Appendix A

Application of the Criteria Used To Select the Species of Greatest Conservation Need

The specific criteria used to include or exclude species in the list of species of greatest conservation need are:

	Meeting any of the Following Listed as federal candidate (C), threatened (T) or endangered (E) species under the ESA.
Inclusion	Classified as state endangered E), threatened (T), or species of special concern (SC). Global ranking scores of G1, G2 or G3 by the Colorado Natural Heritage Program ¹ .
Criteria	Identified as conservation priorities through a range-wide status assessment or assessment of large taxonomic divisions.
	Assigned state ranking scores of S1 or S2 AND a global ranking score of G4 by the Colorado Natural Heritage Program ² .
	Species meeting the inclusion criteria were eliminated from the Species of Greatest Conservation Need listing if they met any of the following:
Exclusion Criteria	Occurs peripherally in Colorado but is common elsewhere AND for which management actions in Colorado are likely to have no population-level effect.
	Very common but were placed on lists due to economic considerations (e.g., Mallard).

¹ G1 is critically imperiled globally because of rarity (5 or fewer occurrences in the world; or very few remaining individuals), or because some factor of its biology makes it especially vulnerable to extinction. G2 is imperiled globally because of rarity (6 to 20 occurrences), or because of other factors demonstrably making it very vulnerable to extinction throughout its range. G3 is vulnerable throughout its range or found locally in a restricted range (21 to 100 occurrences). From: Colorado Natural Heritage

Program, http://www.cnhp.colostate.edu.

² S1 is critically imperiled in state because of rarity (5 or fewer occurrences in the state; or very few remaining individuals), or because some factor of its biology makes it especially vulnerable to extinction. S2 is imperiled instate because of rarity (6 to 20 occurrences), or because of other factors demonstrably making it very vulnerable to extinction throughout its range. G4 is apparently secure in state, though it might be quite rare in parts of its range, especially at the periphery. From: Colorado Natural Heritage Program, http://www.cnhp.colostate.edu.

		Criteria for inclusion or exclusion.					
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment	
Acroloxus coloradensis	Rocky Mountain Capshell		SC	G1G2	S1		
Anodontoides ferussacianus	Cylindrical papershell		SC	G5	S2		
Ferrissia fragilis				G5	S2		
Ferrissia walkeri				G4G5	S3		
Physa cupreonitens	Hot Springs Physa			G2	S2		
Physa utahensis	Banded Physa			G2	S1		
Promenetus exacuous	-			G5	S2		
Promenetus umbillicatellus				G4	S3		
Uniomerus tetralasmus	Pondhorn			G4	S1		

			Criteria	for inclusion	or exclu	usion.
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Stoneflies (Plecop	tera)	-	_	-		-
Capnia arapahoe	Arapahoe Snowfly					<u>1</u> /
Capnia nelsoni	Nelson's snowfly					<u>1</u> /
Mesocapnia frisoni	Plains Snowfly					<u>1</u> /
Mayflies (Ephemer	optera)					
Ametropus albrighti	Mayfly, spp.					<u>1</u> /
Dragonflies and Da	amselflies (Odonata)					
Argia alberta	Paiute Dancer			G4	S1S2	
Gomphus intricatus	Brimstone Clubtail			G4	S2	
Libellula nodisticta ^{1/}	Hoary Skimmer			G4	S1	
Somatochlora ensigera	Lemon-faced Emerald			G4	S1	
Sympetrum madidum	Red-veined Meadowfly			G4	S1	
Tetragoneuria petechialis	Stripe-winged Baskettail			G4	S2	
Beetles (Coleopter	a)		•			
Amblyderus werneri	Great Sand Dunes Anthicid Beetle			G1?	S1	
Cicindela theatina	San Luis Dunes Tiger Beetle			G1	S1	
Butterflies and Mo	ths (Lepidoptera)	-				
Atrytone arogos	Arogos Skipper			G3G4	S2	
Euphyes bimacula	Two-spotted Skipper			G4	S2	
Hesperia leonardus Montana ⁺⁺	Pawnee Montane Skipper	т		G4T1	S1	
Hesperia ottoe	Ottoe Skipper			G3G4	S2	
Polites rhesus	Rhesus Skipper			G4	S2S3	
Pyrgus xanthus	Xanthus Skipper			G3G4	S3	
Erynnis martialis	Mottled Duskywing			G3G4	S2S3	
Gossamer-winged	Butterflies		1		1	
Callophrys comstocki	Comstock's Hairstreak			G2G3	S1	
Callophrys mcfarlandi	Sandia Hairstreak			G4	S1	
Callophrys mossii schryveri	Moss's Elfin			G3G4T3	S2S3	
Celastrina humulus	Hops Feeding Azure			G2G3	S2	
Euphilotes rita	Colorado Blue			G3G4T2T3	S2	

			Criteria	for inclusion	or exclu	usion.
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
coloradensis						
Euphilotes rita emmeli	Desert Buckwheat Blue			G3G4T2	S1	
Euphilotes spaldingi	Spalding's Blue			G3G4	S2S3	
Eurystrymon favonius ontario	Northern Hairstreak			G4T4	S1	
Incisalia fotis	Early Elfin			G3G4	S2S3	
Brush-footed Butte	erflies					
Boloria improba acrochema ⁺⁺⁺	Uncompahgre fritillary	E				
Speyeria idalia	Regal fritillary			G3	S1	
Speyeria nokomis nokomis	Great Basin Silverspot Butterfly			G3T1	S1	
Satyrids		•		•		•
Agapema homogena	Rocky Mountain Agapema			G4	S2	
Anisota oslari	Oslar's Oakworm Moth			G2G4	S1	
Coloradia luski	Lusk's Pinemoth			G4	S1?	
Hemileuca neumoegeni	A Buckmoth			G4	S1	
Sphinx Moths						
Euproserpinus wiesti	Wiest's Sphinx Moth			G3G4	S2	
Proserpinus flavofasciata	Yellow-banded Day Sphinx			G4	S1	
Sagenosoma elsa	A Sphinx Moth			G4	S1?	
⁺⁺ U.S. Fish and <i>Montana)</i> recovery	cience forum (Source: Dr. E Wildlife Service. 1998. Pav plan. Denver, CO 16 pp.	vnee mon	tane skipp	er butterfly (H	lesperia	leonardus

+++ Fish and Wildlife Service. 1994. Uncompany fritillary butterfly recovery plan. Denver, CO. 20pp.

		Criteria for inclusion or exclusion.						
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment		
Hypochilus bonneti	A lampshade spider					<u>1</u> /		

			Criteria	for inclusi	on or excl	usion.
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Turtles	L	Į	Į	J	<u>.</u>	
Kinosternon flavescens	Yellow mud turtle		SC	Not Tracked	Not Tracked	
Lizards						
Gambelia wislizenii	Longnose leopard lizard		SC	Not Tracked	Not Tracked	
Phrynosoma cornutum	Texas horned lizard		SC	Not Tracked	Not Tracked	
Phrynosoma modestum	Roundtail horned lizard		SC	Not Tracked	Not Tracked	
Cnemidophorus neotesselatus	Triploid checkered whiptail		SC	Not Tracked	Not Tracked	
Snakes						
Leptotyphlops dulcis	Texas blind snake		SC	Not Tracked	Not Tracked	
Hypsiglena torquata	Night snake		SC	Not Tracked	Not Tracked	
Lampropeltis getula	Common kingsnake		SC	Not Tracked	Not Tracked	
Rhinocheilus lecontei	Long-nosed snake					<u>1</u> /
Tantilla horbartsmithi	Southwestern black- headed snake					<u>1</u> /
Thamnophis cyrtopsi	Blacknecked garter snake					<u>1</u> /
Thamnophis sirtalis	Common garter snake		SC	Not Tracked	Not Tracked	
Crotalus viridis concolor	Midget faded rattlesnake		SC	Not Tracked	Not Tracked	
Sistrurus catenatus	Massasauga		SC	Not Tracked	Not Tracked	

University Press of Colorado, Boulder, CO. <u>1</u>/ Added as a result of review by the scientists participating in the Questionnaire and Science Forum.

Table A5 - Am	phibians - Species of greatest	conservat	ion conce	n (Science	Forum Re	esults).
			Criteria f	or inclusio	on or exclu	ision.
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Toads						
Scaphiopus couchii	Couch's Spadefoot		SC	G5	S1	
Bufo boreas boreas	Boreal Toad (Southern Rocky Mountain Population)		Е	G4T1Q	S1	
Bufo debilis	Green toad					<u>1</u> /
Frogs						
Acris crepitans	Northern cricket frog		SC	Not Tracked	Not Tracked	
Hyla arenicolor	Canyon tree frog					<u>1</u> /
Gastrophryne olivacea	Great Plains Narrowmouth Toad		SC	G5	S1	
Rana blairi	Plains Leopard Frog		SC	G5	S3	
Rana pipiens	Northern Leopard Frog		SC	G5	S3	
Rana sylvatica	Wood Frog		SC	G5	S3	
University Press	heme from: Hammerson, G. 20 of Colorado, Boulder, CO. It of review by the scientists participa					. 2 nd ed.

			Criteria f	or inclusio	on or exclu	ision.
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Sunfishes	1		-			
Lepomis humilis	Orangespotted sunfish					<u>1</u> /
Catfishes	•					
Noturus flavus	Stonecat		SC	Not Tracked	Not Tracked	
Perch-like Fish				Tracked	Thatkea	
Etheostoma			T			[
cragini	Arkansas Darter		Т	G3	S2	
Etheostoma	Iowa darter			Not	Not	
exile			SC	Tracked	Tracked	
Etheostoma spectabile	Plains orangethroat darter		SC	Not Tracked	Not Tracked	
Suckers				Hackeu	Паскец	
Catostomas	1					[
discobolus	Bluehead Sucker					Х
Catostomas latipinnis	Flannelmouth Sucker					Х
Catostomus	Mountain sucker			Not	Not	
playtrhynchus			SC	Tracked	Tracked	
Catostomus						
plebeius	Rio Grande Sucker		E	G3G4	S1	
Xyrauchen		E	Е	G1	S1	Х
texanus	Razorback Sucker		<u> </u>	01		Λ
Minnows	1	-	1	ſ	[
Gila elegans	Bonytail	E	E			Х
Ptychocheilus		E	т	G1	S1	Х
lucius	Colorado Pikeminnow		· ·			Χ
Hybognathus	Brassy minnow		Т	Not	Not	
hankinsoni	Common shiner			Tracked	Tracked	
Luxilus cornutus	Common sniner		Т	Not Tracked	Not Tracked	
Platygobio				Not	Not	
gracilus	Flathead chub			Tracked	Tracked	<u>1</u> /
Gila cypha	Humpback Chub	E	Т	G1	S1	Х
Couesius				Not	Not	
plumbeus	Lake Chub		E	Tracked	Tracked	
Hybognathus	Plains minnow		Е	Not	Not	NatureServe
placitus				Tracked	Tracked	G4
Phoxinus eos	Northern Redbelly Dace		E	G5	S1	
Gila pandora	Rio Grande Chub		SC	G3	S1?	
Gila robusta	Roundtail Chub		SC	G3	S2	
Phoxinus	Southorn Dodhally Doos		Е	G5	S1	
erythrogaster	Southern Redbelly Dace					
Phenacobius mirabilis	Suckermouth minnow		E	Not Tracked	Not Tracked	

Table A6 - Fis	sh - Species of greatest conserv	ation con	cern (Scie	nce Forum	Results).			
		Criteria for inclusion or exclusion.						
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment		
Trouts	Trouts							
Oncorhynchus clarki pleuriticus	Colorado River Cutthroat Trout		SC	G4T3	S3	х		
Oncorhynchus clarki stomias	Greenback Cutthroat Trout	Т	Т	G4T2T3	S2	х		
Oncorhynchus clarki virginalis	Rio Grande Cutthroat Trout		SC	G4T3	S3	х		
<u>1</u> / Added as a rest	ult of review by the scientists participa	ting in the C	Questionnair	e and Scienc	e Forum.			

			Crite	ria for inclusio	on or exclusio	n.
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Grebes			1	1		
Podiceps nigricollis	Eared Grebe					<u>1</u> /
Aechmophorus occidentalis	Western Grebe					<u>1</u> /
Pelicans	·				·	
Pelecanus erythrorhynchos	American White Pelican			G3	S1B	х
Herons				1		
Botaurus lentiginosus	American Bittern			Not Tracked	Not Tracked	Х
Egretta thula	Snowy Egret			G5	S2B	Х
Plegadis chihi	White-faced Ibis			G5	S2B	Х
Swans, Geese, and D	ucks					
Aythya affinis	Lesser Scaup			Not Tracked	Not Tracked	Х
Anas acuta	Northern Pintail			Not Tracked	Not Tracked	Х
Bucephala islandica	Barrow's Goldeneye					<u>1</u> /
Kites, Eagles, and Ha	wks					
Pandion haliaetus	Osprey			Not Tracked	Not Tracked	Х
Haliaeetus leucocephalus	Bald Eagle	х	т	G4	S1B,S3N	
Circus cyaneus	Northern Harrier			Not Tracked	Not Tracked	Х
Accipiter gentilis	Northern Goshawk			G5	S3B	х
Buteo swainsoni	Swainson's Hawk			Not Tracked	Not Tracked	Х
Buteo regalis	Ferruginous Hawk		SC	G4	S3B,S4N	
Aquila chrysaetos	Golden Eagle			Not Tracked	Not Tracked	Х
Falcons			1	1		
Falco peregrinus anatum	American Peregrine Falcon		SC	G4T3	S2B	
Falco mexicanus	Prairie Falcon			Not Tracked	Not Tracked	X NatureServe G5
Partridges, Grouse, T	urkeys, and Quail			·	·	
Centrocercus urophasianus	Greater Sage- Grouse		SC	Not Tracked	Not Tracked	NatureServe G4
Centrocercus minimus	Gunnison Sage Grouse		SC	G1	S1	
Lagopus leucurus	White-tailed Ptarmigan					<u>1</u> /

			Crite	ria for inclusio	on or exclusio	n.
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Tympanuchus cupido	Greater Prairie Chicken			Not Tracked	Not Tracked	Х
Dendragapus obscurus	Blue Grouse			Not Tracked	Not Tracked	х
Typanuchus phasianellus columbianus	Columbian Sharp-tailed Grouse		SC	G4T3	S2	
Tympanuchus phasianellus jamesii	Plains Sharp- tailed Grouse		E	G4T4	S1	
Tympanuchus pallidicinctus	Lesser Prairie- chicken		Т	G3	S2	
Callipepla squamata	Scaled Quail			Not Tracked	Not Tracked	х
Rails, Gallinules, and	Coots		1	1		1
Laterallus jamaicensis	Black Rail					<u>1</u> /
Cranes						
Grus canadensis tabida	Greater Sandhill Crane		SC	G5T4	S2B, S4N	
Grus americana	Whooping Crane	E	E	Not Tracked	Not Tracked	
Plovers						
Charadrius alexandrinus nivosus	Western Snowy Plover		SC	G4T3	S1B	
Charadrius melodus	Piping Plover	Т	Т	G3	S1B	
Charadrius montanus	Mountain Plover		SC	G2	S2B	
Sandpipers and Phala	aropes					
Bartramia longicauda	Upland Sandpiper			Not Tracked	Not Tracked	Х
Numenius americanus	Long-billed Curlew		SC	G5	S2B	х
Limosa fedoa	Marbled Godwit					Х
Phalaropus tricolor	Wilson's Phalarope			Not Tracked	Not Tracked	Х
Jaegers, Gulls, and T	1		1			
Sterna forsteri	Forster's Tern					<u>1</u> /
Sterna antillarum	Least Tern	E	E	G4	S1B	
Pigeons and Doves				1		
Patagioenas fasciata	Band-tailed Pigeon			Not Tracked	Not Tracked	Х

			Crite	ria for inclusio	on or exclusio	n.
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Coccyzus americanus	Western Yellow- billed Cuckoo		SC	Not Tracked	Not Tracked	
Owls						
Athene cunicularia hypugaea	Western Burrowing Owl		т	Not Tracked	Not Tracked	х
Otus flammeolus	Flammulated Owl			Not Tracked	Not Tracked	Х
Strix occidentalis lucida	Mexican Spotted Owl	Т	Т	G3T3	S1B,SUN	
Asio flammeus	Short-eared Owl			G5	S2B	Х
Aegolius funereus	Boreal Owl					<u>1</u> /
Swifts						
Cypseloides niger	Black Swift			G4	S3B	X
Aeronautes saxatalis	White-throated Swift			Not Tracked	Not Tracked	Х
Hummingbirds						
Archilochus alexandri	Black-chinned Hummingbird			Not Tracked	Not Tracked	х
Selasphorus platycercus	Broad-tailed Hummingbird			Not Tracked	Not Tracked	х
Selasphorus rufus	Rufous Hummingbird			Not Tracked	Not Tracked	Х
Woodpeckers						
Melanerpes lewis	Lewis's Woodpecker			Not Tracked	Not Tracked	х
Sphyrapicus thyroideus	Williamson's Sapsucker			Not Tracked	Not Tracked	х
Sphyrapicus nuchalis	Red-naped Sapsucker			Not Tracked	Not Tracked	Х
Picoides dorsalis	American Three- toed Woodpecker					<u>1</u> /
Flycatchers						
Contopus cooperi	Olive-sided Flycatcher			Not Tracked	Not Tracked	Х
Empidonax trailli extimus	Southwestern Willow Flycatcher	Е	E	Not Tracked	Not Tracked	
Empidonax wrightii	Gray Flycatcher			Not Tracked	Not Tracked	Х
Empidonax oberholseri	Dusky Flycatcher			Not Tracked	Not Tracked	Х
Empidonax occidentalis	Cordilleran Flycatcher			Not Tracked	Not Tracked	х

			Crite	ria for inclusio	on or exclusio	n
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Lanius ludovicianus	Loggerhead Shrike					<u>1</u> /
Vireos						
Vireo vicinior	Gray Vireo			G4	S2B	Х
Jays, Magpies, and C	rows					
Gymnorhinus cyanocephalus	Pinyon Jay			Not Tracked	Not Tracked	х
Swallows						
Progne subis hesperia	Western Purple Martin					<u>1</u> /
Chickadees and Titm	ice		1	1		
Baeolophus ridgwayi	Juniper Titmouse			Not Tracked	Not Tracked	Х
Nutchatches				1		
Sitta pygmaea	Pygmy Nuthatch			Not Tracked	Not Tracked	Х
Dippers					·	·
Cinclus mexicanus	American Dipper			Not Tracked	Not Tracked	Х
Kinglets, Gnatcatche	rs, and Thrushes				·	·
Catharus fuscecens	Veery					<u>1</u> /
Toxostoma curvirostre	Curve-billed Thrasher					х
Wood-Warblers				1		
Vermivora virginiae	Virginia's Warbler			Not Tracked	Not Tracked	Х
Dendroica nigrescens	Black-throated Gray Warbler			Not Tracked	Not Tracked	х
Dendroica graciae	Grace's Warbler			G5	S3B	Х
New World Sparrows						
Aimophila cassinii	Cassin's Sparrow			Not Tracked	Not Tracked	Х
Spizella breweri	Brewer's Sparrow			Not Tracked	Not Tracked	X
Amphispiza belli	Sage Sparrow			G5	S3B	Х
Calamospiza melanocorys	Lark Bunting			Not Tracked	Not Tracked	Х
Pooecetes gramineus	Vesper Sparrow					<u>1</u> /
Zonotrichia querula	Harris' Sparrow					Х
Calcarius mccownii	McCown's Longspur			G5	S2B	х
Calcarius ornatus	Chestnut- collared Longspur			G5	S1B	х
Grosbeaks and Bunti			1	1		

Table A7 - Birds - Sj	pecies of greatest co	nservatio	n concern	(Science Foru	m Results).					
		Criteria for inclusion or exclusion.								
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment				
Passerina amoena	Lazuli Bunting			Not Tracked	Not Tracked	Х				
Blackbirds and Oriol	es									
Dolichonyx oryzivorus	Bobolink			G5	S3B	х				
Finches										
Leucosticte atrata	Black Rosy- Finch			Not Tracked	Not Tracked	Х				
Leucosticte australis	Brown-capped Rosy-Finch			G4	S3B, S4N	Х				
Coccothraustes vespertinus	Evening Grosbeak					<u>1</u> /				
Carpodacus cassinii	Cassin's Finch			Not Tracked	Not Tracked	Х				
Loxia curvirostra	Red Crossbill					Х				
<u>1</u> / Added as a result of	review by the scientists	participating	g in the Que	stionnaire and Sci	ence Forum.					

		Criteria for inclusion or exclusion.								
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment				
Shrews										
Sorex nanus	Dwarf Shrew			G4	S2					
Sorex preblei	Preble's Shrew			G4	S1					
Bats			1	1	1					
Euderma maculatum	Spotted Bat			G4	S2					
Idionycteris phyllotis	Allen's big-eared bat	С		G3/G4 NMHP	S2					
Myotis occultus	Arizona myotis			G5/T3/T4	S3	Х				
Myotis thysanodes	Fringed myotis	С		G4/G5	S3	Х				
Plecotus (Choynorhinus) townsendii pallescens	Townsend's Big- eared Bat Subsp		SC	G4T4	S2					
Rabbits and Hares			•							
Lepus townsendii	White-tailed Jackrabbit			Not Tracked	Not Tracked	Х				
Squirrels										
Cynomys gunnisoni	Gunnison prairie dog					<u>1</u> /				
Cynomys leucurus	White-tailed prairie dog					<u>1</u> /				
Cynomys Iudovicianus	Black-tailed prairie dog		SC	G3	Not Tracked	NatureServe G3				
Pocket Gophers										
Thomomys bottae rubidus	Botta's Pocket Gopher (rubidus ssp)		SC	G5T1	S1					
Thomomys talpoides macrotis	Northern pocket gopher (macrotis ssp)		SC	G5T1	S1					
Perognathus fasciatus	Olive-backed pocket mouse					<u>1</u> /				
Jumping Mice										
Zapus hudsonius	Meadow Jumping Mouse (both subspecies)	т	т	G5T2	S1					
Dogs and Allies	,			•						
Canis lupus	Gray Wolf - two subspecies (Northern and Mexican)	Е	E	Not Tracked	Not Tracked					
Vulpes macrotis	Kit Fox		E	G4	S1					
Vulpes velox	Swift Fox		SC	G4 G3	S3					

		Criteria for inclusion or exclusion.								
Scientific Name	Common Name	Fed T/E/C	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment				
Bears		-	-	-	-					
Ursus arctos	Grizzly bear	т	T3/T4X	G4	Not Tracked					
Weasels and Allies										
Conepatus leuconotus	Common Hog- nosed Skunk			G4	S1					
Gulo gulo	Wolverine		Е	G4	S1					
Lontra canadensis	River Otter		Т	Not Tracked	Not Tracked					
Mustela nigripes	Black-footed Ferret	E	E	G1	S1					
Cattle and Allies										
Bison bison	Bison			G1 or G2 (pending)						
Ovis canadensis	Bighorn sheet					<u>2</u> /				
Cats		•	•		•					
Lynx canadensis	Lynx	Т	Е	G5	S1					

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Table A9 – Additional species recommended for addition to the list of species of greatest conservation concern during review of the draft plan (all recommended because they appear on other lists of species of concern, management indicator species, etc). They did not meet the inclusion criteria, and are not included in the 2005 CWCS.

			Criter	ia for inclu	sion or ex	clusion.
Scientific Name	Common Name	Fed T or E	State T/E/SC	CNHP G1, G2 or G3	S1 or S2 AND G4	Rangewide assessment
Insects	<u>+</u>	-	<u>.</u>	<u> </u>	<u>l</u>	
Somatochlora hudsonica ^{1/}	Hudsonian emerald					U.S. For. Svc. Region 2 Sensitive
Reptiles	•					-
Lampropeltis triangulum taylori 2/	milk snake					CO Bur. Land Mgt. Sensitive
Sceloporus magister ^{2/}	spiny lizard					CO Bur. Land Mgt. Sensitive
Amphibians	•	•				
Spea intermontana ^{2/}	Great Basin spadefoot					CO Bur. Land Mgt. Sensitive
Fish						
Fundulus sciadicus ^{2/}	Plains topminnow					CO Bur. Land Mgt. Sensitive
Hybopsis gracilis 2/	Flathead chub					CO Bur. Land Mgt. Sensitive
Nocomis biguttatus ^{1/}	hornyhead chub					CO Bur. Land Mgt. Sensitive
Notropis blennius $\frac{2}{2}$	river shiner					CO Bur. Land Mgt. Sensitive
Birds						
Ammodramus savannarum ^{1∕}	grasshopper sparrow					U.S. For. Svc. Region 2 Sensitive
Chlidonias niger $\frac{1}{2}$	black tern					U.S. For. Svc. Region 2 Sensitive
Cygnus buccinator ^{1/}	trumpeter swan					U.S. For. Svc. Region 2 Sensitive
Histrionicus histrionicus ^{1/}	harlequin duck					U.S. For. Svc. Region 2 Sensitive
Mammals						
Martes Americana $\frac{1/2}{2}$	American marten					U.S. For. Svc. Region 2 Sensitive
Myotis yumanensis ^{2/}	Yuma myotis					CO Bur. Land Mgt. Sensitive
Nyctinomops macrotis ^{2/}	free-tailed bat					CO Bur. Land Mgt. Sensitive
Sorex hoyi ^{1/}	pygmy shrew					U.S. For. Svc. Region 2 Sensitive
^{1/} USDA Forest Serv ^{2/} Colorado Bureau o	ice Region 2 – Sen of Land Manageme	isitive nt - Sens	sitive			

Appendix B

Relative Condition of Key Habitats in Colorado

			Habitat	Condition St	atus		Habitat Co	ondition Trend	t
Habitat Category	Land Cover Type		Wh	at is it now?			ls it c	hanging?	
		Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknowr
	Urban								
Urban and Croplands	Dryland Crops								
	Irrigated Crops								
	Open Water		Х				Х		
	Shrub-dominated Wetlands		x			х			
	Grass/Forb Dominated Wetlands				х	х			
Riparian /	Eastern Plains Rivers	Х				Х			
Wetlands	Eastern Plains Streams	Х				Х			
	Transition Streams	Х				Х			
	Mountain Streams		Х				Х		
	West Slope Rivers		Х			Х			
	West Slope Streams		Х			Х			
	Playas								
	Tallgrass Prairie								
	Midgrass Prairie								
	Shortgrass Prairie								
Grasslands	Foothill / Mountain Grassland								
	Sand Dune Complex (Grassland)								
	Upland Shrub								
	Deciduous Oak								
	Sagebrush								
	Desert Shrub								
Shrublands	Saltbrush Fans & Flats								
	Greasewood Fans & Flats								
	Sand Dune Complex (Shrubland)								
Forestlands	Aspen Forest								
	Spruce-Fir								

Table B1 - Mollusks - Relative Condition of Key Habitats in Colorado (Science Forum Results).

			Habitat	Condition St	atus	l	Habitat Co	ondition Trend	ł	
Habitat Category	Land Cover Type		Wh	at is it now?		Is it changing?				
		Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown	
	Lodgepole Pine									
	Limber Pine									
	Ponderosa Pine									
	White Fir									
	Pinyon-Juniper									
	Rocky Mountain Bristlecone Pine									
	Mixed Conifer									
	Mixed Forest									
Tundra	Shrub Tundra									
Tunura	Meadow Tundra									
	Sandy Areas									
Unvegetated	Exposed Rock									
Lakes	Added at Science Forum		х				х			

Table B2 - Insects - Relative Condition of Key Habitats in Colorado (Science Forum Results).

			Habitat	Condition St	atus		Habitat Co	ondition Trend	ł
Habitat Category	Land Cover Type		Wh	at is it now?			ls it c	hanging?	
0,		Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown
	Urban				Х			Х	
Urban and	Dryland				Х				х
Croplands	Crops Irrigated				X				x
	Crops	_			^				~
	Open Water Shrub-		X				Х		
	dominated Wetlands		х			х			
	Grass/Forb Dominated Wetlands		x			х			
	Eastern Plains Rivers	Х				Х			
Riparian / Wetlands	Eastern Plains Streams	х				х			
	Transition Streams		х			х			
	Mountain Streams		х				Х		
-	West Slope Rivers		х			х			
	West Slope Streams		х			х			
	Playas				Х	Х			
	Tallgrass Prairie	х				х			
	Midgrass Prairie				х				Х
Grasslands	Shortgrass Prairie		х			х			
Grassianus	Foothill / Mountain Grassland		x			х			
	Sand Dune Complex (Grassland)				х				х
	Upland Shrub				Х				Х
	Deciduous Oak		х				Х		
	Sagebrush	х					Х		
	Desert Shrub		Х						Х
Shrublands	Saltbrush Fans & Flats		х				х		
	Greasewood Fans & Flats	х					х		
	Sand Dune Complex (Shrubland)				х				х
Forestlands	Aspen Forest		Х						Х
	Spruce-Fir				Х	1	Х		

			Habitat	Condition St	atus		Habitat Co	ondition Trend	i		
Habitat Category	Land Cover Type		Wh	at is it now?		Is it changing?					
		Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown		
	Douglas Fir		Х				Х				
	Lodgepole Pine				Х				х		
	Limber Pine				Х				Х		
	Ponderosa Pine		х				Х				
	White Fir				Х				Х		
	Pinyon- Juniper	х				х					
	Rocky Mountain Bristlecone Pine				х				х		
	Mixed Conifer				Х		Х				
	Mixed Forest				Х				Х		
	Shrub Tundra				Х				Х		
Fundra	Meadow Tundra				х				х		
	Sandy Areas				Х				Х		
Jnvegetated	Exposed Rock				х				х		

				Habitat	Condition St	atus	1	Habitat Co	ondition Trend	ł		
Habitat Category	Land Cover Type	Vote		Wh	at is it now?		Is it changing?					
Category Urban and Croplands	71		Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown		
	Urban											
Category Urban and Croplands	Dryland Crops											
	Irrigated Crops	*										
	Open Water	*		Х			х					
	Shrub- dominated Wetlands	*		х			х					
Riparian /	Grass/Forb Dominated Wetlands	*		х			х					
	Eastern Plains Rivers	*	х				х					
Riparian / Wetlands	Eastern Plains Streams	*		х			х					
	Transition Streams	*		Х			х					
	Mountain Streams	*		Х				Х				
	West Slope Rivers	*				х				х		
	West Slope Streams	*				х				Х		
	Playas	*		Х				Х				
	Tallgrass Prairie											
	Midgrass Prairie	*	х				х					
Gracelanda	Shortgrass Prairie	*		х			х					
Grassianus	Foothill / Mountain Grassland											
	Sand Dune Complex (Grassland)											
	Upland Shrub											
	Deciduous Oak											
	Sagebrush	*	х				х					
Shrublands	Desert Shrub	*		Х						х		
	Saltbrush Fans & Flats	*		х				х				
	Greasewood Fans & Flats	*				x				Х		
	Sand Dune Complex (Shrubland)											

Table B3 - Amphibians and Reptiles - Relative Condition of Key Habitats in Colorado (Science Forum Results).

				Habitat	Condition St	atus		Habitat Co	ondition Trend	ł	
Habitat Category	Land Cover Type	Vote		Wh	at is it now?		Is it changing?				
			Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown	
	Aspen Forest	*		х			Х				
	Spruce-Fir	*				Х				х	
	Douglas Fir										
	Lodgepole Pine	*				Х				х	
	Limber Pine										
Forestlands	Ponderosa Pine										
	White Fir										
	Pinyon- Juniper										
	Rocky Mountain Bristlecone Pine										
	Mixed Conifer	*				х				Х	
	Mixed Forest										
Tundra	Shrub Tundra										
landia	Meadow Tundra										
Unvegetated	Sandy Areas	*		х				х			
Unvegetated	Exposed Rock										

Table B3 - Amphibians and Reptiles - Relative Condition of Key Habitats in Colorado (Science Forum Results).

Table B4 - Fish - Relative Condition of Key Habitats in Colorado (Science Forum Results).

Habitat	Land Cover			Habitat	Condition St	atus	ļ	Habitat C	ondition Trend	ł
Category	Туре	Vote		Wh	at is it now?	I		ls it d	hanging?	I
			Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown
	Urban									
Urban and Croplands	Dryland Crops									
	Irrigated Crops									
	Open Water			Х				х		
	Shrub- dominated Wetlands			х			х			
	Grass/Forb Dominated Wetlands					Х	х			
	Eastern Plains Rivers	1	х				х			
Riparian / Wetlands	Eastern Plains Streams	1	х				х			
	Transition Streams			Х			х			
	Mountain Streams			х				x		
	West Slope Rivers			Х			х			
	West Slope Streams	1		Х			х			
	Playas									
	Tallgrass Prairie									
	Midgrass Prairie									
Grasslands	Shortgrass Prairie									
Orassiands	Foothill / Mountain Grassland									
	Sand Dune Complex (Grassland)									
	Upland Shrub									
	Deciduous Oak									
	Sagebrush									
Chruchland-	Desert Shrub									
Shrublands	Saltbrush Fans & Flats									
	Greasewood Fans & Flats									
	Sand Dune Complex (Shrubland)									

Table B4 - Fish - Relative Condition of Key Habitats in Colorado (Science Forum Results).

				Habitat	Condition St	atus		Habitat C	ondition Trend	ł
Habitat Category	Land Cover Type	Vote		Wh	at is it now?	1		ls it c	hanging?	1
			Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown
	Aspen Forest									
	Spruce-Fir									
	Douglas Fir									
	Lodgepole Pine									
	Limber Pine									
	Ponderosa Pine									
Forestlands	White Fir									
	Pinyon- Juniper									
	Rocky Mountain Bristlecone Pine									
	Mixed Conifer									
	Mixed Forest		-							
Tundra	Shrub Tundra									
Tunuia	Meadow Tundra									
Unvegetated	Sandy Areas									
Unvegetated	Exposed Rock									
Lakes	Added at Science Forum			х				х		

Table B5 - Birds - Relative Condition of Key Habitats in Colorado (Science Forum Results).

				Habitat	Condition St	atus	I	Habitat Co	ondition Trend	ł
Habitat Category	Land Cover Type	Vote		Wh	at is it now?			ls it c	hanging?	
0,			Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown
	Urban			Х					Х	
Urban and Croplands	Dryland Crops			Х				х		
	Irrigated Crops			Х				х		
	Open Water			Х				Х		
	Shrub- dominated Wetlands	2				х	х			
	Grass/Forb Dominated Wetlands	5		х			х			
	Eastern Plains Rivers	6	х				х			
Riparian / Wetlands	Eastern Plains Streams	4	х				х			
	Transition Streams	1	х				х			
	Mountain Streams			Х				х		
	West Slope Rivers	5	х				х			
	West Slope Streams	4	х				х			
	Playas	6	Х				Х			
	Tallgrass Prairie		х				х			
	Midgrass Prairie	5	х				х			
Grasslands	Shortgrass Prairie	6		х			х			
Grassianus	Foothill / Mountain Grassland	3		х			Х			
	Sand Dune Complex (Grassland)			х						х
	Upland Shrub			Х			х			
	Deciduous Oak			Х				х		
	Sagebrush	6	Х				Х			
Shrublands	Desert Shrub			х			х			
Ginabidhus	Saltbrush Fans & Flats			Х			х			
	Greasewood Fans & Flats			х			х			
	Sand Dune Complex (Shrubland)					Х				х

Table B5 - Birds - Relative Condition of Key Habitats in Colorado (Science Forum Results).

				Habitat	Condition St	atus	I	Habitat Co	ondition Trend	ł
Habitat Category	Land Cover Type	Vote		Wh	at is it now?			ls it c	hanging?	
			Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown
	Aspen Forest	5		х			х			
	Spruce-Fir			x				х		
	Douglas Fir	4		Х			Х			
	Lodgepole Pine				Х			х		
	Limber Pine			х				Х		
	Ponderosa Pine	5	х				х			
Forestlands	White Fir			Х					х	
	Pinyon- Juniper	6	х				х			
	Rocky Mountain Bristlecone Pine			х				х		
	Mixed Conifer	2		х				Х		
	Mixed Forest					х				х
Tundra	Shrub Tundra			Х				Х		
Tanara	Meadow Tundra			х				Х		
Unvegetated	Sandy Areas					Х				х
onvegetated	Exposed Rock				х			Х		

Table B6 - Mammals - Relative Condition of Key Habitats in Colorado (Science Forum Results).

				Habitat	Condition St	atus	l	Habitat Co	ondition Trend	1
Habitat Category	Land Cover Type	Vote		Wh	at is it now?			ls it c	hanging?	
0,			Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown
	Urban		Х						x	
Urban and Croplands	Dryland Crops					х		Х		
	Irrigated Crops					х	х			
	Open Water			Х				Х		
	Shrub- dominated Wetlands	2		х			х			
	Grass/Forb Dominated Wetlands			х			х			
	Eastern Plains Rivers		х				х			
Riparian / Wetlands	Eastern Plains Streams	1	х				х			
	Transition Streams	1		Х				х		
	Mountain Streams	3		Х				х		
	West Slope Rivers	2		Х			х			
	West Slope Streams	2		Х				х		
	Playas					Х	Х			
	Tallgrass Prairie			Х			х			
	Midgrass Prairie	3		Х			х			
Grasslands	Shortgrass Prairie	6		Х			х			
	Foothill / Mountain Grassland	3		Х			х			
	Sand Dune Complex (Grassland)		х				х			
	Upland Shrub	1		Х			х			
	Deciduous Oak	1		Х			х			
	Sagebrush	3		Х			Х			
Shrublands	Desert Shrub	1		Х				Х		
Ginablanus	Saltbrush Fans & Flats			Х				х		
	Greasewood Fans & Flats			х				х		
	Sand Dune Complex (Shrubland)	2		х			х			

Table B6 - Mammals - Relative Condition of Key Habitats in Colorado (Science Forum Results).

				Habitat	Condition St	atus	I	Habitat Co	ondition Trend	ł
Habitat Category	Land Cover Type	Vote		Wh	at is it now?			ls it c	hanging?	
			Poor	Good	Excellent	Unknown	Declining	Stable	Increasing	Unknown
	Aspen Forest	1		Х				Х		
	Spruce-Fir	1		Х			Х			
	Douglas Fir	1		Х				Х		
	Lodgepole Pine			х				х		
	Limber Pine				Х			Х		
	Ponderosa Pine	3	х				х			
Forestlands	White Fir			Х				Х		
	Pinyon- Juniper	5		х				Х		
	Rocky Mountain Bristlecone Pine			х				Х		
	Mixed Conifer	3		Х				Х		
	Mixed Forest					х				Х
Tundra	Shrub Tundra			Х				Х		
Tunula	Meadow Tundra			Х					х	
Unvogetated	Sandy Areas				х			Х		
Unvegetated	Exposed Rock			х				х		

Appendix C

Species Land Cover Type Associations

In the opinion of the experts in the technical questionnaire and Science Forum, the list of land cover types used here was helpful but not universally applicable. For example, for fish the participants at the Science Forum felt a more detailed stratification delineating different kinds of "open water" habitats would be helpful, specifically adding lakes as a land cover type, and there were some verbal expressions of interest in more detailed stratifications of grass lands. Consequently there is a need to maintain flexibility for re-stratifying habitat in the future to meet the unique needs of the species under consideration.

The tables that follow are a synthesis of expert opinions about the land cover types where species of conservation need are found.

Table C1, Part A - Mollusks - Habitat associations of species of greatest conservation concern (Science Forum Results).

		Urb	oan and Cro	plands					Riparian/V	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Acroloxus coloradensis*	Rocky Mountain Capshell													
Anodontoides ferussacianus*	Cylindrical papershell				Х									
Ferrissia fragilis							Х		Х			х		
Ferrissia walkeri							Х		х			х		
Physa cupreonitens**	Hot Springs Physa				х									
Physa utahensis	Banded Physa									?				
Promenetus exacuous														
Promenetus umbillicatellus														
Uniomerus tetralasmus*	Pondhorn													
* A new habitat type of "Lakes" was identifie	ed for this species.													
** A new habitat type of "Hot Springs" was in	dentified for this species.													

Table C1, Part B - Mollusks - Habitat associations of species of greatest conservation concern (Science Forum Results).

				Grasslands	;					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Acroloxus coloradensis*	Rocky Mountain Capshell												
Anodontoides ferussacianus*	Cylindrical papershell												
Ferrissia fragilis													
Ferrissia walkeri													
Physa cupreonitens**	Hot Springs Physa												
Physa utahensis	Banded Physa												
Promenetus exacuous													
Promenetus umbillicatellus													
Uniomerus tetralasmus*	Pondhorn												
* A new habitat type of "Lakes" was identit	fied for this species.												
** A new habitat type of "Hot Springs" was species.													

							Forestlands						Tu	ndra	Unve	getated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Expose d Rock
Acroloxus coloradensis*	Rocky Mountain Capshell															
Anodontoides ferussacianus*	Cylindrical papershell															
Ferrissia fragilis																
Ferrissia walkeri																
Physa cupreonitens**	Hot Springs Physa															
Physa utahensis	Banded Physa															
Promenetus exacuous																
Promenetus umbillicatellus																
Uniomerus tetralasmus*	Pondhorn															
A new habitat type of "Lakes" was is species.	identified for															
A new habitat type of "Hot Spring entified for this species.	s" was															

Table C2, Part A -Insects - Habitat associations of species of greatest conservation concern (Science Forum Results).

	oitat associations of species of greatest	conservat				•								
		Urt	oan and Crop	plands					Riparian/V	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Stoneflies (Plecoptera)							L			L	ł			
Capnia arapahoe	Arapahoe snowfly													
Capnia nelsoni	Nelson's snowfly													
Mesocapnia frisoni	Plains snowfly													
Mayflies (Ephemeroptera)														
Ametropus albrighti	Mayfly, spp.													
Dragonflies and Damselflies	(Odonata)													
Argia alberta	Paiute Dancer													
Gomphus intricatus	Brimstone Clubtail													
Libellula nodisticta	Hoary Skimmer													
Somatochlora ensigera	Lemon-faced Emerald													
Sympetrum madidum	Red-veined Meadowfly													
Tetragoneuria petechialis	Stripe-winged Baskettail													
Beetles (Coleoptera)														
Amblyderus werneri	Great Sand Dunes Anthicid Beetle													
Cicindela theatina	San Luis Dunes Tiger Beetle													
Butterflies and Moths (Lepid	optera)						•			•	•			
Atrytone arogos	Arogos Skipper													
Euphyes bimacula	Two-spotted Skipper						Х							
Hesperia leonardus montana	Pawnee Montane Skipper													
Hesperia ottoe	Ottoe Skipper													
Polites rhesus	Rhesus Skipper													
Pyrgus xanthus	Xanthus Skipper												х	
Erynnis martialis	Mottled Duskywing													
Gossamer-winged Butterflies	3													
Callophrys comstocki	Comstock's Hairstreak													
Callophrys mcfarlandi	Sandia Hairstreak													
Callophrys mossii schryveri	Moss's Elfin													

Table C2, Part A -Insects - Habitat associations of species of greatest conservation concern (Science Forum Results).

					1									
		Urt	oan and Cro	plands					Riparian/V	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Celastrina humulus	Hops Feeding Azure									Х				
Euphilotes rita coloradensis	Colorado Blue													
Euphilotes rita emmeli	Desert Buckwheat Blue													
Euphilotes spaldingi	Spalding's Blue													
Eurystrymon favonius ontario	Northern Hairstreak								Х					
Incisalia fotis	Early Elfin													
Brush-footed Butterflies														
Boloria improba acrochems	Uncompahgre fritillary													
Speyeria idalia	Regal fritillary						Х							
Speyeria nokomis nokomis	Great Basin Silverspot Butterfly					х	х							
Satyrids					•						•			
Agapema homogena	Rocky Mountain Agapema													
Anisota oslari	Oslar's Oakworm Moth													
Coloradia luski	Lusk's Pinemoth													
Hemileuca neumoegeni	A Buckmoth													
Sphinx Moths														
Euproserpinus wiesti	Wiest's Sphinx Moth													
Proserpinus flavofasciata	Yellow-banded Day Sphinx													
Sagenosoma elsa	A Sphinx Moth													

Table C2, Part B -Insects - Habitat associations of species of greatest conservation concern (Science Forum Results).

Table C2, Part B -Insects - Hat	itat associations of species of greates	Conservation	concern (Sci		suns).								
				Grasslands	5					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Stoneflies (Plecoptera)			1										1
Capnia arapahoe	Arapahoe snowfly												
Capnia nelsoni	Nelson's snowfly												
Mesocapnia frisoni	Plains snowfly												
Mayflies (Ephemeroptera)													
Ametropus albrighti	Mayfly, spp.												
Dragonflies and Damselflies	(Odonata)								1	•			
Argia alberta	Paiute Dancer												
Gomphus intricatus	Brimstone Clubtail												
Libellula nodisticta	Hoary Skimmer												
Somatochlora ensigera	Lemon-faced Emerald												
Sympetrum madidum	Red-veined Meadowfly												
Tetragoneuria petechialis	Stripe-winged Baskettail												
Beetles (Coleoptera)			•								•	•	•
Amblyderus werneri	Great Sand Dunes Anthicid Beetle												
Cicindela theatina	San Luis Dunes Tiger Beetle												
Butterflies and Moths (Lepide	optera)	1		1			1	1	J		1		
Atrytone arogos	Arogos Skipper												
Euphyes bimacula	Two-spotted Skipper												
Hesperia leonardus montana	Pawnee Montane Skipper												
Hesperia ottoe	Ottoe Skipper	х	х										
Polites rhesus	Rhesus Skipper			Х	Х								
Pyrgus xanthus	Xanthus Skipper												
Erynnis martialis	Mottled Duskywing						х						
Gossamer-winged Butterflies	5												
Callophrys comstocki	Comstock's Hairstreak		Х							Х			
Callophrys mcfarlandi	Sandia Hairstreak			Х									
Callophrys mossii schryveri	Moss's Elfin						Х						

							1						
				Grassland	6					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Celastrina humulus	Hops Feeding Azure												
Euphilotes rita coloradensis	Colorado Blue			х									
Euphilotes rita emmeli	Desert Buckwheat Blue									х			
Euphilotes spaldingi	Spalding's Blue								Х				
Eurystrymon favonius ontario	Northern Hairstreak			х									
Incisalia fotis	Early Elfin									х			
Brush-footed Butterflies													
Boloria improba acrochems	Uncompahgre fritillary												
Speyeria idalia	Regal fritillary												
Speyeria nokomis nokomis	Great Basin Silverspot Butterfly												
Satyrids		•											
Agapema homogena	Rocky Mountain Agapema												
Anisota oslari	Oslar's Oakworm Moth												
Coloradia luski	Lusk's Pinemoth												
Hemileuca neumoegeni	A Buckmoth												
Sphinx Moths		·	•	•	•	•		•			•		
Euproserpinus wiesti	Wiest's Sphinx Moth					Х							
Proserpinus flavofasciata	Yellow-banded Day Sphinx												
Sagenosoma elsa	A Sphinx Moth												

Table C2, Fait C -Insect	s - Habitat associations of sp			Valion conce			5).									
							Forestlands						Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Stoneflies (Plecoptera))					1				1						
Capnia arapahoe	Arapahoe snowfly															
Capnia nelsoni	Nelson's snowfly															
Mesocapnia frisoni	Plains snowfly															
Mayflies (Ephemeropte	era)															
Ametropus albrighti	Mayfly, spp.															
Dragonflies and Dams	elflies (Odonata)			•		•				•						
Argia alberta	Paiute Dancer															
Gomphus intricatus	Brimstone Clubtail															
Libellula nodisticta	Hoary Skimmer															
Somatochlora ensigera	Lemon-faced Emerald															
Sympetrum madidum	Red-veined Meadowfly															
Tetragoneuria petechialis	Stripe-winged Baskettail															
Beetles (Coleoptera)																
Amblyderus werneri	Great Sand Dunes Anthicid Beetle															
Cicindela theatina	San Luis Dunes Tiger Beetle															
Butterflies and Moths	(Lepidoptera)															
Atrytone arogos	Arogos Skipper															
Euphyes bimacula	Two-spotted Skipper															
Hesperia leonardus montana	Pawnee Montane Skipper						х									
Hesperia ottoe	Ottoe Skipper															
Polites rhesus	Rhesus Skipper															
Pyrgus xanthus	Xanthus Skipper						х									
Erynnis martialis	Mottled Duskywing															
Gossamer-winged But	terflies							•								
Callophrys comstocki	Comstock's Hairstreak															
Callophrys mcfarlandi	Sandia Hairstreak															

		-													1	
							Forestlands						Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Callophrys mossii schryveri	Moss's Elfin															
Celastrina humulus	Hops Feeding Azure															
Euphilotes rita coloradensis	Colorado Blue															
Euphilotes rita emmeli	Desert Buckwheat Blue															
Euphilotes spaldingi	Spalding's Blue								Х							
Eurystrymon favonius ontario	Northern Hairstreak															
Incisalia fotis	Early Elfin								х							
Brush-footed Butterflie	es															
Boloria improba acrochems	Uncompahgre fritillary															
Speyeria idalia	Regal fritillary															
Speyeria nokomis nokomis	Great Basin Silverspot Butterfly															
Brush-footed Butterflie	es															
Agapema homogena	Rocky Mountain Agapema															
Anisota oslari	Oslar's Oakworm Moth															
Coloradia luski	Lusk's Pinemoth															
Hemileuca neumoegeni	A Buckmoth															
Sphinx Moths																
Euproserpinus wiesti	Wiest's Sphinx Moth															
Proserpinus flavofasciata	Yellow-banded Day Sphinx															
Sagenosoma elsa	A Sphinx Moth															1

		Urt	ban and Cro	olands		1		1	Riparian/Wetla	nds				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Hypochilus bonneti	A lampshade spider													

1				Grasslands		1			1	Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Deciduous Oak	Sagebrush	Desert Shrub	Saltbrush Fans & Flats	Greasewood Fans & Flats	Sand Dune Complex (Shrubland
Hypochilus bonneti	A lampshade spider												

Table C3, Part C - Arachnid	l s - Habitat asso	ciations of	species of g	reatest conse	rvation concern	(Science Fo	rum Results).									
							Forestlands						Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Hypochilus bonneti	A lampshade spider															

		Urb	oan and Cro	plands					Riparian/V	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Turtles		•			•							•		
Kinosternon flavescens	Yellow mud turtle				Х	х	х	х	х					
Lizards														
Gambelia wislizenii	Longnose leopard lizard													
Phrynosoma cornutum	Texas horned lizard													
Phrynosoma modestum	Roundtail horned lizard													
Cnemidophorus neotesselatus	Triploid checkered whiptail													Х
Snakes														
Leptotyphlops dulcis	Texas blind snake								х					
Hypsiglena torquata	Night snake								х					
Lampropeltis getula	Common kingsnake							х	х				Х	Х
Rhinocheilus lecontei	Long-nosed snake													
Tantilla horbartsmlthi	Southwestern black-headed snake													
Thamnophis cyrtopsis	Blacknecked garter snake							х	х			Х	Х	
Thamnophis sirtalis	Common garter snake					х	Х	х	х					
Crotalus viridis concolor	Midget faded rattlesnake													
Sistrurus catenatus	Massasauga													

Table C4, Part B - Reptil	les - Habitat associations of spe	cies of greates	t conservation	concern (Science	e Forum Results).							
				Grasslands	5	-			-	Shrub	ands	-	
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Turtles		1	1		1	1		I		1		I	<u> </u>
Kinosternon flavescens	Yellow mud turtle												
Lizards													
Gambelia wislizenii	Longnose leopard lizard								Х	х	Х	Х	
Phrynosoma cornutum	Texas horned lizard		х	х									
Phrynosoma modestum	Roundtail horned lizard			х									
Cnemidophorus neotesselatus	Triploid checkered whiptail			х					х			х	
Snakes													
Leptotyphlops dulcis	Texas blind snake			х									
Hypsiglena torquata	Night snake			х					х	х		Х	
Lampropeltis getula	Common kingsnake		х	х						х			
Rhinocheilus lecontei	Long-nosed snake			х					х				
Tantilla horbartsmlthi	Southwestern black- headed snake								х	х	х	х	
Thamnophis cyrtopsis	Blacknecked garter snake												
Thamnophis sirtalis	Common garter snake												
Crotalus viridis concolor	Midget faded rattlesnake								х	Х	х	х	
Sistrurus catenatus	Massasauga		х	х					х				

							Forestlands						т.,	ndra	Unve	egetated
					-		Torestiands				1	-	Tu	nura	01176	gelaleu
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Turtles		•				•		•	•			•			•	•
Kinosternon flavescens	Yellow mud turtle															
Lizards																
Gambelia wislizenii	Longnose leopard lizard								х							
Phrynosoma cornutum	Texas horned lizard															
Phrynosoma modestum	Roundtail horned lizard								х							
Cnemidophorus neotesselatus	Triploid checkered whiptail														х	
Snakes																
Leptotyphlops dulcis	Texas blind snake															
Hypsiglena torquata	Night snake								х							
Lampropeltis getula	Common kingsnake															
Rhinocheilus lecontei	Long-nosed snake															
Tantilla horbartsmlthi	Southwestern black- headed snake								Х							
Thamnophis cyrtopsis	Blacknecked garter snake															
Thamnophis sirtalis	Common garter snake															
Crotalus viridis concolor	Midget faded rattlesnake															х
Sistrurus catenatus	Massasauga															

		Urb	an and Cro	plands					Riparian/V	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Toads			l		1		I							
Scaphiopus couchii	Couch's Spadefoot						Х							
Bufo boreas pop. 1	Boreal Toad (Southern Rocky Mountain Population)				х	х	х				х			
Bufo debilis1/	Green toad								х					
Frogs					•									
Acris crepitans	Northern cricket frog						х	х	х					
Hyla arenicolor1/	Canyon tree frog								х			Х	х	
Gastrophryne olivacea	Great Plains Narrowmouth Toad				х		х		х					
Rana blairi	Plains Leopard Frog				х	Х	Х	х	х					
Rana pipiens	Northern Leopard Frog				Х	Х	х	х	х	х	х	Х	х	
Rana sylvatica	Wood Frog				х	х	х				Х			

rch, therefore, species verification may be necessary; see: http://www.enature.com/field dguide; accesse ng spe

				Grassland	S					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Toads	<u> </u>	<u> </u>					<u> </u>		-			-	
Scaphiopus couchii	Couch's Spadefoot			х									
Bufo boreas pop. 1	Boreal Toad (Southern Rocky Mountain Population)												
Bufo debilis1/	Green toad												
Frogs													
Acris crepitans	Northern cricket frog												
Hyla arenicolor1/	Canyon tree frog												
Gastrophryne olivacea	Great Plains Narrowmouth Toad												
Rana blairi	Plains Leopard Frog												
Rana pipiens	Northern Leopard Frog												
Rana sylvatica	Wood Frog												

							Forestlands						Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Toads		1	<u> </u>													1
Acris crepitans	Northern cricket frog															
Bufo boreas pop. 1	Boreal Toad (Southern Rocky Mountain Population)	х	х		х						х					
Bufo debilis1/	Green toad															
Gastrophryne olivacea	Great Plains Narrowmouth Toad															
Frogs	ł		ļ				<u> </u>		<u></u>							
Hyla arenicolor1/	Canyon tree frog															
Rana blairi	Plains Leopard Frog															
Rana pipiens	Northern Leopard Frog										Х					
Rana sylvatica	Wood Frog	Х	Х		Х						х					
Scaphiopus couchii	Couch's Spadefoot															1

		Urb	ean and Cro	plands				-	Riparian/V	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Sunfishes	-	•												
Lepomis humilis	Orangespotted sunfish				X *			х	Х	Х				
Catfishes											•	•		
Noturus flavus	Stonecat				Х			Х	Х	Х				
Etheostoma cragini	Arkansas Darter				Х			х	Х	Х				
Etheostoma exile	lowa darter				Х			х	Х	х				
Etheostoma spectabile	Plains orangethroat darter				Х			х	х	х				
Suckers														
Catostomus discobolus	Bluehead sucker											Х	х	
Catostomus latipinnis	Flannelmouth sucker				X *							Х	Х	
Catostomus playtrhynchus	Mountain sucker				Х						х		х	
Catostomus plebeius	Rio Grande Sucker				Х						х			
Xyrauchen texanus	Razorback Sucker				Х							Х		
Minnows														
Gila elegans	Bonytail											х		
Ptychocheilus lucius	Colorado Pikeminnow				Х							Х		
Hybognathus hankinsoni	Brassy minnow				Х			х	Х	Х				
Luxilus cornutus	Common shiner				Х					х				
Platygobio gracilus	Flathead chub				Х			х	х	х				
Gila cypha	Humpback Chub				Х							Х		
Couesius plumbeus	Lake Chub				X *									
Hybognathus placitus	Plains minnow				Х			х	Х					
Phoxinus eos	Northern Redbelly Dace				X *					Х				
Gila pandora	Rio Grande Chub				X *					Х	Х			
Gila robusta	Roundtail Chub				х							х	х	1 -

		Urb	an and Cro	plands					Riparian/V	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Phoxinus erythrogaster	Southern Redbelly Dace				X *				Х	Х				
Phenacobius mirabilis	Suckermouth minnow				Х			х	Х	Х				
Trouts														
Oncorhynchus clarki pleuriticus	Colorado River Cutthroat Trout				X *						х		х	
Oncorhynchus clarki stomias	Greenback Cutthroat Trout				X *						х			
Oncorhynchus clarki virginalis	Rio Grande Cutthroat Trout				X *						х			
* Lake habitat														

				Grasslands	5					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Sunfishes													
Lepomis humilis	Orangespotted sunfish												
Catfishes	-	•	•							•		•	
Noturus flavus	Stonecat												
Etheostoma cragini	Arkansas Darter												
Etheostoma exile	lowa darter												
Etheostoma spectabile	Plains orangethroat darter												
Suckers		-			-								
Catostomus discobolus	Bluehead sucker												
Catostomus latipinnis	Flannelmouth sucker												
Catostomus playtrhynchus	Mountain sucker												
Catostomus plebeius	Rio Grande Sucker												
Xyrauchen texanus	Razorback Sucker												
Minnows		-	-		-							-	
Gila elegans	Bonytail												
Ptychocheilus lucius	Colorado Pikeminnow												
Hybognathus hankinsoni	Brassy minnow												
Luxilus cornutus	Common shiner												
Platygobio gracilus	Flathead chub												
Gila cypha	Humpback Chub												
Couesius plumbeus	Lake Chub												
Hybognathus placitus	Plains minnow												
Phoxinus eos	Northern Redbelly Dace												
Gila pandora	Rio Grande Chub												
Gila robusta	Roundtail Chub												

				Grasslands	5					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Phoxinus erythrogaster	Southern Redbelly Dace												
Phenacobius mirabilis	Suckermouth minnow												
Oncorhynchus clarki pleuriticus	Colorado River Cutthroat Trout												
Trouts								-					
Oncorhynchus clarki stomias	Greenback Cutthroat Trout												
Oncorhynchus clarki virginalis	Rio Grande Cutthroat Trout												
* Lake habitat													

Table C6, Part C - Fish -	Habitat associations of spec	cies of grea	test conserv	ation concern	n (Science Foru	ım Results)										
							Forestlands						Tu	ndra	Unve	getated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Sunfishes	-		<u></u>	<u>L</u>		<u></u>		<u></u>		<u>L</u>	<u></u>	<u></u>			<u></u>	
Lepomis humilis	Orangespotted sunfish															
Catfishes																
Noturus flavus	Stonecat															
Etheostoma cragini	Arkansas Darter															
Etheostoma exile	lowa darter															
Etheostoma spectabile	Plains orangethroat darter															
Suckers																
Catostomus discobolus	Bluehead sucker															
Catostomus latipinnis	Flannelmouth sucker															
Catostomus playtrhynchus	Mountain sucker															
Catostomus plebeius	Rio Grande Sucker															
Xyrauchen texanus	Razorback Sucker															
Minnows																
Gila elegans	Bonytail															
Ptychocheilus lucius	Colorado Pikeminnow															
Hybognathus hankinsoni	Brassy minnow															
Luxilus cornutus	Common shiner															
Platygobio gracilus	Flathead chub															
Gila cypha	Humpback Chub															
Couesius plumbeus	Lake Chub															
Hybognathus placitus	Plains minnow															
Phoxinus eos	Northern Redbelly Dace															
Gila pandora	Rio Grande Chub															
Gila robusta	Roundtail Chub															

Table C6, Part C - Fish -	Habitat associations of spe	cies of grea	test conserv	ation conceri	n (Science Foru	um Results)							-			
							Forestlands						Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Phoxinus erythrogaster	Southern Redbelly Dace															
Phenacobius mirabilis	Suckermouth minnow															
Trouts																
Oncorhynchus clarki pleuriticus	Colorado River Cutthroat Trout															
Oncorhynchus clarki stomias	Greenback Cutthroat Trout															
Oncorhynchus clarki virginalis	Rio Grande Cutthroat Trout															
* Lake habitat																

Table OF, Falt A Blids	 Habitat associations of species of 	groatoor cont		(
			Urban and Crop	lands					Riparian/W	etlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Grebes	1		1	L			1	1	1			1	1	
Podiceps nigricollis	Eared Grebe				х		х							Х
Aechmophorus occidentalis	Western Grebe													
Pelicans														
Pelecanus erythrorhynchos	American White Pelican				х			х				х		х
Herons												1		
Botaurus lentiginosus	American Bittern						Х							
Egretta thula	Snowy Egret				х	Х	х	х	х	х		х	х	х
Plegadis chihi	White-faced Ibis			Х	х	х	Х	х				Х		х
Swans, geese, and Duc	ks													
Anas acuta	Northern Pintail				х		х	х	х			Х	х	х
Aythya affinis	Lesser Scaup				х	Х	х	х				х		х
Bucephala islandica	Barrow's Goldeneye				Х		Х				Х	х	Х	
Kites, Eagles, and Haw	ks	-	•		-									
Pandion haliaetus	Osprey				х			х			Х	х		
Haliaeetus leucocephalus	Bald Eagle		х	х	х	х	х	х	х	х	х	х	х	х
Circus cyaneus	Northern Harrier		Х	Х			х	х	х	х		х	Х	х
Accipiter gentilis	Northern Goshawk													
Buteo swainsoni	Swainson's Hawk	Х	Х	Х				х	х			х	Х	х
Buteo regalis	Ferruginous Hawk		х	х										
Aquila chrysaetos	Golden Eagle		Х	Х	х	Х	Х	х	х	Х	х	Х	х	х
Falcons														
Falco peregrinus anatum	American Peregrine Falcon	х			х	х	х	х	х	х	х	х	х	х
Falco mexicanus	Prairie Falcon		Х	х	х	Х	х	х	х	х	х	Х	х	Х
Partridges, Grouse, Tur	keys, and Quail													
Centrocercus urophasianus	Greater Sage-Grouse		х	х		х	х						х	
, Centrocercus minimus	Gunnison Sage Grouse			х		Х	Х						х	

Table Or, Talt A - Dilus -	Habitat associations of species of	groatest cons			(counc).									
			Urban and Crop	lands					Riparian/W	etlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Lagopus leucurus	White-tailed Ptarmigan													
Tympanuchus cupido	Greater Prairie Chicken		Х	Х										
Dendragapus obscurus	Blue Grouse													
Tympanuchus phasianellus columbianus	Columbian Sharp-tailed Grouse			х										
Tympanuchus phasianellus jamesii	Plains Sharp-tailed Grouse													
Tympanuchus pallidicinctus	Lesser Prairie-chicken		Х	Х										
Callipepla squamata	Scaled Quail	Х	Х	х										Х
Rails, Gallinules, and Co	oots													
Laterallus jamaicensis	Black Rail						Х	Х						
Cranes					-									
Grus canadensis tabida	Greater Sandhill Crane		Х	Х	х	х	Х				Х	Х		
Grus americana	Whooping Crane		Х	Х			Х							
Plovers														
Charadrius alexandrinus nivosus	Western Snowy Plover													х
Charadrius melodus	Piping Plover				х		х	х						Х
Charadrius montanus	Mountain Plover		Х	Х										
Sandpipers and Phalarc	opes													
Bartramia longicauda	Upland Sandpiper		Х	Х										
Numenius americanus	Long-billed Curlew		Х	Х	х		Х	х	х					Х
Limosa fedoa	Marbled Godwit				х			х						Х
Phalaropus tricolor	Wilson's Phalarope				х	Х	Х							Х
Jaegers, Gulls, and Terr	ns	1			T	1			T	1	-		r	
Sterna forsteri	Forster's Tern				х	х	х	х						Х
Sterna antillarum	Least Tern				х			х						Х
Pigeons and Doves	1													
Patagioenas fasciata	Band-tailed Pigeon	Х		Х										
Cuckoos, Roadrunners,	and Anis													
Coccyzus americanus	Western Yellow-billed Cuckoo							_						

Table C7, Part A - Birds - Habitat associations of species of greatest conservation concern (Science Forum Results). **Urban and Croplands Riparian/Wetlands** Shrub-Grass/Forb Eastern Eastern West West Dryland Irrigated Open Transition Mountain Scientific Name Urban Dominated Common Name dominated Plains Plains Slope Slope Playas Crops Crops Water Streams Streams Wetlands Wetlands Rivers Rivers Streams Streams Owls Western Athene cunicularia Х Burrowing Х Х Х hypugaea Owl Flammulat Otus flammeolus ed Owl Mexican Х Strix occidentalis lucida Spotted Х Owl Short-Asio flammeus Х eared Owl Boreal Aegolius funereus Owl Swifts Cypseloides niger Black Swift Х Х Х Aeronautes Whitesaxatalis throated Swift Hummingbirds Black-Archilochus chinned Х Х Х Х Х alexandri Hummingbird Selasphorus Broad-tailed Х Х Hummingbird platycercus Rufous Х Selasphorus rufus Hummingbird Woodpeckers Lewis's Х Х Х Х Х Х Х Melanerpes lewis Woodpecker Sphyrapicus Williamson's thyroideus Sapsucker Sphyrapicus Red-naped Х Х Х Х nuchalis Sapsucker American Picoides dorsalis Three-toed Woodpecker Flycatchers Olive-sided Contopus cooperi Flycatcher Southwestern Empidonax trailli Willow Х Х Х extimus Flycatcher Gray Empidonax wrightii Flycatcher Empidonax Dusky Х oberholseri Flycatcher Empidonax Cordilleran Х Х Х Х

Table C7, Part A - Bird	ls - Habitat assoc	iations of specie	es of g	greatest co	onser	vation conce	ern (S	Science	e Forur	m Res	sults).										
					Ur	ban and Cro	oplar	nds								Riparian/We	etlands				
Scientific Name	Com	nmon Name		Urban		Dryland Crops			ated ops		Open Water	domi	rub- nated ands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
occidentalis	Flycatcher																				;
Shrikes																					
Lanius Iudovicianus	Loggerhead Shrike		х	Х																	
Vireos			<u> </u>			•	•														
Vireo vicinior	Gray Vireo																				
Jays, Magpies, and C	rows			•		•															
Gymnorhinus cyanocephalus	Pinyon Jay	х																			
Swallows										1			1								
Progne subis hesperia	Western Purple Martin										х	х									
Chickadees and Titm																					
Baeolophus ridgwayi	Juniper Titmouse																				
Nuthatches																					
Sitta pygmaea	Pygmy Nuthatch	Х																			
Dippers						•							•								
Cinclus mexicanus	American Dipper									х	х	х	х								
Kinglets, Gnatcatche		S																			
Catharus fuscecens	Veery					Х					Х										
Toxostoma curvirostre	Curve-billed Thrasher		х	х																	
Wood-Warblers																					
Vermivora virginiae	Virginia's Warbler									х											
Dendroica nigrescens	Black- throated Gray Warbler																				
Dendroica graciae	Grace's Warbler																				
New World Sparrows																					
Aimophila cassinii	Cassin's Sparrow		х	х																	
Spizella breweri	Brewer's Sparrow		х	х																	
Amphispiza belli	Sage Sparrow																				
Calamospiza	Lark Bunting		Х	Х													Х				

				,			(-				,.										
					Ur	rban and Cro	oplan	ds								Riparian/W	etlands				
Scientific Name	Com	mon Name		Urban		Dryland Crops		Irrig Cro			Open Water	domi	rub- nated ands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
melanocorys																•	•				
Pooecetes gramineus	Vesper Sparrow																				
Zonotrichia querula	Harris' Sparrow		Х	х		х		х	х												
Calcarius mccownii	McCown's Longspur		х	х													Х				
Calcarius ornatus	Chestnut- collared Longspur		х	х																	
Grosbeaks and Bunt												<u> </u>									
Passerina amoena	Lazuli Bunting					Х		х	Х	Х	х	Х	Х								
Blackbirds and Oriol	es																				
Dolichonyx oryzivorus	Bobolink			х																	
Finches																					
Leucosticte atrata	Black Rosy- Finch	х																			
Leucosticte australis	Brown- capped Rosy-Finch	х																			
Coccothraustes vespertinus	Evening Grosbeak																				
Carpodacus cassinii	Cassin's Finch	х																			
Loxia curvirostra	Red Crossbill																				

Table C7, Part B - Birds - Habitat	associations of species of greatest co	onservation cor	ncern (Science	e Forum Results	5).								
				Grasslands	5					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Grebes													
Podiceps nigricollis	Eared Grebe												
Aechmophorus occidentalis	Western Grebe												
Pelicans													
Pelecanus erythrorhynchos	American White Pelican												
Herons													
Botaurus lentiginosus	American Bittern												
Egretta thula	Snowy Egret												
Plegadis chihi	White-faced Ibis												
Swans, Geese, and Ducks													
Anas acuta	Northern Pintail												
Aythya affinis	Lesser Scaup												
Bucephala islandica	Barrow's Goldeneye												
Kites, Eagles, and Hawks													
Pandion haliaetus	Osprey												
Haliaeetus leucocephalus	Bald Eagle	Х	Х	х	х								
Circus cyaneus	Northern Harrier	Х	х	х	х	х			Х	х	Х	х	х
Accipiter gentilis	Northern Goshawk												
Buteo swainsoni	Swainson's Hawk	Х	х	Х	х	Х	х	х	Х	х	Х		Х
Buteo regalis	Ferruginous Hawk	Х	х	Х	х	Х	х		Х	х	Х	Х	Х
Aquila chrysaetos	Golden Eagle	Х	Х	Х	х	Х	х	Х	Х	х	Х	Х	х
Falcons	•												
Falco peregrinus anatum	American Peregrine Falcon												
Falco mexicanus	Prairie Falcon	Х	Х	х	х	Х			х	х	Х	Х	х
Partridges, Grouse, and Quail													
Centrocercus urophasianus	Greater Sage-Grouse								Х				
Centrocercus minimus	Gunnison Sage Grouse								Х				
Lagopus leucurus	White-tailed Ptarmigan												

		r											
				Grasslands	5					Shru	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Tympanuchus cupido	Greater Prairie Chicken	х	х	Х		Х							
Dendragapus obscurus	Blue Grouse				Х		х	Х					
Tympanuchus phasianellus columbianus	Columbian Sharp-tailed Grouse				Х		х	х	х				
Tympanuchus phasianellus jamesii	Plains Sharp-tailed Grouse	х	х	х	х	Х		х					
Tympanuchus pallidicinctus	Lesser Prairie-chicken	х	х	Х		Х							
Callipepla squamata	Scaled Quail		х	Х		Х			Х	х		Х	Х
Rails, Gallinules, and Coots													
Laterallus jamaicensis	Black Rail												
Cranes													
Grus canadensis tabida	Greater Sandhill Crane				Х								
Grus americana	Whooping Crane												
Plovers													
Charadrius alexandrinus nivosus	Western Snowy Plover												
Charadrius melodus	Piping Plover												
Charadrius montanus	Mountain Plover		х	Х	Х					х	Х		
Sandpipers and Phalaropes													
Bartramia longicauda	Upland Sandpiper	х	х			Х							
Numenius americanus	Long-billed Curlew		х	Х		Х							
Limosa fedoa	Marbled Godwit												
Phalaropus tricolor	Wilson's Phalarope												
Jaegers, Gulls, and Terns													
Sterna forsteri	Forster's Tern												
Sterna antillarum	Least Tern												
Pigeons and Doves													
Patagioenas fasciata	Band-tailed Pigeon						х	Х					
Cuckoos, Roadrunners, and Anis													
Coccyzus americanus	Western Yellow-billed Cuckoo												
Owls		•	I.				1	1	1	1	ι		

				Grasslands	5					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Athene cunicularia hypugaea	Western Burrowing Owl	х	х	Х					х	Х	Х		
Otus flammeolus	Flammulated Owl												
Strix occidentalis lucida	Mexican Spotted Owl												
Asio flammeus	Short-eared Owl		Х	Х	Х	Х	Х		Х				
Aegolius funereus	Boreal Owl												
Swifts		•	•					•					
Cypseloides niger	Black Swift												
Aeronautes saxatalis	White-throated Swift												
Hummingbird		•	•									•	
Archilochus alexandri	Black-chinned Hummingbird												
Selasphorus platycercus	Broad-tailed Hummingbird				Х		Х	Х	Х				
Selasphorus rufus	Rufous Hummingbird				Х		Х	Х					
Woodpeckers									•				
Melanerpes lewis	Lewis's Woodpecker												
Sphyrapicus thyroideus	Williamson's Sapsucker												
Sphyrapicus nuchalis	Red-naped Sapsucker												
Picoides dorsalis	American Three-toed Woodpecker												
Flycatchers													
Contopus cooperi	Olive-sided Flycatcher												
Empidonax trailli extimus	Southwestern Willow Flycatcher												
Empidonax wrightii	Gray Flycatcher								Х				
Empidonax oberholseri	Dusky Flycatcher						х	х					
Empidonax occidentalis	Cordilleran Flycatcher												
Shrikes													
Lanius Iudovicianus	Loggerhead Shrike	Х	х	Х	Х	Х			Х	Х	Х	Х	
Vireos							-					•	
Vireo vicinior	Gray Vireo												
Jays, Magpies, and Crows	•	•	•	•		•		•	•	•			

	ssociations of species of greatest co			e i orum resulta	<i>.</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
				Grasslands	5					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Gymnorhinus cyanocephalus	Pinyon Jay												
Swallows													
Progne subis hesperia	Western Purple Martin												
Chickadees and Titmice													
Baeolophus ridgwayi	Juniper Titmouse												
Nuthatches													
Sitta pygmaea	Pygmy Nuthatch												
Dippers													
Cinclus mexicanus	American Dipper												
Kinglets, Gnatcatchers, and Thru	shes												
Catharus fuscecens	Veery												
Toxostoma curvirostre	Curve-billed Thrasher			Х						х			Х
Wood-Warblers			-						-			-	
Vermivora virginiae	Virginia's Warbler						х	х					
Dendroica nigrescens	Black-throated Gray Warbler												
Dendroica graciae	Grace's Warbler												
New World Sparrows													
Aimophila cassinii	Cassin's Sparrow		Х	Х		Х							Х
Spizella breweri	Brewer's Sparrow					х			Х	х	х	х	
Amphispiza belli	Sage Sparrow								Х			Х	
Calamospiza melanocorys	Lark Bunting	Х	Х	Х	Х				Х	х			
Pooecetes gramineus	Vesper Sparrow	Х	Х		Х	Х			Х	х		Х	
Zonotrichia querula	Harris' Sparrow												
Calcarius mccownii	McCown's Longspur	Х	х	Х									
Calcarius ornatus	Chestnut-collared Longspur	Х	х	Х									
Grosbeaks and Buntings													
Passerina amoena	Lazuli Bunting						х	х					
Blackbirds and Orioles										_			
Dolichonyx oryzivorus	Bobolink	Х	х		Х								

				Grasslands	5					Shru	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Finches	·	-	-		÷			:				<u>.</u>	
Leucosticte atrata	Black Rosy-Finch								Х				
Leucosticte australis	Brown-capped Rosy-Finch								Х				
Coccothraustes vespertinus	Evening Grosbeak												
Carpodacus cassinii	Cassin's Finch												
Loxia curvirostra	Red Crossbill												

Table C7, Part C - Birds - H	abitat associations of spe	cies of grea	test conserv	ation conceri	n (Science Foru	im Results)										
							Forestlands						Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Grebes		1	I			I		I	I		I		I			
Podiceps nigricollis	Eared Grebe															
Aechmophorus occidentalis	Western Grebe															
Pelicans	·															
Pelecanus erythrorhynchos	American White Pelican														Х	
Herons	•		•							•						
Botaurus lentiginosus	American Bittern															
Egretta thula	Snowy Egret															
Plegadis chihi	White-faced Ibis															
Swans, Geese, and Ducks																
Anas acuta	Northern Pintail															
Aythya affinis	Lesser Scaup															
Bucephala islandica	Barrow's Goldeneye															
Kites, Eagles, and Hawks																
Pandion haliaetus	Osprey															
Haliaeetus leucocephalus	Bald Eagle															
Circus cyaneus	Northern Harrier															
Accipiter gentilis	Northern Goshawk	х		х	х		Х		х		х	х				
Buteo swainsoni	Swainson's Hawk															
Buteo regalis	Ferruginous Hawk								х							х
Aquila chrysaetos	Golden Eagle	х	х	х	Х	х	Х	Х	х	х	х	х	х	х	Х	х
Falcons																
Falco peregrinus anatum	American Peregrine Falcon						х		х							х
Falco mexicanus	Prairie Falcon								х				х	х	Х	х
Partridges, Grouse, Turke	ys, and Quail															
Centrocercus urophasianus	Greater Sage-Grouse															
Centrocercus minimus	Gunnison Sage Grouse															
Lagopus leucurus	White-tailed												х	Х		

	1		r	n	r	T	Forestlands		r		r	I	Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
	Ptarmigan															<u> </u>
Tympanuchus cupido	Greater Prairie Chicken															
Dendragapus obscurus	Blue Grouse	Х	х	Х	Х	х	Х	Х		х	Х	х				
Tympanuchus phasianellus columbianus	Columbian Sharp- tailed Grouse															
Tympanuchus phasianellus jamesii	Plains Sharp-tailed Grouse															
Tympanuchus pallidicinctus	Lesser Prairie- chicken															
Callipepla squamata	Scaled Quail								х							
Rails, Gallinules, and Coo	ts															
Laterallus jamaicensis	Black Rail															
Cranes																
Grus canadensis tabida	Greater Sandhill Crane															
Grus americana	Whooping Crane															
Plovers																
Charadrius alexandrinus nivosus	Western Snowy Plover														х	
Charadrius melodus	Piping Plover														х	
Charadrius montanus	Mountain Plover															
Sandpipers and Phalarope	es															
Bartramia longicauda	Upland Sandpiper															
Numenius americanus	Long-billed Curlew															
Limosa fedoa	Marbled Godwit															
Phalaropus tricolor	Wilson's Phalarope															
Jaegers, Gulls, and Terns																
Sterna forsteri	Forster's Tern															
Sterna antillarum	Least Tern														Х	
Pigeons and Doves	•											•				
Patagioenas fasciata	Band-tailed Pigeon	Х	х	Х	х	х	Х	Х	х		х	х				
Cuckoos, Roadrunners, a	nd Anic		ı	1		1	•	с	1	•		1				

							Forestlands						Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Coccyzus americanus	Western Yellow-billed Cuckoo															
Owls																
Athene cunicularia hypugaea	Western Burrowing Owl															
Otus flammeolus	Flammulated Owl	х	Х	Х		х	Х	Х			х	х				
Strix occidentalis lucida	Mexican Spotted Owl			х			Х		х		х					х
Asio flammeus	Short-eared Owl															
Aegolius funereus	Boreal Owl		х		Х					Х						
Cypseloides niger	Black Swift															х
Aeronautes saxatalis	White-throated Swift															Х
Hummingbirds							•		•	•	•					
Archilochus alexandri	Black-chinned Hummingbird								х							
Selasphorus platycercus	Broad-tailed Hummingbird	х	Х	Х	х	х	х	х	Х	х	х	х				
Selasphorus rufus	Rufous Hummingbird												х	Х		
Woodpeckers																
Melanerpes lewis	Lewis's Woodpecker						Х		х							
Sphyrapicus thyroideus	Williamson's Sapsucker	х	Х	Х	х	х	х	х			х	х				
Sphyrapicus nuchalis	Red-naped Sapsucker	х	Х	Х	х	х	х	х		х	х	х				
Picoides dorsalis	American Three-toed Woodpecker	Х	Х	Х	Х	х	Х	х		х	х					
Flycatchers	-															
Contopus cooperi	Olive-sided Flycatcher	Х	х	х	Х	Х	Х	Х	х	х	х	х				
Empidonax trailli extimus	Southwestern Willow Flycatcher															
Empidonax wrightii	Gray Flycatcher								х							
Empidonax oberholseri	Dusky Flycatcher	Х	Х	Х	Х	Х	Х	Х	х	Х	х	Х	х			
Empidonax occidentalis	Cordilleran Flycatcher	Х	Х	Х	Х	Х	Х	Х		Х	х	Х				Х
Shrikes																
Lanius Iudovicianus	Loggerhead Shrike															
Vireos	·					•			•		•				•	

															-	
							Forestlands						Tu	ndra	Unve	getated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Vireo vicinior	Gray Vireo								х							
Jays, Magpies, and Crows	5															
Gymnorhinus cyanocephalus	Pinyon Jay					х	х		х							
Swallows	•															
Progne subis hesperia	Western Purple Martin	Х														
Chickadees and Titmice																
Baeolophus ridgwayi	Juniper Titmouse								Х							1
Nuthatches																
Sitta pygmaea	Pygmy Nuthatch						Х									1
Dippers	•															
Cinclus mexicanus	American Dipper															1
Kinglets, Gnatcatchers, a	nd Thrushes															
Catharus fuscecens	Veery															<u> </u>
Toxostoma curvirostre	Curve-billed Thrasher															
Wood-Warblers												-				
Vermivora virginiae	Virginia's Warbler	х				х	Х		Х			х				L
Dendroica nigrescens	Black-throated Gray Warbler								х							<u> </u>
Dendroica graciae	Grace's Warbler						Х									
New World Sparrows																
Aimophila cassinii	Cassin's Sparrow															<u> </u>
Spizella breweri	Brewer's Sparrow															<u> </u>
Amphispiza belli	Sage Sparrow															
Calamospiza melanocorys	Lark Bunting															L
Pooecetes gramineus	Vesper Sparrow															
Zonotrichia querula	Harris' Sparrow															
Calcarius mccownii	McCown's Longspur															
Calcarius ornatus	Chestnut-collared Longspur															
Grosbeaks and Buntings																

Table C7, Part C - Birds -	Habitat associations of spe	cies of grea	atest conserv	vation concer	n (Science For	um Results)										
							Forestlands						Tu	ndra	Unve	egetated
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Passerina amoena	Lazuli Bunting	х														
Blackbirds and Orioles																
Dolichonyx oryzivorus	Bobolink															
Finches																
Leucosticte atrata	Black Rosy-Finch												х	х		х
Leucosticte australis	Brown-capped Rosy- Finch												х	х		х
Coccothraustes vespertinus	Evening Grosbeak	х	Х	х	х	Х	х	х		х	х	х				
Carpodacus cassinii	Cassin's Finch	х	х	х	х	Х	х	Х	х	х	х	х				
Loxia curvirostra	Red Crossbill		Х	Х	Х	х	х	Х			х					

Table C8, Part A - Mammals - Hab	itat associations of species of greatest co	onservation	i concern (S	cience Forum	n Results).									
		Urb	an and Cro	plands					Riparian/V	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Shrews									•	•	•		•	
Sorex nanus	Dwarf Shrew										Х			
Sorex preblei	Preble's Shrew													
Bats														
Euderma maculatum	Spotted Bat											х	х	
Idionycteris phyllotis	Allen's big-eared bat											х	х	
Myotis occultus	Arizona myotis	х						х	х	Х	х	х	х	
Myotis thysanodes	Fringed myotis									х	х	х	х	
Plecotus (Choynorhinus) townsendii pallescens	Townsend's Big-eared Bat Subsp									х	х	х	х	
Rabbits and Hares														
Lepus townsendii	White-tailed Jackrabbit													
Squirrels														
Cynomys gunnisoni	Gunnison prairie dog													
Cynomys leucurus	White-tailed prairie dog													
Cynomys Iudovicianus	Black-tailed prairie dog	х												
Pocket Gophers														
Thomomys bottae rubidus	Botta's Pocket Gopher (rubidus ssp)													
Thomomys talpoides macrotis	Northern pocket gopher (macrotis ssp)													
Perognathus fasciatus	Olive-backed pocket mouse													
Jumping Mice														
Zapus hudsonius preblei	Meadow Jumping Mouse (both subspecies)					Х		х	х	Х	х			
Dogs and Allies														
Canis lupus	Gray Wolf - two subspecies (Northern and Mexican)													
Vulpes macrotis	Kit Fox													

	3				,									
		Urb	an and Cro	plands					Riparian/W	Vetlands				
Scientific Name	Common Name	Urban	Dryland Crops	Irrigated Crops	Open Water	Shrub- dominated Wetlands	Grass/Forb Dominated Wetlands	Eastern Plains Rivers	Eastern Plains Streams	Transition Streams	Mountain Streams	West Slope Rivers	West Slope Streams	Playas
Vulpes velox	Swift Fox		х											
Bears														
Ursus arctos	Grizzly bear										Х			
Weasels and Allies														
Conepatus leuconotus	Common Hog-nosed Skunk													
Gulo gulo	Wolverine													
Lontra canadensis	River Otter				Х	Х	Х	х	Х	Х	Х	Х	Х	
Mustela nigripes	Black-footed Ferret													
Cattle and Allies														
Bison bison	Bison													
Cats											-		-	
Lynx canadensis	Lynx													

Table C8, Part B - Mammals - Ha	bitat associations of species of greates	t conservatior	n concern (Sci	ence Forum Re	sults).								
				Grassland	5					Shr	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Shrews								•		•			
Sorex nanus	Dwarf Shrew												
Sorex preblei	Preble's Shrew				Х			х	Х				
Bats													
Euderma maculatum	Spotted Bat						х			х			
Idionycteris phyllotis	Allen's big-eared bat							х	Х				
Myotis occultus	Arizona myotis				х		х	х	Х	х			
Myotis thysanodes	Fringed myotis				х		х	х	Х	х			
Plecotus (Choynorhinus) townsendii pallescens	Townsend's Big-eared Bat Subsp				Х		х	х	х	х			
Rabbits and Hares													
Lepus townsendii	White-tailed Jackrabbit	Х	х	Х	Х	х	х	х	Х	х	х	Х	Х
Squirrels													
Cynomys gunnisoni	Gunnison prairie dog				Х			х	Х	х		Х	
Cynomys leucurus	White-tailed prairie dog								Х	х			
Cynomys ludovicianus	Black-tailed prairie dog		х	Х									х
Pocket Gophers													
Thomomys bottae rubidus	Botta's Pocket Gopher (rubidus ssp)				х								
Thomomys talpoides macrotis	Northern pocket gopher (macrotis ssp)		х	х	х								
Perognathus fasciatus	Olive-backed pocket mouse		х	Х	Х								
Jumping Mice													
Zapus hudsonius preblei	Meadow Jumping Mouse (both subspecies)												
Dogs and Allies													
Canis lupus	Gray Wolf - two subspecies (Northern and Mexican)				х		х	х	х				
Vulpes macrotis	Kit Fox								Х	х	Х	х	

					,								
				Grasslands	3					Shri	ublands		
Scientific Name	Common Name	Tallgrass Prairie	Midgrass Prairie	Shortgrass Prairie	Foothill / Mountain Grassland	Sand Dune Complex (Grassland)	Upland Shrub	Decidu- ous Oak	Sage- brush	Desert Shrub	Saltbrush Fans ∧ Flats	Greasewood Fans and Flats	Sand Dune Complex (Shrubland)
Vulpes velox	Swift Fox		Х	Х									
Bears	•												
Ursus arctos	Grizzly bear				Х		х	х					
Weasels and Allies													
Conepatus leuconotus	Common Hog-nosed Skunk				Х		х	Х		х	Х	Х	Х
Gulo gulo	Wolverine												
Lontra canadensis	River Otter												
Mustela nigripes	Black-footed Ferret		Х	Х	Х				Х	х			
Cattle and Allies													
Bison bison	Bison												
Cats		•	•			•	•	•		•			
Lynx canadensis	Lynx												

Table C8, Part C - Mamm	als - Habitat associations of	f species of	f greatest co	nservation co	oncern (Science	e Forum Re	esults).						1			
	Forestlands											Tundra		Unvegetated		
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Shrews		1				1		1			I				1	
Sorex nanus	Dwarf Shrew	х	х	Х	Х	х	Х	Х	х		х	х				
Sorex preblei	Preble's Shrew															
Bats		•				•										
Euderma maculatum	Spotted Bat	х		Х			Х		Х		х	Х				Х
Idionycteris phyllotis	Allen's big-eared bat						Х		Х		х					х
Myotis occultus	Arizona myotis	х	х				Х		Х		х	Х				
Myotis thysanodes	Fringed myotis	х	Х	х	х		Х		Х		х	Х				х
Plecotus (Choynorhinus) townsendii pallescens	Townsend's Big-eared Bat Subsp	х	х	х			х		x		х	х				
Rabbits and Hares																
Lepus townsendii	White-tailed Jackrabbit															
Squirrels																
Cynomys gunnisoni	Gunnison prairie dog															
Cynomys leucurus	White-tailed prairie dog															
Cynomys ludovicianus	Black-tailed prairie dog															
Pocket Gophers																
Thomomys bottae rubidus	Botta's Pocket Gopher (rubidus ssp)								х							
Thomomys talpoides macrotis	Northern pocket gopher (macrotis ssp)															
Perognathus fasciatus	Olive-backed pocket mouse															
Jumping Mice																
Zapus hudsonius preblei	Meadow Jumping Mouse (both subspecies)															
Dogs and Allies																
Canis lupus	Gray Wolf - two subspecies (Northern and Mexican)	x	х	х	x	x	x	x	x	x	x	x	x	х		

Table C8, Part C - Mamn			greatest co	nservation co			30113).									
	Forestlands											Tundra		Unvegetated		
Scientific Name	Common Name	Aspen Forest	Spruce- Fir	Douglas Fir	Lodgepole Pine	Limber Pine	Ponderosa Pine	White Fir	Pinyon- Juniper	Rocky Mountain Bristlecone Pine	Mixed Conifer	Mixed Forest	Shrub Tundra	Meadow Tundra	Sandy Areas	Exposed Rock
Vulpes macrotis	Kit Fox															
Vulpes velox	Swift Fox															
Bears																
Ursus arctos	Grizzly bear	х	х	х	Х	х	Х	Х		Х	х	х	х	х		
Weasels and Allies																
Conepatus leuconotus	Common Hog-nosed Skunk								Х							
Gulo gulo	Wolverine	х	Х		х	х		Х		х	х	х	х	х		х
Lontra canadensis	River Otter															
Mustela nigripes	Black-footed Ferret															
Cattle and Allies																
Bison bison	Bison															
Cats	•	•			•	•							•			
Lynx canadensis	Lynx		Х	Х	Х			Х			Х					