3	Invertebrate- Bivalve	IMBIV35140	Pleurobema georgianum (Southern Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium			Yes		12	
3	Invertebrate- Bivalve	IMBIV35140	Pleurobema georgianum (Southern Pigtoe)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV35140	Pleurobema georgianum (Southern Pigtoe)	Incompatible Forestry Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV35140	Pleurobema georgianum (Southern Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV35140	Pleurobema georgianum (Southern Pigtoe)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High			Yes		13	
3	Invertebrate- Bivalve	IMBIV35140	Pleurobema georgianum (Southern Pigtoe)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High			Yes		13	
3	Invertebrate- Bivalve	IMBIV35140	Pleurobema georgianum (Southern Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium			Yes		12	
3	Invertebrate- Bivalve	IMBIV35150	Pleurobema gibberum (Cumberland Pigtoe)	Excessive Surfacewater Withdrawal	Alt Phys Env Reg	26- 50%	High	Current	Low	High		Yes			6.5	
3	Invertebrate- Bivalve	IMBIV35150	Pleurobema gibberum (Cumberland Pigtoe)	Forest Type Conversion	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
3	Invertebrate- Bivalve	IMBIV35150	Pleurobema gibberum (Cumberland Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV35150	Pleurobema gibberum (Cumberland Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV35150	Pleurobema gibberum (Cumberland Pigtoe)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes			10.5	
3	Invertebrate- Bivalve	IMBIV35150	Pleurobema gibberum (Cumberland Pigtoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
3	Invertebrate- Bivalve	IMBIV35230	Pleurobema perovatum (Ovate Clubshell)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV35230	Pleurobema perovatum (Ovate Clubshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium			Yes		12	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes	Yes			13.5	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low	Yes				3	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Invasive Exotic Species	Alt Bio Compl/Int	0- 25%	Medium	Current	Low	Low	Yes	Yes			2.5	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Operation of Dams/Reservoirs	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV35240	Pleurobema plenum (Rough Pigtoe)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV38020	Ptychobranthus greeni (Triangular Kidneyshell)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV38020	Ptychobranthus greeni (Triangular Kidneyshell)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High	Yes		Yes		12	
3	Invertebrate- Bivalve	IMBIV38020	Ptychobranthus greeni (Triangular Kidneyshell)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes		12	
3	Invertebrate- Bivalve	IMBIV38020	Ptychobranthus greeni (Triangular Kidneyshell)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	76- 100%	High	Current	Low	High			Yes		13	
3	Invertebrate- Bivalve	IMBIV38020	Ptychobranthus greeni (Triangular Kidneyshell)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	76- 100%	High	Current	Low	High			Yes		13	
3	Invertebrate- Bivalve	IMBIV38020	Ptychobranthus greeni (Triangular Kidneyshell)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium			Yes		12	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
3	Invertebrate- Bivalve	IMBIV39042	Quadrula cylindrica strigillata (Rough Rabbitsfoot Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV39042	Quadrula cylindrica strigillata (Rough Rabbitsfoot Pearlymussel)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV39042	Quadrula cylindrica strigillata (Rough Rabbitsfoot Pearlymussel)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV39042	Quadrula cylindrica strigillata (Rough Rabbitsfoot Pearlymussel)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV39042	Quadrula cylindrica strigillata (Rough Rabbitsfoot Pearlymussel)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Channelization of Rivers/Streams	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	Low	Medium	Yes	Yes			7.5	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Compl/Int	0- 25%	V.High	Current	Medium	Low	Yes	Yes			3	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	0- 25%	High	Current	Medium	High	Yes	Yes			3	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High	Yes	Yes			3	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes			6.5	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV39050	Quadrula fragosa (Winged Mapleleaf)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes				7	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV39070	Quadrula intermedia (Cumberland Monkeyface)	Residential Sewage/Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium	Yes				6	
3	Invertebrate- Bivalve	IMBIV39150	Quadrula sparsa (Appalachian Monkeyface)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Current	Low	Medium	Yes				9	
3	Invertebrate- Bivalve	IMBIV39150	Quadrula sparsa (Appalachian Monkeyface)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes				13.5	
3	Invertebrate- Bivalve	IMBIV39150	Quadrula sparsa (Appalachian Monkeyface)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV39150	Quadrula sparsa (Appalachian Monkeyface)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV39150	Quadrula sparsa (Appalachian Monkeyface)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
3	Invertebrate- Bivalve	IMBIV39150	Quadrula sparsa (Appalachian Monkeyface)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
3	Invertebrate- Bivalve	IMBIV39150	Quadrula sparsa (Appalachian Monkeyface)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Current	Low	Medium	Yes				9	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes				13.5	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes				9	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes				9.75	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
3	Invertebrate- Bivalve	IMBIV43020	Toxolasma cylindrellus (Pale Lilliput)	Recreational Vehicles	Alt Phys Hab Struc	0- 25%	V.High	Current	Medium	High	Yes				3.5	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Forest Type Conversion	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes				6.5	
3	Invertebrate- Bivalve	IMBIV47110	Villosa perpurpurea (Purple Bean)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes				9	
3	Invertebrate- Bivalve	IMBIV47140	Villosa trabalis (Cumberland Bean)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Current	Low	Medium	Yes	Yes			9	
3	Invertebrate- Bivalve	IMBIV47140	Villosa trabalis (Cumberland Bean)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes	Yes			13.5	
3	Invertebrate- Bivalve	IMBIV47140	Villosa trabalis (Cumberland Bean)	Forest Type Conversion	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV47140	Villosa trabalis (Cumberland Bean)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes				6	
3	Invertebrate- Bivalve	IMBIV47140	Villosa trabalis (Cumberland Bean)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High	Yes	Yes			6	
3	Invertebrate- Bivalve	IMBIV47140	Villosa trabalis (Cumberland Bean)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes	Yes			10.5	

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
3	Invertebrate- Bivalve	IMBIV47140	<i>Villosa trabalis</i> (Cumberland Bean)	Industrial Discharge	Alt Chem Env Reg	51- 75%	High	Current	Low	High	Yes	Yes				9.75
3	Invertebrate- Bivalve	IMBIV47140	<i>Villosa trabalis</i> (Cumberland Bean)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes				9
3	Invertebrate- Bivalve	IMBIV47140	<i>Villosa trabalis</i> (Cumberland Bean)	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High	Yes	Yes				6.5
3	Invertebrate- Bivalve	IMBIV47140	<i>Villosa trabalis</i> (Cumberland Bean)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium	Yes					6
3	Invertebrate- Bivalve	IMBIV47140	<i>Villosa trabalis</i> (Cumberland Bean)	Residential Sewage/Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium	Yes	Yes				9
3	Invertebrate- Crustacean	ICMAL11160	<i>Orconectes shoupi</i> (Nashville Crayfish)	Commercial/Industrial Development	Alt Phys Env Reg	51- 75%	High	Current	Low	High		Yes				9.75
3	Invertebrate- Crustacean	ICMAL11160	<i>Orconectes shoupi</i> (Nashville Crayfish)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High		Yes				9.75
3	Invertebrate- Crustacean	ICMAL11160	<i>Orconectes shoupi</i> (Nashville Crayfish)	Industrial Discharge	Alt Chem Env Reg	76- 100%	High	Current	Low	High		Yes				13
3	Invertebrate- Crustacean	ICMAL11160	<i>Orconectes shoupi</i> (Nashville Crayfish)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium		Yes				12
3	Invertebrate- Crustacean	ICMAL11160	<i>Orconectes shoupi</i> (Nashville Crayfish)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Current	Low	High		Yes				9.75
3	Invertebrate- Gastropod	IMGASK5141	<i>Leptoxis crassa anthonyi</i> (Anthony's River Snail)	Construction of Dams/Impoundments	Alt Phys Hab Struc	76- 100%	V.High	Historic- Continuing	None	High	Yes					18
3	Invertebrate- Gastropod	IMGASK5141	<i>Leptoxis crassa anthonyi</i> (Anthony's River Snail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High	Yes					12
3	Invertebrate- Gastropod	IMGASK5141	<i>Leptoxis crassa anthonyi</i> (Anthony's River Snail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High	Yes					12
3	Invertebrate- Gastropod	IMGASK5141	<i>Leptoxis crassa anthonyi</i> (Anthony's River Snail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium	Yes					12
3	Invertebrate- Gastropod	IMGASJ0450	<i>Marstonia ogmorhapha</i> (Royal Springsnail)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High	Yes					12
3	Invertebrate- Gastropod	IMGASJ0450	<i>Marstonia ogmorhapha</i> (Royal Springsnail)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	76- 100%	High	Current	Medium	High	Yes					12
3	Invertebrate- Gastropod	IMGASJ0450	<i>Marstonia ogmorhapha</i> (Royal Springsnail)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High	Yes					12
3	Invertebrate- Gastropod	IMGASJ0450	<i>Marstonia ogmorhapha</i> (Royal Springsnail)	Invasive Exotic Species	Alt Bio Comp/Int	76- 100%	Medium	Current	Medium	Low	Yes					9
3	Invertebrate- Gastropod	IMGASJ0450	<i>Marstonia ogmorhapha</i> (Royal Springsnail)	Residential Sewage/Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium	Yes					12
3	Vertebrate- Fish	AFCJB49020	<i>Cyprinella caerulea</i> (Blue Shiner)	Agricultural Conversion	Alt Phys Env Reg	0- 25%	Medium	Historic- Continuing	Low	High				Yes		3.25
3	Vertebrate- Fish	AFCJB49020	<i>Cyprinella caerulea</i> (Blue Shiner)	Incompatible Grazing/Pasture Management Practices	Alt Chem Env Reg	0- 25%	High	Current	Medium	Medium				Yes		2.75
3	Vertebrate- Fish	AFCJB49020	<i>Cyprinella caerulea</i> (Blue Shiner)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	Medium				Yes		2.75
3	Vertebrate- Fish	AFCJB49020	<i>Cyprinella caerulea</i> (Blue Shiner)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Medium	High				Yes		6
3	Vertebrate- Fish	AFCJB49020	<i>Cyprinella caerulea</i> (Blue Shiner)	Incompatible Row Crop Agricultural Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	Medium				Yes		2.75
3	Vertebrate- Fish	AFCJB15080	<i>Cyprinella monacha</i> (Spoffin Chub)	Commercial Collection of Species	Alt Bio Comp/Int	0- 25%	V.High	Current	High	Low	Yes					2.75
3	Vertebrate- Fish	AFCJB15080	<i>Cyprinella monacha</i> (Spoffin Chub)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	High	Historic- Continuing	None	High	Yes					12
3	Vertebrate- Fish	AFCJB15080	<i>Cyprinella monacha</i> (Spoffin Chub)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes					7
3	Vertebrate- Fish	AFCJB15080	<i>Cyprinella monacha</i> (Spoffin Chub)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes					7
3	Vertebrate- Fish	AFCJB15080	<i>Cyprinella monacha</i> (Spoffin Chub)	Operation of Dams/Reservoirs	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	Low	Yes					6
3	Vertebrate- Fish	AFCJB50010	<i>Erimystax cahni</i> (Slender Chub)	Construction of Dams/Impoundments	Alt Phys Hab Struc	51- 75%	V.High	Historic- Continuing	None	High	Yes					13.5
3	Vertebrate- Fish	AFCJB50010	<i>Erimystax cahni</i> (Slender Chub)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes					10.5
3	Vertebrate- Fish	AFCJB50010	<i>Erimystax cahni</i> (Slender Chub)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes					10.5
3	Vertebrate- Fish	AFCQC02080	<i>Etheostoma boschungii</i> (Slackwater Darter)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Phys Env Reg	51- 75%	V.High	Historic- Continuing	Low	V.High	Yes					13.5
3	Vertebrate- Fish	AFCQC02080	<i>Etheostoma boschungii</i> (Slackwater Darter)	Excessive Groundwater Withdrawal	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes					9
3	Vertebrate- Fish	AFCQC02080	<i>Etheostoma boschungii</i> (Slackwater Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes					9
3	Vertebrate- Fish	AFCQC02XD0	<i>Etheostoma doration</i> sp. (Bluemask Darter or Jewel Darter)	Construction of Dams/Impoundments	Alt Phys Env Reg	51- 75%	V.High	Historic- Continuing	None	V.High		Yes				15
3	Vertebrate- Fish	AFCQC02XD0	<i>Etheostoma doration</i> sp. (Bluemask Darter or Jewel Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes					9
3	Vertebrate- Fish	AFCQC02XD0	<i>Etheostoma doration</i> sp. (Bluemask Darter or Jewel Darter)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes					10.5
3	Vertebrate- Fish	AFCQC02XD0	<i>Etheostoma doration</i> sp. (Bluemask Darter or Jewel Darter)	Municipal Wastewater Treatment/Stormwater Runoff	Alt Chem Env Reg	51- 75%	V.High	Next 1- 5 Years	Low	Medium		Yes				9
3	Vertebrate- Fish	AFCQC02X30	<i>Etheostoma percnurum</i> (Duskytail Darter)	Commercial/Industrial Development	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes					9.75
3	Vertebrate- Fish	AFCQC02X30	<i>Etheostoma percnurum</i> (Duskytail Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes					9.75
3	Vertebrate- Fish	AFCQC02X30	<i>Etheostoma percnurum</i> (Duskytail Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes					9
3	Vertebrate- Fish	AFCQC02X30	<i>Etheostoma percnurum</i> (Duskytail Darter)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes				10.5
3	Vertebrate- Fish	AFCQC02X30	<i>Etheostoma percnurum</i> (Duskytail Darter)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes				10.5
3	Vertebrate- Fish	AFCQC02X30	<i>Etheostoma percnurum</i> (Duskytail Darter)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Current	Low	High	Yes					9.75
3	Vertebrate- Fish	AFCQC02A20	<i>Etheostoma wapiti</i> (Boulder Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High	Yes					9
3	Vertebrate- Fish	AFCQC02A20	<i>Etheostoma wapiti</i> (Boulder Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes					9
3	Vertebrate- Fish	AFCQC02A20	<i>Etheostoma wapiti</i> (Boulder Darter)	Operation of Dams/Reservoirs	Alt Phys Env Reg	51- 75%	High	Current	Low	Medium	Yes					9
3	Vertebrate- Fish	AFCJB28A90	<i>Notropis albizonatus</i> (Palezone Shiner (S. Fk. Cumberland Dr.))	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes				9
3	Vertebrate- Fish	AFCJB28A90	<i>Notropis albizonatus</i> (Palezone Shiner (S. Fk. Cumberland Dr.))	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High		Yes				10.5
3	Vertebrate- Fish	AFCJB28A90	<i>Notropis albizonatus</i> (Palezone Shiner (S. Fk. Cumberland Dr.))	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Current	Low	High		Yes				9.75
3	Vertebrate- Fish	AFCJB28A90	<i>Notropis albizonatus</i> (Palezone Shiner (S. Fk. Cumberland Dr.))	Oil or Natural Gas Drilling	Alt Chem Env Reg	26- 50%	High	Current	Low	High		Yes				6.5
3	Vertebrate- Fish	AFCKA02020	<i>Noturus baileyi</i> (Smoky Madtom)	Construction of Dams/Impoundments	Alt Conn	51- 75%	High	Historic- Continuing	None	High	Yes					12
3	Vertebrate- Fish	AFCKA02020	<i>Noturus baileyi</i> (Smoky Madtom)	Construction of Roads/Railroads/Utilities	Alt Chem Env Reg	26- 50%	V.High	Historic- Continuing	Low	High	Yes					8
3	Vertebrate- Fish	AFCKA02020	<i>Noturus baileyi</i> (Smoky Madtom)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High	Yes					9
3	Vertebrate- Fish	AFCKA02060	<i>Noturus flavipinnis</i> (Yellowfin Madtom)	Construction of Roads/Railroads/Utilities	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High	Yes					7
3	Vertebrate- Fish	AFCKA02060	<i>Noturus flavipinnis</i> (Yellowfin Madtom)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes					6
3	Vertebrate- Fish	AFCKA02060	<i>Noturus flavipinnis</i> (Yellowfin Madtom)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High	Yes					6

Aquatic Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	MSR	TNR	CUM	BR	CON	
3	Vertebrate- Fish	AFCKA02060	Noturus flavipinnis (Yellowfin Madtom)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
3	Vertebrate- Fish	AFCKA02210	Noturus stanauili (Pygmy Madtom)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes			9	
3	Vertebrate- Fish	AFCKA02210	Noturus stanauili (Pygmy Madtom)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Historic- Continuing	Low	High		Yes			7	
3	Vertebrate- Fish	AFCQC04010	Percina antesella (Amber Darter)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
3	Vertebrate- Fish	AFCQC04010	Percina antesella (Amber Darter)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
3	Vertebrate- Fish	AFCQC04010	Percina antesella (Amber Darter)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	26- 50%	High	Current	Low	High				Yes	6.5	
3	Vertebrate- Fish	AFCQC04320	Percina jenkinsi (Conasauga Logperch or Reticulate Logperch)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
3	Vertebrate- Fish	AFCQC04320	Percina jenkinsi (Conasauga Logperch or Reticulate Logperch)	Incompatible Grazing/Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	9	
3	Vertebrate- Fish	AFCQC04320	Percina jenkinsi (Conasauga Logperch or Reticulate Logperch)	Incompatible Row Crop Agricultural Practices	Alt Chem Env Reg	51- 75%	High	Current	Low	High				Yes	9.75	
3	Vertebrate- Fish	AFCQC04290	Percina tanasi (Snail Darter)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Historic- Continuing	None	High		Yes			8	
3	Vertebrate- Fish	AFCQC04290	Percina tanasi (Snail Darter)	Construction of Dams/Impoundments	Alt Phys Hab Struc	26- 50%	V.High	Historic- Continuing	None	High		Yes			9	
3	Vertebrate- Fish	AFCJB31010	Phoxinus cumberlandensis (Mountain Blackside Dace)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes		9	
3	Vertebrate- Fish	AFCJB31010	Phoxinus cumberlandensis (Mountain Blackside Dace)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Historic- Continuing	Low	High			Yes		10.5	
3	Vertebrate- Fish	AFCJB31010	Phoxinus cumberlandensis (Mountain Blackside Dace)	Incompatible Mining Practices	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High			Yes		10.5	
3	Vertebrate- Fish	AFCJB31010	Phoxinus cumberlandensis (Mountain Blackside Dace)	Incompatible Species Management Practices	Alt Bio Comp/Int	26- 50%	High	Next 1- 5 Years	Medium	Low			Yes		4	
3	Vertebrate- Fish	AFCAB01010	Polyodon spathula (Paddlefish)	Construction of Dams/Impoundments	Alt Conn	26- 50%	High	Historic- Continuing	None	V.High	Yes	Yes	Yes		9	
3	Vertebrate- Fish	AFCAB01010	Polyodon spathula (Paddlefish)	Construction of Ditches/Dikes/Drainage/Diversion Systems	Alt Conn	0- 25%	High	Historic- Continuing	None	Medium	Yes				3.75	
3	Vertebrate- Fish	AFCAB01010	Polyodon spathula (Paddlefish)	Illegal Hunting/Fishing/Collection/Killing	Alt Bio Comp/Int	0- 25%	V.High	Current	Medium	Low	Yes	Yes	Yes		3	
3	Vertebrate- Fish	AFCAA02010	Scaphirhynchus albus (Pallid Sturgeon)	Channelization of Rivers/Streams	Alt Phys Env Reg	51- 75%	High	Historic- Continuing	Low	High	Yes				10.5	
3	Vertebrate- Fish	AFCAA02010	Scaphirhynchus albus (Pallid Sturgeon)	Excessive Competition/Predation by Native Species	Alt Bio Comp/Int	0- 25%	High	Current	Low	Low	Yes				2.75	
3	Vertebrate- Fish	AFCAA02010	Scaphirhynchus albus (Pallid Sturgeon)	Industrial Discharge	Alt Chem Env Reg	26- 50%	High	Current	Medium	Medium	Yes				5.5	

Subterranean Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV	
1	Invertebrate- Crustacean	ICMAL02080	Amergoniscus paynei (a cave obligate isopod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6
1	Invertebrate- Crustacean	ICMAL02080	Amergoniscus paynei (a cave obligate isopod)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium					Yes	3
1	Invertebrate- Crustacean	ICMAL02080	Amergoniscus paynei (a cave obligate isopod)	Primary Residential Development	Alt Phys Env Reg	0- 25%	V.High	Next 1- 5 Years	None	V.High					Yes	4.25
1	Invertebrate- Crustacean	ICMAL02080	Amergoniscus paynei (a cave obligate isopod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium					Yes	3
1	Invertebrate- Crustacean	ICMAL25050	Bactrurus angulus (Cumberland Gap Cave Amphipod)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	High					Yes	5
1	Invertebrate- Crustacean	ICMAL25050	Bactrurus angulus (Cumberland Gap Cave Amphipod)	Incompatible Mining Practices	Alt Chem Env Reg	26- 50%	High	Next 1- 5 Years	Low	V.High					Yes	6.5
1	Invertebrate- Crustacean	ICMAL25050	Bactrurus angulus (Cumberland Gap Cave Amphipod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Next 1- 5 Years	Low	Medium					Yes	5
1	Invertebrate- Crustacean	ICMAL01590	Caecidotea cirulus (a cave obligate isopod)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
1	Invertebrate- Crustacean	ICMAL01590	Caecidotea cirulus (a cave obligate isopod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
1	Invertebrate- Crustacean	ICMAL01590	Caecidotea cirulus (a cave obligate isopod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
1	Invertebrate- Crustacean	ICMAL01100	Caecidotea incurva (Incurved Cave Isopod)	Commercial / Industrial Development	Alt Phys Env Reg	0- 25%	High	Within 5- 10 Years	None	V.High				Yes		3.5
1	Invertebrate- Crustacean	ICMAL01100	Caecidotea incurva (Incurved Cave Isopod)	Construction of Roads / Railroads / Utilities	Alt Phys Env Reg	0- 25%	High	Within 5- 10 Years	None	V.High				Yes		3.5
1	Invertebrate- Crustacean	ICMAL01100	Caecidotea incurva (Incurved Cave Isopod)	Excessive Competition / Predation by Native Species	Alt Bio Comp/Int	26- 50%	High	Current	Low	High					Yes	5.5
1	Invertebrate- Crustacean	ICMAL01100	Caecidotea incurva (Incurved Cave Isopod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Crustacean	ICMAL01100	Caecidotea incurva (Incurved Cave Isopod)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
1	Invertebrate- Crustacean	ICMAL01100	Caecidotea incurva (Incurved Cave Isopod)	Primary Residential Development	Alt Phys Env Reg	0- 25%	High	Within 5- 10 Years	None	V.High				Yes		3.5
1	Invertebrate- Crustacean	ICMAL01100	Caecidotea incurva (Incurved Cave Isopod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
1	Invertebrate- Crustacean	ICMAL01640	Caecidotea nortoni (a cave obligate isopod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
1	Invertebrate- Crustacean	ICMAL01640	Caecidotea nortoni (a cave obligate isopod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
1	Invertebrate- Crustacean	ICMAL01120	Caecidotea recurvata (Southwestern Virginia Cave Isopod)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Crustacean	ICMAL01120	Caecidotea recurvata (Southwestern Virginia Cave Isopod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
1	Invertebrate- Crustacean	ICMAL01120	Caecidotea recurvata (Southwestern Virginia Cave Isopod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6
1	Invertebrate- Crustacean	ICMAL01680	Caecidotea scyphus (a cave obligate isopod)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
1	Invertebrate- Crustacean	ICMAL01680	Caecidotea scyphus (a cave obligate isopod)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Low			Yes			6.75
1	Invertebrate- Crustacean	ICMAL01200	Caecidotea stygia (a cave obligate isopod)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
1	Invertebrate- Crustacean	ICMAL01200	Caecidotea stygia (a cave obligate isopod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
1	Invertebrate- Crustacean	ICMAL01200	Caecidotea stygia (a cave obligate isopod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
1	Invertebrate- Crustacean	ICMAL07170	Cambarus hamulatus (Nickajack Cave Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
1	Invertebrate- Crustacean	ICMAL07170	Cambarus hamulatus (Nickajack Cave Crayfish)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
1	Invertebrate- Crustacean	ICCOPSWG01	Diacyclops sp. (Indiana Groundwater Copepod)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
1	Invertebrate- Crustacean	ICCOPSWG01	Diacyclops sp. (Indiana Groundwater Copepod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
1	Invertebrate- Crustacean	ICCOPSWG01	Diacyclops sp. (Indiana Groundwater Copepod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
1	Invertebrate- Crustacean	ICCOP02040	Diacyclops yeastmani (Yeatman's Groundwater Copepod)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
1	Invertebrate- Crustacean	ICCOP02040	Diacyclops yeastmani (Yeatman's Groundwater Copepod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
1	Invertebrate- Crustacean	ICCOP02040	Diacyclops yeastmani (Yeatman's Groundwater Copepod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium			Yes			3
1	Invertebrate- Crustacean	ICMAL78013	Ligidium elrodii hancockensis (a cave obligate isopod)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Crustacean	ICMAL78013	Ligidium elrodii hancockensis (a cave obligate isopod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
1	Invertebrate- Crustacean	ICMAL78013	Ligidium elrodii hancockensis (a cave obligate isopod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium				Yes		3
1	Invertebrate- Crustacean	ICMAL11010	Orconectes australis (Blind Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
1	Invertebrate- Crustacean	ICMAL11010	Orconectes australis (Blind Crayfish)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
1	Invertebrate- Crustacean	ICMAL11010	Orconectes australis (Blind Crayfish)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium			Yes			3
1	Invertebrate- Crustacean	ICMAL11010	Orconectes australis (Blind Crayfish)	Primary Residential Development	Alt Phys Env Reg	0- 25%	High	Current	None	V.High			Yes			4.25
1	Invertebrate- Crustacean	ICMAL11010	Orconectes australis (Blind Crayfish)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
1	Invertebrate- Crustacean	ICMAL11460	Orconectes incomptus (Tennessee Cave Crayfish)	Construction of Roads / Railroads / Utilities	Alt Phys Env Reg	26- 50%	High	Current	None	V.High		Yes	Yes			8.5
1	Invertebrate- Crustacean	ICMAL11460	Orconectes incomptus (Tennessee Cave Crayfish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes			6
1	Invertebrate- Crustacean	ICMAL11460	Orconectes incomptus (Tennessee Cave Crayfish)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High		Yes	Yes			3
1	Invertebrate- Crustacean	ICMAL11460	Orconectes incomptus (Tennessee Cave Crayfish)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	None	V.High		Yes	Yes			7.5
1	Invertebrate- Crustacean	ICMAL11460	Orconectes incomptus (Tennessee Cave Crayfish)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes			6
1	Invertebrate- Crustacean	ICMAL11070	Orconectes pellucidus (Eyeless Crayfish)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes				9
1	Invertebrate- Crustacean	ICMAL11070	Orconectes pellucidus (Eyeless Crayfish)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High		Yes				7.5
1	Invertebrate- Crustacean	ICMAL11070	Orconectes pellucidus (Eyeless Crayfish)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes				9
1	Invertebrate- Crustacean	ICMAL05880	Stygobromus barryi (a cave obligate amphipod)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High				Yes		7.5
1	Invertebrate- Crustacean	ICMAL05880	Stygobromus barryi (a cave obligate amphipod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
1	Invertebrate- Crustacean	ICMAL05900	Stygobromus dicksoni (a cave obligate amphipod)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
1	Invertebrate- Crustacean	ICMAL05900	Stygobromus dicksoni (a cave obligate amphipod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
1	Invertebrate- Crustacean	ICMAL05820	Stygobromus fecundus (a cave obligate amphipod)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Low	Low				Yes		7.5
1	Invertebrate- Crustacean	ICMAL05730	Stygobromus finleyi (Finley's Cave Amphipod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
1	Invertebrate- Crustacean	ICMAL05730	Stygobromus finleyi (Finley's Cave Amphipod)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	High	Current	Low	Low				Yes		8.25

Subterranean Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability						Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV	SBR	
1	Invertebrate- Crustacean	ICMAL05730	Stygobromus finleyi (Finley's Cave Amphipod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium					Yes	9	
1	Invertebrate- Crustacean	ICMAL05330	Stygobromus nortonii (Norton's Cave Amphipod)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Crustacean	ICMAL05330	Stygobromus nortonii (Norton's Cave Amphipod)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium					Yes	6	
1	Invertebrate- Crustacean	ICMAL05330	Stygobromus nortonii (Norton's Cave Amphipod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes	Yes	9	
1	Invertebrate- Crustacean	ICMAL05330	Stygobromus nortonii (Norton's Cave Amphipod)	Secondary Home / Resort Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High						8.5	
1	Invertebrate- Crustacean	ICMALSWG02	Stygobromus sp. (a cave obligate amphipod)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Crustacean	ICMALSWG02	Stygobromus sp. (a cave obligate amphipod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Crustacean	ICMALSWG02	Stygobromus sp. (a cave obligate amphipod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Crustacean	ICMAL05X80	Stygobromus sp. 22 (Swamp River Cave Amphipod)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Crustacean	ICMAL05X80	Stygobromus sp. 22 (Swamp River Cave Amphipod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
1	Invertebrate- Crustacean	ICMAL05X80	Stygobromus sp. 22 (Swamp River Cave Amphipod)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6	
1	Invertebrate- Crustacean	ICMAL05X80	Stygobromus sp. 22 (Swamp River Cave Amphipod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6	
1	Invertebrate- Crustacean	ICMAL05A60	Stygobromus sparsus (a cave obligate amphipod)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Low	Low					Yes	7.5	
1	Invertebrate- Crustacean	ICMAL05720	Stygobromus vitreus (a cave obligate amphipod)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Crustacean	ICMAL05720	Stygobromus vitreus (a cave obligate amphipod)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	None	V.High		Yes				7.5	
1	Invertebrate- Crustacean	ICMAL05720	Stygobromus vitreus (a cave obligate amphipod)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes				6	
1	Invertebrate- Gastropod	IMGAS07080	Carychium stygium (Cave Thorn)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes				6	
1	Invertebrate- Gastropod	IMGAS07080	Carychium stygium (Cave Thorn)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High		Yes				8.5	
1	Invertebrate- Gastropod	IMGAS07080	Carychium stygium (Cave Thorn)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes				6	
1	Invertebrate- Gastropod	IMGAS50070	Helicodiscus hadenoecus (Cricket Coil or Cave Disc Snail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
1	Invertebrate- Gastropod	IMGAS50070	Helicodiscus hadenoecus (Cricket Coil or Cave Disc Snail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes			6	
1	Invertebrate- Gastropod	IMGAS50070	Helicodiscus hadenoecus (Cricket Coil or Cave Disc Snail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes			6	
1	Invertebrate- Gastropod	IMGAS50121	Helicodiscus notius specus (a cave snail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes	6	
1	Invertebrate- Gastropod	IMGAS50121	Helicodiscus notius specus (a cave snail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes	Yes	6	
1	Invertebrate- Gastropod	IMGAS50121	Helicodiscus notius specus (a cave snail)	Recreational Use of Habitats (non-vehicular)	Alt Bio Comp/Int	0- 25%	V.High	Current	High	Low					Yes	2.75	
1	Invertebrate- Gastropod	IMGAS50121	Helicodiscus notius specus (a cave snail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes	Yes	6	
1	Vertebrate- Amphibian	AAAAD06011	Gyrinophilus pallaucus gulolineatus (Berry Cave Salamander)	Commercial / Industrial Development	Alt Phys Env Reg	0- 25%	High	Within 5- 10 Years	None	V.High				Yes		3.5	
1	Vertebrate- Amphibian	AAAAD06011	Gyrinophilus pallaucus gulolineatus (Berry Cave Salamander)	Construction of Roads / Railroads / Utilities	Alt Phys Env Reg	0- 25%	High	Within 5- 10 Years	None	V.High				Yes		3.5	
1	Vertebrate- Amphibian	AAAAD06011	Gyrinophilus pallaucus gulolineatus (Berry Cave Salamander)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High				Yes		3	
1	Vertebrate- Amphibian	AAAAD06011	Gyrinophilus pallaucus gulolineatus (Berry Cave Salamander)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6	
1	Vertebrate- Amphibian	AAAAD06011	Gyrinophilus pallaucus gulolineatus (Berry Cave Salamander)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Within 5- 10 Years	None	V.High				Yes		7	
1	Vertebrate- Amphibian	AAAAD06011	Gyrinophilus pallaucus gulolineatus (Berry Cave Salamander)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9	
1	Vertebrate- Amphibian	AAAAD06012	Gyrinophilus pallaucus nectroides (Big Mouth Cave Salamander)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5	
1	Vertebrate- Amphibian	AAAAD06012	Gyrinophilus pallaucus nectroides (Big Mouth Cave Salamander)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
1	Vertebrate- Amphibian	AAAAD06012	Gyrinophilus pallaucus nectroides (Big Mouth Cave Salamander)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9	
1	Vertebrate- Fish	AFCLA04010	Typhlichthys subterraneanus (Southern Cavefish)	Excessive Groundwater Withdrawal	Alt Phys Env Reg	26- 50%	High	Current	None	Low		Yes	Yes	Yes		6.5	
1	Vertebrate- Fish	AFCLA04010	Typhlichthys subterraneanus (Southern Cavefish)	Forest Type Conversion	Alt Phys Env Reg	0- 25%	High	Current	Medium	High				Yes		3	
1	Vertebrate- Fish	AFCLA04010	Typhlichthys subterraneanus (Southern Cavefish)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes		Yes		6	
1	Vertebrate- Fish	AFCLA04010	Typhlichthys subterraneanus (Southern Cavefish)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6	
1	Vertebrate- Fish	AFCLA04010	Typhlichthys subterraneanus (Southern Cavefish)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6	
1	Vertebrate- Fish	AFCLA04010	Typhlichthys subterraneanus (Southern Cavefish)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Current	None	V.High				Yes		12.75	
1	Vertebrate- Fish	AFCLA04010	Typhlichthys subterraneanus (Southern Cavefish)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes	Yes	Yes		9	
2	Invertebrate- Arachnid	ILARASWG01	Appaleptoneta sp. (a cave leptonetid spider)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Next 1- 5 Years	Medium	High				Yes		10	
2	Invertebrate- Arachnid	ILARAU3010	Appaleptoneta sp. 1 (a cave leptonetid spider)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	High				Yes		5	
2	Invertebrate- Arachnid	ILARASWG02	Callioplus pantoplus (an amaroobiid spider)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	Low				Yes		4	
2	Invertebrate- Arachnid	ILARA31050	Chitrella archeri (a cave obligate pseudoscorpion)	Illegal Dumping	Alt Chem Env Reg	26- 50%	Medium	Current	High	Low				Yes		4	
2	Invertebrate- Arachnid	ILARA31050	Chitrella archeri (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Arachnid	ILARA31050	Chitrella archeri (a cave obligate pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Arachnid	ILARA31050	Chitrella archeri (a cave obligate pseudoscorpion)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	Medium	Current	Medium	Low				Yes		4.5	
2	Invertebrate- Arachnid	ILARA48030	Hesperochernes mirabilis (Southeastern Cave Pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes		Yes		6	
2	Invertebrate- Arachnid	ILARA48030	Hesperochernes mirabilis (Southeastern Cave Pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6	
2	Invertebrate- Arachnid	ILARA30130	Kleptochthonius affinis (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Arachnid	ILARA30130	Kleptochthonius affinis (a cave obligate pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Arachnid	ILARA30130	Kleptochthonius affinis (a cave obligate pseudoscorpion)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	0- 25%	High	Current	Medium	Low				Yes		2.5	
2	Invertebrate- Arachnid	ILARA30150	Kleptochthonius barri (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Arachnid	ILARA30170	Kleptochthonius charon (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Arachnid	ILARA30170	Kleptochthonius charon (a cave obligate pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Arachnid	ILARA30180	Kleptochthonius daemonius (a cave obligate pseudoscorpion)	Forest Type Conversion	Alt Phys Env Reg	0- 25%	High	Current	Medium	High				Yes		3	

Subterranean Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV	
2	Invertebrate- Arachnid	ILARA30180	Kleptochthonius daemonius (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA30180	Kleptochthonius daemonius (a cave obligate pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA30220	Kleptochthonius infernalis (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA30220	Kleptochthonius infernalis (a cave obligate pseudoscorpion)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	High	Current	Medium	Low				Yes		7.5
2	Invertebrate- Arachnid	ILARA30240	Kleptochthonius magnus (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	High				Yes		5
2	Invertebrate- Arachnid	ILARA30260	Kleptochthonius mycopius (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
2	Invertebrate- Arachnid	ILARA30260	Kleptochthonius mycopius (a cave obligate pseudoscorpion)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	High	Current	Medium	Low			Yes			5
2	Invertebrate- Arachnid	ILARA30280	Kleptochthonius pluto (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
2	Invertebrate- Arachnid	ILARA30280	Kleptochthonius pluto (a cave obligate pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA30290	Kleptochthonius rex (a cave obligate pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
2	Invertebrate- Arachnid	ILARASWG03	Kleptochthonius sp. (a cave obligate pseudoscorpion)	Illegal Dumping	Alt Chem Env Reg	26- 50%	Medium	Current	Medium	Low				Yes		4.5
2	Invertebrate- Arachnid	ILARASWG03	Kleptochthonius sp. (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARASWG03	Kleptochthonius sp. (a cave obligate pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA30300	Kleptochthonius stygius (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Arachnid	ILARA30310	Kleptochthonius tantalus (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	High				Yes		5
2	Invertebrate- Arachnid	ILARASWG04	Liocranoides sp. (a cave two-clawed spider)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High				Yes		7.5
2	Invertebrate- Arachnid	ILARASWG04	Liocranoides sp. (a cave two-clawed spider)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High				Yes		3
2	Invertebrate- Arachnid	ILARA36230	Nesticus barrowsi (a cave obligate spider)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High					Yes	9
2	Invertebrate- Arachnid	ILARA36230	Nesticus barrowsi (a cave obligate spider)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	High	Current	High	Low					Yes	4.5
2	Invertebrate- Arachnid	ILARA36030	Nesticus dilutus (Grassy Creek Cave Spider)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA36030	Nesticus dilutus (Grassy Creek Cave Spider)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA36040	Nesticus furtivus (Crystal Caverns Cave Spider)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA36040	Nesticus furtivus (Crystal Caverns Cave Spider)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High				Yes		11.25
2	Invertebrate- Arachnid	ILARA36040	Nesticus furtivus (Crystal Caverns Cave Spider)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	High	Current	Medium	Low				Yes		7.5
2	Invertebrate- Arachnid	ILARA36100	Nesticus paynei (a cave obligate spider)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	Yes	9
2	Invertebrate- Arachnid	ILARA36100	Nesticus paynei (a cave obligate spider)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	Yes	9
2	Invertebrate- Arachnid	ILARA36100	Nesticus paynei (a cave obligate spider)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High				Yes		8.5
2	Invertebrate- Arachnid	ILARA36260	Nesticus stygius (a cave obligate spider)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA36260	Nesticus stygius (a cave obligate spider)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARA36010	Nesticus tennesseensis (a spider)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes	Yes	9
2	Invertebrate- Arachnid	ILARA36010	Nesticus tennesseensis (a spider)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High					Yes	9
2	Invertebrate- Arachnid	ILARA36060	Nesticus valentinei (Valentine's Cave Spider)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARAB2010	Phalangodes appalachius (Appalachian Cave Harvestman)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILARAB2010	Phalangodes appalachius (Appalachian Cave Harvestman)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Arachnid	ILACA02020	Poecilophysis weyerensis (a cave mite)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	High				Yes		5
2	Invertebrate- Arachnid	ILARAU4010	Theromaster sp. 1 (a cave obligate harvestman)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Next 1- 5 Years	Medium	High				Yes		10
2	Invertebrate- Arachnid	ILARAD2130	Tyrannochthonius fiskei (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High				Yes		7.5
2	Invertebrate- Arachnid	ILARAD2290	Tyrannochthonius steevesi (a cave obligate pseudoscorpion)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High				Yes		7.5
2	Invertebrate- Arachnid	ILARAD2290	Tyrannochthonius steevesi (a cave obligate pseudoscorpion)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Flatworm	IPTUR04100	Sphalloplana buchanani (a cave obligate planarian)	Commercial / Industrial Development	Alt Phys Env Reg	76- 100%	High	Current	None	V.High			Yes			17
2	Invertebrate- Flatworm	IPTUR04100	Sphalloplana buchanani (a cave obligate planarian)	Illegal Dumping	Alt Chem Env Reg	76- 100%	High	Current	Medium	Medium			Yes			11
2	Invertebrate- Flatworm	IPTUR04100	Sphalloplana buchanani (a cave obligate planarian)	Industrial Discharge	Alt Chem Env Reg	76- 100%	High	Current	Low	High			Yes			13
2	Invertebrate- Flatworm	IPTUR04100	Sphalloplana buchanani (a cave obligate planarian)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium			Yes			12
2	Invertebrate- Flatworm	IPTURSWG01	Sphalloplana sp. (a cave obligate flatworm)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High				Yes		7.5
2	Invertebrate- Flatworm	IPTURSWG01	Sphalloplana sp. (a cave obligate flatworm)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
2	Invertebrate- Flatworm	IPTURSWG01	Sphalloplana sp. (a cave obligate flatworm)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6
2	Invertebrate- Flatworm	IPTUR04X20	Sphalloplana sp. 2 (Rumbling Falls Cave Flatworm)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Flatworm	IPTUR04X20	Sphalloplana sp. 2 (Rumbling Falls Cave Flatworm)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Flatworm	IPTUR04X20	Sphalloplana sp. 2 (Rumbling Falls Cave Flatworm)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
2	Invertebrate- Flatworm	IPTUR04X20	Sphalloplana sp. 2 (Rumbling Falls Cave Flatworm)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
2	Invertebrate- Insect	IICOLJM020	Alcoconota diversiseta (a rove beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6
2	Invertebrate- Insect	IICOLJM020	Alcoconota diversiseta (a rove beetle)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
2	Invertebrate- Insect	IICOLJM020	Alcoconota diversiseta (a rove beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
2	Invertebrate- Insect	IICOLSWG01	Anillinus sp. (Flag Trail Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	Medium	Next 1- 5 Years	Medium	High				Yes		6.75
2	Invertebrate- Insect	IICLLSWG01	Arrhopalites sp. (a cave obligate springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Insect	IICLLSWG01	Arrhopalites sp. (a cave obligate springtail)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
2	Invertebrate- Insect	IICLLSWG01	Arrhopalites sp. (a cave obligate springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
2	Invertebrate- Insect	IICOL93040	Atheta lucifuga (Light Shunning Rove Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9

Subterranean Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV	
2	Invertebrate- Insect	IICOL93040	Athela lucifuga (Light Shunning Rove Beetle)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
2	Invertebrate- Insect	IICOL93040	Athela lucifuga (Light Shunning Rove Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IICOL88060	Batriasymmodes jeanneli (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Insect	IICOL88060	Batriasymmodes jeanneli (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Insect	IICOL88060	Batriasymmodes jeanneli (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IICOL88070	Batriasymmodes quisnamus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6
2	Invertebrate- Insect	IICOL88070	Batriasymmodes quisnamus (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes		6
2	Invertebrate- Insect	IICOL88070	Batriasymmodes quisnamus (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High			Yes			8.5
2	Invertebrate- Insect	IICOL88070	Batriasymmodes quisnamus (a cave obligate beetle)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High			Yes			9.5
2	Invertebrate- Insect	IICOL88070	Batriasymmodes quisnamus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes	Yes	Yes		9
2	Invertebrate- Insect	IICOLA8210	Batrissodes barri (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes				6
2	Invertebrate- Insect	IICOLA8210	Batrissodes barri (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes				6
2	Invertebrate- Insect	IICOLA8210	Batrissodes barri (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High		Yes				8.5
2	Invertebrate- Insect	IICOLA8210	Batrissodes barri (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes				6
2	Invertebrate- Insect	IICOLA8220	Batrissodes clypeospecus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IICOLA8220	Batrissodes clypeospecus (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Insect	IICOLA8220	Batrissodes clypeospecus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IICOLA8230	Batrissodes ferulifer (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IICOLA8230	Batrissodes ferulifer (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IICOLA8230	Batrissodes ferulifer (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IICOLA8240	Batrissodes gemmoides (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes				9
2	Invertebrate- Insect	IICOLA8240	Batrissodes gemmoides (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes				9
2	Invertebrate- Insect	IICOLA8240	Batrissodes gemmoides (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Current	None	V.High		Yes				12.75
2	Invertebrate- Insect	IICOLA8240	Batrissodes gemmoides (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes				9
2	Invertebrate- Insect	IICOLA8250	Batrissodes gemmus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes				9
2	Invertebrate- Insect	IICOLA8250	Batrissodes gemmus (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes				9
2	Invertebrate- Insect	IICOLA8250	Batrissodes gemmus (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Current	None	V.High		Yes				12.75
2	Invertebrate- Insect	IICOLA8250	Batrissodes gemmus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes				9
2	Invertebrate- Insect	IICOLA8280	Batrissodes pannosus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Insect	IICOLA8280	Batrissodes pannosus (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Insect	IICOLA8280	Batrissodes pannosus (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High			Yes			8.5
2	Invertebrate- Insect	IICOLA8280	Batrissodes pannosus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IICOLA8100	Batrissodes valentinei (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	Medium			Yes			5.5
2	Invertebrate- Insect	IICOLA8100	Batrissodes valentinei (a cave obligate beetle)	Incompatible Mining Practices	Alt Phys Env Reg	26- 50%	High	Historic- Continuing	Low	Medium			Yes			6.5
2	Invertebrate- Insect	IICOLA8100	Batrissodes valentinei (a cave obligate beetle)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IICOLA8100	Batrissodes valentinei (a cave obligate beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	Medium	Current	Medium	Medium			Yes			5
2	Invertebrate- Insect	IICOLA8100	Batrissodes valentinei (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IICOLJ5010	Darlingtonia kentuckensis (a ground beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
2	Invertebrate- Insect	IICOLJ5010	Darlingtonia kentuckensis (a ground beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IICLL10060	Folsomia sp. 2 nr. macrochaeta (a cave obligate springtail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	Medium			Yes			8.25
2	Invertebrate- Insect	IICLL10060	Folsomia sp. 2 nr. macrochaeta (a cave obligate springtail)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Medium			Yes			7.5
2	Invertebrate- Insect	IICLL10060	Folsomia sp. 2 nr. macrochaeta (a cave obligate springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IIORT9G030	Hadenoeocus opilionides (a cave obligate cricket)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Insect	IIORT9G030	Hadenoeocus opilionides (a cave obligate cricket)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IIORT9G030	Hadenoeocus opilionides (a cave obligate cricket)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IICLL09100	Hypogastrura sp. 1 (a viatica group springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	Medium			Yes			8.25
2	Invertebrate- Insect	IICLL09100	Hypogastrura sp. 1 (a viatica group springtail)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IICLL09100	Hypogastrura sp. 1 (a viatica group springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IITHS01210	Litocampa sp. 5 (Rumbling Falls Cave Dipluran)	Forest Type Conversion	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes			3
2	Invertebrate- Insect	IITHS01210	Litocampa sp. 5 (Rumbling Falls Cave Dipluran)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IITHS01210	Litocampa sp. 5 (Rumbling Falls Cave Dipluran)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Insect	IITHS01210	Litocampa sp. 5 (Rumbling Falls Cave Dipluran)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IITHS01210	Litocampa sp. 5 (Rumbling Falls Cave Dipluran)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IITHSSWG02	Litocampa sp. TN #6 (Buffalo Cove Cave Dipluran)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Next 1- 5 Years	Low	High			Yes			11
2	Invertebrate- Insect	IITHSSWG02	Litocampa sp. TN #6 (Buffalo Cove Cave Dipluran)	Recreational Use of Habitats (non-vehicular)	Alt Bio Comp/Int	26- 50%	Medium	Current	Medium	Low			Yes			4.5
2	Invertebrate- Insect	IITHSSWG02	Litocampa sp. TN #6 (Buffalo Cove Cave Dipluran)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IITHSSWG03	Litocampa sp. TN #7 (Mill Hollow Cave Dipluran)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	Medium	Current	Medium	Medium			Yes			7.5
2	Invertebrate- Insect	IITHSSWG03	Litocampa sp. TN #7 (Mill Hollow Cave Dipluran)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9

Subterranean Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score	
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV		SBR
2	Invertebrate- Insect	IITHSSWG04	Litocampa sp. TN #8 (Mountain Eye Cave Dipluran)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High				Yes			7.5
2	Invertebrate- Insect	IITHSSWG04	Litocampa sp. TN #8 (Mountain Eye Cave Dipluran)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes			9
2	Invertebrate- Insect	ICLL12040	Neanura sp. 1 (Swamp River Cave Neanura)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes			9
2	Invertebrate- Insect	ICLL12040	Neanura sp. 1 (Swamp River Cave Neanura)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes			9
2	Invertebrate- Insect	ICLL12040	Neanura sp. 1 (Swamp River Cave Neanura)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes			9
2	Invertebrate- Insect	ICLL12040	Neanura sp. 1 (Swamp River Cave Neanura)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes			9
2	Invertebrate- Insect	IICOLJ8010	Nelsonites walleri (a cave obligate beetle)	Forest Type Conversion	Alt Phys Env Reg	0- 25%	High	Current	Medium	High				Yes			3
2	Invertebrate- Insect	IICOLJ8010	Nelsonites walleri (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes			6
2	Invertebrate- Insect	IICOLJ8010	Nelsonites walleri (a cave obligate beetle)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium				Yes			3
2	Invertebrate- Insect	IICOLJ8010	Nelsonites walleri (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes			6
2	Invertebrate- Insect	ICLL17110	Onychiurus sp. 2 (Swamp River Cave Onychiurus)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes			9
2	Invertebrate- Insect	ICLL17110	Onychiurus sp. 2 (Swamp River Cave Onychiurus)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes			9
2	Invertebrate- Insect	ICLL17110	Onychiurus sp. 2 (Swamp River Cave Onychiurus)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes			9
2	Invertebrate- Insect	ICLL17110	Onychiurus sp. 2 (Swamp River Cave Onychiurus)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes			9
2	Invertebrate- Insect	IICOL4E160	Pseudanophthalmus acherontis (Echo Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes				9
2	Invertebrate- Insect	IICOL4E160	Pseudanophthalmus acherontis (Echo Cave Beetle)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Next 1- 5 Years	Low	Medium			Yes				7.5
2	Invertebrate- Insect	IICOL4E160	Pseudanophthalmus acherontis (Echo Cave Beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High			Yes				8.5
2	Invertebrate- Insect	IICOL4E160	Pseudanophthalmus acherontis (Echo Cave Beetle)	Primary Residential Development	Alt Phys Hab Struc	26- 50%	V.High	Current	None	V.High			Yes				9.5
2	Invertebrate- Insect	IICOL4E160	Pseudanophthalmus acherontis (Echo Cave Beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	Medium	Current	Low	Low			Yes				5
2	Invertebrate- Insect	IICOL4E160	Pseudanophthalmus acherontis (Echo Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes				9
2	Invertebrate- Insect	IICOL4E190	Pseudanophthalmus bendermani (Benderman's Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes				9
2	Invertebrate- Insect	IICOL4E190	Pseudanophthalmus bendermani (Benderman's Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes				9
2	Invertebrate- Insect	IICOL4E190	Pseudanophthalmus bendermani (Benderman's Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes				9
2	Invertebrate- Insect	IICOL4E210	Pseudanophthalmus catherinae (Catherine's Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes				6
2	Invertebrate- Insect	IICOL4E210	Pseudanophthalmus catherinae (Catherine's Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes				6
2	Invertebrate- Insect	IICOL4E210	Pseudanophthalmus catherinae (Catherine's Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes				6
2	Invertebrate- Insect	IICOL4EB11	Pseudanophthalmus ciliaris ciliaris (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes					6
2	Invertebrate- Insect	IICOL4EB11	Pseudanophthalmus ciliaris ciliaris (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes					6
2	Invertebrate- Insect	IICOL4EB11	Pseudanophthalmus ciliaris ciliaris (a cave obligate beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	0- 25%	Medium	Current	Medium	Low			Yes				2.25
2	Invertebrate- Insect	IICOL4EB11	Pseudanophthalmus ciliaris ciliaris (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes					6
2	Invertebrate- Insect	IICOL4EB12	Pseudanophthalmus ciliaris colemanensis (Coleman Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes					9
2	Invertebrate- Insect	IICOL4EB12	Pseudanophthalmus ciliaris colemanensis (Coleman Cave Beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	High	Current	Medium	Low		Yes					5
2	Invertebrate- Insect	IICOL4EB12	Pseudanophthalmus ciliaris colemanensis (Coleman Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes					6
2	Invertebrate- Insect	IICOL4EB30	Pseudanophthalmus cumberlandus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes				9
2	Invertebrate- Insect	IICOL4EB30	Pseudanophthalmus cumberlandus (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High		Yes	Yes				9
2	Invertebrate- Insect	IICOL4EB30	Pseudanophthalmus cumberlandus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium		Yes	Yes				9
2	Invertebrate- Insect	IICOL4EB60	Pseudanophthalmus digitus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes			9
2	Invertebrate- Insect	IICOL4EB60	Pseudanophthalmus digitus (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High				Yes			11.25
2	Invertebrate- Insect	IICOL4EB60	Pseudanophthalmus digitus (a cave obligate beetle)	Recreational Vehicles	Alt Phys Env Reg	51- 75%	High	Current	Medium	Medium				Yes			8.25
2	Invertebrate- Insect	IICOL4E250	Pseudanophthalmus engelhardtii (Engelhart's Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes			9
2	Invertebrate- Insect	IICOL4E250	Pseudanophthalmus engelhardtii (Engelhart's Cave Beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	High	Current	Low	Low				Yes			8.25
2	Invertebrate- Insect	IICOL4E250	Pseudanophthalmus engelhardtii (Engelhart's Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes			9
2	Invertebrate- Insect	IICOL4EB90	Pseudanophthalmus farrelli (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes				6
2	Invertebrate- Insect	IICOL4EB90	Pseudanophthalmus farrelli (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes				6
2	Invertebrate- Insect	IICOL4EB90	Pseudanophthalmus farrelli (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes				6
2	Invertebrate- Insect	IICOL4E260	Pseudanophthalmus fowlerae (Fowler's Cave Beetle)	Construction of Roads / Railroads / Utilities	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High			Yes				14.25
2	Invertebrate- Insect	IICOL4E260	Pseudanophthalmus fowlerae (Fowler's Cave Beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High			Yes				11.25
2	Invertebrate- Insect	IICOL4EAW0	Pseudanophthalmus fulleri (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes			9
2	Invertebrate- Insect	IICOL4EAW0	Pseudanophthalmus fulleri (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High				Yes			11.25
2	Invertebrate- Insect	IICOL4EAW0	Pseudanophthalmus fulleri (a cave obligate beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	High	Current	Medium	Low				Yes			7.5
2	Invertebrate- Insect	IICOL4EBA0	Pseudanophthalmus hesperus (a cave obligate beetle)	Forest Type Conversion	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Low	High		Yes					8.25
2	Invertebrate- Insect	IICOL4EBA0	Pseudanophthalmus hesperus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High		Yes					7.5
2	Invertebrate- Insect	IICOL4EAV0	Pseudanophthalmus humeralis (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	High			Yes				5
2	Invertebrate- Insect	IICOL4EAV0	Pseudanophthalmus humeralis (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes				6
2	Invertebrate- Insect	IICOL4EAV0	Pseudanophthalmus humeralis (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium			Yes				3
2	Invertebrate- Insect	IICOL4E350	Pseudanophthalmus inquisitor (Searcher Cave Beetle)	Construction of Roads / Railroads / Utilities	Alt Phys Hab Struc	51- 75%	High	Current	None	V.High				Yes			12.75
2	Invertebrate- Insect	IICOL4E350	Pseudanophthalmus inquisitor (Searcher Cave Beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High				Yes			11.25
2	Invertebrate- Insect	IICOL4E360	Pseudanophthalmus insularis (Baker Station Cave Beetle)	Commercial / Industrial Development	Alt Phys Env Reg	51- 75%	High	Current	None	V.High		Yes					12.75

Subterranean Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability						Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV	SBR	
2	Invertebrate- Insect	ICOL4E360	Pseudanophthalmus insularis (Baker Station Cave Beetle)	Landfill Construction / Operation	Alt Chem Env Reg	51- 75%	High	Current	None	Medium						10.5	
2	Invertebrate- Insect	ICOL4E360	Pseudanophthalmus insularis (Baker Station Cave Beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Current	None	V.High			Yes			12.75	
2	Invertebrate- Insect	ICOL4E380	Pseudanophthalmus jonesi (Grassy Cove Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	High				Yes		5	
2	Invertebrate- Insect	ICOL4E380	Pseudanophthalmus jonesi (Grassy Cove Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Next 1- 5 Years	Medium	High				Yes		2.5	
2	Invertebrate- Insect	ICOL4E380	Pseudanophthalmus jonesi (Grassy Cove Cave Beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium				Yes		6	
2	Invertebrate- Insect	ICOL4EBY0	Pseudanophthalmus loganensis (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes				6	
2	Invertebrate- Insect	ICOL4EBY0	Pseudanophthalmus loganensis (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High		Yes				8.5	
2	Invertebrate- Insect	ICOL4EBY0	Pseudanophthalmus loganensis (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes				6	
2	Invertebrate- Insect	ICOL4E410	Pseudanophthalmus longicoeps (Long-headed Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High					Yes	9	
2	Invertebrate- Insect	ICOL4EBB0	Pseudanophthalmus macraeaei (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
2	Invertebrate- Insect	ICOL4EBB0	Pseudanophthalmus macraeaei (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
2	Invertebrate- Insect	ICOL4EBB0	Pseudanophthalmus macraeaei (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6	
2	Invertebrate- Insect	ICOL4E430	Pseudanophthalmus nickajackensis (Nickajack Cave Beetle)	Construction of Dams / Impoundments	Alt Phys Env Reg	51- 75%	High	Current	None	Low				Yes		9.75	
2	Invertebrate- Insect	ICOL4E440	Pseudanophthalmus nortoni (Norton's Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High					Yes	12	
2	Invertebrate- Insect	ICOL4E440	Pseudanophthalmus nortoni (Norton's Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High					Yes	12	
2	Invertebrate- Insect	ICOL4E440	Pseudanophthalmus nortoni (Norton's Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium					Yes	12	
2	Invertebrate- Insect	ICOL4E450	Pseudanophthalmus occidentalis (Western Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	Medium	High		Yes				5	
2	Invertebrate- Insect	ICOL4E460	Pseudanophthalmus pallidus (Pale Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
2	Invertebrate- Insect	ICOL4E460	Pseudanophthalmus pallidus (Pale Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
2	Invertebrate- Insect	ICOL4E460	Pseudanophthalmus pallidus (Pale Cave Beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	0- 25%	High	Current	Low	Low					Yes	2.75	
2	Invertebrate- Insect	ICOL4E460	Pseudanophthalmus pallidus (Pale Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium					Yes	6	
2	Invertebrate- Insect	ICOL4E470	Pseudanophthalmus paradoxus (Ridgetop Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg		High	Next 1- 5 Years	Medium	High					Yes		
2	Invertebrate- Insect	ICOL4E490	Pseudanophthalmus paulus (Noblelets Cave Beetle)	Commercial / Industrial Development	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	None	V.High					Yes	7.5	
2	Invertebrate- Insect	ICOL4E490	Pseudanophthalmus paulus (Noblelets Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
2	Invertebrate- Insect	ICOL4E490	Pseudanophthalmus paulus (Noblelets Cave Beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	None	V.High					Yes	7.5	
2	Invertebrate- Insect	ICOL4EBG0	Pseudanophthalmus productus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	ICOL4EBG0	Pseudanophthalmus productus (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	ICOL4EBG0	Pseudanophthalmus productus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	ICOL4E550	Pseudanophthalmus pusillus (Tiny Cave Beetle)	Commercial / Industrial Development	Alt Phys Env Reg	76- 100%	High	Current	None	V.High					Yes	17	
2	Invertebrate- Insect	ICOL4E550	Pseudanophthalmus pusillus (Tiny Cave Beetle)	Primary Residential Development	Alt Phys Env Reg	76- 100%	High	Current	None	V.High					Yes	17	
2	Invertebrate- Insect	ICOL4E550	Pseudanophthalmus pusillus (Tiny Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Low	Medium					Yes	12	
2	Invertebrate- Insect	ICOL4E770	Pseudanophthalmus rotundatus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
2	Invertebrate- Insect	ICOL4E770	Pseudanophthalmus rotundatus (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
2	Invertebrate- Insect	ICOL4E770	Pseudanophthalmus rotundatus (a cave obligate beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	0- 25%	Medium	Current	Low	Low					Yes	2.5	
2	Invertebrate- Insect	ICOL4E770	Pseudanophthalmus rotundatus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium					Yes	6	
2	Invertebrate- Insect	ICOL4EBK0	Pseudanophthalmus scutillus (New Mammoth Cave Beetle or Lean Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes			12	
2	Invertebrate- Insect	ICOL4EBK0	Pseudanophthalmus scutillus (New Mammoth Cave Beetle or Lean Cave Beetle)	Incompatible Mining Practices	Alt Chem Env Reg	76- 100%	V.High	Next 1- 5 Years	Low	V.High				Yes		15	
2	Invertebrate- Insect	ICOL4EBK0	Pseudanophthalmus scutillus (New Mammoth Cave Beetle or Lean Cave Beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	76- 100%	Medium	Current	High	Low				Yes		8	
2	Invertebrate- Insect	ICOL4E630	Pseudanophthalmus sidus (Meredith Cave Beetle)	Secondary Home / Resort Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High					Yes	11.25	
2	Invertebrate- Insect	ICOL4E640	Pseudanophthalmus simplex (Simple Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	ICOL4EX40	Pseudanophthalmus sp. 27 (Rumbling Falls Cave Beetle)	Construction of Roads / Railroads / Utilities	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6	
2	Invertebrate- Insect	ICOL4EX40	Pseudanophthalmus sp. 27 (Rumbling Falls Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
2	Invertebrate- Insect	ICOL4EX40	Pseudanophthalmus sp. 27 (Rumbling Falls Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes		6	
2	Invertebrate- Insect	ICOL4EX40	Pseudanophthalmus sp. 27 (Rumbling Falls Cave Beetle)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes		6	
2	Invertebrate- Insect	ICOLSWG03	Pseudanophthalmus sp. TN #1 SCA or TN #28? (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High				Yes		7.5	
2	Invertebrate- Insect	ICOLSWG03	Pseudanophthalmus sp. TN #1 SCA or TN #28? (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Insect	ICOLSWG04	Pseudanophthalmus sp. TN #29 (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Insect	ICOLSWG02	Pseudanophthalmus sp. TN #30 (Ace in the Hole Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Next 1- 5 Years	Medium	High				Yes		10	
2	Invertebrate- Insect	ICOL4EBP0	Pseudanophthalmus templetoni (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Insect	ICOL4EBP0	Pseudanophthalmus templetoni (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9	
2	Invertebrate- Insect	ICOL4EBP0	Pseudanophthalmus templetoni (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9	
2	Invertebrate- Insect	ICOL4EBT0	Pseudanophthalmus tennesseensis (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Within 5- 10 Years	Medium	High					Yes	4.5	
2	Invertebrate- Insect	ICOL4EBT0	Pseudanophthalmus tennesseensis (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
2	Invertebrate- Insect	ICOL4EBT0	Pseudanophthalmus tennesseensis (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High					Yes	8.5	
2	Invertebrate- Insect	ICOL4EBT0	Pseudanophthalmus tennesseensis (a cave obligate beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	High	Current	Low	Low					Yes	5.5	
2	Invertebrate- Insect	ICOL4EBT0	Pseudanophthalmus tennesseensis (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium					Yes	3	
2	Invertebrate- Insect	ICOL4E660	Pseudanophthalmus tiresias (Indian Graves Point Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	ICOL4E660	Pseudanophthalmus tiresias (Indian Graves Point Cave Beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	

Subterranean Species																	
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability						Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV	SBR	
2	Invertebrate- Insect	IICOL4E660	Pseudanophthalmus tiresias (Indian Graves Point Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium						6	
2	Invertebrate- Insect	IICOL4E670	Pseudanophthalmus tullahoma (Duck River Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICOL4E670	Pseudanophthalmus tullahoma (Duck River Cave Beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Next 1- 5 Years	None	V.High			Yes			7.5	
2	Invertebrate- Insect	IICOL4E670	Pseudanophthalmus tullahoma (Duck River Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	IICOL4E680	Pseudanophthalmus unionis (Union County Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
2	Invertebrate- Insect	IICOL4E680	Pseudanophthalmus unionis (Union County Cave Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High					Yes	6	
2	Invertebrate- Insect	IICOL4E680	Pseudanophthalmus unionis (Union County Cave Beetle)	Secondary Home / Resort Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High					Yes	8.5	
2	Invertebrate- Insect	IICOL4EBS0	Pseudanophthalmus valentinei (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICOL4EBS0	Pseudanophthalmus valentinei (a cave obligate beetle)	Primary Residential Development	Alt Phys Env Reg	26- 50%	High	Current	None	V.High			Yes			8.5	
2	Invertebrate- Insect	IICOL4EBS0	Pseudanophthalmus valentinei (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	IICOL4EC10	Pseudanophthalmus vanburensis (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICOL4EC10	Pseudanophthalmus vanburensis (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICOL4EC10	Pseudanophthalmus vanburensis (a cave obligate beetle)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	IICOL4EC10	Pseudanophthalmus vanburensis (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	IICOL4E690	Pseudanophthalmus ventus (Blowing Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICOL4E690	Pseudanophthalmus ventus (Blowing Cave Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	Medium	Current	Low	High			Yes			6	
2	Invertebrate- Insect	IICOL4E700	Pseudanophthalmus wallacei (Wallace's Cave Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High					Yes	9	
2	Invertebrate- Insect	IICOL4E700	Pseudanophthalmus wallacei (Wallace's Cave Beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High				Yes		11.25	
2	Invertebrate- Insect	IICLL01280	Pseudosinella aera (a cave obligate springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
2	Invertebrate- Insect	IICLL01280	Pseudosinella aera (a cave obligate springtail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
2	Invertebrate- Insect	IICLL01280	Pseudosinella aera (a cave obligate springtail)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9	
2	Invertebrate- Insect	IICLL01280	Pseudosinella aera (a cave obligate springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9	
2	Invertebrate- Insect	IICLL01200	Pseudosinella christianseni (Christiansen's Cave Springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICLL01200	Pseudosinella christianseni (Christiansen's Cave Springtail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes		6	
2	Invertebrate- Insect	IICLL01200	Pseudosinella christianseni (Christiansen's Cave Springtail)	Primary Residential Development	Alt Phys Env Reg	0- 25%	High	Next 1- 5 Years	None	V.High				Yes		3.75	
2	Invertebrate- Insect	IICLL01200	Pseudosinella christianseni (Christiansen's Cave Springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes	Yes		6	
2	Invertebrate- Insect	IICLL01060	Pseudosinella hirsuta (Hirsute Cave Springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	6	
2	Invertebrate- Insect	IICLL01060	Pseudosinella hirsuta (Hirsute Cave Springtail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High		Yes	Yes	Yes	Yes	6	
2	Invertebrate- Insect	IICLL01060	Pseudosinella hirsuta (Hirsute Cave Springtail)	Incompatible Mining Practices	Alt Chem Env Reg	0- 25%	High	Next 1- 5 Years	Low	V.High			Yes			3.25	
2	Invertebrate- Insect	IICLL01060	Pseudosinella hirsuta (Hirsute Cave Springtail)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium			Yes			3	
2	Invertebrate- Insect	IICLL01060	Pseudosinella hirsuta (Hirsute Cave Springtail)	Primary Residential Development	Alt Phys Env Reg	0- 25%	High	Current	None	V.High			Yes			4.25	
2	Invertebrate- Insect	IICLL01060	Pseudosinella hirsuta (Hirsute Cave Springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium		Yes	Yes	Yes	Yes	6	
2	Invertebrate- Insect	IICLL01030	Pseudosinella orba (a cave obligate springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes			3	
2	Invertebrate- Insect	IICLL01030	Pseudosinella orba (a cave obligate springtail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes		6	
2	Invertebrate- Insect	IICLL01030	Pseudosinella orba (a cave obligate springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes	Yes		6	
2	Invertebrate- Insect	IICLL01290	Pseudosinella sp. 5 (Swamp River Cave Pseudosinella)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICLL01290	Pseudosinella sp. 5 (Swamp River Cave Pseudosinella)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICLL01290	Pseudosinella sp. 5 (Swamp River Cave Pseudosinella)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	IICLL01290	Pseudosinella sp. 5 (Swamp River Cave Pseudosinella)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	IICLL01300	Pseudosinella sp. 6 (a cave obligate springtail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes			12	
2	Invertebrate- Insect	IICLL01300	Pseudosinella sp. 6 (a cave obligate springtail)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Low	Medium			Yes			8.25	
2	Invertebrate- Insect	IICLL01300	Pseudosinella sp. 6 (a cave obligate springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	76- 100%	High	Current	Medium	High			Yes			12	
2	Invertebrate- Insect	IICLL01310	Pseudosinella sp. 7 nr. Nata (a cave obligate springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
2	Invertebrate- Insect	IICLL01310	Pseudosinella sp. 7 nr. Nata (a cave obligate springtail)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9	
2	Invertebrate- Insect	IICLL01310	Pseudosinella sp. 7 nr. Nata (a cave obligate springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9	
2	Invertebrate- Insect	IICLL01250	Pseudosinella spinosa (Spinose Cave Springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
2	Invertebrate- Insect	IICLL01250	Pseudosinella spinosa (Spinose Cave Springtail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
2	Invertebrate- Insect	IICLL01250	Pseudosinella spinosa (Spinose Cave Springtail)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6	
2	Invertebrate- Insect	IICLL01250	Pseudosinella spinosa (Spinose Cave Springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes	Yes		6	
2	Invertebrate- Insect	IICOLA7050	Ptomaphagus barri (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
2	Invertebrate- Insect	IICOLA7050	Ptomaphagus barri (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
2	Invertebrate- Insect	IICOLA7050	Ptomaphagus barri (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9	
2	Invertebrate- Insect	IICOLA7060	Ptomaphagus chromolithus (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9	
2	Invertebrate- Insect	IICOLA7060	Ptomaphagus chromolithus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9	
2	Invertebrate- Insect	IICOLA7090	Ptomaphagus fecundus (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6	
2	Invertebrate- Insect	IICOLA7090	Ptomaphagus fecundus (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium			Yes			3	
2	Invertebrate- Insect	IICOLA7140	Ptomaphagus hubrichti (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes	Yes		3	
2	Invertebrate- Insect	IICOLA7140	Ptomaphagus hubrichti (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes	Yes		6	

Subterranean Species																
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability					Stress Score
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV	
2	Invertebrate- Insect	IICOLA7140	Plomaphagus hubrichti (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium						6
2	Invertebrate- Insect	IICLL05090	Sinella basidens (a cave obligate springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
2	Invertebrate- Insect	IICLL05090	Sinella basidens (a cave obligate springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Within 5- 10 Years	Low	Medium			Yes			6.75
2	Invertebrate- Insect	IICOLSWG05	Trechus cumberlandus (Cumberland Ground Beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Insect	IICOLSWG05	Trechus cumberlandus (Cumberland Ground Beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Current	Medium	High			Yes			3
2	Invertebrate- Insect	IICOLSWG05	Trechus cumberlandus (Cumberland Ground Beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IICOLSWG07	Trechus tennesseensis tennesseensis (a carabid beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Insect	IICOLSWG07	Trechus tennesseensis tennesseensis (a carabid beetle)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High				Yes		11.25
2	Invertebrate- Insect	IICOLSWG07	Trechus tennesseensis tennesseensis (a carabid beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IICOL6G110	Trechus tuckaleechee (a carabid beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High					Yes	9
2	Invertebrate- Insect	IICOL6G110	Trechus tuckaleechee (a carabid beetle)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	High	Current	High	Low					Yes	6.75
2	Invertebrate- Insect	IICOL6G110	Trechus tuckaleechee (a carabid beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium					Yes	6
2	Invertebrate- Insect	IICOL6G110	Trechus tuckaleechee (a carabid beetle)	Secondary Home / Resort Development	Alt Phys Hab Struc	51- 75%	V.High	Current	None	V.High					Yes	14.25
2	Invertebrate- Insect	IICLL27010	Triacanthella copelandi (Copeland's Cave Springtail)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IICLL27010	Triacanthella copelandi (Copeland's Cave Springtail)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IICLL27010	Triacanthella copelandi (Copeland's Cave Springtail)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Insect	IICLL27010	Triacanthella copelandi (Copeland's Cave Springtail)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Insect	IICOLJE030	Tychobythinus strinatii (a cave obligate beetle)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IICOLJE030	Tychobythinus strinatii (a cave obligate beetle)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Insect	IICOLJE030	Tychobythinus strinatii (a cave obligate beetle)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Millipede	ITUNISWG01	Chaetaspis mollis (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Millipede	ITUNISWG01	Chaetaspis mollis (a cave obligate millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Millipede	ITUNISWG01	Chaetaspis mollis (a cave obligate millipede)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Low	Low			Yes			7.5
2	Invertebrate- Millipede	ITUNISWG01	Chaetaspis mollis (a cave obligate millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Millipede	ITUNI63020	Chaetaspis sp. 1 (Thunder Run Cave Millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Millipede	ITUNI63020	Chaetaspis sp. 1 (Thunder Run Cave Millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Millipede	ITUNI63020	Chaetaspis sp. 1 (Thunder Run Cave Millipede)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Millipede	ITUNI63020	Chaetaspis sp. 1 (Thunder Run Cave Millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Millipede	ITUNISWG03	Pseudotremia acheron (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Millipede	ITUNISWG03	Pseudotremia acheron (a cave obligate millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Millipede	ITUNISWG03	Pseudotremia acheron (a cave obligate millipede)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	0- 25%	Medium	Current	Low	Low			Yes			2.5
2	Invertebrate- Millipede	ITUNISWG03	Pseudotremia acheron (a cave obligate millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Millipede	ITUNIO3200	Pseudotremia cercops (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
2	Invertebrate- Millipede	ITUNIO3200	Pseudotremia cercops (a cave obligate millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Millipede	ITUNIO3200	Pseudotremia cercops (a cave obligate millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Millipede	ITUNIO3210	Pseudotremia deprehendor (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Millipede	ITUNIO3210	Pseudotremia deprehendor (a cave obligate millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High				Yes		9
2	Invertebrate- Millipede	ITUNIO3210	Pseudotremia deprehendor (a cave obligate millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes		9
2	Invertebrate- Millipede	ITUNIO3240	Pseudotremia lethe (a cave obligate millipede)	Construction of Roads / Railroads / Utilities	Alt Phys Env Reg	51- 75%	High	Current	None	V.High			Yes			12.75
2	Invertebrate- Millipede	ITUNIO3240	Pseudotremia lethe (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Millipede	ITUNIO3240	Pseudotremia lethe (a cave obligate millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Millipede	ITUNIO3240	Pseudotremia lethe (a cave obligate millipede)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High			Yes			11.25
2	Invertebrate- Millipede	ITUNIO3240	Pseudotremia lethe (a cave obligate millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes			9
2	Invertebrate- Millipede	ITUNIO3250	Pseudotremia lictor (a cave obligate millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes			9
2	Invertebrate- Millipede	ITUNIO3290	Pseudotremia rhadamanthus (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
2	Invertebrate- Millipede	ITUNISWG04	Pseudotremia sp. (new TN species #4 = SCA #4) (Wallace's Cave Millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes			12
2	Invertebrate- Millipede	ITUNISWG04	Pseudotremia sp. (new TN species #4 = SCA #4) (Wallace's Cave Millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium			Yes			6
2	Invertebrate- Millipede	ITUNISWG05	Pseudotremia sp. (new TN species #5 = SCA #3) (Mann's Cave Millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High			Yes			6
2	Invertebrate- Millipede	ITUNISWG05	Pseudotremia sp. (new TN species #5 = SCA #3) (Mann's Cave Millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	76- 100%	High	Current	Medium	High			Yes			12
2	Invertebrate- Millipede	ITUNISWG05	Pseudotremia sp. (new TN species #5 = SCA #3) (Mann's Cave Millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium			Yes			3
2	Invertebrate- Millipede	ITUNISWG06	Pseudotremia sp. (new TN species #6 = SCA #1) (Roebuck's Cave Millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
2	Invertebrate- Millipede	ITUNISWG06	Pseudotremia sp. (new TN species #6 = SCA #1) (Roebuck's Cave Millipede)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Low	Medium			Yes			8.25
2	Invertebrate- Millipede	ITUNISWG07	Pseudotremia sp. (new TN species #7 = SCA #2) (Garland's Cave Millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	76- 100%	High	Next 1- 5 Years	Medium	High			Yes			10
2	Invertebrate- Millipede	ITUNISWG07	Pseudotremia sp. (new TN species #7 = SCA #2) (Garland's Cave Millipede)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	Medium	Current	Low	Medium			Yes			5.5
2	Invertebrate- Millipede	ITUNIO3070	Pseudotremia valga (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
2	Invertebrate- Millipede	ITUNIO3070	Pseudotremia valga (a cave obligate millipede)	Incompatible Mining Practices	Alt Chem Env Reg	51- 75%	High	Next 1- 5 Years	Low	V.High			Yes			9.75
2	Invertebrate- Millipede	ITUNIO1030	Scoterpes copei (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High			Yes			7.5
2	Invertebrate- Millipede	ITUNIO1030	Scoterpes copei (a cave obligate millipede)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Low	Medium			Yes			8.25

Subterranean Species																		
Tier	Taxonomic Group	NS ELCODE	Species Name	Source of Stress	Stress Cat.	Assessed Species/Stress Values					Regions of Applicability						Stress Score	
						% Pops.	Severity	Timing	Reversib.	Contrib.	WU	CU	NB	CR	RV	SBR		
2	Invertebrate- Millipede	ITUNI01040	Scoterpes ventus (Eastern Tennessee Cave Millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes				6
2	Invertebrate- Millipede	ITUNI01040	Scoterpes ventus (Eastern Tennessee Cave Millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes				6
2	Invertebrate- Millipede	ITUNI01040	Scoterpes ventus (Eastern Tennessee Cave Millipede)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes				6
2	Invertebrate- Millipede	ITUNI01040	Scoterpes ventus (Eastern Tennessee Cave Millipede)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	26- 50%	Medium	Current	Low	Medium				Yes				5.5
2	Invertebrate- Millipede	ITUNI01040	Scoterpes ventus (Eastern Tennessee Cave Millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes				6
2	Invertebrate- Millipede	ITUNI70010	Tetracion jonesi (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	0- 25%	High	Next 1- 5 Years	Medium	High				Yes				2.5
2	Invertebrate- Millipede	ITUNI70010	Tetracion jonesi (a cave obligate millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	0- 25%	High	Next 1- 5 Years	Medium	High				Yes				2.5
2	Invertebrate- Millipede	ITUNI70010	Tetracion jonesi (a cave obligate millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	0- 25%	High	Next 1- 5 Years	Low	Medium				Yes				2.5
2	Invertebrate- Millipede	ITUNI70020	Tetracion tennesseensis (a cave obligate millipede)	Incompatible Forestry Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes				6
2	Invertebrate- Millipede	ITUNI70020	Tetracion tennesseensis (a cave obligate millipede)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	26- 50%	High	Current	Medium	High				Yes				6
2	Invertebrate- Millipede	ITUNI70020	Tetracion tennesseensis (a cave obligate millipede)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	0- 25%	High	Current	Low	Medium				Yes				3
2	Invertebrate- Millipede	ITUNI70020	Tetracion tennesseensis (a cave obligate millipede)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	0- 25%	Medium	Current	Low	Medium				Yes				2.75
2	Invertebrate- Millipede	ITUNI70020	Tetracion tennesseensis (a cave obligate millipede)	Residential Sewage / Septic Systems	Alt Chem Env Reg	26- 50%	High	Current	Low	Medium				Yes				6
2	Invertebrate- Roundworm	IAOLI07020	Cambarincola alienus (a cave obligate roundworm)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High				Yes				7.5
2	Invertebrate- Roundworm	IAOLI07020	Cambarincola alienus (a cave obligate roundworm)	Municipal Wastewater Treatment / Stormwater Runoff	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium				Yes				9
2	Invertebrate- Roundworm	IAOLI07020	Cambarincola alienus (a cave obligate roundworm)	Recreational Use of Habitats (non-vehicular)	Alt Phys Env Reg	51- 75%	Medium	Current	Low	Medium				Yes				8.25
2	Invertebrate- Roundworm	IAOLI07050	Cambarincola leptadenus (a cave obligate roundworm)	Forest Type Conversion	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Low	High		Yes						8.25
2	Invertebrate- Roundworm	IAOLI07050	Cambarincola leptadenus (a cave obligate roundworm)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	Medium	High		Yes						7.5
2	Invertebrate- Roundworm	IAOLI07060	Cambarincola marthae (a cave obligate roundworm)	Construction of Roads / Railroads / Utilities	Alt Phys Env Reg	51- 75%	High	Current	None	V.High			Yes					12.75
2	Invertebrate- Roundworm	IAOLI07060	Cambarincola marthae (a cave obligate roundworm)	Incompatible Forestry Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes					9
2	Invertebrate- Roundworm	IAOLI07060	Cambarincola marthae (a cave obligate roundworm)	Incompatible Grazing / Pasture Management Practices	Alt Phys Env Reg	51- 75%	High	Current	Medium	High			Yes					9
2	Invertebrate- Roundworm	IAOLI07060	Cambarincola marthae (a cave obligate roundworm)	Primary Residential Development	Alt Phys Env Reg	51- 75%	High	Next 1- 5 Years	None	V.High			Yes					11.25
2	Invertebrate- Roundworm	IAOLI07060	Cambarincola marthae (a cave obligate roundworm)	Residential Sewage / Septic Systems	Alt Chem Env Reg	51- 75%	High	Current	Low	Medium			Yes					9