

Appendix G

Threatened and Endangered Species



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This appendix discusses the federal and state threatened and endangered species, candidate or sensitive animal species, and plant species of concern potentially found on the Hanford Site. Threatened and endangered species are listed in Title 50, Code of Federal Regulations, Part 17 (50 CFR 17); Washington Natural Heritage Program (2004); and Washington Department of Fish and Wildlife (2004).

Threatened or Endangered Species

The purposes of the *Endangered Species Act of 1973*, as amended, are to (1) provide a means to conserve critical ecosystems, (2) provide a program for the conservation of threatened and endangered species, and (3) assure that appropriate steps are taken to achieve the purposes of the treaties and conventions established in the act. The state of Washington also lists species as threatened or endangered, but such listing does not carry the protection of the federal *Endangered Species Act of 1973*. Species of plants and animals listed as threatened or endangered by either the federal or state governments that occur or potentially occur on the Hanford Site are listed in Table G.1.

Identification of candidate species can assist environmental planning efforts by providing advance notice of the potential for listing as a threatened or endangered species. This advance notice allows resource managers to alleviate threats and thereby possibly eliminate the need to list species as endangered or threatened. Even if a candidate species is subsequently listed, the early notice could result in fewer restrictions on human activities in the environment by prompting candidate conservation measures that alleviate threats to the species. Washington State

candidate and sensitive animal species occurring or potentially occurring on the Hanford Site are listed in Table G.2. Plant species potentially found on the Hanford Site that are listed at lower levels than threatened or endangered by Washington State are listed in Table G.3.

Hanford Status

There are one bird species and two fish species known to regularly occur on the Hanford Site on the federal list of threatened and endangered species (Table G.1). One additional fish species (Bull trout [*Salvelinus confluentus*]) has been recorded on the Hanford Site, but is not believed to be resident. No plants or mammals known to occur on the Hanford Site are currently on the federal list of endangered and threatened species (50 CFR 17), but two species of plants, one species of mammal, and one species of bird are currently candidates for listing under the *Endangered Species Act of 1973* (Tables G.1 and G.2). In addition, 11 species of plants and 5 species of birds have been listed as either threatened or endangered by Washington State. The National Marine Fisheries Service (NMFS 2004) has the responsibility for the federal listing of anadromous fish (i.e., fish which require both saltwater and freshwater to complete a life cycle such as the steelhead [*Oncorhynchus mykiss*] and spring-run Chinook salmon [*Oncorhynchus tshawytscha*]). The U.S. Fish and Wildlife Service has responsibility for all other federally listed species on the Hanford Site.

Several species of animals and plants are listed at the candidate species, sensitive species, or other levels by Washington State. There are 28 state-level candidate species of animals (Table G.2) and 40 plant species of concern occurring or potentially occurring on the Hanford Site (Table G.3).



Table G.1. Federal or Washington State Threatened and Endangered Species that Occur or Potentially Occur on the Hanford Site

<u>Common Name</u>	<u>Scientific Name</u>	<u>Federal</u>	<u>State</u>
Plants			
awned halfchaff sedge	<i>Lipocarpa (= Hemicarpha) aristulata</i>		Threatened ^(a)
desert dodder	<i>Cuscuta denticulata</i>		Threatened ^(a)
Geyer's milkvetch	<i>Astragalus geyeri</i>		Threatened ^(a)
grand redstem	<i>Ammannia robusta</i>		Threatened ^(a)
loeflingia	<i>Loeflingia squarrosa var. squarrosa</i>		Threatened ^(a)
lowland toothcup	<i>Rotala ramosior</i>		Threatened ^(a)
persistent sepal yellowcress	<i>Rorippa columbiae</i>	Species of concern ^(b)	Threatened ^(a)
rosy pussypaws	<i>Calyptridium roseum</i>		Threatened ^(a)
Umtanum desert buckwheat	<i>Eriogonum codium</i>	Candidate ^(c)	Endangered ^(d)
White Bluffs bladderpod	<i>Lesquerella tuplashensis</i>	Candidate ^(c)	Threatened ^(a)
white eatonella	<i>Eatonella nivea</i>		Threatened ^(a)
Fish			
bull trout ^(e)	<i>Salvelinus confluentus</i>	Threatened ^(a)	Candidate ^(c)
spring-run Chinook salmon	<i>Oncorhynchus tshawytscha</i>	Endangered ^(d)	Candidate ^(c)
steelhead	<i>Oncorhynchus mykiss</i>	Endangered ^(d)	Candidate ^(c)
Birds			
American white pelican	<i>Pelecanus erythrorhychos</i>		Endangered ^(d)
bald eagle ^(f)	<i>Haliaeetus leucocephalus</i>	Threatened ^(a)	Threatened ^(a)
ferruginous hawk	<i>Buteo regalis</i>	Species of concern ^(b)	Threatened ^(a)
sandhill crane	<i>Grus canadensis</i>		Endangered ^(d)
western sage grouse	<i>Centrocercus urophasianus phaios</i>	Candidate ^(c)	Threatened ^(a)

(a) Species likely to become endangered in the foreseeable future.

(b) Species that are not currently listed or candidates under the *Endangered Species Act of 1973*, but are of conservation concern within specific U.S. Fish and Wildlife Service regions.

(c) prepared.

(d) Species in danger of extinction within all or a significant portion or its range.

(e) Reported, but seldom observed on the Hanford Site.

(f) Currently under review for change in status (delisting).

Table G.2. Washington State Candidate and Sensitive Animal Species Occurring or Potentially Occurring on the Hanford Site

<u>Common Name</u>	<u>Scientific Name</u>
Mollusks	
giant Columbia River limpet	<i>Fisherola (= Lanx) nuttalli</i>
giant Columbia River spire snail ^(a)	<i>Fluminicola (= Lithoglyphus) columbiana</i>
Fish	
bull trout ^(b,c)	<i>Salvelinus confluentus</i>
mountain sucker ^(c)	<i>Catostomus platyrhynchus</i>
leopard dace ^(c)	<i>Rhinichthys flacatus</i>
river lamprey ^(c)	<i>Lampetra ayresi</i>
spring-run Chinook salmon ^(d)	<i>Oncorhynchus tshawytscha</i>
steelhead ^(d)	<i>Oncorhynchus mykiss</i>
Insects	
Columbia River tiger beetle ^(e)	<i>Cicindela columbica</i>
Birds	
burrowing owl ^(a)	<i>Athene cucularia</i>
common loon ^(f)	<i>Gavia immer</i>
flamulated owl ^(c)	<i>Otus flammeolus</i>
golden eagle	<i>Aquila chrysaetos</i>
Lewis woodpecker ^(c)	<i>Melanerpes lewisii</i>
loggerhead shrike ^(a)	<i>Lanius ludovicianus</i>
peregrine falcon ^(a,f)	<i>Falco peregrinus</i>
merlin	<i>Falco columbarius</i>
northern goshawk ^(a,c)	<i>Accipiter gentilis</i>
sage sparrow	<i>Amphispiza belli</i>
sage thrasher	<i>Oreoscoptes montanus</i>
western grebe	<i>Aechmorus occidentalis</i>
Reptiles	
sagebrush lizard ^(a)	<i>Sceloporus graciosus</i>
striped whipsnake	<i>Masticophis taeniatus</i>
Mammals	
black-tailed jackrabbit	<i>Lepus californicus</i>
Merriam's shrew	<i>Sorex merriami</i>
Townsend's ground squirrel	<i>Spermophilus townsendii</i>
Washington ground squirrel ^(c,g)	<i>Spermophilus washingtoni</i>
white-tailed jackrabbit	<i>Lepus townsendii</i>

(a) Federal species of concern.

(b) Federal threatened.

(c) Reported, but seldom observed, on the Hanford Site.

(d) Federal endangered.

(e) Probable, but not observed, on the Hanford Site.

(f) State sensitive (i.e., taxa vulnerable or declining) and could become endangered or threatened.

(g) Federal candidate.

Table G.3. Washington State Plant Species of Concern on the Hanford Site

<u>Common Name</u>	<u>Scientific Name</u>	<u>State Listing^(a)</u>
annual paintbrush	<i>Castilleja exilis</i>	W
annual sandwort	<i>Minuartia pusilla</i> var. <i>pusilla</i>	R1
basalt milk-vetch	<i>Astragalus conjunctus</i> var. <i>rickardii</i>	W
beaked spike-rush	<i>Eleocharis rostellata</i>	S
bristly combseed	<i>Pectocarya setosa</i>	W
brittle prickly pear	<i>Opuntia fragilis</i>	R1
Canadian St. John's wort	<i>Hypericum majus</i>	S
chaffweed	<i>Centunculus minimus</i>	R1
Columbia milkvetch	<i>Astragalus columbianus</i>	S ^(b)
Columbia River mugwort	<i>Artemisia lindleyana</i>	W
coyote tobacco	<i>Nicotiana attenuata</i>	S
crouching milkvetch	<i>Astragalus succumbens</i>	W
desert evening-primrose	<i>Oenothera caespitosa</i>	S
dwarf evening primrose	<i>Camissonia</i> (= <i>Oenothera</i>) <i>pygmaea</i>	S
false pimpernel	<i>Lindernia dubia anagallidea</i>	W
fuzzytongue penstemon	<i>Penstemon eriantherus whitedii</i>	S
giant helleborine	<i>Epipactis gigantea</i>	W
gray cryptantha	<i>Cryptantha leucophaea</i>	S ^(b)
Great Basin gilia	<i>Gilia leptomeria</i>	S
hedge hog cactus	<i>Pediocactus simpsonii</i> var. <i>robustior</i>	R1
Hoover's desert parsley	<i>Lomatium tuberosum</i>	S ^(b)
Kittitas larkspur	<i>Delphinium multiplex</i>	W
medic milkvetch	<i>Astragalus speirocarpus</i>	W
miner's candle	<i>Cryptantha scoparia</i>	S
mousetail	<i>Myosurus clavicaulis</i>	S
Piper's daisy	<i>Erigeron piperianus</i>	S
porcupine sedge	<i>Carex hystericina</i>	W
Robinson's onion	<i>Allium robinsonii</i>	W
rosy balsamroot	<i>Balsamorhiza rosea</i>	W
scilla onion	<i>Allium scilloides</i>	W
shining flatsedge	<i>Cyperus bipartitus (rivularis)</i>	S
small-flowered evening-primrose	<i>Camissonia</i> (= <i>Oenothera</i>) <i>minor</i>	S
small-flowered nama	<i>Nama densum</i> var. <i>parviflorum</i>	W
smooth cliffbrake	<i>Pellaea glabella simplex</i>	W
Snake River cryptantha	<i>Cryptantha spiculifera</i> (= <i>C. interrupta</i>)	S
southern mudwort	<i>Limosella acaulis</i>	W
stalked pod milkvetch	<i>Astragalus sclerocarpus</i>	W
Suksdorf's monkey flower	<i>Mimulus suksdorfii</i>	S
Thompson's sandwort	<i>Arenaria franklinii thompsonii</i>	R2
winged combseed	<i>Pectocarya penicillata</i>	W

(a) S = Sensitive (i.e., taxa vulnerable or declining) and could become endangered or threatened without active management or removal of threats.

R1 = Review List 1 – Taxa for which there are insufficient data available to support listing as threatened, endangered, or sensitive.

R2 = Review List 2 – Taxa with unresolved taxonomic questions.

W = Watch List – Taxa that are more abundant and/or less threatened than previously assumed.

(b) U.S. Fish and Wildlife Service federal species of concern



References

50 CFR 17. U.S. Fish and Wildlife Service, Department of the Interior. "Endangered and Threatened Wildlife and Plants." *U.S. Code of Federal Regulations*.

Endangered Species Act of 1973. 1973. Public Laws 93-205 through 100-707, as amended, 87 Stat. 884, 16 USC 1531 et seq.

National Marine Fisheries Service (NMFS). 2004. *ESA Status Pages*. Available URL: <<http://www.nwr.noaa.gov/1salmon/salmesa/specprof.htm>>.

Washington Natural Heritage Program. 2004. *Rare Plant Species*. Washington State Department of Natural Resources, Olympia, Washington. Available URL: <<http://www.dnr.wa.gov/nhp/refdesk/plants.html>>.

Washington Department of Fish and Wildlife. 2004. *Priority Habitats and Species List*. Olympia, Washington. Available URL: <<http://wdfw.wa.gov/hab/phspage.htm>>.

