



New England Wind



# Construction and Operations Plan

Lease Area OCS-A0534

Volume III Appendices

February 2024

Submitted by  
Park City Wind LLC

Submitted to  
Bureau of Ocean Energy  
Management  
45600 Woodland Rd  
Sterling, VA 20166

Prepared by  
Epsilon Associates, Inc.





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*Submitted to:*

BUREAU OF OCEAN ENERGY MANAGEMENT  
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*In Association with:*

Baird & Associates	JASCO Applied Sciences
Biodiversity Research Institute	Public Archaeology Laboratory, Inc.
Capitol Air Space Group	RPS
Geo SubSea LLC	Saratoga Associates
Geraldine Edens, P.A.	SEARCH, Inc.
Gray & Pape	Wood Thilsted Partners Ltd

February 2024

## **Appendix III-D – Representative Terrestrial Wildlife Species List**

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# New England Wind

## Representative Terrestrial Wildlife Species List

Prepared for:

**Park City Wind LLC**

Prepared by:

**Epsilon Associates, Inc.**

**December 2021**

## **APPENDIX III-D REPRESENTATIVE TERRESTRIAL WILDLIFE SPECIES LIST**

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Representative wildlife species lists developed by the United States Fish and Wildlife Service for a pine-oak forest at the Massasoit National Wildlife Refuge in nearby Plymouth, Massachusetts are provided in Tables 1 through 4. Tables 5 and 6 provide information on potential avian species that may be present within the Phase 1 and Phase 2 Onshore Development Areas.

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**Table 1 Amphibians and Reptiles Confirmed at Massasoit Wildlife Refuge<sup>1</sup>**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>	North Atlantic LCC Representative Species <sup>6</sup>
<b>Plethodontidae Family</b>						
Red-backed Salamander	<i>Plethodon cinereus cinereus</i>	-	-	G5	-	-
<b>Salamandridae Family</b>						
Red-spotted Newt	<i>Notophthalmus viridescens</i>	-	-	G5	-	-
<b>Ranidae Family</b>						
American Bullfrog	<i>Lithobates catesbeianus</i>	-	-	G5	-	-
Green Frog	<i>Lithobates clamitans</i>	-	-	G5	-	-
Northern Leopard Frog	<i>Lithobates pipiens</i>	-	-	G5	S4	-
Wood Frog	<i>Lithobates sylvaticus</i>	-	-	G5	-	NNE, SNE, MA <sub>t</sub>
<b>Bufonidae Family</b>						
American Toad	<i>Anaxyrus americanus</i>	-	-	G5	-	-
Fowler's Toad	<i>Anaxyrus fowleri</i>	-	-	G5	-	-
<b>Hylidae Family</b>						
Northern Spring Peeper	<i>Pseudacris crucifer</i>	-	-	G5	-	-
<b>Hylidae Family</b>						
Gray Treefrog	<i>Hyla versicolor</i>	-	-	G5	-	-
<b>Colubridae Family</b>						
Eastern Hognose Snake	<i>Heterodon platirhinos</i>	-	-	G5	S4	SNE, MA <sub>t</sub>
Eastern Ribbon Snake	<i>Thamnophis sauritus</i>	-	-	G5	S5	-
Milk Snake	<i>Lampropeltis triangulum</i>	-	-	G5	-	-
<b>Emydidae Family</b>						
Painted Turtle	<i>Chrysemys picta</i>	-	-	G5	-	MA <sub>t</sub>
Northern Red-Bellied Cooter	<i>Pseudemys rubriventris</i>	E	E	G5T2Q	S1	-

**Table 1 Amphibians and Reptiles Confirmed at Massasoit Wildlife Refuge<sup>1</sup> (Continued)**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>	North Atlantic LCC Representative Species <sup>6</sup>
<b>Chelydridae Family</b>						
Snapping Turtle	<i>Chelydra serpentina</i>	-	-	G5	-	-
<b>Kinosternidae Family</b>						
Common Musk Turtle	<i>Sternotherus odoratus</i>	-	-	G5	-	-

Notes:

1. US Fish and Wildlife Service. Massasoit National Wildlife Refuge-Draft Comprehensive Conservation Plan and Environmental Assessment. March 2017.
2. Federal Legal Status Codes (under Federal Endangered Species List): E=endangered; T=threatened; C=candidate; “-“=no status.
3. State Legal Status Codes (under Massachusetts Endangered Species Lists): E=endangered; T=threatened; SC= special concern; WL=watch list; “-“=no status.
4. Global Rarity Rank: NatureServe Global Conservation Status Ranks from <http://explorer.natureserve.org/> where the conservation status of a species is designated by a number from 1 to 5 (1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure), preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global, N = National, and S = Subnational). Additionally, GNR=unranked (global rank not yet assessed) and “?”=inexact numeric rank.
5. Massachusetts Rarity Rank from 2005 Massachusetts Comprehensive Wildlife Conservation Strategy, Revised 2006: S1 =critically imperiled; S2=imperiled; S3=either very rare or uncommon, vulnerable; S4=widespread, abundant, apparently secure; S5=secure; SNA=not applicable; “-“=no rank given. State rarity ranks were only provided for “species in greatest need of conservation”, therefore although some species were assigned a rank of S5, they are still of conservation concern in Massachusetts.
6. North Atlantic Landscape Conservation Cooperative Representative Species: NNE=northern New England; SNE = southern New England; MA=mid; “-“=not listed.

**Table 2 Birds Confirmed at Massasoit Wildlife Refuge<sup>1</sup>**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>	North Atlantic LCC Representative Species <sup>6</sup>	BCC Region 5 <sup>7</sup>	BCR 30 <sup>8</sup>	PIF Area 9 <sup>9</sup>
<b>Gaviidae Family (Loons)</b>									
Common Loon	<i>Gavia immer</i>	-	SC	G5	S1	NNE, SNE	-	-	-
<b>Ardeidae Family (Wading Birds)</b>									
Great Blue Heron	<i>Ardea herodias</i>	-	-	G5	-	-	-	-	V
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	-	-	G5	S2	-	-	M	V
<b>Anatidae Family (Swans, Geese, Ducks)</b>									
Mute Swan	<i>Cygnus olor</i>	-	-	G5	-	-	-	-	-
Canada Goose	<i>Branta canadensis</i>	-	-	G5	-	-	-	HH	-
Wood Duck	<i>Aix sponsa</i>	-	-	G5	-	MAt	-	-	-
Mallard	<i>Anas platyrhynchos</i>	-	-	G5	-	-	-	H	-
<b>Anatidae Family (Swans, Geese, Ducks)</b>									
American Black Duck	<i>Anas rubripes</i>	-	-	G5	S4	NNE, SNE, MA	-	HH	IIC
Blue-winged Teal	<i>Anas discors</i>	-	-	G5	-	-	-	-	-
<b>Anatidae Family (Swans, Geese, Ducks)</b>									
Green-winged Teal	<i>Anas crecca</i>	-	-	G5	-	-	-	M	-
<b>Cathartidae, Accipitridae, and Pandionidae Families (Diurnal Raptors and Osprey)</b>									
Turkey Vulture	<i>Cathartes aura</i>	-	-	G5	-	-	-	-	-
Red-shouldered Hawk	<i>Buteo lineatus</i>	-	-	G5	-	MA	-	-	V
Red-tailed Hawk	<i>Buteo jamaicensis</i>	-	-	G5	-	-	-	-	-
Bald Eagle	<i>Haliaeetus leucocephalus</i>	-	T	G5	S1	-	Y	M	-
Osprey	<i>Pandion haliaetus</i>	-	-	G5	-	-	-	-	V
<b>Phasianidae and Odontophoridae Families (Upland Game Birds)</b>									
Northern Bobwhite	<i>Colinus virginianus</i>	-	-	G5	S5	-	-	H	-
Ruffed Grouse	<i>Bonasa umbellus</i>	-	-	G5	S5	NNE	-	-	-
Wild Turkey	<i>Meleagris gallopavo</i>	-	-	G5	-	-	-	-	-
<b>Columbidae Family (Pigeons and Doves)</b>									
Mourning Dove	<i>Zenaidura macroura</i>	-	-	G5	-	-	-	-	-



**Table 2 Birds Confirmed at Massasoit Wildlife Refuge<sup>1</sup> (Continued)**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>	North Atlantic LCC Representative Species <sup>6</sup>	BCC Region 5 <sup>7</sup>	BCR 30 <sup>8</sup>	PIF Area 9 <sup>9</sup>
<b>Cuculidae Family (Cuckoos and Allies)</b>									
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	-	-	G5	-	-	-	-	-
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	-	-	G5	-	-	-	-	IA
<b>Caprimulgidae Family (Goatsuckers)</b>									
Whip-poor-will	<i>Caprimulgus vociferous</i>	-	SC	G5	S4	MA	Y	H	-
<b>Alcedinidae Family (Kingfishers)</b>									
Belted Kingfisher	<i>Megaceryle alcyon</i>	-	-	G5	-	-	-	-	-
<b>Picidae Family (Woodpeckers)-</b>									
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	-	-	G5	-	-	-	-	-
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	-	-	G5	-	-	-	-	-
<b>Picidae Family (Woodpeckers)-</b>									
Downy Woodpecker	<i>Picoides pubescens</i>	-	-	G5	-	-	-	-	-
Hairy Woodpecker	<i>Picoides villosus</i>	-	-	G5	-	-	-	-	IIA
Northern Flicker	<i>Colaptes auratus</i>	-	-	G5	-	-	-	H	-
<b>Tyrannidae Family (Tyrant Flycatchers)</b>									
Eastern Wood-Pewee	<i>Contopus virens</i>	-	-	G5	-	MA	-	-	IIA
Eastern Phoebe	<i>Sayornis phoebe</i>	-	-	G5	-	-	-	-	-
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	-	-	G5	-	-	-	H	-
<b>Tyrannidae Family (Tyrant Flycatchers)</b>									
Eastern Kingbird	<i>Tyrannus tyrannus</i>	-	-	G5	-	-	-	H	-
<b>Vireonidae Family (Vireos)</b>									
Red-eyed Vireo	<i>Vireo olivaceus</i>	-	-	G5	-	-	-	-	-
<b>Corvidae Family (Crows and Jays)</b>									
Blue Jay	<i>Cyanocitta cristata</i>	-	-	G5	-	-	-	-	-
American Crow	<i>Corvus brachyrhynchos</i>	-	-	G5	-	-	-	-	-
Fish Crow	<i>Corvus ossifragus</i>	-	-	G5	-	-	-	-	-

**Table 2 Birds Confirmed at Massasoit Wildlife Refuge<sup>1</sup> (Continued)**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>	North Atlantic LCC Representative Species <sup>6</sup>	BCC Region 5 <sup>7</sup>	BCR 30 <sup>8</sup>	PIF Area 9 <sup>9</sup>
<b>Hirundinidae Family (Swallows)</b>									
Barn Swallow	<i>Hirundo rustica</i>	-	-	G5	-	-	-	-	-
Tree Swallow	<i>Tachycineta bicolor</i>	-	-	G5	-	-	-	-	-
<b>Paridae Family (Chickadees and Titmice)</b>									
Tufted Titmouse	<i>Baeolophus bicolor</i>	-	-	G5	-	-	-	-	-
<b>Paridae Family (Chickadees and Titmice)</b>									
Black-capped Chickadee	<i>Poecile atricapillus</i>	-	-	G5	-	-	-	-	-
<b>Sittidae Family (Nuthatches)</b>									
Red-breasted Nuthatch	<i>Sitta canadensis</i>	-	-	G5	-	-	-	-	-
White-breasted Nuthatch	<i>Sitta carolinensis</i>	-	-	G5	-	-	-	-	-
<b>Troglodytidae Family (Wrens)</b>									
Carolina Wren	<i>Thryothorus ludovicianus</i>	-	-	G5	-	-	-	-	-
<b>Sylviidae Family (Gnatcatchers)</b>									
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>	-	-	G5	-	-	-	-	-
<b>Turdidae Family (Thrushes)</b>									
Eastern Bluebird	<i>Sialia sialis</i>	-	-	-	-	-	-	-	-
American Robin	<i>Turdus migratorius</i>	-	-	G5	-	-	-	-	-
<b>Turdidae Family (Thrushes)</b>									
Wood Thrush	<i>Hylocichla mustelina</i>	-	-	G5	S5	NNE, SNE, MAT	Y	HH	IA
Hermit Thrush	<i>Catharus guttatus</i>	-	-	G5	-	-	-	-	-
<b>Mimidae Family (Mimids)</b>									
Gray Catbird	<i>Dumetella carolinensis</i>	-	-	G5	-	-	-	M	-
Northern Mockingbird	<i>Mimus polyglottos</i>	-	-	G5	-	-	-	-	-
<b>Mimidae Family (Mimids)</b>									
Brown Thrasher	<i>Toxostoma rufum</i>	-	-	G5	S5	MAAt	-	H	-
<b>Bombycillidae Family (Waxwings)</b>									
Cedar Waxwing	<i>Bombycilla cedrorum</i>	-	-	G5	-	-	-	-	-

**Table 2 Birds Confirmed at Massasoit Wildlife Refuge<sup>1</sup> (Continued)**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>	North Atlantic LCC Representative Species <sup>6</sup>	BCC Region 5 <sup>7</sup>	BCR 30 <sup>8</sup>	PIF Area 9 <sup>9</sup>
<b>Parulidae Family (Wood Warblers)</b>									
Yellow Warbler	<i>Dendroica petechia</i>	-	-	G5	-	-	-	-	-
Prairie Warbler	<i>Dendroica discolor</i>	-	-	G5	S5	SNE, MAt	Y	HH	IA
<b>Parulidae Family (Wood Warblers)</b>									
Palm Warbler	<i>Dendroica palmarum</i>	-	-	G5	-	NNE	-	-	-
Pine Warbler	<i>Dendroica pinus</i>	-	-	G5	-	-	-	-	-
Blackpoll Warbler	<i>Dendroica striata</i>	-	SC	G5	S1	NNE	-	-	-
Black-and-white Warbler	<i>Mniotilta varia</i>	-	-	G5	-	MAt	-	H	IIA
Ovenbird	<i>Seiurus aurocapilla</i>	-	-	G5	-	NNE, SNE, MAt	-	-	-
<b>Parulidae Family (Wood Warblers)</b>									
Common Yellowthroat	<i>Geothlypis trichas</i>	-	-	G5	-	-	-	-	-
<b>Thraupidae Family (Tanagers)</b>									
Scarlet Tanager	<i>Piranga olivacea</i>	-	-	G5	-	-	-	H	IA
<b>Cardinalidae Family (Cardinals and Grosbeaks)</b>									
Northern Cardinal	<i>Cardinalis cardinalis</i>	-	-	G5	-	-	-	-	-
<b>Cardinalidae Family (Cardinals and Grosbeaks)</b>									
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	-	-			-	-	-	IIA
<b>Emberizidae Family (Emberizine Sparrows and Allies)</b>									
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	-	-	G5	S5	NNE, MAt	-	H	IIA
Field Sparrow	<i>Spizella pusilla</i>	-	-	G5	S5	-	-	H	-
Chipping Sparrow	<i>Spizella passerina</i>	-	-	G5	-	-	-	-	-
Song Sparrow	<i>Melospiza melodia</i>	-	-	G5	-	-	-	-	-
<b>Icteridae Family (Icterids)</b>									
Brown-headed Cowbird	<i>Molothrus ater</i>	-	-	G5	-	-	-	-	-
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	-	-	G5	-	-	-	-	-
Common Grackle	<i>Quiscalus quiscula</i>	-	-	G5	-	-	-	-	-
Baltimore Oriole	<i>Icterus galbula</i>	-	-	G5	-	-	-	H	IA

**Table 2 Birds Confirmed at Massasoit Wildlife Refuge<sup>1</sup> (Continued)**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>	North Atlantic LCC Representative Species <sup>6</sup>	BCC Region 5 <sup>7</sup>	BCR 30 <sup>8</sup>	PIF Area 9 <sup>9</sup>
<b>Fringillidae Family (Finches)</b>									
Purple Finch	<i>Carpodacus purpureus</i>	-	-	G5	-	-	-	-	IIA
House Finch	<i>Carpodacus mexicanus</i>	-	-	G5	-	-	-	-	-
American Goldfinch	<i>Carduelis tristis</i>	-	-	G5	-	-	-	-	-

Notes:

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4. Global Rarity Rank: NatureServe Global Conservation Status Ranks from <http://explorer.natureserve.org/> where the conservation status of a species is designated by a number from 1 to 5 (1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure), preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global, N = National, and S = Subnational). Additionally, GNR=unranked (global rank not yet assessed) and “?”=inexact numeric rank.
5. Massachusetts Rarity Rank from 2005 Massachusetts Comprehensive Wildlife Conservation Strategy, Revised 2006: S1 =critically imperiled; S2=imperiled; S3=either very rare or uncommon, vulnerable; S4=widespread, abundant, apparently secure; S5=secure; SNA=not applicable; “-“=no rank given. State rarity ranks were only provided for “species in greatest need of conservation”, therefore although some species were assigned a rank of S5, they are still of conservation concern in Massachusetts.
6. North Atlantic Landscape Conservation Cooperative (LCC) Representative Species: NNE=northern New England; SNE = southern New England; MA=mid; “-“=not listed.
7. US Fish and Wildlife Service Division of Migratory Birds, Birds of Conservation Concern (BCC) for Region 5 (Northeast) (USFWS 2008). Y=species identified as a species of conservation concern in Region 5; “-“=species not identified.
8. Bird Conservation Region (BCR) 30: New England/Mid-Atlantic Coast Conservation Priority Category: HH=highest priority; H=high priority; M=moderate priority ([http://www.acjv.org/BCR\\_30/BCR30\\_June\\_23\\_2008\\_final.pdf](http://www.acjv.org/BCR_30/BCR30_June_23_2008_final.pdf)).
9. Partners in Flight Bird Conservation Plan for Southern New England: Physiographic Area 09 (Dettmers and Rosenberg 2000). IA=high continental priority and high regional responsibility; IB=high continental priority and low regional responsibility; IIA=high regional concern; IIC=high regional threats; V=additional state listed.

**Table 3 Mammals Confirmed at Massasoit Wildlife Refuge<sup>1</sup>**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>	North Atlantic LCC Representative Species <sup>6</sup>
<b>Canidae Family</b>						
Coyote	<i>Canis latrans</i>	-	-	G5	-	-
Gray Fox	<i>Urocyon cinereoargenteus</i>	-	-	G5	-	-
Red Fox	<i>Vulpes vulpes</i>	-	-	G5	-	-
<b>Procyonidae Family</b>						
Raccoon	<i>Procyon lotor</i>	-	-	G5	-	-
<b>Mephitidae Family</b>						
Striped Skunk	<i>Mephitis mephitis</i>	-	-	G5	-	-
<b>Mustelidae Family</b>						
Fisher	<i>Martes pennanti</i>	-	-	G5	-	-
<b>Cervidae Family</b>						
White-tailed Deer	<i>Odocoileus virginianus</i>	-	-	G5	-	-
<b>Sciuridae Family</b>						
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	-	-	G5	-	-
<b>Vespertilionidae Family</b>						
Big Brown Bat	<i>Eptesicus fuscus</i>	-	-	G5	-	-
Silver-haired Bat	<i>Lasiurus noctivagus</i>	-	-	G5	SU	-
Eastern Red Bat	<i>Lasiurus borealis</i>	-	-	G5	S4	NNE, SNE, MAT
Eastern Pipistrelle	<i>Pipistrellus subflavus</i>	-	-	G3	-	MAT
Eastern Small-footed Myotis	<i>Myotis leibii</i>	-	SC	G1G3	S1	-

Notes:

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6. North Atlantic Landscape Conservation Cooperative Representative Species: NNE=northern New England; SNE = southern New England; MAT=mid; “-“=not listed.

**Table 4 Invertebrates Confirmed at Massasoit Wildlife Refuge<sup>1</sup>**

Common Name	Scientific Name	Federal Legal Status <sup>2</sup>	MA Legal Status <sup>3</sup>	Global Rarity Rank <sup>4</sup>	MA Rarity Rank <sup>5</sup>
<b>Libellulidae Family</b>					
Blue Dasher	<i>Pachydiplax longipennis</i>	-	-	G5	-
Calico Pennant	<i>Celithemis elisa</i>	-	-	G5	-
Common Whitetail	<i>Libellula lydia</i>	-	-	G5	-
Eastern Pondhawk	<i>Erythemis simplicicollis</i>	-	-	G5	-
Golden-Winged Skimmer	<i>Libella auripennis</i>	-	-	G5	-
Slaty Skimmer	<i>Libellula incesta</i>	-	-	G5	-
White Corporal	<i>Libellula exusta</i>	-	-	G4	-
<b>Nymphalidae Family</b>					
Eastern Comma	<i>Polygonia comma</i>	-	-	G5	-
Great Spangled Fritillary	<i>Speyeria cybele</i>	-	-	G5	-
Mourning Cloak	<i>Nymphalis antiopa</i>	-	-	G5	-
Red Admiral	<i>Vanessa atalanta</i>	-	-	G5	-
Red-spotted Purple	<i>Limenitis artemis astyanax</i>	-	-	G5T5	-
<b>Lycaenidae Family</b>					
Striped Hairstreak	<i>Satyrium liparops</i>	-	-	G5	-
<b>Hesperiidae Family</b>					
True Skipper sp. (tauny-orange or brown)	<i>Hesperia spp.</i>	-	-	G5	-
<b>Saturniidae Family</b>					
Polyphemus moth	<i>Antheraea polyphemus</i>	-	-	G5	-
<b>Carabidae Family</b>					
Six-spotted Green Tiger Beetle	<i>Cicindela sexguttata</i>	-	-	G5	-

Notes:

1. US Fish and Wildlife Service. Massasoit National Wildlife Refuge-Draft Comprehensive Conservation Plan and Environmental Assessment. March 2017.
2. Federal Legal Status Codes (under Federal Endangered Species List): E=endangered; T=threatened; C=candidate; “-“=no status.
3. State Legal Status Codes (under Massachusetts Endangered Species Lists): E=endangered; T=threatened; SC= special concern; WL=watch list; “-“=no status.
4. Global Rarity Rank: NatureServe Global Conservation Status Ranks from <http://explorer.natureserve.org/> where the conservation status of a species is designated by a number from 1 to 5 (1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure), preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global, N = National, and S = Subnational). Additionally, GNR=unranked (global rank not yet assessed) and “?”=inexact numeric rank.
5. Massachusetts Rarity Rank from 2005 Massachusetts Comprehensive Wildlife Conservation Strategy, Revised 2006: S1 =critically imperiled; S2=imperiled; S3=either very rare or uncommon, vulnerable; S4=widespread, abundant, apparently secure; S5=secure; SNA=not applicable; “-“=no rank given. State rarity ranks were only provided for “species in greatest need of conservation”, therefore although some species were assigned a rank of S5, they are still of conservation concern in Massachusetts.

**Table 5 List of Birds Common in eBird Database (75 quartile) within 15 km of the Phase 1 and Phase 2 Onshore Development Areas**

Common Name	Scientific Name	eBird Count	SGCN	MA Status	Fed Status	IPaC
Song Sparrow	<i>Melospiza melodia</i>	3469				
American Crow	<i>Corvus brachyrhynchos</i>	3437				
Mourning Dove	<i>Zenaida macroura</i>	3408				
Black-capped Chickadee	<i>Poecile atricapillus</i>	3379				
Blue Jay	<i>Cyanocitta cristata</i>	3327				
Northern Cardinal	<i>Cardinalis cardinalis</i>	3247				
House Sparrow	<i>Passer domesticus</i>	3219				
American Goldfinch	<i>Spinus tristis</i>	3153				
American Robin	<i>Turdus migratorius</i>	3093				
Downy Woodpecker	<i>Dryobates pubescens</i>	3050				
Tufted Titmouse	<i>Baeolophus bicolor</i>	3023				
Herring Gull	<i>Larus argentatus</i>	2996	X			
House Finch	<i>Haemorhous mexicanus</i>	2759				
White-breasted Nuthatch	<i>Sitta carolinensis</i>	2731				
Northern Flicker	<i>Colaptes auratus</i>	2708				
Mallard	<i>Anas platyrhynchos</i>	2681				
Carolina Wren	<i>Thryothorus ludovicianus</i>	2569				
Great Black-backed Gull	<i>Larus marinus</i>	2474	X			
Common Grackle	<i>Quiscalus quiscula</i>	2390				
Ring-billed Gull	<i>Larus delawarensis</i>	2329				
Hairy Woodpecker	<i>Dryobates villosus</i>	2312				
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	2303				
European Starling	<i>Sturnus vulgaris</i>	2215				
Red-breasted Nuthatch	<i>Sitta canadensis</i>	2202				
Canada Goose	<i>Branta canadensis</i>	2173				
Great Blue Heron	<i>Ardea herodias</i>	2130				
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	2128				
Mute Swan	<i>Cygnus olor</i>	1990				
Red-tailed Hawk	<i>Buteo jamaicensis</i>	1955				
American Black Duck	<i>Anas rubripes</i>	1922	X			
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	1771	X			
Gray Catbird	<i>Dumetella carolinensis</i>	1771				
Osprey	<i>Pandion haliaetus</i>	1632				
Belted Kingfisher	<i>Megasceryle alcyon</i>	1603				
Tree Swallow	<i>Tachycineta bicolor</i>	1582				
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	1566	X			
Bufflehead	<i>Bucephala albeola</i>	1521				
Brown-headed Cowbird	<i>Molothrus ater</i>	1410				
Common Eider	<i>Somateria mollissima</i>	1403	X			
Dark-eyed Junco	<i>Junco hyemalis</i>	1362				

**Table 5 List of Birds Common in eBird Database (75 quartile) within 15 km of the Phase 1 and Phase 2 Onshore Development Areas (Continued)**

Common Name	Scientific Name	eBird Count <sup>1</sup>	SGCN <sup>2</sup>	MA Status <sup>3</sup>	Fed Status	IPaC <sup>4</sup>
Fish Crow	<i>Corvus ossifragus</i>	1351				
Chipping Sparrow	<i>Spizella passerina</i>	1342				
White-throated Sparrow	<i>Zonotrichia albicollis</i>	1307	X			
Cedar Waxwing	<i>Bombycilla cedrorum</i>	1298				
Wild Turkey	<i>Meleagris gallopavo</i>	1297				
Pine Warbler	<i>Setophaga pinus</i>	1285				
Laughing Gull	<i>Leucophaeus atricilla</i>	1268	X			
Northern Mockingbird	<i>Mimus polyglottos</i>	1266				
Red-breasted Merganser	<i>Mergus serrator</i>	1251				
Eastern Phoebe	<i>Sayornis phoebe</i>	1251				
Common Loon	<i>Gavia immer</i>	1246	X	SC		
Greater Yellowlegs	<i>Tringa melanoleuca</i>	1209				
Barn Swallow	<i>Hirundo rustica</i>	1139				
Sanderling	<i>Calidris alba</i>	1137	X			
Eastern Bluebird	<i>Sialia sialis</i>	1137				
Yellow-rumped Warbler	<i>Setophaga coronata</i>	1126				
Turkey Vulture	<i>Cathartes aura</i>	1061				
Cooper's Hawk	<i>Accipiter cooperii</i>	1056				
Common Yellowthroat	<i>Geothlypis trichas</i>	1035				
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	1004				
Hooded Merganser	<i>Lophodytes cucullatus</i>	986				
Baltimore Oriole	<i>Icterus galbula</i>	955				
Brant	<i>Branta bernicla</i>	894				
Willet	<i>Tringa semipalmata</i>	876	X			BCC
Common Goldeneye	<i>Bucephala clangula</i>	855				
Gadwall	<i>Mareca strepera</i>	852				
Common Tern	<i>Sterna hirundo</i>	804	X	SC		
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	800				
American Wigeon	<i>Mareca americana</i>	797				

Notes:

1. Sullivan BL, Wood CL, Iliff MJ, Bonney RE, Fink D, Kelling S. 2009. eBird: a citizen-based bird observation network in the biological sciences. *Biological Conservation* 142: 2282-2292.; MassWildlife. 2015. Massachusetts State Wildlife Action Plan 2015, Westborough, MA.
2. SGCN = Species of Greatest Conservation Need. MassWildlife. 2015. Massachusetts State Wildlife Action Plan 2015, Westborough, MA.
3. State Legal Status Codes (under Massachusetts Endangered Species Lists): E=endangered; T=threatened; SC= special concern; WL=watch list; “-“=no status.
4. BCC= Birds of Conservation Concern. US Fish and Wildlife Service 2020. Information for Planning and Consultation (IPaC). Accessed January 2020.



**Table 6 Bird Species of Greatest Conservation Need<sup>1</sup>**

Common Name	Shrub Swamp	Salt Marsh	Pitch Pine-Oak	Lakes and Ponds	Hardwoods White Pine Upland	Forested Swamp	Coastal Beach/Dune
American Black Duck	X	X		X		X	
American Oystercatcher							X
American Woodcock	X						
Arctic Tern		X					X
Bald Eagle				X			
Bank Swallow							X
Barn Owl		X					
Black-crowned Night-heron		X					X
Blue-winged Teal				X			
Broad-winged Hawk	X				X	X	
Brown Thrasher			X				
Canada Warbler						X	
Chimney Swift					X		
Common Eider							X
Common Loon				X			
Common Nighthawk							X
Common Tern		X					X
Double-crested Cormorant				X			X
Eastern Meadowlark		X					
Eastern Towhee			X				
Eastern Whip-poor-will			X		X		
Eskimo Curlew							X
Glossy Ibis		X					X
Great Black-backed Gull		X					X
Great Egret		X					X
Herring Gull		X					X
Horned Lark							X
Laughing Gull		X					X
Leach's Storm-petrel							X
Least Tern		X					X
Long-eared Owl			X		X		
Northern Bobwhite			X				
Northern Goshawk					X		
Northern Harrier			X				
Northern Parula			X			X	
Pied-billed Grebe				X			

**Table 6 Bird Species of Greatest Conservation Need<sup>1</sup> (Continued)**

Common Name	Shrub Swamp	Salt Marsh	Pitch Pine-Oak	Lakes and Ponds	Hardwoods White Pine Upland	Forested Swamp	Coastal Beach/Dune
Piping Plover							X
Prairie Warbler			X				
Purple Finch					X		
Purple Martin							X
Red Knot							X
Roseate Tern		X					X
Ruddy Turnstone							X
Rusty Blackbird						X	
Saltmarsh Sparrow		X					
Sanderling							X
Scarlet Tanager					X		
Seaside Sparrow		X					
Semi-palmated Sandpiper		X					X
Short-billed Dowitcher							X
Short-eared Owl		X					
Snowy Egret		X					X
Vesper Sparrow			X				
Whimbrel							X
White-throated Sparrow						X	
Willet		X					X
Wood Thrush					X		

Notes:

1. MassWildlife. 2015. Massachusetts State Wildlife Action Plan 2015, Westborough, MA.