	Λ .	T p	Τ	Г Б	Тг	Тг		11	1 .	Р	т	I 11	T v	
\vdash	A	I B	, ,	_ D	E	F	G	H	<u> </u>	·	<u> </u>	U	<u>'</u>	
1	Scientific_Name	Common_Name	Grouping	Туре	Tier	COR	Habitats	Threat_Code	Threat_Description	Threat_Long	Actions	Working_Lands	Notes	
										/ Major changes in an ecosystem resulting in changes to	Protect rocky habitat from fragmentation and loss. (1.1.2), Address oak decline. Promote	Timbered Forested		
										vegetation communities distinguished from natural	oak-hickory forests. Plant hybrid American chestnut. (11.1.1), Treat raccoons for the	Uplands		
											roundworm parasite. (8.1.1)	Optando		
										vegetation succession, which may threaten open-country	Touridworm parasite. (0.1.1)			
										species (Threat 7.3.2). E.g., migration of deciduous trees				
									/ Changes in Vegetation	towards the boreal forest, rising sea levels, desertification				
							Forests and Woodlands, Cliff		Communities / Terrestria	thawing permafrost (in tundra), coral bleaching. /				
1	Nootomo modiator	Alloghony woodrot	Mammal	Manana	al IV	_	•	110 1111 011		thawing pormanose (in tanara), corat steaching.				
	Neotoma magister	Allegheny woodrat	Maiiiiiat	Mamma	at IV	а	and Talus, Caves and Karst,	1.1.2., 11.1.1, 8.1.1	Animals					
										Extensive development that is residential (including		Timbered Forested		
										resorts), where the spacing allows ecological functions to	eastern cottontail through habitat protection. (8.1.1)	Uplands		
										continue to some extent. This type of development is seen				
										particularly in rural and agroforestry areas. E.g.,				
										residential buildings in agricultural areas, cottages,				
									Low-Density Housing	vacation homes near water bodies, ecotourism lodges,				
		Appalachian					Forests and Woodlands,		Areas / Terrestrial	fishing resorts, backcountry ski lodges. //				
2	Sylvilagus obscurus	cottontail	Mammal	Mamma	al IV	а	Shrublands	1.1.2, 8.1.1,	Animals /	,				
	Sytvitagas obscuras	Cottonian	riaiiiiiat	Planini	at IV	a	Omabianas	1.1.2, 0.1.1,	Allillator					
										Harvesting of aquatic species for recreation or	1. Maintain an effective marine mammal stranding response program to accurately identify			
										subsistence that is governed by management measures.	and document recreational fishery interactions among bottlenose dolphin strandings in			
										Illegal harvesting by fishing should be classified under	Virginia. Develop a voluntary recreational fishery interaction reporting program for			
											saltwater anglers to further quantify the frequency and magnitude of interactions between			
										"Poaching/persecution of aquatic species" (Threat 5.4.4).				
										Includes bycatch and damage to released individuals, but	dolphins and recreational fishing gear. Compile, summarize and disseminate the			
										exercises contamination of habitats due to solid lead from	information gathered in actions #1 and #2 to appropriate fisheries management agencies to			
										fishing gear (Threat 9.4.2). E.g., recreational fishing of	inform future actions designed to avoid or minimize recreational fishery interactions among			
											bottlenose dolphins (5.4.1). 2. Work with the VMRC to establish a fishery observer program			
										sturgeon, accidental catching of mudpuppies during ice	for state regulated commercial fisheries in Virginia waters to document bycatch rates and			
										fishing, turtles ingesting hooks, personal collection for	,			
										fishkeeping with authorized species. / Harvesting of	other data associated with state fisheries-related bottlenose dolphin interactions. Develop			
										aquatic species for commercial purposes that is governed	the justification for and explore the feasibility of establishing a state commercial fishery			
											gear marking system to further aid in the determination of dolphin interactions with state			
										by management measures for which the environmental	fisheries. Compare fishing effort and fishery interaction data collected from stranded			
										impact is primarily on the species (as opposed to habitat	bottlenose dolphins to identify temporal and spatial trends in commercial fishery-related			
										damage from sea bottom trawling, Threat 7.3.6). Includes				
											takes (5.4.2). 3. Maintain an effective marine mammal stranding response program that has			
										bycatch but excludes gnost fishing gear entangling wildlife	the capacity and expertise to detect pathogens, parasites and contaminants in bottlenose			
										(Threat 9.4.4). E.g., commercial fisheries, use of nets and	dolphin (and other marine mammal species) strandings in Virginia. Develop a state			
										fishing gear for eels, factory ships, marine mammals	institutional framework for detecting and responding to disease-related dolphin mortality			
										caught in industrial fishing nets. / e.g., ranavirus in	events that require resources and staff beyond capacity of the VA Stranding Response			
										amphibians, rabies in raccoons.	Program or any single state or federal agency. Help ensure funding for the NOAA Fisheries			
											Unusual Mortality Working Group gets reinstated and is maintained over the long term so			
											that future pathogenic-related mortality events receive the necessary oversight and			
									D		assistance from the working group (8.4.2).			
									Recreational of					
							Tidal Rivers and Streams,		Subsistence Fishing /					
		Atlantic bottlenose					Estuaries, Marine Nearshore,		Commercial Fishing /					
1	Tursiops truncatus	dolphin	Mammal	Mamma	al III	b	Marine Offshore and Oceanic	5.4.1. 5.4.2. 8.4.2	Viral Pathogens					
4	rursiops truffcatus	иогрин	Maiiiiiat	Maililli	at III	D	Marine Offshore and Oceanic	5.4.1, 5.4.2, 6.4.2	Viiat Fatilogelis					
										Major changes in an ecosystem resulting in changes to	Plant and promote (selective cutting) spruce-fir forests. (11.1.4), Reverse climate change.			
										vegetation communities distinguished from natural	(11.3.4), Reduce acid rain emissions. (9.5.1)			
										vegetation succession, which may threaten open-country				
										species (Threat 7.3.2). E.g., migration of deciduous trees				
										towards the boreal forest, rising sea levels, desertification	,			
										thawing permafrost (in tundra), coral bleaching. /				
										Increase in temperature fluctuations, which disturb the				
									Changes in Vegetation					
										phenological responses of wildlife. E.g., raise in the				
									Communities / Increase	frequency of freeze-thaw events, rain-on-snow events,				
	Glaucomys sabrinus	Carolina northern							in Temperature	etc. /				
5	coloratus	flying squirrel	Mammal	Mamma	al I	а	Boreal Forest	11.1.1, 11.3.4, 9.5.1	Fluctuations / Acid Rain					
ب ا		,o oquirot	a.midt			- J	_ 5.500. 5.500	,,,,	. tastaations / noid hall	Modium to high donaity dovelopment for regidential	Protection and management of swamps and bettermland and vinevian forests (4.4.4.4.2.4)	Timborod Farants -		
											Protection and management of swamps and bottomland and riparian forests. (1.1.1, 1.2.1)			
										and buildings for related services. Allows very little to no		Uplands		
										maintenance of ecological functions. E.g., urban areas,				
										suburbs, villages, schools, libraries, seniors' housing,				
									Danca Hausing and					
									Dense Housing and	hospitals / industrial parks, manufacturing plants,				
									Urban Areas /	offices, shopping centers, all military base facilities,				
	Peromyscus						Forests and Woodlands,		Commercial and	power plants, seaports, shipyards, airports /				
6	gossypinus gossypinus	Cotton mouse	Mammal	Mamma	al IV	а	Beaches and Dunes	1.1.1, 1.2.1,	Industrial Areas /					
F	0-00, piao 6000, piniao		a.midt			- J	_ 545.155 4/14 541165	,,		Extensive development that is residential (in alcoling)	Protect and expand current habitat /1.1.2\	Timborod Farrett		
										Extensive development that is residential (including	Protect and expand current habitat. (1.1.2)	Timbered Forested		
										resorts), where the spacing allows ecological functions to		Uplands		
										continue to some extent. This type of development is seen				
										particularly in rural and agroforestry areas. E.g.,				
										residential buildings in agricultural areas, cottages,				
										vacation homes near water bodies, ecotourism lodges,				
									Low-Density Housing	fishing resorts, backcountry ski lodges. //				
_	Columno missos sim	Dolmorus for	Monana	Marri	ol	_	Forests and Weadless de	1 1 2		norms reserve, buckeountry ski touges. //				
/	Sciurus niger cinereus	peunarva fox squiffe	เ⊣เพลกแกลเ	Mamma	at II	a	Forests and Woodlands	1.1.2	Areas / /					

A	В	С			E I	F	G	Н	L	P	Т	U		V
1 Scientific_Name	Common_Name	Grouping	Туре	Tie	er CO	R Habitats		Threat_Code	Threat_Description	Threat_Long	Actions	Working_Lands	Notes	
O Muntio Inihii	Eastern small-footed					Forests a	and Woodlands, Cliff s, Artificial		Caving / / Low-Density	/ / Extensive development that is residential (including resorts), where the spacing allows ecological functions to	Restrict caving activities during the hibernation period at known hibernacula. (6.1.7), Support studies addressing the impacts of White-nose Syndrome (WNS) on cave bats (e.g., biological and chemical fungal treatments). (8.4.3), Protect rocky habitat from fragmentation and loss. (1.1.2)	_		
8 Myotis leibii Spilogale putorius 9 putorius	myotis Eastern spotted skunk	Mammal		mal IV			iments, Caves and Kars	1.1.2	Low-Density Housing Areas / /	Extensive development that is residential (including resorts), where the spacing allows ecological functions to continue to some extent. This type of development is seen particularly in rural and agroforestry areas. E.g., residential buildings in agricultural areas, cottages, vacation homes near water bodies, ecotourism lodges, fishing resorts, backcountry ski lodges. //				
3 putonus	SKUIIK	Planina	Pidilli	ilat iv	d	ruests	inu wooddands	1.1.2	Aleds) /	Wildlife observation activities without any gathering that disturb the target species due to harassment or through the use of attractants and lures. E.g., photographers attracting birds of prey with domestic rodents. / Ships striking wildlife, damage associated with wake waves, disturbance caused by the presence of vessels transporting people and goods /	1. Develop a marine wildlife harassment reporting program for the general public designed to document and track irresponsible boater viewing behavior around large whale species. Develop a social marketing campaign that clearly defines harrassment and promotes safe viewing practices and behaviors around large whales. Integrate marine wildlife-safe viewing practices and behaviors in boating safety course curricula, on boat registration and saltwater license webpages and in the annual publications of saltwater fishing regulations (6.1.8). 2. Maintain an effective marine mammal stranding response program that is able to accurately detect, document and track trends in vessel strike-related fin whale strandings. Develop a state institutional framework for detecting and responding to large whale vessel collision-related stranding events that require resources and staff beyond capacity of the VA Stranding Response Program or any single state or federal agency. Work with the VA Maritime Association, Ports Authority, US Navy, NOAA Fisheries and other stakeholders to develop best practices for minimizing vessel collisions in the lower Chesapeake Bay where federal vessel speed restrictions do not apply (4.3.1). 3. Support and participate in state and regional research and monitoring initiatives designed to assess the impacts of offshore wind energy development on fin whales. Ensure the expansion of NOAA Fisheries aerial surveys into Virginia offshore waters to fully assess the seasonal distribution and abundance of fin whales (and other large whale species) in the central Atlantic WEA by requiring the OSW industry to fund these surveys through the state permitting process. Ensure the expansion of the passive acoustic monitioring network in the central Atlantic Wind Energy Area (WEA) to measure the presence of fin whales before, during and after construction of OSW facilities within the WEA by requiring the OSW industry to fund the expansion and maintenance of the network through the state permitting process (3.3.2).			
10 Balaenoptera physalu		Mammal		mal IV		Forests a	and Woodlands,	6.1.8, 4.3.1, 3.3.2	Wildlife Observation/Photograph y/Shipping /Wind Farms		Restrict caving activities during both summer and winter periods at select caves supporting			
11 Myotis grisescens	Gray bat	Mammal	Mamr	nal IV	а	Grasslan	ds, Shrublands	6.1.7	Caving / /		gray bats. (6.1.7) Curtail wind operations during spring and fall migration. (3.3.1)	Timbered Forested		
12 Lasiurus cinereus	Hoary bat	Mammal		nal IV	а		and Woodlands	3.3.1	Hydroelectric Dams //		Curtan wind operations during spring and fail inigration. (5.5.1)	Uplands		

	A	В	С	D	E	F	G	Н	L	P	Т	U		٧
1	Scientific_Name	Common_Name	Grouping	Туре	Tier	COR H	labitats	Threat_Code	Threat_Description	Threat_Long	Actions	Working_Lands	Notes	
		_								Wildlife observation activities without any gathering that	1. Support and participate in state and regional research and monitoring initiatives designed	-		
										disturb the target species due to harassment or through	to assess the impacts of offshore wind (OSW) energy development on northern right			
										the use of attractants and lures. E.g., photographers	whales. Ensure the expansion of NOAA Fisheries aerial surveys into Virginia offshore waters			
										attracting birds of prey with domestic rodents. /	to fully assess the seasonal distribution and abundance of right whales (and other large			
										Harvesting of aquatic species for commercial purposes	whale species) in the central Atlantic Wind Energy Area (WEA) by requiring the OSW			
										that is governed by management measures for which the	industry to fund these surveys through the state permitting process. Ensure the expansion			
										environmental impact is primarily on the species (as	of the passive acoustic monitioring network in the central Atlantic WEA to measure the			
										opposed to habitat damage from sea bottom trawling,	presence of right whales before, during and after construction of OSW facilities within the			
										Threat 7.3.6). Includes bycatch but excludes ghost fishing	WEA by requiring the OSW industry to fund the expansion and maintenance of the network			
										, , , , , , , , , , , , , , , , , , , ,	through the state permitting process (6.1.8). 2. Work with the VMRC to establish a fishery			
										gear entangling wildlife (Threat 9.4.4). E.g., commercial	observer program for state regulated commercial fisheries in Virginia waters to document			
										fisheries, use of nets and fishing gear for eels, factory	the prevalence and types of northern right whale interactions with state fisheries. Develop			
										ships, marine mammals caught in industrial fishing nets.	the justification for and explore the feasibility of establishing a state commercial fishery			
										/ Ships striking wildlife, damage associated with wake	gear marking system to further aid in the determination of large whale interactions with			
										waves, disturbance caused by the presence of vessels	state fisheries. Work with state fisheries managers, commercial gear specialists and			
										transporting people and goods	commercial fishers to develop best practices for avoiding or minimizing large whale			
											interactions with state fisheries (5.4.2). 3. Maintain an effective marine mammal stranding			
											response program that is able to accurately detect, document and track trends in vessel			
											strike-related northern right whale strandings. Develop a state institutional framework for			
											detecting and responding to large whale vessel collision related stranding events that			
											require resources and staff beyond capacity of the VA Marine Mammal Stranding Response			
											Program or any single state or federal agency. Work with the VA Maritime Association, Ports			
											Authority, US Navy, NOAA Fisheries and other stakeholders to develop best practices for			
											minimizing vessel collisions in the lower Chesapeake Bay where federal vessel speed			
									Wildlife		restrictions do not apply (4.3.1).			
									Observation/Photograph					
	Megaptera								v / Commercial Fishing /					
12	1	Humpback whale	Mammal	Mammal	ш	h M	Marine Offshore and Oceanic	619542421	Shipping					
13	novacrigitatic	Trumpback whate	riammat	Tidiiiiidt		D 111	larine offshore and occarrie	0.1.0, 0.4.2, 4.0.1	оттррить	11	Restrict caving activities during the hibernation period at known hibernacula. (6.1.7),	Timbered Forested		
											Support studies addressing the impacts of White-nose Syndrome (WNS) on cave bats (e.g.,			
						г.	Forests and Woodlands,				biological and chemical fungal treatments). (8.4.3), Curtail wind operations during spring	Optanus		
							·		On dead / / I bedee also state		and fall migration. Site land based wind away from known major hibernacula. (3.3.1)			
							Grasslands, Shrublands, Caves	0.1.7.0.1.0.00.1	Caving / / Hydroelectric		and fall filigration. Site land based will away from known major filbernacula. (5.5.1)			
14	Myotis sodalis	Indiana bat	Mammal	Mammal	ı	a ai	ind Karst	6.1.7, 8.4.3., 3.3.1	Dams					
										//	Restrict caving activities during the hibernation period at known hibernacula. (6.1.7),	Timbered Forested		
											Support studies addressing the impacts of White-nose Syndrome (WNS) on cave bats (e.g.,	Uplands		
							orests and Woodlands,				biological and chemical fungal treatments). (8.4.3), Curtail wind operations during spring			
						G	Grasslands, Shrublands, Caves		Caving / / Hydroelectric		and fall migration. Site land based wind away from known major hibernacula. (3.3.1)			
15	Myotis lucifugus	Little brown bat	Mammal	Mammal	I	a aı	ind Karst	6.1.7, 8.4.3., 3.3.1	Dams					
										Extensive development that is residential (including	Protect upland hardwoods (talus - cool damp forest) from human development. (1.1.2)	Timbered Forested		
										resorts), where the spacing allows ecological functions to		Uplands		
										continue to some extent. This type of development is seen				
										particularly in rural and agroforestry areas. E.g.,				
										residential buildings in agricultural areas, cottages,				
										vacation homes near water bodies, ecotourism lodges,				
						F	orests and Woodlands, Cliff		Low-Density Housing	fishing resorts, backcountry ski lodges. //				
16	Sorex dispar dispar	Long-tailed shrew	Mammal	Mammal	IV		·	1.1.2	Areas / /					
Ė		3								Extensive development that is residential (including	Protect coastal habitats from development (1.1.2), Reverse climate change. (11.3.4)	Timbered Forested		
										resorts), where the spacing allows ecological functions to	,,	Uplands		
										continue to some extent. This type of development is seen		Spianas		
										particularly in rural and agroforestry areas. E.g.,				
										residential buildings in agricultural areas, cottages,				
										vacation homes near water bodies, ecotourism lodges,				
										fishing resorts, backcountry ski lodges. / Increase in				
										temperature fluctuations, which disturb the phenological				
									Low-Density Housing	responses of wildlife. E.g., raise in the frequency of freeze-				
									Areas / Increase in	thaw events, rain-on-snow events, etc. /				
	Sylvilagus palustris					F	orests and Woodlands,		Temperature					
17	palustris	Marsh rabbit	Mammal	Mammal	IV	a R	Riparian and Floodplains	1.1.2, 11.3.4,	Fluctuations /					
										/ / Cutting removing the majority of the forest cover. E.g.,	Restrict caving activities during the hibernation period at known hibernacula. (6.1.7),	Timbered Forested		
									1	The state of the s				
									Caving / / Complete	clear-cutting and related cuts (CT, CRS, CPRS, CPHRS,	Support studies addressing the impacts of White-nose Syndrome (WNS) on cave bats (e.g.,	Uplands		
		Northern long-eared				F	Forests and Woodlands, Caves		Caving / / Complete Removal of the Forest	clear-cutting and related cuts (CT, CRS, CPRS, CPHRS, CPPTM).	Support studies addressing the impacts of White-nose Syndrome (WNS) on cave bats (e.g., biological and chemical fungal treatments). (8.4.3), Protect/manage known maternity	Uplands		

	A	В	С	D	Е	F G	Н	L	P	Т	U	1	V
1	Scientific_Name	Common_Name	Grouping	Туре	Tier CC	OR Habitats	Threat_Code	Threat_Description	Threat_Long	Actions	Working_Lands	Notes	
									/ Harvesting of aquatic species for commercial purposes	1. Support and participate in state and regional research and monitoring initiatives designed			
1 1									that is governed by management measures for which the	to assess the impacts of offshore wind (OSW) energy development on northern right			
									environmental impact is primarily on the species (as	whales. Ensure the expansion of NOAA Fisheries aerial surveys into Virginia offshore waters			
									opposed to habitat damage from sea bottom trawling,	to fully assess the seasonal distribution and abundance of right whales (and other large			
									Threat 7.3.6). Includes bycatch but excludes ghost fishing				
									gear entangling wildlife (Threat 9.4.4). E.g., commercial	industry to fund these surveys through the state permitting process. Ensure the expansion			
									fisheries, use of nets and fishing gear for eels, factory	of the passive acoustic monitioring network in the central Atlantic WEA to measure the			
1)									ships, marine mammals caught in industrial fishing nets.	presence of right whales before, during and after construction of OSW facilities within the			
									/ Ships striking wildlife, damage associated with wake	WEA by requiring the OSW industry to fund the expansion and maintenance of the network			
									waves, disturbance caused by the presence of vessels	through the state permitting process. (3.3.2) 2. Work with the VMRC to establish a fishery observer program for state regulated commercial fisheries in Virginia waters to document			
									transporting people and goods	the prevalence and types of northern right whale interactions with state fisheries. Develop			
										the justification for and explore the feasibility of establishing a state commercial fishery			
										gear marking system to further aid in the determination of large whale interactions with			
										state fisheries. Work with state fisheries managers, commercial gear specialists and			
										commercial fishers to develop best practices for avoiding or minimizing large whale			
										interactions with state fisheries (5.4.2). 3. Maintain an effective marine mammal stranding			
										response program that is able to accurately detect, document and track trends in vessel			
										strike-related northern right whale strandings. Develop a state institutional framework for			
										detecting and responding to large whale vessel collision related stranding events that			
1)										require resources and staff beyond capacity of the VA Marine Mammal Stranding Response			
										Program or any single state or federal agency. Work with the VA Maritime Association, Ports			
1)										Authority, US Navy, NOAA Fisheries and other stakeholders to develop best practices for			
1)										minimizing vessel collisions in the lower Chesapeake Bay where federal vessel speed			
1)										restrictions do not apply. (4.3.1)			
1)								Wind Farms /					
								Commercial Fishing /					
19	Eubalaena glacialis	Northern right whale	Mammal	Mammal	I a	Marine Offshore and Oceanic	3.3.2, 5.4.2, 4.3.1	Shipping					
									Extensive development that is residential (including	Protect, manage, preserve coastal habitats. (1.1.2),	Timbered Forested		
1)									resorts), where the spacing allows ecological functions to		Uplands		
1)									continue to some extent. This type of development is seen				
									particularly in rural and agroforestry areas. E.g.,				
									residential buildings in agricultural areas, cottages,				
									vacation homes near water bodies, ecotourism lodges,				
	Peromyscus leucopus	_	Mar	Marri		Forests and Woodlands,	1.1.0	Low-Density Housing	fishing resorts, backcountry ski lodges. //				
20	easti	mouse	Mammal	Mammal	III c	Beaches and Dunes	1.1.2	Areas / /	/includes read and rail network bridges /	Protect coastal bottomland bardwood forests from development (1.1.2) Identify	Timborod Forests d		
	Conmorhinus	Pofinosquela costa				Forests and Mandlands			/ includes road and rail network bridges. /	Protect coastal bottomland hardwood forests from development. (1.1.2), Identify, manage,			
	•	Rafinesque's eastern bigeared bat	n Mammal	Mammal	IV a	Forests and Woodlands, Grasslands, Shrublands	1.1.2., 4.1.3,	/ Bridges /		protect bridges and culverts where this species is known to occupy. (4.1.3)	Uplands		
۷1	rannesquii macrous	nigearen nar	maillildt	ridiiiiiidl	IV a	Grassianus, Sinublanus	1.1.2., 4.1.3,	/ Diluges /	//	Curtail wind operations during spring and fall migration. (3.3.1)	Timbered Forested		
22	Lasiurus borealis	Red bat	Mammal	Mammal	IV a	Forests and Woodlands	3.3.1	Hydroelectric Dams //	' '	Curtail willy operations during spring and fall fingration. (5.5.1)	Uplands		
22	Lusiurus DUIEdlis	neu pat	inaillillat	riammal	iv d	i orests and woodlands	0.0.1		Cutting removing the majority of the forest cover. E.g.,	Protect/conserve high order stream habitat. (5.3.1), Control invasive insects (e.g., hemlock	Timbered Forested		
									clear-cutting and related cuts (CT, CRS, CPRS, CPHRS,	wooly adelgide, gypsy moth, etc.) that may change both habitat and prey base. (8.1.1),	Uplands		
								Animals / Terrestrial	CPPTM). //	Control invasive plants (e.g., Japanese stilt grass) that may change both habitat and prey	Оршниз		
23	Microtus chrotorrhinus	Rock vole	Mammal	Mammal	II a	Forests and Woodlands,	5.3.1, 8.1.1, 8.1.2	Plants		base. (8.1.2)			
-	Lasionycteris		i idiiiilidt	. idiiiiidt		. orosts and woodtands,	5.0.1, 5.1.1, 5.1.2	· tunto	//	Curtail wind operations during spring and fall migration. (3.3.1)	Timbered Forested		
	-	Silver-haired bat	Mammal	Mammal	IV a	Forests and Woodlands	3.3.1	Hydroelectric Dams //		Operations daring spring and fair ingration. (5.5.1)	Uplands		
+				. idiiiiidt	1.	. o. oo oo ana moodanao	5.0.1	ju.octocano bunto 11	Increase in temperature fluctuations, which disturb the	Reverse climate change (11.3.4), Plant and promote (selective cutting) spruce-fir forests.	Timbered Forested		
									phenological responses of wildlife. E.g., raise in the	Promote understory growth. (11.1.1)	Uplands		
]]									frequency of freeze-thaw events, rain-on-snow events,	,	- 5.0		
									etc. / Major changes in an ecosystem resulting in changes	s			
1)									to vegetation communities distinguished from natural				
1)									vegetation succession, which may threaten open-country				
1)									species (Threat 7.3.2). E.g., migration of deciduous trees				
								Increase in Temperature	towards the boreal forest, rising sea levels, desertification	1,			
1)									thawing permafrost (in tundra), coral bleaching. /				
1)	Lepus americanus					Forests and Woodlands, Borea	ι	Vegetation Communities					
	•	Snowshoe hare	Mammal	Mammal	I a	Forests	11.3.4, 11.1.1,	1					
25 1									Extensive development that is residential (including	Expand existing habitat. manage, protect and connect longleaf pine habitats. (1.2)	Timbered Forested		
25									resorts), where the spacing allows ecological functions to				
25	ga								resorts), where the spacing attows ecological functions to		Uplands		
25									continue to some extent. This type of development is seen		Uplands		
25											Uplands		
25									continue to some extent. This type of development is seen		Uplands		
25									continue to some extent. This type of development is seen particularly in rural and agroforestry areas. E.g.,		Uplands		
25		Southeastern fox						Low-Density Housing	continue to some extent. This type of development is seen particularly in rural and agroforestry areas. E.g., residential buildings in agricultural areas, cottages,		Uplands		

Scientific_Name Con	ommon_Name	Grouping	Type	Tier C	F G COR Habitats	H Threat_Code	Threat_Description		Actions T	Working Lands Notes
Solution (Market)	SIION_HUIIC	orouping	Type	1101	, J., Habitato			Inreat Long		
7 Myotis austroriparius Sou	outheastern myotis	Mammal	Mammal	IV a	Forests and Woodlands, Grasslands, Shrublands,	1.1.2	Low-Density Housing Areas / /	Threat_Long Extensive development that is residential (including resorts), where the spacing allows ecological functions to continue to some extent. This type of development is seen particularly in rural and agroforestry areas. E.g., residential buildings in agricultural areas, cottages, vacation homes near water bodies, ecotourism lodges, fishing resorts, backcountry ski lodges. //	Protect coastal bottomland hardwood forests from development. (6.3)	Timbered Forested Uplands
8 Perimyotis subflavus Tri-	i-colored bat	Mammal	Mammal	III a		6.1.7, 8.4.3., 4.1.3	Caving / / Bridges	/ / includes road and rail network bridges.	Support studies addressing the impacts of White-nose Syndrome (WNS) on cave bats (e.g., biological and chemical fungal treatments). (8.4.3), Identify, manage, protect bridges and culverts where this species is known to occupy. (4.1.3)	Timbered Forested Uplands
Corynorhinus 9 townsendii virginianus Virg	irginia big-eared bat	t Mammal	Mammal	I a	Forests and Woodlands, Grasslands, Shrublands, Caves and Karst,	6.1.7, 3.3.1,	Caving / Hydroelectric Dams /		Restrict caving activities during both summer and winter periods at select caves supporting gray bats. (6.1.7), Curtail wind operations during spring and fall migration. Site land based wind away from known major hibernacula. (3.3.1)	
Glaucomys sabrinus Virg	irginia northern ying squirrel	Mammal	Mammal	I a	Boreal Forest	11.1.1, 9.5.1, 11.3.4	Changes in Vegetation Communities / Acid Rain / Increase in Temperature Fluctuations	Major changes in an ecosystem resulting in changes to vegetation communities distinguished from natural vegetation succession, which may threaten open-country species (Threat 7.3.2). E.g., migration of deciduous trees towards the boreal forest, rising sea levels, desertification, thawing permafrost (in tundra), coral bleaching. // Increase in temperature fluctuations, which disturb the phenological responses of wildlife. E.g., raise in the frequency of freeze-thaw events, rain-on-snow events, etc.	Plant and promote (selective cutting) spruce-fir forests. (11.1.1), Reduce acid rain emissions. (9.5.1), Reverse climate change. (11.3.4)	
uscus ityii	ying squirret	Pianimat	Plailinat		Forests and Woodlands, Boreal Forests, Riparian and	11.1.1, 9.0.1, 11.0.4	Complete Removal of the	Cutting removing the majority of the forest cover. E.g., clear-cutting and related cuts (CT, CRS, CPRS, CPHRS, CPPTM). //	Control invasive plants (e.g., Japanese stilt grass) that may change both habitat and prey	Timbered Forested Uplands
1 Sorex palustris Wa Trichechus manatus	/ater shrew	Mammal	Mammal	II a	Floodplains	5.3.1, 8.1.1, 8.1.2	Recreational Boating / Runoff / Thermal	Use of recreational boats and watercraft that disturb wildlife, incur collisions with animals, and induce wake damage. Excludes the spread of invasive species (Threat 8.1). E.g., yacht, zodiac boats, watercraft / Effluents resulting from urban activities that are separate from the water supply system. For oils and other hydrocarbons, refer to Threat 9.2.1. E.g., salt/sand used to de-ice roads, fertilizers and pesticides used for lawns, parks, golf courses. / e.g., heated water discharges from power plants (coal, gas, nuclear, etc.), atmospheric radiation resulting from ozone layer thinning.	1. Compile and update existing guidelines on wildlife-safe boating practices in VA's coastal waters. Disseminate updated wildlife-safe boating practices to recreational boaters through social media, website links, boating safety courses, the DWR boat registration webpage, and in the annual publications of fresh and saltwater fishing regulations. Engage recreational boaters in manatee conservation by encouraging them to report manatee sightings to the appropriate entity (currently the Virignia Aquarum & Marine Science Center Stranding Response Program) (6.1.4). 2. Support and promote the development of best management practices designed to reduce nitrogen- and phosphorus-based fertilizer and pesticide runoff into VA's coastal waters to minimize harmful algal blooms that increase water turbidity, block sunlight and kill seagrasses. Build upon past social marketing efforts to discourage the residential use of nitrogen- and phosphorus-based fertilizers and pesticides and promote nature-based alternatives. Support intensive monitoring of toxic algal blooms in coastal VA, especially those that produce brevetoxins which are especially harmful to manatees. (9.1.2) 3. Develop a multi-agency response plan for entrained manatees in warm water discharge areas (e.g., Surry Nuclear Power Plant). Develop a partnership with governmental, commercial and private entities that have the resources, equipment, supplies and expertise to assist with manatee entrainment response. Maintain an effective stranding response program to oversee and coordinate manatee entrainment response in VA. (9.6.2)	