

## **Appendix D6**

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### **Threatened and Endangered Species**

**D6a. Threatened and Endangered Species List**

**D6b. Threatened and Endangered Species Evaluation**

**Tennessee Valley Authority**

**Reservoir Operations Study – Final Programmatic EIS**



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## **Appendix D6a Threatened and Endangered Species List**

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**Table D6a-01 Threatened and Endangered Species List ..... D6a-1**

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**Table D6a-01 Threatened and Endangered Species List**

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (311)</b>		<b>(10)</b>	<b>(311)</b>			<b>(72)</b>
<i>Acalypha deamii</i>	Deam's copperleaf		TS	F, E, A		3
<i>Acer saccharum</i> ssp. <i>leucoderme</i> *	Chalk maple		TS	W, A	U	44*, 45*
<i>Acorus calamus</i> *	Sweetflag		AP	E	S	7*, 9*
<i>Adlumia fungosa</i>	Climbing fumitory		TT	W, C		72
<i>Agalinis auriculata</i>	Earleaf foxglove		TE	D		51
<i>Amsonia tabernaemontana</i> var. <i>gattingeri</i> *	Blue star ~		TS	G, O	X	20*
<i>Anemone quinquefolia</i>	Wood anemone		MP	W		23, 27
<i>Apios priceana</i>	Price potato-bean	E	KE, TE	W, A		2, 19, 78
<i>Aplectrum hyemale</i>	Putty-root		MP	W		4
<i>Aquilegia canadensis</i> *	Wild Columbine		MP	C	U	4*
<i>Arabis canadensis</i>	Rockcress ~		MP	W, C		23
<i>Arabis glabra</i>	Tower mustard		TS	O, D		3
<i>Arabis patens</i>	Spreading rockcress		TE	C, W		18, 74
<i>Arenaria fontinalis</i> *	Sandwort		TT	G, E	X	20*
<i>Arenaria godfreyi</i>	Godfrey sandwort		TE	E		70
<i>Arenaria lanuginosa</i>	Sandwort ~		TE	C, X, W		32
<i>Asarum canadense</i>	Wild ginger ~		MP	W		4, 27
<i>Asplenium pinnatifidum</i>	Pinnatifid spleenwort		MP	C		23
<i>Asplenium resiliens</i> *	Blackstem spleenwort		MP	C	U	4*
<i>Asplenium rhizophyllum</i>	Walking fern		MP	C		4, 23
<i>Asplenium trichomanes</i>	Maidenhair spleenwort		MP	C		23
<i>Aster pratensis</i>	Barrens silky aster		TT	D		3

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Aster schreberi</i>	Shreber aster		TS	W		62
<i>Aster surculosus</i>	Creeping aster		AP	X		9
<i>Astragalus tennesseensis</i>	Tennessee milk-vetch		TS	O		20
<i>Athyrium thelypteroides</i>	Silvery glade fern		MP	W		4
<i>Aureolaria patula</i> *	False foxglove ~		TT	C, A	U	11*, 13*, 14*, 15*, 16*, 17*, 34*, 51*, 52*, 53*, 54*, 55*
<i>Baptisia bracteata</i> var. <i>leucophaea</i>	Cream wild indigo		KS, TS	X, D		2, 78
<i>Bartonia virginica</i>	Screwstem		KT	F		2
<i>Berberis canadensis</i>	American barberry		TS	C, G, W		54, 63, 64, 67
<i>Bigelovia nuttallii</i>	Nuttall's rayless golden-rod		AP	O		9
<i>Botrychium jenmanii</i>	Alabama grapefern		TT	X, D		63
<i>Boykinia acontifolia</i>	Brook saxifrage		AP	W, A		24
<i>Bryoxiphium norvegicum</i>	Sword moss		AP	C		26
<i>Buckleya distichophylla</i> *	Sapsuck		TT	X	U	67*, 69*, 71, 72
<i>Cacalia muehlenbergii</i>	Great indian-plantain		MP	W		27
<i>Callirhoe triangulata</i>	Poppy-mallow ~		MP	X, D		23
<i>Camassia scilloides</i> *	Wild hyacinth		MP	W	U	4*, 23*
<i>Cardamine clematitidis</i>	Mountain bitter-cress		TT	F		12, 36
<i>Cardamine flagellifera</i> *	Bitter-cress ~		TT	W, A	S	18*, 37*
<i>Carex comosa</i>	Bristly sedge		TT	F		78
<i>Carex decomposita</i>	Epiphytic sedge		KT	F		2
<i>Carex gravida</i>	Sedge ~		TS	C		14, 51, 52
<i>Carex hitchcockiana</i>	Sedge ~		TT	W		72
<i>Carex jamesii</i>	Sedge ~		MP	W		4

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
Plants (continued)						
<i>Carex picta</i>	Sedge ~		MP	X		4, 23
<i>Carex oxylepis</i> var. <i>pubescens</i>	Sedge ~		TS	A, C		3, 51
<i>Carex prasina</i> *	Sedge ~		MP	F, A	U	4*
<i>Carex purpurifera</i>	Sedge ~		AP	W		9
<i>Carex seorsa</i> *	Weak stellate sedge		MP	W	X	23*
<i>Carex stricta</i>	Sedge ~		MP	E		4
<i>Carex virescens</i>	Ribbed sedge		MP	W		23
<i>Carya aquatica</i>	Water hickory		KT	F		1
<i>Celastrus scandens</i> *	Climbing bittersweet		AP	W, A	U	6*
<i>Cerastium velutinum</i>	Starry cerastium		TE	C		20
<i>Cheilanthes lanosa</i>	Woolly lip-fern		MP	C, O		4
<i>Chelone glabra</i> *	Turtlehead ~		MP	F, E, A	X	23*
<i>Chelone lyonii</i> *	Turtlehead ~		AP, MP	W	S	9*
<i>Chimaphila maculata</i>	Spotted wintergreen		MP	X		27
<i>Cimicifuga racemosa</i> *	Black bugbane		MP	W	U	4*
<i>Cimicifuga rubifolia</i> *	Bugbane ~		TT	W	U	14*, 15, 17, 51, 52*, 53, 54, 61, 62, 63, 64, 65, 78
<i>Cladrastis kentukea</i>	Yellowwood		MP	C, W		4
<i>Claytonia caroliniana</i>	Carolina spring-beauty		AP	W		9
<i>Clematis beadleii</i> *	Clematis ~		MP	A, F	X	23*
<i>Clematis glaucophylla</i> *	Leather-flower		TE	W, A	U	57*
<i>Conradina verticillata</i> *	Cumberland rosemary	T	TT	G	I	51*
<i>Corallorhiza wisteriana</i>	Wister coral-root		AP	W		9
<i>Coreopsis auriculata</i>	Tickseed ~		MP	W		23
<i>Coreopsis pulchra</i>	Tickseed ~		AP	O		9

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Corydalis sempervirens</i>	Pale corydalis		TE	O		71
<i>Cotinus obovatus</i>	Smoketree		AP, TS	X, O		8, 9, 11
<i>Crataegus ashei</i>	Ashe's hawthorn		AP	D		25
<i>Cuscuta harperi</i>	Dodder ~		AP	O		9, 26
<i>Cymphyllus fraserianus</i>	Fraser sedge		TS	W		72
<i>Cyperus dentatus*</i>	Toothed cyperus		TS	A	S	37*
<i>Cyperus engelmannii*</i>	Engelmann cyperus		TS	A, E	S	17*
<i>Cypripedium acaule</i>	Pink lady-slipper		GE, TE	X, W		37, 44, 45, 47, 50, 51, 52, 54, 63, 69, 72
<i>Cypripedium kentuckiense</i>	Lady-slipper		MP, TE	A, W		34
<i>Cypripedium reginae*</i>	Showy lady-slipper		TE	F	U	72*
<i>Cystopteris tennesseensis*</i>	Bladder-fern		AP	C	U	9*
<i>Dalea candida</i>	White prairie clover		TE	D, O		13
<i>Dalea foliosa</i>	Prairie clover	E	TE	O, D		20
<i>Delphinium exaltatum</i>	Tall larkspur		TE	O, D		13, 51, 52
<i>Delphinium tricorne</i>	Dwarf larkspur		MP	W		4, 23, 27
<i>Dentaria diphylla*</i>	Broadleaf toothwort		MP	W	U	4*, 23*, 27*
<i>Dentaria heterophylla*</i>	Toothwort ~		MP	W	U	4, 23, 27
<i>Dicentra cucullaria</i>	Dutchman breeches		AP, MP	W		4, 5, 27
<i>Didipils diandra*</i>	Water purslane		TT	E	S	70*
<i>Diervilla lonicera*</i>	Bush honeysuckle ~		TT	C, W	U	11*, 12*, 14*, 15*, 51*, 52*, 53*
<i>Diervilla rivularis*</i>	Riverbank bush honeysuckle		TT	A, C	U	44*
<i>Dirca palustris</i>	Leatherwood		MP	W		4
<i>Disporum maculatum</i>	Spotted mandarin		AP	W		9



Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Dodecatheon meadia</i>	Shooting star ~		MP	W, O		4, 27
<i>Draba cuneifolia</i>	Wedge-leaf whitlow-grass		TS	O		3
<i>Draba ramosissima</i>	Branching whitlow-wort		TS	C		36, 51, 52, 57, 58, 66, 67
<i>Dryopteris cristata</i>	Crested woodfern		TT	E		68
<i>Eleocharis intermedia</i> *	Spike-rush ~		TS	E	S	54*, 78*
<i>Eleocharis wolffii</i> *	Wolf spikerush		TS	F, E	X	20*, 22*
<i>Elodea canadensis</i> *	Waterweed ~		AP	B, A	S	9*
<i>Elodea nuttallii</i> *	Waterweed		TS	B, A	S	51*, 52*
<i>Elymus svensonii</i>	Wild rye ~		TE	C		19
<i>Epilobium ciliatum</i>	Willow-herb ~		TS	E		52
<i>Eriogonum longifolium</i> var. <i>harperi</i>	Harper umbrella plant		AP	C		8, 28
<i>Erythronium albidum</i>	White dogtooth-violet		AP	W		27
<i>Erythronium rostratum</i>	Dogtooth-violet ~		MP	W, A		4
<i>Euonymus atropurpureus</i>	Wahoo		MP	W, A		4, 27
<i>Euonymus obovatus</i>	Running strawberry bush		TS	W, A		4, 27
<i>Eupatorium steelei</i>	Steele's joe-pye weed		TS	X		72
<i>Festuca paradoxa</i>	Fescue ~		TS	D, F		34
<i>Fimbristylis puberula</i>	Hairy fimbriistylis		TT	D, F		3
<i>Fothergilla major</i>	Witch-elder ~		TT	C		12, 52
<i>Frasera carolinensis</i>	American columbo		AP	D, W, O		31
<i>Fraxinus quadrangulata</i>	Blue ash		MP	X, W		4
<i>Fuirena squarrosa</i> *	Umbrella grass		TS	E, A	S	37*
<i>Galium asprellum</i>	Rough bedstraw		TS	E		32
<i>Gelsemium sempervirens</i> *	Yellow jessamine		TS	O	U	11*, 12*, 13*, 37*

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Gentiana austromontana</i>	Gentian ~		TS	D		72
<i>Geum laciniatum*</i>	Rough avens		TS	A	S	71*
<i>Glyceria acutiflora</i>	Manna-grass ~		TS	E		11
<i>Gnaphalium helleri</i>	Everlasting ~		TS	X		43, 51
<i>Gymnocladus dioicus</i>	Kentucky coffee-tree		MP	W		4
<i>Halesia carolina*</i>	Carolina silverbell		AP	A	U	9*
<i>Halesia tetraptera</i> var. <i>tetraptera*</i>	Common silverbell		KT	W	U	1*, 2*
<i>Hedeoma hispida</i>	Rough pennyroyal		KT	X		2
<i>Helianthemum bicknellii</i>	Sunrose ~		TE	X		57
<i>Helianthus glaucophyllus</i>	Sunflower ~		AP	W, X, D		9
<i>Heteranthera dubia</i>	Grassleaf mud-plantain		KS	A, E		78
<i>Heteranthera limosa*</i>	Smaller mud-plantain		KS, TT	E	S	2*, 78*
<i>Heuchera villosa</i> var. <i>macrorrhiza</i>	Alumroot ~		MP	C		4
<i>Hexastylis contracta</i>	Wild ginger ~		TS	W		75
<i>Homaliadelphus sharpii</i>	Sharp's homaliadelphus		TE	C		53, 54, 73
<i>Hottonia inflata*</i>	Featherfoil		AP, TS	E	S	8*, 10*
<i>Hybanthus concolor</i>	Green violet		MP	W		4, 27
<i>Hydrastis canadensis</i>	Goldenseal		AP, TS	W		9, 11, 18, 19, 20, 22, 31, 51, 52, 54, 55, 67, 78
<i>Hydrophyllum appendiculatum</i>	Waterleaf ~		MP	W		4
<i>Hydrophyllum macrophyllum</i>	Waterleaf ~		MP	W		4
<i>Hydrophyllum virginianum*</i>	Virginia waterleaf		TT	W, A	U	69*
<i>Hymenophyllum tayloriae</i>	Gorge filmy fern		AP	C		26
<i>Hypericum adpressum*</i>	Creeping St. John-wort		TT	E, F	S	11*

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Ilex montana</i>	Mountain winterberry		MP	W, X		4
<i>Iris brevicaulis</i> *	Lamance iris		TE	E	S	2*
<i>Iris fulva</i> *	Red iris		TT	E, F	S	52*
<i>Isoetes engelmannii</i>	Quillwort ~		MP	E, A		23
<i>Isoetes lacustris</i> *	Western quillwort		TE	B	S	36*, 55*
<i>Isoetes melanopoda</i>	Quillwort ~		TE	E		2
<i>Isotria medeoloides</i>	Small-whorled pogonia	T	GE, TE	W, X		48
<i>Jamesianthus alabamensis</i>	Jamesianthus		AP	F, A		29
<i>Jeffersonia diphylla</i>	Twinleaf		AP	W		8, 9
<i>Juglans cinerea</i> *	Butternut		KS, TT	W, A	U	2*, 20*, 34*, 36*, 51*, 52*, 53*, 64*, 67*, 69*, 70*, 72*, 78*
<i>Juncus brachycephalus</i>	Short-head rush		TS	F		52, 75
<i>Juncus gymnocarpus</i> *	Naked-fruit rush		TS	F, E	S	45*
<i>Leavenworthia alabamica</i>	Alabama glade-cress		AP	D, O		5
<i>Leavenworthia exigua</i> var. <i>exigua</i>	Glade cress ~		TS	O		3, 20
<i>Leavenworthia exigua</i> var. <i>lutea</i>	Pasture glade cress		AP	O		9
<i>Lejeunea sharpii</i>	Sharp's lejeunea		TE	C		34
<i>Lesquerella densipila</i>	Duck River bladderpod		AP, TT	D		19, 20, 32
<i>Lesquerella lescurii</i>	Lescur's bladder-pod		KS	D, E		78
<i>Leucothoe racemosa</i> *	Fetterbush ~		TT	E	U	15*
<i>Liatris cylindracea</i>	Cylindric blazing star		TT	D		3, 11, 15, 51, 52
<i>Ligusticum canadense</i>	Lovage ~		MP	W		4
<i>Lilium canadense</i>	Canada lily		TT	E, F, W		51, 52, 54
<i>Lilium michiganense</i>	Michigan lily		TT	E, F		3, 52, 78

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Lilium philadelphicum</i>	Wood lily		TE	E, F		12
<i>Lilium superbum</i>	Turkscap lily		KT, MP	D		2, 4, 23
<i>Liparis loeselii</i>	Loesel twayblade		TE	F, E		2
<i>Lobelia amoena</i>	Southern lobelia		TE	E, A		37, 44, 45, 46
<i>Lonicera canadensis*</i>	American fly honeysuckle		TS	W, F	U	67*
<i>Lonicera dioica</i>	Smoothleaf honeysuckle		TS	W, C		16, 51, 52, 54, 64
<i>Lonicera flava</i>	Yellow honeysuckle		TS	W, C		11, 12
<i>Luzula acuminata</i>	Woodrush ~		MP	W		4, 23
<i>Lycopodium porophyllum</i>	Rock clubmoss		AP, MP	C		26
<i>Lysimachia fraseri</i>	Loosestrife ~		KE, TE	A		2, 4, 12, 43, 44
<i>Magnolia virginiana</i>	Sweetbay		TT	F		65
<i>Malus angustifolia</i>	Crab apple		KS, TS	X, D		2, 78
<i>Marshallia grandiflora</i>	Barbara buttons ~		TE	G		51
<i>Marshallia obovata*</i>	Barbara buttons ~		TT	W, A	S	36*
<i>Marshallia trinervia</i>	Barbara buttons ~		NS, TT	A		34
<i>Meehania cordata</i>	Meehan mint		TT	W		53, 54, 65
<i>Melanthium latifolium</i>	Broadleaf bunchflower		TE	W		22
<i>Melanthium parviflorum</i>	False hellebore ~		AP	W		9
<i>Melanthium woodii*</i>	Ozark bunchflower		TE	F, E	U	54*
<i>Melanthium virginicum</i>	Bunchflower ~		KE	W		54
<i>Menispermum canadense</i>	Yellow parilla		MP	W, A		4
<i>Mertensia virginica</i>	Bluebells		MP	A		27
<i>Mirabilis albida</i>	Pale umbrella-wort		AP, TT	O		20, 28
<i>Monarda clinopodia</i>	Horsemint ~		AP	W		4
<i>Monotropsis odorata</i>	Pigmy-pipes		TT	X		1

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Muhlenbergia glabrifloris</i>	Muhly ~		KS, TS	X, D		20, 78
<i>Muhlenbergia tenuiflora</i>	Muhly ~		MP	C, W		4
<i>Najas gracillima</i>	Thread-like naiad		KS	A, B		78
<i>Neobeckia aquatica*</i>	Lake-cress		AP, KT, TS	B, E	S	2*, 7*, 78*
<i>Neviusia alabamensis</i>	Snow-wreath		AP, MP, TT	W, C		4, 7, 9, 33
<i>Oenothera macrocarpa</i> ssp. <i>macrocarpa</i>	Missouri primrose		TT	O		20
<i>Oenothera perennis</i>	Small sundrops		KE	E, A		2
<i>Oldenlandia uniflora*</i>	Oldenlandia ~		KE	E, D	S	2*
<i>Onosmodium molle</i> ssp. <i>hispidissimum</i>	Hairy false gromwell		TS	X		11
<i>Ophioglossum engelmannii</i>	Adder-tongue ~		AP	O, D		3, 13, 18
<i>Orobanche uniflora</i>	One-flower cancer-root		AP	W		9
<i>Osmorhiza longistylis</i>	Anise-root		MP	W		4, 23, 27
<i>Oxalis grandis</i>	Wood-sorrel ~		AP	W		8, 9
<i>Pachysandra procumbens</i>	Allegheny-spurge		AP, MP	W		4, 6, 24, 26, 31
<i>Panax quinquefolius</i>	Ginseng		MP, TS	W		2, 4, 11, 12, 13, 17, 18, 22, 23, 34, 36, 44, 51, 52, 54, 63, 64, 69, 72, 78
<i>Panicum acuminatum</i> var. <i>leucothrix</i>	Panic-crass		TS	D, E		47
<i>Parnassia grandifolia</i>	Largeleaf grass-of-parnassus		TS	F, A		53, 54, 70
<i>Paxistima canbyi</i>	Cliff-green		TE	D, E		64
<i>Pedicularis lanceolata</i>	Swamp lousewort		TT	E		54
<i>Pellaea atropurpurea</i>	Purple cliff-brake		MP	C		4, 23

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Perideridia americana</i>	Perideridia ~		MP	D, C		4
<i>Phacelia bipinnatifida</i>	Phacelia ~		MP	W		4
<i>Phacelia dubia</i>	Scorpion-weed		MP	O		4
<i>Phacelia ranunculacea</i>	Blue scorpion-weed		TS	W		78
<i>Philadelphus hirsutus*</i>	Mock-orange ~		MP	C	U	4*
<i>Philadelphus inodorus</i>	Mock-orange ~		KT	C		2, 78
<i>Phlox pilosa</i> ssp. <i>ozarkana</i>	Downy phlox		TS	X, D		2
<i>Phlox subulata</i>	Moss phlox		TT	X, C		63
<i>Pinus virginiana*</i>	Virginia pine		MP	X	U	4*, 23
<i>Pityopsis ruthii*</i>	Ruth golden aster	E	TE	G	A	37*, 44*
<i>Platanthera cristata</i>	Crested fringed orchid		MP	E, D		4, 23
<i>Platanthera flava</i> var. <i>flava*</i>	Southern rein orchid		AP, TS	F, E, A	S	7*, 9*, 34*
<i>Platanthera integrilabia</i>	Monkey-face orchid	C	AP, MP	F, A		4, 25
<i>Platanthera orbiculata</i>	Large roundleaf orchid		TT	W		69
<i>Polemonium reptans</i>	Greek valerian		MP	W, A		4, 23, 27
<i>Polygala boykinii</i>	Boykin milkwort		TS	O		20
<i>Polygala mariana</i>	Milkwort ~		TS	D		3, 13
<i>Polymnia laevigata</i>	Smooth leafcup		AP	C, W		9
<i>Porella wataugensis</i>	Liverwort ~		TT	C		58
<i>Potamogeton amplifolius*</i>	Largeleaf pondweed		TT	B, A	S	55*
<i>Potamogeton ephedrus*</i>	Creekgrass		TS	B, A	A	12*, 37*, 55*, 56*, 57*
<i>Potamogeton tennesseensis*</i>	Pondweed ~		TT	A	A	37*, 55*
<i>Prenanthes barbata</i>	Barbed rattlesnake-root		TS	D, X		3
<i>Prenanthes crepidinea</i>	Nodding rattlesnake-root		TE	W, D, O		78
<i>Ptilimnium capillaceum</i>	Hair-like mock bishop-weed		KT	E		2, 78

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Ptilimnium nuttallii</i>	Nuttall's mock bishop's-weed		KE	E, F, W		78
<i>Radula voluta</i>	Liverwort ~		TS	C		73
<i>Ranunculus flabellaris</i>	Buttercup ~		AP, TT	E		34
<i>Rhamnus alnifolia</i>	Alder-leaf buckthorn		TE	E, F		54
<i>Rhododendron minus</i>	Carolina rhododendron		AP	X, C		9
<i>Rhynchospora capillacea</i>	Capillary beakrush		TE	A		54
<i>Ribes curvatum</i>	Gooseberry ~		AP	W, X		9
<i>Ruellia purshiana</i>	Pursh petunia		TS	X		17, 51, 52, 63
<i>Sabatia campestris</i>	Prairie pink		MP	W, D		80
<i>Sabatia capitata</i>	Rose-gentian		TE	X, D		12
<i>Sacciolepis striata*</i>	Gibbous panic-grass		TS	E	A	13*, 37*
<i>Sagittaria brevirostra</i>	Short-beaked arrowhead		TT	F, E		78
<i>Sagittaria platyphylla*</i>	Ovate-leaved arrowhead		TS	E	S	13*
<i>Salix caroliniana*</i>	Coastal plain willow		MP	G, A	X	4, 23*
<i>Salvia azurea</i> var. <i>grandiflora</i>	Blue sage		TS	D		2, 3
<i>Salvia urticifolia</i>	Sage ~		MP	X, D		23
<i>Sarracenia oreophila*</i>	Green pitcher plant	E	GE, NE	E, A	S	42*
<i>Saxifraga caroliniana</i>	Saxifrage ~		TE	F, C		72
<i>Schoenolirion croceum</i>	Sunnybell ~		TT	O		20
<i>Scirpus fluviatilis*</i>	River bulrush		AP	E	S	2*, 51*
<i>Scutellaria montana</i>	Mountain skullcap	E	TE	X		11, 12, 13, 37, 69
<i>Scutellaria saxatilis</i>	Rock skullcap		TT	X, W, C		37, 69
<i>Sedum nevirii</i>	Stonecrop ~		AP, TE	C		9, 44, 45
<i>Sedum ternatum</i>	Stonecrop ~		MP	C, W		4, 27

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Selaginella arenicola</i> ssp. <i>riddellii</i>	Spikemoss ~		AP	O		25, 26
<i>Silene caroliniana</i> ssp. <i>pensylvanica</i>	Wild pink ~		TT	C		67, 70
<i>Silene ovata</i>	Ovate catchfly		TE	W		22
<i>Silphium brachiatum</i>	Rosinweed ~		AP	X		8, 9
<i>Silphium wasiotense</i>	Kentucky rosin-weed		TE	W		53, 54
<i>Smilacina stellata</i>	Starflower solomons-seal		TE	W, A		65
<i>Solidago flaccidifolia</i>	Goldenrod ~		MP	W		4
<i>Solidago ptarmicoides</i>	Goldenrod ~		TE	D		14, 51, 52
<i>Solidago sphacelata</i>	Goldenrod ~		MP	X, C		4
<i>Solidago uliginosa</i>	Goldenrod ~		TS	F, E		66
<i>Sparganium androcladum</i> *	Branching burreed		TE	E, A	S	70*, 71*
<i>Sphenopholis pensylvanica</i>	Swamp oats		KS	E, F		2
<i>Spiraea virginiana</i>	Virginia spiraea	T	TE	G		51
<i>Spiranthes lucida</i>	Shining ladies-tresses		TT	A, F		51
<i>Sporobolus clandestinus</i>	Rough dropseed		KT	D		77
<i>Staphylea trifolia</i>	Bladdernut		MP	W		4, 27
<i>Stellaria longifolia</i> *	Longleaf stitchwort		KS	F, E	U	2*
<i>Stellaria pubera</i>	Giant chickweed		MP	W		4, 27
<i>Stewartia ovata</i>	Mountain-camellia		AP, MP	W, A		23, 25, 26
<i>Stylisma humistrata</i>	Southern morning-glory		TT	X		12
<i>Sullivantia sullivantii</i>	Sullivantia		TE	C		54
<i>Symplocarpus foetidus</i>	Skunk cabbage		TE	E		68, 70
<i>Symplocos tinctoria</i>	Horse sugar		TS	A, W		36, 37, 44, 45



**Table D6a-01 Threatened and Endangered Species List (continued)**

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Synosma suaveolens</i>	Sweet-scented indian-plantain		TT	X, W		78
<i>Talinum calcaricum</i>	Limestone fame-flower		TS	O		20, 32
<i>Talinum mengesii</i>	Fame-flower ~		AP	O		26
<i>Tetragonotheca helianthoides</i>	False-sunflower ~		TE	X		55
<i>Thalictrum mirabile</i> *	Little mountain meadow-rue		AP	C	X	26*
<i>Thuja occidentalis</i>	Northern white cedar		TS	C, F		51, 52, 54, 67, 69, 72
<i>Tiarella cordifolia</i>	Foamflower		MP	W		4, 27
<i>Tradescantia ernestiana</i>	Spiderwort ~		MP	C, W		4
<i>Trautvetteria carolinensis</i>	False-bugbane		MP	A, E		4
<i>Tropocarpus aethusae</i> *	Tropocarpus		KE	A	S	2*, 78*
<i>Trichomanes boschianum</i>	Bristle fern		MP, TT	C		23, 27, 58
<i>Trichomanes petersii</i> *	Dwarf filmy-fern		AP, TT	C	S	9, 36*, 58*
<i>Trifolium calcaricum</i>	Leo's trifolium		TE	O		20
<i>Trifolium reflexum</i>	Buffalo clover		TE	X, D		58
<i>Trillium flexipes</i>	Bent trillium		MP	W		4
<i>Trillium lancifolium</i>	Lance-leaf trillium		TE	W, A		12
<i>Trillium recurvatum</i>	Prairie trillium		AP	W		31
<i>Trillium rugelli</i>	Southern nodding trillium		TE	W		44
<i>Trillium sessile</i>	Toadshade ~		AP	W		32
<i>Trillium sulcatum</i>	Southern red trillium		AP	W		9
<i>Triosteum angustifolium</i>	Horse-gentian ~		AP, MP	D		9, 23, 27, 31, 80
<i>Triphora trianthophora</i>	Three-birds-orchid		MP	W		23
<i>Tsuga caroliniana</i>	Carolina hemlock		TT	X, O		8, 23
<i>Ulmus serotina</i>	September elm		KS	W, X, O		78

**Table D6a-01 Threatened and Endangered Species List (continued)**

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Plants (continued)</b>						
<i>Vaccinium macrocarpon</i>	American cranberry		TT	E		46
<i>Viola canadensis</i>	Canada violet		AP	W		9
<i>Viola pubescens</i> var. <i>eriocarpa</i>	Downy yellow violet		MP	W		4
<i>Viola tripartita</i> var. <i>tripartita</i>	Three-parted violet		TS	W		11, 12, 52
<i>Woodsia appalachiana</i> *	Appalachian woodsia		TS	C	U	71*
<i>Xerophyllum asphodelioides</i>	Turkey-beard		TT	X		44
<i>Xyris tennesseensis</i>	Tennessee yellow-eyed grass	E	AP	F, A		28
<i>Zigadenus elegans</i> ssp. <i>glauca</i> *	White camas		TE	C	U	72*
<b>Snails (14)</b>		<b>(4)</b>	<b>(14)</b>			<b>(11)</b>
<i>Athearnia anthonyi</i> *	Anthony's river snail	E	AS, TE	B, S	F	7, 10*
<i>Campeloma decampi</i>	Slender campeloma	E	AP	M, S		7
<i>Elimia interrupta</i> *	Knotty elimia		NE	M	F	37*
<i>Lithasia armigera</i> *	Armored rocksnail		AT, KS	B	F	1*, 3*, 5*, 78*
<i>Lithasia geniculata</i> *	Ornate rocksnail		AT, KS	B	F	1*, 3*, 5*
<i>Lithasia lima</i> *	Warty rocksnail		AT	B, M	F	5*
<i>Lithasia salebrosa</i> *	Muddy rocksnail		AT, KS	B	F	1*, 5*, 78*
<i>Lithasia verrucosa</i> *	Varicose rocksnail		AT, KS	B, M	F	1*, 3*, 5*, 10*, 23*, 32*
<i>Mesodon clarki nantahala</i>	Noonday globe	T	NT	W		60
<i>Pleurocera alveare</i> *	Rugged hornsnail		AT	B, M	F	3*, 5*, 6*
<i>Pleurocera corpulenta</i> *	Corpulent hornsnail		AT	B	F	5*, 10*
<i>Pleurocera curta</i> *	Shortspire hornsnail		AT	B, M	F	1*, 3*, 5*, 8*
<i>Pleurocera walkeri</i> *	Telescope hornsnail		AT	B, M	F	5*
<i>Pyrgulopsis pachyta</i>	Armored snail	E	AP	M, S		7

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Mussels (49)</b>		<b>(26)</b>	<b>(49)</b>			<b>(42)</b>
<i>Alasmidonta raveneliana</i> *	Appalachian elktoe	E	NE, TE	M	I	58*, 60*
<i>Alasmidonta viridis</i>	Slippershell mussel		NE	S		60
<i>Cumberlandia monodonta</i> *	Spectaclecase		AP, TS	B, M	F	3*, 5*, 7*, 32*, 52*, 53*, 54
<i>Cyprogenia stegaria</i> *	Fanshell	E	AP, KE, TE	B, M	F	1*, 3*, 5*, 8*, 14*
<i>Dromus dromas</i> *	Dromedary pearlymussel	E	AP, TE	B, M	F	14*
<i>Ellipsaria lineolata</i> *	Butterfly		AS	B, M	F	4*, 5*, 6*, 7*, 8*, 9*, 10*, 23*, 32*
<i>Elliptio dilatata</i> *	Spike		AS, NS	B, M	F	5*, 8*, 10*, 32*, 33*, 37*, 40*, 60
<i>Epioblasma brevidens</i> *	Cumberlandian combshell	E	AP, TE	M	X	20*, 23*, 30*
<i>Epioblasma capsaeformis</i> *	Oyster mussel	E	TE	M	X	20*
<i>Epioblasma florentina walkeri</i> *	Tan riffleshell	E	TE, VE	M	A	20*, 36, 37*
<i>Fusconaia barnesiana</i> *	Tennessee pigtoe		AS, NE, VS	M	X	23*, 30*, 69
<i>Fusconaia cor</i> *	Shiny pigtoe pearlymussel	E	AP, TE	M	F	32*, 33*
<i>Fusconaia cuneolus</i> *	Fine-rayed pigtoe	E	AP, TE	M	F	32*, 33*, 53*
<i>Fusconaia subrotunda subrotunda</i> *	Long solid		KT	B	F	1*
<i>Hemistena lata</i> *	Cracking pearlymussel	E	AP, TE	B, M	F	3*, 5*, 32*, 33*
<i>Lampsilis abrupta</i> *	Pink mucket	E	AP, KE, TE	B	F	1*, 2*, 3*, 5*, 7*, 8*, 10*, 12*, 14*, 16*, 23*, 51*, 61*, 73*
<i>Lampsilis fasciola</i> *	Wavy-rayed lampmussel		AS, NS	M, S	F	23*, 41*, 60
<i>Lampsilis ovata</i> *	Pocketbook		AS, KE	B, M	F	1*, 5*, 8*, 10*, 23*, 25*, 28*, 30*, 32*, 33*, 77*
<i>Lasmigona complanata</i> *	White heelsplitter		MS	B, M	X	23*
<i>Lemiox rimosus</i> *	Birdwing pearlymussel	E	TE, AS	M	F	19*, 20*, 32*, 33*

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Mussels (continued)</b>						
<i>Lexingtonia dolabelloides</i> *	Slabside pearlymussel	C	AP	M	F	19*, 20*, 21*, 23*, 32*, 33*, 34, 37*, 53*
<i>Ligumia recta</i> *	Black sandshell		AS	B, M	F	4*, 5*, 6*, 8*, 10*, 23*
<i>Obovaria retusa</i> *	Ring pink	E	AP, TE	B	F	1*, 3*, 4*
<i>Obovaria subrotunda</i> *	Round hickorynut		AS	B, M	F	5*, 23*, 30*
<i>Pegias fabula</i>	Little-wing pearlymussel	E	TE, NS	M, S		60, 76
<i>Plethobasus cicatricosus</i> *	White wartyback	E	AP, TE	B	F	3*, 5*
<i>Plethobasus cooperianus</i> *	Orange-footed pimpleback	E	AS, KE, TE	B	F	1*, 3*, 5*, 8*, 14*, 16*
<i>Plethobasus cyphyus</i> *	Sheepnose		AP	B, M	F	1*, 5*, 8*, 9*
<i>Pleurobema clava</i> *	Clubshell	E	AP, TE	B, M	F	3*
<i>Pleurobema cordatum</i> *	Ohio pigtoe		AS	B, M	F	4*, 5*, 6*, 8*, 10*, 23*
<i>Pleurobema gibberum</i>	Cumberland pigtoe	E	TE	M, S		76
<i>Pleurobema oviforme</i> *	Tennessee clubshell		AS, TS	B, M	F	8*, 14*, 16*, 20*, 23*, 33*, 36, 37*
<i>Pleurobema plenum</i> *	Rough pigtoe	E	AP, TE	B, M	F	3*, 4*, 5*, 7*, 8*, 14*
<i>Pleurobema rubrum</i> *	Pyramid pigtoe		AP, KE	B, M	F	1*, 5*, 8*
<i>Potamilus alatus</i> *	Pink heelsplitter		MS	B, M	X	23*
<i>Potamilus capax</i> *	Fat pocketbook	E	KE	B	F	77*
<i>Potamilus ohioensis</i> *	Pink papershell		AS	B	F	4*, 7*
<i>Ptychobranchnus fasciolaris</i> *	Kidneyshell		AS	M	F	5*, 10*, 23*
<i>Ptychobranchnus subtentum</i>	Fluted kidneyshell		AS	M		54
<i>Quadrula cylindrica cylindrica</i> *	Rabbitsfoot	C	AS, KT, TE	B, M	F	1*, 3*, 5*, 10*, 19*, 20*, 23*, 32*, 33*
<i>Quadrula cylindrica strigillata</i>	Rough rabbitsfoot	E	TE, VE	M		54
<i>Quadrula intermedia</i> *	Cumberland monkeyface	E	AP, TE	M	F	20*, 32*, 33*
<i>Quadrula metanevra</i> *	Monkeyface		AS	B, M	F	5*, 6*, 8*, 9*, 10*, 32*

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Mussels (continued)</b>						
<i>Toxolasma cylindrellus</i>	Pale lilliput	E	TE	S		20
<i>Toxolasma lividus*</i>	Purple lilliput		AS	B, S	F	4*, 5*, 6*, 7*, 8*, 23*
<i>Truncilla truncata*</i>	Deertoe		AE	B, M	F	4*, 5*, 8*, 23*
<i>Villosa perpurpurea</i>	Purple bean	E	TE	M, S		64
<i>Villosa trabalis*</i>	Cumberland bean	E	TE	M, S	A	37*, 64*
<i>Villosa vanuxamensis*</i>	Mountain creekshell		NT	M, S	F	41*
<b>Insects (6)</b>		<b>(0)</b>	<b>(6)</b>			<b>(0)</b>
<i>Batrachospermodes spelaeus</i>	A beetle		AS	C		6, 8
<i>Batrachodes jonesi</i>	A beetle		AS	C		5, 23
<i>Folsomia candida</i>	A springtail		AS	C		5
<i>Ptomaphagus episcopus</i>	A cave obligate beetle		AS	C		9
<i>Ptomaphagus valentinei</i>	A beetle		AS	C		9
<i>Rhadine caudata</i>	A ground beetle		AS	C		8
<b>Crayfish (6)</b>		<b>(0)</b>	<b>(6)</b>			<b>(0)</b>
<i>Cambarus hamulatus</i>	Troglobitic crayfish		AS	U		9
<i>Cambarus hiwasseeensis</i>	Hiwassee crayfish		NS	M, S		41, 49
<i>Cambarus jonesi</i>	Troglobitic crayfish		AS	U		5, 7, 8
<i>Cambarus veitchorum</i>	A troglobitic crayfish		AT	U		7
<i>Orconectes wrighti</i>	A crayfish		TE	S		3
<i>Procambarus pecki</i>	Troglobitic crayfish		AS	U		5, 8
<b>Other Arthropods (3)</b>		<b>(0)</b>	<b>(3)</b>			<b>(1)</b>
<i>Coras lamellosus</i>	A pseudoscorpion		AS	C		9
<i>Nesticus barri</i>	A cave obligate spider		AS	C		9
<i>Palaemonias</i> sp.*	Undescribed caveshrimp		AS	U	Q	6*

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Fish (66)</b>		<b>(11)</b>	<b>(66)</b>			<b>(29)</b>
<i>Acipenser fulvescens</i> *	Lake sturgeon		KE, TE	B	F	17*, 18*, 61*, 62*, 73*
<i>Alosa alabamae</i> *	Alabama shad		KE	B	F	1*
<i>Ammocrypta clara</i>	Western sand darter		TS	M, S		54
<i>Atractoseus spatula</i>	Alligator gar		KE, TS	B		2, 77
<i>Carpionodes velifer</i> *	Highfin carpsucker		TS	M	F	3*, 13*, 19*, 32*, 36*, 52*, 64*, 73*, 74
<i>Clinostomus funduloides</i> ssp. 1	Smoky dace		NS, TS	M, S		57, 60
<i>Cycleptus elongatus</i> *	Blue sucker		TT	B, M	F	3*, 15, 16, 17, 19*, 52, 62, 73*, 78
<i>Cyprinella monacha</i> *	Spotfin chub	T	AP, NT, TT	M	F	51, 57, 60, 64*, 65
<i>Cyprinella spiloptera</i>	Spotfin shiner		MS	M, S		4, 23
<i>Cyprinella whipplei</i> *	Steelcolor shiner		MS	B, M, S	X	4, 23, 27*
<i>Elassoma alabamae</i> *	Spring pygmy sunfish		AP	S	S	4, 7*
<i>Erimystax cahni</i>	Slender chub	T	TT	M		54
<i>Erimystax insignis</i>	Blotched chub		GT	M		50
<i>Esox niger</i> *	Chain pickerel		KS	B, M	F	2*
<i>Etheostoma aquali</i> *	Coppercheek darter		TT	M	X	19*, 20*, 21*
<i>Etheostoma blennioides newmanni</i>	Greenside darter		MS	M, S		23
<i>Etheostoma boschungii</i>	Slackwater darter	T	AP	M, S		5
<i>Etheostoma cinereum</i> *	Ashy darter		TT	M, S	X	20*, 21*, 22, 33
<i>Etheostoma denoncourti</i> *	Golden darter		TS	M	X	19*, 20*
<i>Etheostoma flabellare</i>	Fantail darter		MS	M, S		4
<i>Etheostoma gutselli</i>	Tuckasegee darter		TE	S		58
<i>Etheostoma kennicotti</i>	Stripetail darter		MS	M, S		4

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Fish (continued)</b>						
<i>Etheostoma luteovinctum*</i>	Redband darter		TS	S	X	20*, 21*
<i>Etheostoma parvipinne</i>	Goldstripe darter		KS	S		2
<i>Etheostoma percnurum</i>	Duskytail darter	E	TE	M, S		55
<i>Etheostoma pseudovulatum</i>	Egg-mimic darter		TE	S		19
<i>Etheostoma rufilineatum*</i>	Redline darter		MS	M, S	X	4, 23, 27*
<i>Etheostoma sp. D*</i>	Bluemask darter	E	TE	M, S	I	76*
<i>Etheostoma striatulum*</i>	Striated darter		TT	S	X	20*, 21
<i>Etheostoma tuscumbia*</i>	Tuscumbia darter		AP, TS	S	S	4, 7*, 8
<i>Etheostoma vulneratum</i>	Wounded darter		GE, NS	M		47, 48, 60
<i>Etheostoma wapiti*</i>	Boulder darter	E	AP, TE	M	F	32*, 33*
<i>Etheostoma zonistium</i>	Bandfin darter		MS	S		4
<i>Fundulus julisia</i>	Barrens topminnow		TE	S		22
<i>Hemimania flammae</i>	Flame chub		TS	S		20, 33, 34
<i>Ichthyomyzon castaneus</i>	Chestnut lamprey		KS	B		78
<i>Ichthyomyzon unicuspis*</i>	Silver lamprey		TS	M	F	2*, 3*
<i>Ictiobus niger</i>	Black buffalo		KS	B, M		78
<i>Lepomis miniatus</i>	Spotted sunfish		KT	M		2
<i>Lythrurus fasciolaris</i>	Rosefin shiner		MS	M, S		4, 23
<i>Moxostoma carinatum*</i>	River redhorse		GS	B, M	F	47*
<i>Moxostoma duquesnei</i>	Black redhorse		MS	B, M		23
<i>Moxostoma macrolepidotum*</i>	Shorthead redhorse		MS	B	X	23*, 27*
<i>Moxostoma sp. 2*</i>	Sicklefin redhorse		NS	B, M	I	41*, 60*
<i>Notropis boops</i>	Bigeye shiner		MS	S		23
<i>Notropis rubellus micropteryx</i>	Rosyface shiner		MS	M, S		23
<i>Notropis rupestris</i>	Bedrock shiner		TS	S		21, 76

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Fish (continued)</b>						
<i>Noturus baileyi</i>	Smoky madtom	E	TE	M		55
<i>Noturus flavipinnis</i>	Yellowfin madtom	T	TE	M		54, 55, 56
<i>Noturus flavus</i>	Stonecat		NE	M, S		60
<i>Noturus</i> sp. 3	Duck River saddled madtom		TT	M, S		20
<i>Noturus stanauli</i> *	Pygmy madtom	E	TE	M	X	19*
<i>Percina aurantiaca</i> *	Tangerine darter		GT, TS	M	A	36*, 37*, 47*, 51, 55, 64*, 65, 70, 72, 73*
<i>Percina burtoni</i> *	Blotchsided logperch		TS	M	X	2, 22, 36, 55
<i>Percina macrocephala</i>	Longhead darter		TT	M		21, 72
<i>Percina phoxocephala</i> *	Slenderhead darter		TS	M	X	2, 19*, 20*, 21
<i>Percina sciera</i>	Dusky darter		GS	M, S		48
<i>Percina squamata</i>	Olive darter		GT, NS	M		48, 60
<i>Percina tanasi</i> *	Snail darter	T	TT	M	F	10*, 11, 12*, 14*, 16*, 17*, 18*, 32, 35*, 36*, 43*, 61*, 73*
<i>Phenacobius crassilabrum</i>	Fatlips minnow		VS	M, S		69
<i>Phenacobius mirabilis</i>	Suckermouth minnow		MS	M, S		23
<i>Phoxinus tennesseensis</i>	Tennessee dace		TS	S		36, 44, 51, 55, 64
<i>Polyodon spathula</i> *	Paddlefish		AS	B	F	4*, 7
<i>Rhinichthys atratulus</i>	Blacknose dace		MS	M, S		4
<i>Speoplatyrhinus poulsoni</i> *	Alabama cavefish	E	AP	U	Q	5*
<i>Typhlichthys subterraneus</i> *	Southern cavefish		AP, TS	U	Q	3*, 5*, 7*, 75*, 76*
<b>Amphibians (18)</b>		<b>(0)</b>	<b>(18)</b>			<b>(2)</b>
<i>Ambystoma talpoideum</i>	Mole salamander		NS	A, W		49
<i>Aneides aeneus</i>	Green salamander		AP, ME	C		9, 23, 26, 27



**Table D6a-01 Threatened and Endangered Species List (continued)**

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Amphibians (continued)</b>						
<i>Cryptobranchus a. alleganiensis*</i>	Eastern hellbender		AP, GS, MS, NS, TS	B, M, S	F	3*, 8, 17*, 18*, 19, 20*, 21, 23, 30*, 36*, 41, 42*, 47*, 49, 51*, 52*, 54*, 55*, 72, 76, 78
<i>Desmognathus ocoee</i>	Mountain dusky salamander		AS	S, F		9
<i>Eurycea guttolineata</i>	Three-lined salamander		KT	A, F, W		2
<i>Eurycea junaluska</i>	Junaluska salamander		TS	A, S		55
<i>Eurycea l. longicauda</i>	Longtail salamander		NS	A, C, F		58
<i>Eurycea lucifuga</i>	Cave salamander		ME	C, A, S		23, 27
<i>Gyrinophilus palleucus</i>	Tennessee cave salamander		AP, TT	U, C		5, 8, 9, 11, 13, 16, 18
<i>Gyrinophilus porphyriticus</i>	Spring salamander		ME	A, C, F		23
<i>Hemidactylium scutatum</i>	Four-toed salamander		MS, NS	A, F		23, 49
<i>Hyla avivoca</i>	Bird-voiced treefrog		KT	A, F		1
<i>Hyla cinerea*</i>	Green treefrog		KS	A, F	S	2*
<i>Hyla gratiosa</i>	Barking treefrog		KS	A, W, F		78
<i>Plethodon dorsalis</i>	Zigzag salamander		MS	A, C		23
<i>Pseudacris brachyphona</i>	Mountain chorus frog		MS, NS	A, F		4, 23
<i>Pseudotriton ruber</i>	Red salamander		MS	A, F, S		4, 23
<i>Rana areolata circulosa</i>	Northern crawfish frog		KS	A, D, E		1
<b>Reptiles (14)</b>		<b>(0)</b>	<b>(14)</b>			<b>(3)</b>
<i>Apalone mutica mutica*</i>	Midland smooth softshell		KS	B, M	F	2*
<i>Apalone s. spinifera</i>	Eastern spiny softshell		VS	B, M		69
<i>Eumeces anthracinus pluvialis</i>	Southern coal skink		AS, MS	A		4, 5, 23
<i>Eumeces inexpectatus</i>	Southeastern five-lined skink		KS	O, X		2, 78
<i>Graptemys ouachitensis*</i>	Ouachita map turtle		MS	B, M	F	4*, 23*

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Reptiles (continued)</b>						
<i>Lampropeltis getula nigra</i>	Black kingsnake		MS	D, E, X		4
<i>Lampropeltis triangulum elapsoides</i>	Scarlet kingsnake		KS	X, W		78
<i>Lampropeltis triangulum triangulum</i>	Eastern milk snake		AS	D		9
<i>Macrochelys temmenckii</i>	Alligator snapping turtle		AP, TS	B, M		2, 3, 5, 6, 27, 28, 78
<i>Ophisaurus attenuatus longicaudus</i>	Eastern slender glass lizard		TS	D, X		55
<i>Pituophis m. melanoleucus</i>	Northern pine snake		AS, KT, TT	X		10, 19, 43, 57, 78
<i>Regina septemvittata</i>	Queen snake		MS	A, S		23
<i>Sistrurus mliarius streckeri*</i>	Western pigmy rattlesnake		KT, TT	A, F	S	2*, 3, 4, 20
<i>Thamnophis sauritus</i>	Eastern ribbon snake		KS	A, E		78
<b>Birds (23)</b>		<b>(6)</b>	<b>(22)</b>			<b>(8)</b>
<i>Accipiter striatus</i>	Sharp-shinned hawk		TS	X		54
<i>Anhinga anhinga</i>	Anhinga		TS	B		2
<i>Aquila chrysaetos</i>	Golden eagle		TT	C, X		78
<i>Ardea herodias</i>	Great blue heron		KS	A, B, E		1, 2, 77, 78
<i>Bubulcus ibis</i>	Cattle egret		KS	A, E		78
<i>Casmerodius albus*</i>	Great egret		KE, TE	B, E, F	S	2*, 13*, 78*
<i>Charadrius melodus*</i>	Piping plover	E/T		B, G	S	2*
<i>Dendroica cerulea</i>	Cerulean warbler		NS, TS	W		52, 60, 78
<i>Egretta caerulea</i>	Little blue heron		KE, TS	A, B, E		2, 78
<i>Falco peregrinus*</i>	Peregrine falcon		AP, TE	A, C	R	8*, 12*, 18*

Table D6a-01 Threatened and Endangered Species List (continued)

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Birds (continued)</b>						
<i>Haliaeetus leucocephalus*</i>	Bald Eagle	T	AP, KE, TS	A, B	R	2*, 3*, 4*, 8*, 9*, 10*, 13*, 14*, 15*, 16*, 22*, 31*, 54*, 55*, 63*, 64*, 73*, 78*
<i>Ixobrychus exilis</i>	Least bittern		TS	E		12, 13, 19, 34
<i>Limnothlypis swainsonii*</i>	Swainson's warbler		TS	A, W	U	36*, 54, 69, 71
<i>Mycteria americana*</i>	Wood stork	E	GE, ME	A, B	S	2*
<i>Nictanassa violacea</i>	Yellow-crowned night-heron		KT	A, B, E		2
<i>Nycticorax nycticorax</i>	Black-crowned night-heron		KT	A, B		78
<i>Pandion haliaetus</i>	Osprey		AP, KT	A, B		2, 5, 9, 29, 78
<i>Petrochelidon pyrrhonota</i>	Cliff swallow		MS	C		4
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	AP, ME, TS	X		9
<i>Rallus elegans</i>	King rail		TS	E		12
<i>Riparia riparia</i>	Bank swallow		KS	A		77
<i>Grus americana*</i>	Whooping crane	E		D, E	S	13*
<i>Sterna antillarum*</i>	Least Tern	E	KE	B, G	S	1*, 77*
<b>Mammals (16)</b>		<b>(2)</b>	<b>(16)</b>			<b>(4)</b>
<i>Corynorhinus rafinesquii*</i>	Eastern big-eared bat		AP, NS, TS	C, W	R	6*, 9*, 54*, 60*, 69*
<i>Mustela frenata</i>	Long-tailed weasel		AP	W, D, F		5
<i>Myotis austroriparius</i>	Southeastern bat		KE	A, C		77
<i>Myotis grisescens*</i>	Gray bat	E	AP, ME, TE, KE	C, B, A	R	2*, 3*, 4*, 5*, 6*, 7*, 8*, 9*, 11*, 12*, 13*, 14*, 15*, 16*, 17*, 19*, 20*, 22*, 26*, 33*, 34*, 53*, 54*, 62*, 68*, 76*, 77*, 78*
<i>Myotis leibii*</i>	Eastern small-footed bat		NS, TS	C, W, X	R	11*, 53*, 59*

**Table D6a-01 Threatened and Endangered Species List (continued)**

Scientific Name	Common Name	Federal Status	State Status	Habitat Codes	Direct Effects Analysis	Reaches
<b>Mammals (continued)</b>						
<i>Myotis septentrionalis</i>	Northern long-eared bat		AS, MS, NS	C, W, X		4, 26, 58
<i>Myotis sodalis</i> *	Indiana bat	E	AP, ME, TE, KE	A, C, W	R	9*, 11*, 19*, 22*, 33*, 53*, 54*, 58*, 59*, 62*, 76*, 77*, 78*
<i>Napaeozapus insignis</i>	Woodland jumping mouse		TS	A, W		34, 46, 64
<i>Neotoma floridana haematoreia</i>	Southern Appalachian woodrat		NS	C, W		60
<i>Neotoma magister</i>	Allegheny woodrat		TS	C		3, 11, 19, 20, 75
<i>Parascalops breweri</i>	Hairy-tailed mole		TS	W		65
<i>Sorex cinereus</i>	Common shrew		TS	A, F		11, 34
<i>Sorex fumeus</i>	Smoky shrew		TS	A, W		46, 53, 54, 69
<i>Sorex longirostris</i>	Southeastern shrew		TS	A, D, W		2, 3, 17, 18, 34, 51, 52, 53, 54, 64, 69, 78
<i>Synaptomys cooperi</i>	Southern bog lemming		TS	E, F, W		68
<i>Zapus hudsonius</i>	Meadow jumping mouse		TS	A, E		3, 19, 34, 78
<b>Totals (526)</b>		<b>(59)</b>	<b>(525)</b>			<b>(172)</b>

## Table D6a-01 Threatened and Endangered Species List (continued)

### Symbol Codes:

- ~ = Common name for group, not just this species.
- \* = In states where it is protected, this species is known from areas within the waterbodies where it could be directly affected by ROS alternatives.

### Federal Status Codes:

- C = Identified candidate.
- E = Endangered.
- T = Threatened.

### State Status Codes:

- First letter = State designation:
  - A = Alabama, G = Georgia, K = Kentucky, M = Mississippi, N = North Carolina, T = Tennessee, V = Virginia.
- Second letter = Status in that state:
  - E = Endangered.
  - P = Protected (Alabama) - level of endangerment not specified.
  - S = Various "special concern" categories (e.g., in need of management, potential, and rare).
  - T = Threatened.

### Habitat Codes:

- B = Big rivers.
- M = Small rivers and large creeks.
- S = Small creeks.
- U = Underground aquifers.
- A = Riparian areas along streams and ponds.
- G = Gravel bars or boulders in large creeks or rivers.
- E = Non-forested seeps, wetlands, or wet meadows.
- F = Forested seeps or wetlands.
- W = Moist woodlands.
- X = Xeric hardwood or coniferous forests, or mountain woods.
- D = Prairies, fields, roadsides, fencerows, or early successional woodlands.
- O = Limestone, sandstone, or granite outcrops (including cedar glades).
- C = Caves, sinkholes, rock houses, boulders, bluffs, or cliff faces.

### Direct Effects Analysis Codes:

- A = Apalachia tailwater.
- F = Flowing water habitats.
- I = Reservoir inflow areas.
- Q = Underground aquifers.
- R = Wide-ranging species.
- S = Shorelines and associated wetlands.
- U = Upland habitats.

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