

# Appendix E

## Current and Future Wildlife Use of the Project Area

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The following matrix of wildlife species was used to evaluate how the project may impact species that currently may be present in the project area post-breaching of the dike. Many species-occurrences have been extrapolated from known sightings in adjacent areas, are known to be in the project area, or are based on existing habitats. This is not an exhaustive list.

### LEGEND

Present Status	
c	common - certain to be seen in suitable habitat
u	uncommon - present but not certain to be seen
o	occasionally or infrequently seen
r	rare - known to be present, but not every year
h	hypothetically present - known to occur in similar habitat in Western WA; presence not confirmed in project area

Status After Breach (benefit to the species as a whole and not specific to the project area)	
*	neutral or no net benefit to species
+	net benefit to species
-	net detriment to species

Rationale (expresses the rationale for inferring species status after breach)	
1	water regime change - from seasonal winter flooding to daily tidal flooding
2	increased productivity and food chain support - results from tidal flooding
3	physical changes in habitat - water salinity, vegetation and structural
4	relatively neutral to above changes

TABLE A – SMITH ISLAND WILDLIFE POPULATIONS – REPTILES

Species	Present Status	Post Breach	Rationale	Comments
Northwestern garter snake	u	-	1 & 3	Found around forest edges and roadside ditches. Generally avoids water.
Common garter snake	c	-	1 & 3	Generally found near water

TABLE B – SMITH ISLAND WILDLIFE POPULATIONS – AMPHIBIANS

Species	Present Status	Post Breach	Rationale	Comments
Northwestern salamander	h	-	1 & 3	Need permanent freshwater including ditches. Generally found in older forests.
Long-toed salamander	h	-	1 & 3	Rarely seen - nocturnal and subterranean much of year. Also can be found in freshwater ditches.
Ensatina	u	-	1 & 3	Found in forests under logs and stumps.
Western redback salamander	u	-	1 & 3	Found in forests with rocks, forest litter, sword ferns.
Roughskin newt	u	-	1 & 3	Only salamander routinely active during day. Uses freshwater ditches.
Western toad	h	-	1 & 3	Breed in permanent or temporary with shallow sandy bottoms. Disperse to damp forest.
Pacific tree frog	c	-	1	Does best in isolated water bodies -vulnerable to bullfrog predation
Red-legged frog	c	-	1	Found in forest, damp meadows, ponds, marshes, lakes, and streamsides.
Bullfrog	c	-	1	Introduced pond breeder

TABLE C – SMITH ISLAND WILDLIFE POPULATIONS – MAMMALS

Species	Present Status	Post Breach	Rationale	Comments
Virginia opossum	c	-	3	Upland areas-- introduced
Pacific water shrew	h	*	4	
Dusky shrew	h	-	3	
Trowbridge's shrew	r	-	3_	
Vagrant shrew	c	-	3	Possibly most common shrew
American shrew-mole	c	-	3	Lives mostly in forest duff
Coast mole	u	-	3	Occurs in wooded areas
Townsend's mole	c	-	3	
Big brown bat	c	+	2	May roost in trees and snags on site
Hoary bat	u	+	2	Roosts in nearby conifer forest
Silver-haired bat	h	+	2	May roost in trees and snags on site
California myotis	h	+	2	May roost in trees and snags on site
Long-eared myotis	h	+	2	May roost in trees and snags on site
Little brown myotis	h	+	2	May roost in trees and snags on site
Long-legged myotis	h	+	2	May roost in trees and snags on site
Townsend's big-eared bat	h	+	2	May roost in trees and snags on site
Coyote	c	+	2	
Red fox	o	+	2	This lowland population is introduced
Black bear	o	+	2	
Northern raccoon	c	+	3	
River otter	c	+	2 & 3	
Western striped skunk	u	+	2	
Spotted skunk	r	+	2	
Short-tailed weasel (ermine)	u	+	2	
Long-tailed weasel	c	+	2	
Mink	u	+	2	
Mountain lion	o	+	2	1990 sighting on Ebey I.

TABLE D – SMITH ISLAND WILDLIFE POPULATIONS – BIRDS

Species	Present Status	Post Breach	Rationale	Comments
Greater white-fronted goose	o	*	4	Winter visitor in flocks of Canada geese
Snow goose	o	+	1 & 3	Winter visitor
Brant	o	*	4	Needs eelgrass
Canada goose	c	+	2	Nests in estuary
Trumpeter swan	h	+	2	Winters in flooded fields in Snohomish watershed
Tundra swan	h	+	2	Winters in small numbers in flooded fields in Snohomish watershed
Wood duck	u	-	3	Nests in forests near ponds.
Gadwall	c	+	1	Nests in estuary. Large numbers in winter.
American wigeon	c	+	1 & 3	Graze terrestrial and emergent veg.
Eurasian wigeon	r	+	1 & 3	Graze terrestrial and emergent veg.
Mallard	c	+	1 & 2	Most common year-round duck--nests in estuary
Blue-winged teal	u	+	1 & 2	Nests in estuary
Cinnamon teal	u	+	1 & 2	Nests in estuary
Northern shoveler	c	+	1	Limited nesting in estuary. Winter
Northern pintail	c	+	1	Very common especially in winter
Green-winged teal	c	+	1, 2 & 3	Extensive winter feeding on intertidal mud flats
Canvasback	r	+	2	Small to moderate numbers winter in Port Gardner Bay
Redhead	r	+	2	Infrequently seen in Port Gardner Bay
Ring-necked duck	c	*	4	Common migration and winter.
Greater scaup	u	+	1 & 2	Prefers saltwater
Lesser scaup	c	-	1 & 2	Prefers freshwater
Surf scoter	o	+	2 & 3	Migration and winter. Prefer rocky substrates.
White-winged scoter	o	+	2 & 3	Late summer, fall, winter. Prefer deep water.
Black scoter	o	+	2 & 3	Winters generally on coastlines.
Bufflehead	c	+	1 & 2	Prefer shallow bays and inlets. Fall and winter.
Common goldeneye	u	+	1 & 2	More common in river channel
Barrow's goldeneye	u	+	1 & 2	More common in river channel
Hooded merganser	u	-	4	More likely seen in winter. Nests in forested areas near freshwater ponds
Common merganser	u	+	1 & 2	Use estuaries in winter. Otherwise found on freshwater.
Red-breasted merganser	c	+	1 & 2	Prefers saltwater areas.

Species	Present Status	Post Breach	Rationale	Comments
Ruddy duck	c	+	1 & 2	Winter
Ring-necked pheasant	u	-	3	Introduced. May be found in grassy areas
Ruffed grouse	o	-	3	Prefers forested areas
California quail	u	-	3	Introduced.
Red-throated loon	o	+	2 & 3	Winter
Common loon	r	+	2 & 3	Winters in Port Gardner Bay
Pied-billed grebe	c	-	3	Common in small numbers in nearby ponds and lakes.
Horned grebe	o	+	2 & 3	Winter
Red-necked grebe	o	*	2 & 3	Winter
Western grebe	u	+	2 & 3	Winter
Clark's grebe	o	*	2 & 3	Winter
Double-crested cormorant	c	+	1 & 3	Year-round
American bittern	u	+	3	Prefers cattail stands
Great blue heron	c	+	1	Year-round
Green heron	u	+	1	Summers in estuary--increasing
Turkey vulture	u	*	4	Seen flying over in summer months and during migration
Osprey	c	+	1, 2 & 3	Numerous nests in Port Gardner Bay
Bald eagle	c	+	1, 2 & 3	Winters. Several nests in area
Northern harrier	c	+	1	Forages over fields
Sharp-shinned hawk	u	*	1 & 3	Year-round
Cooper's hawk	u	*	1 & 3	Year-round
Northern goshawk	o	*	1 & 3	winter
Red-shouldered hawk	o	-	1	Seen infrequently
Red-tailed hawk	c	-	1 & 3	Year-round
Rough-legged hawk	r	-	1 & 3	Winter only
Golden eagle	o	+	1 & 3	Seen in winter
American kestrel	u	-	1 & 3	Probably year-round
Merlin	u	+	2	Year-round
Gyrfalcon	r	+	2	Winter
Peregrine falcon	u	+	2	Year-round
Virginia rail	c	+	3	Year-round in cattail stands
Sora	u	+	3	Summers in cattail stands. Infrequent winter.
American coot	c	+	1 & 3	Winter
Black-bellied plover	u	+	1, 2 & 3	Seen nearby in small numbers; winter and migration.
American golden plover	u	+	1, 2 & 3	Fall migrant
Pacific golden plover	u	+	1, 2 & 3	Fall migrant

Species	Present Status	Post Breach	Rationale	Comments
Semi-palmated plover	r	+	1, 2 & 3	Spring migrant
Killdeer	c	*	4	Breeds locally
Greater yellowlegs	c	+	1, 2 & 3	Migrant and winter.
Lesser yellowlegs	r	+	1, 2 & 3	Migrant and winter.
Solitary sandpiper	r	-	1, 2 & 3	Migrant; prefer freshwater
Spotted sandpiper	u	+	1, 2 & 3	Breeds locally
Whimbrel	o	+	1, 2 & 3	Spring migrant
Sanderling	r	+	1, 2 & 3	Migrant and year-round.
Semipalmated sandpiper	o	-	1, 2 & 3	Migrant; prefer freshwater
Western sandpiper	u	+	1, 2 & 3	Migrant and winter
Least sandpiper	u	+	1, 2 & 3	Migrant and winter
Baird's sandpiper	r	-	1, 2 & 3	Fall migrant
Pectoral sandpiper	r	+	1, 2 & 3	Fall migrant
Sharp-tailed sandpiper	o	+	1, 2 & 3	Fall migrant
Dunlin	c	+	1, 2 & 3	Most common winter shorebird and migrant
Stilt sandpiper	o	*	4	Summer migrant. Prefers freshwater areas.
Short-billed dowitcher	u	+	1, 2 & 3	Migrant and winter
Long-billed dowitcher	u	+	1, 2 & 3	Migrant and winter
Wilson's snipe	c	-	1, 2 & 3	Breeds locally
Wilson's phalarope	o	+	1, 2 & 3	Spring migrant --seen at various estuary locations. Rare breeder in Western Washington.
Franklin's gull	r	+	2	During migration
Bonaparte's gull	c	+	2	Common overhead during fall, winter, spring.
Heermann's gull	r	+	2	Summer and fall
Mew gull	c	+	2	Fall, winter, spring
Ring-billed gull	c	+	2	Fall, winter, spring. Breeds elsewhere
California gull	c	+	2	Fall, winter, spring. Breeds elsewhere.
Herring gull	u	+	2	Fall, winter, spring. Breeds elsewhere.
Thayer's gull	r	+	2	Fall, winter, spring. Breeds elsewhere
Western gull	u	+	2	Year-round
Glaucous-winged gull	c	+	2	Year-round
Caspian tern	c	+	2	Seen flying overhead spring, summer, fall.
Common tern	r	+	2	Seen flying overhead fall, winter, spring.
Forster's tern	r	+	2	Summer migrant
Rock pigeon	c	*	4	Introduced. Year round
Band-tailed pigeon	o	-	3	More common spring and summer. Populations decreasing

Species	Present Status	Post Breach	Rationale	Comments
Mourning dove	u	-	3	Year round
Barn owl	c	-	3	Nests in area
Western screech-owl	u	-	3	Year round
Great horned owl	c	-	3	Year round
Snowy owl	r	+	2	Winter
Northern pygmy owl	r	-	3	Year round
Barred owl	u	-	3	Populations increasing
Short-eared owl	h	+	3	More frequent winters
Northern saw-whet owl	h	-	3	Year round
Common nighthawk	u	+	2	Observed flying overhead throughout estuary in summers
Black swift	u	+	2	Observed flying high overhead summers
Vaux's swift	u	+	2	Observed flying overhead summers
Anna's hummingbird	u	-	3	Uncommon year round
Rufous hummingbird	c	-	3	Breeds in estuary
Belted kingfisher	c	+	2	Year round
Red-breasted sapsucker	r	-	3	Year round
Downy woodpecker	c	-	3	Year round
Hairy woodpecker	u	-	3	Year round
Northern flicker	c	-	3	Year round
Pileated woodpecker	u	-	3	Year round
Olive-sided flycatcher	u	*	3	Spring and summer
Western wood-peewee	u	*	3	Spring and summer
Willow flycatcher	c	*	3	Spring and summer
Hammond's flycatcher	u	*	4	Spring and summer
Dusky flycatcher	o	*	4	Spring and summer
Pacific slope flycatcher	c	*	4	Spring and summer
Western kingbird	u	*	4	Spring and summer migrant
Eastern kingbird	u	*	4	Rare breeder
Northern shrike	r	*	2	Winter
Cassin's vireo	o	-	3	Prefers coniferous forest. May be more common. Spring/summer
Hutton's vireo	r	-	3	Year round. Found in mixed forests.
Warbling vireo	r	-	3	Spring and summer. May be more common
Steller's jay	c	-	3	Year round. Prefers forested areas.
American / northwestern crow	c	+	2	Year round
Common raven	u	*	4	Year round
Pallid Horned lark	o	-	3	Winter. Prefers grassy areas.

Species	Present Status	Post Breach	Rationale	Comments
Purple martin	r	+	2	Spring and summer
Tree swallow	c	+	2	Spring and summer
Violet-green swallow	c	+	2	Spring and summer
Northern rough-winged swallow	u	+	2	Spring and summer
Bank swallow	o	+	2	Spring and summer
Cliff swallow	c	+	2	Spring and summer. Nests on nearby bridges and buildings
Barn swallow	c	+	2	Spring and summer
Black-capped chickadee	c	-	3	Year round
Chestnut-backed chickadee	c	-	3	Year round
Bushtit	c	-	3	Year round
Red-breasted nuthatch	c	-	3	Year round
Brown creeper	u	-	3	Year round
Bewick's wren	c	-	3	Year round
Pacific wren	u	-	3	Year round
Marsh wren	c	+	2 & 3	Year round
Golden-crowned kinglet	c	-	3	Year round
Ruby-crowned kinglet	c	-	3	Year round
Townsend's solitaire	u	*	4	Migrant
Swainson's thrush	c	-	3	Summer
Hermit thrush	r	-	3	Migrant
American robin	c	-	3	Year round
Varied thrush	u	-	3	Winter
European starling	c	-	3	Introduced. Year round
American pipit	r	*	4	Winter only
Cedar waxwing	c	-	3	Year round
Orange-crowned warbler	u	-	3	Spring, summer, fall
Yellow warbler	u	+	3	Prefers shrubby willow habitat
Yellow-rumped warbler	c	-	3	Summer
Black-throated gray warbler	u	-	3	Spring and summer
Townsend's warbler	u	-	3	Spring and summer, irregular winter
MacGillivray's warbler	r	-	3	Prefers shrubby undergrowth
Common yellowthroat	c	+	2	Breeds in wetlands. Spring and summer
Wilson's warbler	c	+	3	Spring and summer
Western tanager	u	-	3	Migrant
Spotted towhee	c	-	3	Year round



Species	Present Status	Post Breach	Rationale	Comments
Chipping sparrow	r	-	3	Spring and summer
Savannah sparrow	c	-	3	Spring and summer
Fox sparrow	u	-	3	Winter
Song sparrow	c	-	3	Year round
Lincoln's sparrow	u	-	3	Winter
Swamp sparrow	r	+	3	Winter
White-throated sparrow	r	-	3	Winter
Harris' sparrow	r	-	3	Winter
White-crowned sparrow	c	-	3	Spring and summer
Golden-crowned sparrow	c	-	3	Winter and spring
Dark-eyed junco	c	-	3	Year round
Black-headed grosbeak	u	-	3	Summer
Lazuli bunting	o	-	3	Summer only
Red-winged blackbird	c	+	2 & 3	Year round
Western meadowlark	u	-	3	Winter
Yellow-headed blackbird	o	+	2 & 3	Migrant
Brewer's blackbird	c	-	3	Year round
Brown-headed cowbird	c	-	3	Year round
Bullock's oriole	r	-	3	Summer
Purple finch	u	-	3	Year round
House finch	c	-	3	Year round
Red crossbill	r	-	3	Irregular
Pine siskin	c	-	3	Year round
American goldfinch	c	-	3	Year round
Evening grosbeak	u	-	3	Year round
House sparrow	c	-	3	Introduced