Table K-E.1. Anticipated Incidental Take of Amphibians (CONUS) over the duration of the Action

Scientific name	Common Name	Anticipated Incidental Take
Ambystoma macrodactylum croceum	Santa Cruz long-toed salamander	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Bufo houstonensis	Houston Toad	Direct exposure and ingestion of contaminated prey are anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Phaeognathus hubrichti	Red Hills salamander	Direct exposure and ingestion of contaminated prey are anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Plethodon nettingi	Cheat Mountain salamander	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal from small reductions in fitness relating to growth and reproduction.
Ambystoma cingulatum	Frosted Flatwoods salamander	Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Plethodon shenandoah	Shenandoah salamander	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Ambystoma tigrinum stebbinsi	Sonora tiger salamander	Direct exposure and ingestion of contaminated prey are anticipated to result in low levels of mortality and in sublethal take due to small

Scientific name	Common Name	Anticipated Incidental Take
		impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Ambystoma californiense	California tiger Salamander (Sonoma DPS)	Direct exposure and ingestion of contaminated prey are anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Anaxyrus californicus	Arroyo (=arroyo southwestern) toad	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Rana draytonii	California red-legged frog	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Lithobates chiricahuensis	Chiricahua leopard frog	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Rana muscosa	Mountain yellow-legged frog (Southern CA DPS)	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Rana sevosa	Dusky gopher frog	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Anaxyrus canorus	Yosemite toad	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Rana muscosa	Mountain yellow-legged frog (Northern CA DPS)	Direct exposure is anticipated to result in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Plethodon neomexicanus	Jemez Mountains salamander	Direct exposure is anticipated to result in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Rana pretiosa	Oregon spotted frog	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness.
Ambystoma californiense	California tiger salamander (Central CA DPS)	Direct exposure is anticipated to result in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Ambystoma californiense	California tiger Salamander (Santa Barbara DPS)	Direct exposure is anticipated to result in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Ambystoma bishopi	Reticulated flatwoods salamander	Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness relating to growth and reproduction.
Rana sierra	Sierra Nevada Yellow-legged frog	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Eurycea nana	San Marcos salamander	. Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by from small reductions in fitness relating to growth and reproduction.
Eurycea sosorum	Barton Springs salamander	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Necturus lewisi	Neuse River waterdog	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Necturus alabamensis	Black warrior waterdog (=Sipsey Fork)	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Eurycea naufragia	Georgetown Salamander	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Eurycea waterlooensis	Austin blind Salamander	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Eurycea chisholmensis	Salado Salamander	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Cryptobranchus alleganiensis bishopi	Ozark hellbender	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Eurycea tonkawae	Jollyville Plateau Salamander	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Cryptobranchus alleganiensis alleganiensis	Eastern hellbender	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to impacts on growth, behavior, and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of

Scientific name	Common Name	Anticipated Incidental Take
		sublethal take from small reductions in fitness relating to growth and reproduction.

Table K-E.2. Anticipated Incidental Take of Arachnids (CONUS) over the duration of the Action

Scientific name	Common Name	Anticipated Incidental Take
Texella reddelii	Bee Creek Cave harvestman	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Texella reyesi	Bone cave harvestman	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Tartarocreagris texana	Tooth Cave pseudoscorpion	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Leptoneta myopica	Tooth Cave spider	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Microhexura montivaga	Spruce-fir moss spider	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.

Scientific name	Common Name	Anticipated Incidental Take
Texella cokendolpheri	Cokendolpher Cave harvestman	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Neoleptoneta microps	Government Canyon Bat Cave spider	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Cicurina madla	Madla's Cave meshweaver	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Cicurina baronia	Robber Baron Cave meshweaver	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Cicurina vespera	Government Canyon Bat Cave meshweaver	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.

Scientific name	Common Name	Anticipated Incidental Take
Cicurina venii	Bracken Bat Cave meshweaver	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.

Table K-E.3. Anticipated Incidental Take of Birds over the duration of the Action.

Scientific name	Common Name	Anticipated Incidental Take
Ammodramus maritimus mirabilis	Cape Sable seaside sparrow	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Ammodramus savannarum floridanus	Florida grasshopper sparrow	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Aphelocoma coerulescens	Florida scrub-jay	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Calidris canutus rufa	Red Knot	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Centrocercus minimus	Gunnison sage-grouse	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Charadrius melodus	Piping plover - Great Lakes Watershed	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to

Scientific name	Common Name	Anticipated Incidental Take
		result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Charadrius melodus	Piping plover - Entire population (except Great Lakes Watershed)	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Charadrius nivosus nivosus	Western snowy plover	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Coccyzus americanus	Yellow-billed cuckoo (Western U.S. DPS)	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Colinus virginianus ridgwayi	Masked bobwhite (quail)	Low levels of mortality (small number of individuals), as well as a reduction in fitness due to losses of invertebrate prey. Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Dendroica chrysoparia	Golden-cheeked warbler (=wood)	Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.

Scientific name	Common Name	Anticipated Incidental Take
Empidonax traillii extimus	Southwestern willow flycatcher	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Eremophila alpestris strigata	Streaked Horned lark	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Falco femoralis septentrionalis	Northern aplomado falcon	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Grus americana	Whooping crane	Ingestion of contaminated prey and small seasonal reductions (during migration) in invertebrate, fish, amphibian, and reptile prey are anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Grus canadensis pulla	Mississippi sandhill crane	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Gymnogyps californianus	California condor	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.

Scientific name	Common Name	Anticipated Incidental Take
Laterallus jamaicensis ssp. jamaicensis	Eastern Black Rail	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Mycteria americana	Wood stork (breeding population)	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Picoides borealis	Red-cockaded woodpecker	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Pipilo crissalis eremophilus	Inyo California towhee	Low levels of mortality (small number of individuals), as well as sublethal take from reduced fitness due to losses of invertebrate prey. Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Polioptila californica californica	Coastal California gnatcatcher	Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Polyborus plancus audubonii	Audubon's crested caracara	Ingestion of contaminated birds and mammals is anticipated to result in low levels of sublethal take from small impacts to reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Rallus longirostris levipes	Light-footed Ridgeway's rail	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Rallus longirostris obsoletus	California clapper rail	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Rallus obsoletus [=longirostris] yumanensis	Yuma Ridgeways (clapper) rail	Loss of aquatic invertebrate, fish, and aquatic amphibian prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Sterna antillarum browni	California least tern	Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Strix occidentalis caurina	Northern spotted owl	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth. Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Strix occidentalis lucida	Mexican spotted owl	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Tympanuchus cupido attwateri	Attwater's greater prairie-chicken	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to impacts on reproduction. Loss of

Scientific name	Common Name	Anticipated Incidental Take
		invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Vireo bellii pusillus	Least Bell's vireo	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.

Table K-E.4. Anticipated Incidental Take of Bivalves over the duration of the Action. These species' host fish occur in small waterbodies (aquatic habitat bins 2 and/or 5) as well as larger flowing and static water bodies.

Scientific name	Common Name	Anticipated Incidental Take
Alasmidonta atropurpurea	Cumberland elktoe	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Alasmidonta heterodon	Dwarf wedgemussel	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Arkansia wheeleri	Ouachita rock pocketbook	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Cumberlandia monodonta	Spectaclecase (mussel)	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Cyprogenia stegaria	Fanshell	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Elliptio chipolaensis	Chipola slabshell	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Elliptio steinstansana	Tar River spinymussel	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Epioblasma florentina curtisii	Curtis' pearlymussel	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Epioblasma obliquata perobliqua	White cat's paw (pearlymussel)	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Epioblasma penita	Southern combshell	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.

Scientific name	Common Name	Anticipated Incidental Take
Hamiota australis	Southern sandshell	Low levels of take related to the loss of very small numbers of host fish, resulting in very small reductions in reproductive success. Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Lampsilis higginsii	Higgins eye (pearlymussel)	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Lampsilis rafinesqueana	Neosho Mucket	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Lampsilis streckeri	Speckled pocketbook	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Lampsilis subangulata	Shinyrayed pocketbook	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Lasmigona decorata	Carolina heelsplitter	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Lemiox rimosus	Birdwing pearlymussel	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Margaritifera marrianae	Alabama pearlshell	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Pleurobema clava	Clubshell	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Potamilus capax	Fat pocketbook	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.

Scientific name	**Common Name**	**Anticipated Incidental Take**
Ptychobranchus greenii	Triangular kidneyshell	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Quadrula cylindrica cylindrica	Rabbitsfoot	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Villosa trabalis	Cumberland bean (pearlymussel)	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.

Table K-E.5. Anticipated Incidental Take of Crustaceans over the duration of the Action.

Species Scientific Name	Common Name	Anticipated Incidental Take
Antrolana lira	Madison Cave isopod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Branchinecta conservatio	Conservancy fairy shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Branchinecta longiantenna	Longhorn fairy shrimp	Direct Exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Branchinecta lynchi	Vernal pool fairy shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Branchinecta sandiegonensis	San Diego fairy shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Cambarus aculabrum	Benton County Cave crayfish	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Cambarus callainus	Big Sandy Crayfish	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Cambarus cracens	Slenderclaw Crayfish	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Cambarus veteranus	Guyandotte River crayfish	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).

Species Scientific Name	**Common Name**	**Anticipated Incidental Take**
Cambarus zophonastes	Hell Creek Cave crayfish	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Gammarus acherondytes	Illinois cave amphipod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Gammarus desperatus	Noel's amphipod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Gammarus hyalleloides	Diminutive Amphipod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Gammarus pecos	Pecos amphipod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Lepidurus packardi	Vernal pool tadpole shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Lirceus usdagalun	Lee County cave isopod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Orconectes shoupi	Nashville crayfish	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).

Species Scientific Name	**Common Name**	**Anticipated Incidental Take**
Pacifastacus fortis	Shasta crayfish	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Palaemonetes cummingi	Squirrel Chimney Cave shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Palaemonias alabamae	Alabama cave shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Palaemonias ganteri	Kentucky cave shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Procambarus econfinae	Panama City crayfish	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Streptocephalus woottoni	Riverside fairy shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Stygobromus (=Stygonectes) Pecki	Peck's cave amphipod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Stygobromus hayi	Hay's Spring amphipod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Syncaris pacifica	California freshwater shrimp	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Thermosphaeroma thermophilus	Socorro isopod	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).

Table K-E.6. Anticipated Incidental Take of Fish over the duration of the Action. These species occur in small waterbodies (aquatic habitat bins 2 and/or 5) as well as larger flowing and static water bodies, or only in Bins 2 or 5.

Scientific name	Common Name	Anticipated Incidental Take
Acipenser oxyrinchus (=oxyrhynchus) desotoi	Atlantic sturgeon (Gulf subspecies)	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Acipenser oxyrinchus (=oxyrhynchus) desotoi	Atlantic sturgeon (Gulf subspecies)	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Acipenser transmontanus	White Sturgeon (Kootenai River Pop.)	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Amblyopsis rosae	Ozark cavefish	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of

Scientific name	Common Name	Anticipated Incidental Take
		sublethal take by reducing fitness related to growth and reproduction.
Catostomus discobolus yarrowi	Zuni bluehead Sucker	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Catostomus santaanae	Santa Ana sucker	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Catostomus warnerensis	Warner sucker	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Chasmistes brevirostris	Shortnose sucker	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Chasmistes cujus	Cui-ui	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Chasmistes liorus	June sucker	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Chrosomus saylori	Laurel dace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Cottus paulus (=pygmaeus)	Pygmy Sculpin	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Cottus specus	Grotto Sculpin	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Crystallaria cincotta	Diamond darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Cyprinella caerulea	Blue shiner	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Cyprinella formosa	Beautiful shiner	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Cyprinodon elegans	Comanche Springs pupfish	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Cyprinodon macularius	Desert pupfish	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success.

Scientific name	Common Name	Anticipated Incidental Take
		Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Deltistes luxatus	Lost River sucker	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Dionda diaboli	Devils River minnow	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Eremichthys acros	Desert dace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Erimonax monachus	Spotfin Chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of

Scientific name	Common Name	Anticipated Incidental Take
		sublethal take by reducing fitness related to growth and reproduction.
Erimystax cahni	Slender chub	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma boschungi	Slackwater darter	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma chermocki	Vermilion darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma chienense	Relict darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma etowahae	Etowah darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma fonticola	Fountain darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to

Scientific name	Common Name	Anticipated Incidental Take
		small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma moorei	Yellowcheek darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma nianguae	Niangua darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma nuchale	Watercress darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma okaloosae	Okaloosa darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of

Scientific name	Common Name	Anticipated Incidental Take
		sublethal take by reducing fitness related to growth and reproduction.
Etheostoma osburni	Candy darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma percnurum	Duskytail darter	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma phytophilum	Rush Darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma rubrum	Bayou darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma scotti	Cherokee darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of

Scientific name	Common Name	Anticipated Incidental Take
		sublethal take by reducing fitness related to growth and reproduction.
Etheostoma sp.	Bluemask (=jewel) Darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma spilotum	Kentucky arrow darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma susanae	Cumberland darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Etheostoma wapiti	Boulder darter	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Ethostoma trisella	Trispot darter	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of

Scientific name	Common Name	Anticipated Incidental Take
		sublethal take by reducing fitness related to growth and reproduction.
Eucyclogobius newberryi	Tidewater goby	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gasterosteus aculeatus williamsoni	Unarmored threespine stickleback	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila bicolor ssp.	Hutton tui chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila bicolor ssp. Moh/avensis	Mohave tui chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Gila bicolor ssp. snyderi	Owens Tui Chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila cypha	Humpback chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila ditaenia	Sonora chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila elegans	Bonytail chub	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila intermedia	Gila chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Gila nigra	Headwater chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila nigrescens	Chihuahua chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila purpurea	Yaqui chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila robusta	Roundtail chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila robusta jordani	Pahranagat roundtail chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success.

Scientific name	Common Name	Anticipated Incidental Take
		Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Gila seminuda (=robusta)	Virgin River Chub	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Hybognathus amarus	Rio Grande Silvery Minnow	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Hypomesus transpacificus	Delta smelt	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Ictalurus pricei	Yaqui catfish	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Lepidomeda albivallis	White River spinedace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Lepidomeda mollispinis pratensis	Big Spring spinedace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Lepidomeda vittata	Little Colorado spinedace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Meda fulgida	Spikedace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Menidia extensa	Waccamaw silverside	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Moapa coriacea	Moapa dace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Notropis albizonatus	Palezone shiner	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Notropis buccula	Smalleye Shiner	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Notropis cahabae	Cahaba shiner	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Notropis girardi	Arkansas River shiner	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Notropis mekistocholas	Cape Fear shiner	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Notropis oxyrhynchus	Sharpnose Shiner	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Notropis simus pecosensis	Pecos bluntnose shiner	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Notropis topeka (=tristis)	Topeka shiner	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Noturus baileyi	Smoky madtom	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Noturus crypticus	Chucky Madtom	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Noturus flavipinnis	Yellowfin madtom	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of

Scientific name	Common Name	Anticipated Incidental Take
		sublethal take by reducing fitness related to growth and reproduction.
Noturus furiosus	Carolina madtom	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Noturus placidus	Neosho madtom	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Noturus stanauli	Pygmy madtom	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Oncorhynchus aguabonita whitei	Little Kern golden trout	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Oncorhynchus apache	Apache trout	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Oncorhynchus clarkii henshawi	Lahontan cutthroat trout	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Oncorhynchus clarkii seleniris	Paiute cutthroat trout	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Oncorhynchus clarkii stomias	Greenback Cutthroat trout	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Oncorhynchus gilae	Gila trout	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Percina antesella	Amber darter	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Percina aurolineata	Goldline darter	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Percina aurora	Pearl darter	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Percina jenkinsi	Conasauga logperch	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Percina pantherina	Leopard darter	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Percina rex	Roanoke logperch	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Percina tanasi	Snail darter	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Phoxinus cumberlandensis	Blackside dace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Plagopterus argentissimus	Woundfin	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Ptychocheilus lucius	Colorado pikeminnow (=squawfish)	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Rhinichthys osculus lethoporus	Independence Valley speckled dace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Rhinichthys osculus nevadensis	Ash Meadows speckled dace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Rhinichthys osculus oligoporus	Clover Valley speckled dace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Rhinichthys osculus thermalis	Kendall Warm Springs dace	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success.

Scientific name	Common Name	Anticipated Incidental Take
		Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Salmo salar	Atlantic salmon	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Salvelinus confluentus	Bull Trout	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Scaphirhynchus albus	Pallid sturgeon	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Scaphirhynchus suttkusi	Alabama sturgeon	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Speoplatyrhinus poulsoni	Alabama cavefish	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success.

Scientific name	Common Name	Anticipated Incidental Take
		Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Spirinchus thaleichthys	Longfin smelt	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Tiaroga cobitis	Loach minnow	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.
Xyrauchen texanus	Razorback sucker	Direct exposure is anticipated to result in low levels of mortality (a small number of individuals) and in sublethal take due to small impacts from reduced growth and reproductive success. Loss of prey base is also anticipated to result low levels of sublethal take by reducing fitness related to growth and reproduction.

Table K-E.7. Anticipated Incidental Take of Insects over the duration of the Action.

Scientific Name	Common Name	Anticipated Incidental Take
Ambrysus amargosus	Ash Meadows naucorid	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Apodemia mormo langei	Lange's metalmark butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Batrisodes texanus	Coffin Cave mold beetle	Loss of very small number of individuals due to exposure from use sites and loss of dietary items Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of dietary items is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Batrisodes venyivi	Helotes mold beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of dietary items is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Boloria acrocnema	Uncompahgre fritillary butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Bombus affinis	Rusty patched bumble bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Bombus franklini	Franklin's bumble bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).

Scientific Name	Common Name	Anticipated Incidental Take
Brychius hungerfordi	Hungerford's crawling water beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Callophrys mossii bayensis	San Bruno elfin butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Cicindela dorsalis dorsalis	Northeastern beach tiger beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Cicindela nevadica lincolniana	Salt Creek tiger beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Cicindela ohlone	Ohlone tiger beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Cicindela puritana	Puritan tiger beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Cicindelidia floridana	Miami tiger beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to

Scientific Name	Common Name	Anticipated Incidental Take
		result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Dinacoma caseyi	Casey's June beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Elaphrus viridis	Delta green ground beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Euchloe ausonides insulanus	Island marble Butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Euphilotes battoides allyni	El Segundo blue butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Euphilotes enoptes smithi	Smith's blue butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Euphydryas editha bayensis	Bay checkerspot butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Euphydryas editha quino	Quino checkerspot butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Euphydryas editha taylori	Taylor's (=whulge) checkerspot Butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).

Scientific Name	Common Name	Anticipated Incidental Take
Euproserpinus euterpe	Kern primrose sphinx moth	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Glaucopsyche lygdamus palosverdesensis	Palos Verdes blue butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Heraclides aristodemus ponceanus	Schaus swallowtail butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Hesperia dacotae	Dakota Skipper	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Hesperia leonardus montana	Pawnee montane skipper	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Heterelmis comalensis	Comal Springs riffle beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of dietary items is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Icaricia icarioides fenderi	Fender's blue butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Icaricia icarioides missionensis	Mission blue butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Lycaeides argyrognomon lotis	Lotis blue butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Lycaeides melissa samuelis	Karner blue butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).

Scientific Name	Common Name	Anticipated Incidental Take
Lycaena hermes	Hermes copper butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Neonympha mitchellii francisci	Saint Francis' satyr butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Neonympha mitchellii mitchellii	Mitchell's satyr butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Oarisma poweshiek	Poweshiek skipperling	Loss of very small number of individuals due to exposure from use sites Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Polyphylla barbata	Mount Hermon June beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Pseudocopaeodes eunus obscurus	Carson wandering skipper	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Pyrgus ruralis lagunae	Laguna Mountains skipper	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Rhadine exilis	[Unnamed] ground beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of dietary items is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Rhadine infernalis	[Unnamed] ground beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of dietary items is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.

Scientific Name	Common Name	Anticipated Incidental Take
Rhadine persephone	Tooth Cave ground beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Somatochlora hineana	Hine's emerald dragonfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Speyeria callippe callippe	Callippe silverspot butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Speyeria zerene behrensii	Behren's silverspot butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Speyeria zerene hippolyta	Oregon silverspot butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Speyeria zerene myrtleae	Myrtle's silverspot butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Strymon acis bartrami	Bartram's scrub-hairstreak Butterfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Stygoparnus comalensis	Comal Springs dryopid beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).

Scientific Name	Common Name	Anticipated Incidental Take
Texamaurops reddelli	Kretschmarr Cave mold beetle	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Trimerotropis infantilis	Zayante band-winged grasshopper	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Zapada glacier	Western glacier stonefly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).

Table K-E.8. Anticipated Incidental Take of Mammals over the duration of the Action.

Scientific name	Common Name	Anticipated Incidental Take
Odocoileus virginianus leucurus	Columbian white-tailed deer (Columbia River DPS)	Low levels of mortality from exposure on use sites. Direct exposure is anticipated to result in low levels of mortality.
Vulpes macrotis mutica	San Joaquin kit fox	Direct exposure is anticipated to result in low levels of sublethal take through reduction in reproductive success. Loss of prey (invertebrates and birds) is also anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Herpailurus (=Felis) yagouaroundi cacomitli	Gulf coast jaguarundi	Direct exposure is anticipated to result in low levels of sublethal take through reduction in reproductive success. Loss of prey (invertebrates and birds) is also anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Leopardus (=Felis) pardalis	Ocelot	Direct exposure is anticipated to result in low levels of sublethal take through reduction in reproductive success. Loss of prey (invertebrates and birds) is also anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Peromyscus polionotus allophrys	Choctawhatchee beach mouse	Seasonal loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Peromyscus polionotus trissyllepsis	Perdido Key beach mouse	Seasonal loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Dipodomys nitratoides exilis	Fresno kangaroo rat	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Dipodomys ingens	Giant kangaroo rat	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Dipodomys stephensi (incl. D. cascus)	Stephen's kangaroo rat	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Dipodomys nitratoides nitratoides	Tipton kangaroo rat	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Peromyscus polionotus ammobates	Alabama beach mouse	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Peromyscus polionotus phasma	Anastasia Island beach mouse	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Perognathus longimembris pacificus	Pacific pocket mouse	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Zapus hudsonius preblei	Preble's meadow jumping mouse	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.

Scientific name	Common Name	Anticipated Incidental Take
Peromyscus polionotus niveiventris	Southeastern beach mouse	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Peromyscus polionotus peninsularis	St. Andrew beach mouse	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Sylvilagus bachmani riparius	Riparian brush rabbit	Direct exposure is anticipated to result in low levels of mortality. Loss of plant based-dietary items is also anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Sorex ornatus relictus	Buena Vista Lake ornate shrew	Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Dipodomys merriami parvus	San Bernardino Merriam's kangaroo rat	Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey and plant based-dietary items is also anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction.
Urocyon littoralis catalinae	Santa Catalina Island fox	Direct exposure is anticipated to result in low levels of mortality. Loss of invertebrate prey and plant based-dietary items is also anticipated to result in low levels of sublethal take from small impacts to fitness related to growth and reproduction

Table K-E.9. Anticipated Incidental Take of Reptiles over the duration of the Action.

Scientific name	**Common Name**	**Anticipated Incidental Take**
Clemmys muhlenbergii	Bog (=Muhlenberg) turtle	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey and reduction in plant growth are also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Crocodylus acutus	American crocodile	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Crotalus willardi obscurus	New Mexican ridge-nosed rattlesnake	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Drymarchon corais couperi	Eastern indigo snake	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Eumeces egregius lividus	Bluetail mole skink	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.

Scientific name	**Common Name**	**Anticipated Incidental Take**
Gambelia silus	Blunt-nosed leopard lizard	Loss of prey will result in low levels of sublethal take due to reduced fitness related to growth and reproduction.
Gopherus agassizii	Desert tortoise	Low levels of sublethal take from growth and reproductive effects and reduction in fitness from a decline in plant growth. Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Reductions in plant growth are also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Gopherus polyphemus	Gopher tortoise (Western population)	Direct exposure is anticipated to result in low levels of sublethal take due to small reductions in growth and reproduction.
Graptemys flavimaculata	Yellow-blotched map turtle	Loss of prey and reductions in plant growth are anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Graptemys oculifera	Ringed map turtle	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of invertebrate prey and reductions in plant growth are also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Kinosternon sonoriense longifemorale	Sonoyta Mud Turtle	Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.

Scientific name	**Common Name**	**Anticipated Incidental Take**
		Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Macrochelys suanniensis	Suwannee Alligator Snapping Turtle	Low levels of take. Low levels of reduced fitness from loss of prey. Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Masticophis lateralis euryxanthus	Alameda whipsnake (=striped racer)	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Neoseps reynoldsi	Sand skink	Direct exposure is anticipated to result in low levels of sublethal take due to impacts on growth and reproduction. Loss of prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Nerodia clarkii taeniata	Atlantic salt marsh snake	Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Nerodia erythrogaster neglecta	Copperbelly water snake	Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Pituophis melanoleucus lodingi	Black Pine snake	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.

Scientific name	**Common Name**	**Anticipated Incidental Take**
Pituophis ruthveni	Louisiana Pine snake	Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Sistrurus catenatus	Eastern Massasauga	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Sternotherus depressus	Flattened musk turtle	Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Thamnophis eques megalops	Northern Mexican gartersnake	Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Thamnophis rufipunctatus	Narrow-headed garter snake	Loss of prey is anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Thamnophis sirtalis tetrataenia	San Francisco garter snake	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of prey is also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.
Uma inornata	Coachella Valley fringe-toed lizard	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on growth and reproduction. Loss of prey and reductions in plant

Scientific name	**Common Name**	**Anticipated Incidental Take**
		growth are also anticipated to result in low levels of sublethal take from small reductions in fitness relating to growth and reproduction.

Table K-E.10. Anticipated Incidental Take of Pacific Island Animals over the duration of the Action.

Taxa Group	**Scientific name**	**Common Name**	**Anticipated Incidental Take**
Arachnids	*Adelocosa anops*	Kauai cave wolf spider	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals). Loss of invertebrate prey is anticipated to result in low levels of sublethal take from small effects to fitness, relating to growth, reproduction, and survival.
Birds	*Acrocephalus luscinia*	Nightingale reed warblers	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of prey base is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.

Taxa Group	Scientific name	Common Name	Anticipated Incidental Take
Birds	*Aerodramus barischi*	Mariana gray swiftlet	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of prey base is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Birds	*Corvus kubaryi*	Mariana crow	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on growth and reproduction. Loss of food items is also anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Birds	*Gallinula chloropus guami*	Mariana common moorhen	Direct exposure is anticipated to result in low levels of mortality (loss of small number of individuals). Loss of prey base is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Birds	*Zosterops rotensis*	Rota bridled white-eyes	Direct exposure is anticipated to result in low levels of mortality (loss of small number of individuals).
Birds	*Gallicolumba stairi*	Friendly ground dove	Direct exposure is anticipated to result in low levels of mortality (loss of small number of individuals). Loss of prey base is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Crustaceans	*Procaris hawaiana*	Anchialine Pool Shrimps	Direct exposure is anticipated to result in low levels of mortality (loss of small number of individuals).
Crustaceans	*Vetericaris chaceorum*	Anchialine Pool Shrimps	Direct exposure is anticipated to result in low levels of mortality (loss of small number of individuals).
Crustacean	*Spelaeorchestia koloana*	Kauai cave amphipod	Direct exposure is anticipated to result in low levels of mortality (loss of small number of individuals).

Taxa Group	Scientific name	Common Name	Anticipated Incidental Take
Insects	*Drosophila heteroneura*	Hawaiian picturewinged fly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Drosophila mulli*	Hawaiian picturewinged fly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Hylaeus anthracinus*	Yellow-faced bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Hylaeus assimulans*	Yellow-faced bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Hylaeus facilis*	Easy yellow-faced bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Hylaeus hilaris*	Easy yellow-faced bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Hylaeus kuakea*	Easy yellow-faced bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Hylaeus mana*	Yellow-faced bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Hylaeus longiceps*	Yellow-faced bee	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Megalagrion pacificum*	Pacific Hawaiian damselfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).

Taxa Group	Scientific name	Common Name	Anticipated Incidental Take
Insects	*Megalagrion xanthomelas*	Orangeblack Hawaiian damselfly	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Insects	*Manduca blackburni*	Blackburn's sphinx moth	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).

Table K-E.11. Anticipated Incidental Take of Caribbean Island Animals over the duration of the Action.

Taxa Group	Scientific name	Common Name	Anticipated Incidental Take
Birds	*Columba inornata wetmorei*	Puerto Rican plain pigeon	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on fitness relating to growth and reproduction.
Birds	*Setophaga angelae*	Elfin-woods warbler	Loss of invertebrate prey is anticipated to result in low levels of sublethal take by reducing fitness supporting reproductive capacity.
Birds	*Agelaius xanthomus*	Yellow-shouldered blackbird	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on fitness relating to growth and reproduction
Birds	*Caprimulgus noctitherus*	Puerto Rican nightjar	Direct exposure is anticipated to result in low levels of mortality and in sublethal take due to small impacts on fitness relating to growth and reproduction.
Birds	*Buteoplatypterus brunnescens*	Puerto Rican broad-winged hawk	Direct exposure is anticipated to result in low levels of mortality and sublethal take due to small impacts on fitness relating to growth and reproduction.
Birds	*Accipiter striatus venator*	Puerto Rican sharp-shinned hawk	Direct exposure is anticipated to result in low levels of mortality and sublethal take due to small impacts on fitness relating to growth and reproduction.
Reptiles	*Epicrates inornatus*	Puerto Rican boa	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on fitness relating to growth and reproduction.
Reptiles	*Epicrates monensis granti*	Virgin Islands tree boa	Direct exposure is anticipated to result in low levels of sublethal take due to small impacts on fitness relating to growth and reproduction.

Table K-E.12. Anticipated Incidental Take (Conference Report) for Proposed (P) and Candidate (C) Animal Species

Taxa Group	Species Scientific Name	Common Name	Anticipated Take
Bivalves	*Quadrula petrina*	Texas pimpleback (P)	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Bivalves	*Truncilla macrodon*	Texas fawnsfoot (P)	Loss of very small numbers of host fish is anticipated to result in low levels of sublethal take from very small reductions in reproductive success.
Crustaceans	*Faxonius peruncus*	Big Creek crayfish (P)	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Crustaceans	*Faxonius quadruncus*	St. Francis River crayfish (P)	Direct exposure from use sites is anticipated to result in low levels of mortality (small numbers of individuals).
Fishes	*Spirinchus thaleichthys*	Longfin smelt (C)	Loss of prey is anticipated to result in low levels of sublethal take by reducing fitness related to growth and reproduction.
Insects	*Papaipema eryngii*	Rattlesnake-master borer moth (C)	Direct exposure from use sites is anticipated to result in low levels of mortality (loss of a very small number of individuals).
Reptiles	*Gopherus polyphemus*	Gopher tortoise (Eastern population) (C)	Consumption of contaminated prey will cause low levels of sublethal take from very small reductions in growth and reproduction.
Reptiles	*Macrochelys suwanniensis*	Suwannee alligator snapping turtle (P)	Loss of prey is anticipated to result in low level of sublethal take by reducing fitness related to growth and reproduction.