

APPENDIX B

Uncommon and Rare Species:

Table 1: Value of uncommon and rare species

Table 2: Uncommon and rare animals and plants

Table 3: Habitat and range of uncommon and rare animals and plants

Supplemental information for Northern red-legged frog and Pileated woodpecker

TABLE 1: VALUE OF UNCOMMON AND RARE SPECIES OF THE SOUTH RIDGELINE HABITAT STUDY AREA

“Value” is the number assigned here for the SRHS, generally illustrating relative rarity of species.

CATEGORY	STATUS	VALUE	DEFINITIONS/COMMENTS
Federal ESA listed or future listing anticipated (USFWS)	Endangered, Threatened, Proposed & Candidate	H	Endangered = an animal or plant species in danger of extinction throughout all or a significant portion of its range. Threatened = at risk of becoming endangered. Proposed = Proposed for Endangered or Threatened listing. Candidate = sufficient information ... to support a proposal to list as Endangered or Threatened. http://www.fws.gov/endangered/glossary.pdf
Federal ESA review status (USFWS)	Species of Concern	M	A species that might be in need of conservation action. http://www.fws.gov/endangered/glossary.pdf
State ESA listed (ODA, ODFW)	Endangered, Threatened, Proposed	H	Endangered = at risk of becoming extinct throughout all or a significant portion of its range. Threatened = at risk of becoming Endangered. http://arcweb.sos.state.or.us/rules/OARS_600/OAR_603/603_073.html
State status plants (ODA)	Candidate	H	Numbers are believed low or declining, or ... habitat is sufficiently threatened and declining in quantity and quality, so as to potentially qualify for listing as a threatened or endangered species in the foreseeable future. http://arcweb.sos.state.or.us/rules/OARS_600/OAR_603/603_073.html
State status animals (ODFW)	Sensitive – Critical	H	Critical - Species for which listing as T or E is pending, or those for which listing may be appropriate (etc.). http://www.dfw.state.or.us/wildlife/pdf/sensitive_species.pdf
	Sensitive Vulnerable	M	Vulnerable - Species for which T or E listing is not believed to be imminent and can be avoided through continued or expanded use of adequate protective measures and monitoring.

	Sensitive – Undetermined	L	Status unclear. http://www.dfw.state.or.us/wildlife/pdf/sensitive_species.pdf
ORNHIC	List 1	H	Threatened or endangered throughout range http://oregonstate.edu/ornhic/index.html
	List 2	H	Threatened, endangered or extirpated from OR, secure elsewhere http://oregonstate.edu/ornhic/index.html
	List 3	M	List 3 (Review): may be T or E, but more information is needed.
	List 4	L	List 4 (Watch): too common to be categorized as T or E, but very rare. http://oregonstate.edu/ornhic/index.html
ODFW Conservation Strategy	Strategy Species	H	Declining or at-risk in the ecoregion. http://www.dfw.state.or.us/conservationstrategy/
Emerald Chapter NPSO	List B	M	Generally 10 or fewer sites known in Lane County, and with identified threats. This list is an indicator of local biodiversity.

TABLE 2: UNCOMMON AND RARE ANIMALS AND PLANTS OF THE SOUTH RIDGELINE HABITAT STUDY AREA

The following list contains species that either occur within the South Ridgeline Habitat Study area boundary or within 0.5 miles, or that are suspected of occurring in the vicinity. Other uncommon and rare species not listed here may possibly occur. Fish and invertebrates (other than butterflies) are not included here.

KEY:

V is the assigned value for the SRHS, as defined in the Uncommon and Rare Species Status/Value Tables. **H** = high, **M** = medium, **L** = low.

O = SRHS Area occurrence: **C** = confirmed (before SRHS, in or near SRHS area as per ORNHIC), **L** = likely, **U** = unlikely but possible, **V** = very unlikely, **A** = accidental, ? = unknown.

Fed is the status under the federal Endangered Species Act.

OR is the listing status of the Oregon Department of Fish and Wildlife (animals) and Oregon Dep't. of Agriculture (plants)

NH is the listing status of the Oregon Natural Heritage Information Center (ORNHIC), with 1 being the rarest.

CS is the Oregon Conservation Strategy (Y = yes)

NP is the Native Plant Society of Oregon, Emerald Chapter R & E List; only List B species (rare in Lane Co.) included here; other NP listings are shown only if a species is listed for another reason.

Habitat notes: Synthesis of habitat information from listed sources below, supplemented with field observations.

V	O	Scientific Name	Common Name	Fed	FW	NH	CS	Habitat Notes
AMPHIBIANS AND REPTILES								
L	U	<i>Aneides ferreus</i>	Clouded salamander	---	SU	4	---	Generally associated with large logs in mature forests, but also can be in talus or wood piles. Known from nearby (in Eugene).
H	?	<i>Batrachoseps wrightorum</i>	Oregon slender salamander	SOC	SU	1	---	Generally associated with large logs in mature forests, but also can be in talus or wood piles.
H	U	<i>Bufo boreas</i>	Western toad	---	SV	4	---	Adults are partly fossorial, using mostly woods and shrubby areas. Breed in shallow water. Becoming very rare in WV.
H	C	<i>Rana aurora aurora</i>	Northern red-legged frog	SOC	SV	4	Y	Need ponds and wetlands for breeding, with adjacent moist forests with dense understory for dispersal.
H	C	<i>Crotalus viridis</i>	Western rattlesnake	---	SV	4	Y	Utilize sunny, rocky areas on ridge tops or south slopes, and

V	O	Scientific Name	Common Name	Fed	FW	NH	CS	Habitat Notes
								nearby low, sparse vegetated areas.
BIRDS								
H	A	Accipiter gentilis	Northern goshawk	SOC	SC	4	---	Need large stands of large conifer, with other stand types and openings mixed in.
H	V	Ammodramus savannarum	Grasshopper sparrow	---	SP	2	Y	Nest in areas with low to moderate grass height and few shrubs.
H	V	Chordeiles minor	Common nighthawk	---	SC	4	Y	Nests in short grassy areas or on gravel bars.
H	U	Contopus cooperi	Olive-sided flycatcher	SOC	SV	4	---	Need older stands, especially with large, older trees near openings. Migration, yes. Nesting, unlikely.
M	C	Dryocopus pileatus	Pileated woodpecker	---	SV	---	---	Late successional, mixed forest with large diameter trees and snags. Also forages in other forest types.
H	C	Empidonax traillii brewsteri	Little willow flycatcher	---	SV	4	Y	Prefers willow and other shrub thickets, especially near water.
H	V	Eremophila alpestris strigata	Streaked horned lark	C	SC	1	Y	Needs large expanses of short-grass habitat.
H	A	Falco peregrinus anatum	American peregrine falcon	---	LE	2	---	Nest on large cliffs, or occasionally large buildings or bridges.
H	U	Haliaeetus leucocephalus	Bald eagle	LT	LT	4	---	Nests in large trees near water. Roost in large trees, sometimes farther from water.
H	C	Icteria virens	Yellow-breasted chat	SOC	SC	4	Y	Prefers dense, tall, shrubby habitats, usually near water.
H	U	Melanerpes formicivorus	Acorn woodpecker	SOC	---	4	Y	Colonial; use cavities in large-diameter oaks. Need oak woodlands with soft snags and open understories.
H	U	Melanerpes lewis	Lewis's woodpecker	SOC	SC	2	---	Primary habitat is oak savanna; nest in cavities. Generally only in WV as post-breeding dispersers.
M	C	Oreortyx pictus	Mountain quail	SOC	---	4	---	Need shrubby habitats and open places nearby to forage.
M	L	Patagioenas fasciata	Band-tailed pigeon	SOC	---	4	---	Need mineral sites, and large conifer forest landscape, with mixed age and structure within.
H	U	Poocetes gramineus affinis	Oregon vesper sparrow	SOC	SC	2	Y	Need grasslands with patches of bare ground for foraging and nesting; scattered shrubs/trees for perching.
H	U	Progne subis	Purple martin	SOC	SC	2	Y	Use cavities in snags or nest boxes; usually near water.
H	L	Sialia mexicana	Western bluebird		SV	4	Y	Primary habitat is oak savanna; nest in cavities.
H	L	Sitta carolinensis aculeata	White-breasted nuthatch	---	---	4	Y	Aka white-breasted nuthatch. Prefers mature oak savanna and woodland habitats, with oaks >22" dbh.
H	I	Spizella passerine	Chipping sparrow	---	---	---	Y	Oak woodlands & savanna; likely oak-pine (& Doug-fir?) savanna.
H	U	Strix occidentalis caurina	Northern spotted owl	LT	LT	1	---	Nest in old growth conifer stands. Nesting unlikely, but known from

V	O	Scientific Name	Common Name	Fed	FW	NH	CS	Habitat Notes
								nearby.
H	V	<i>Sturnella neglecta</i>	Western meadowlark	---	SC	4	Y	Needs 40 ac or more of prairie or other open habitat for nesting.
INVERTEBRATES								
H	V	<i>Euphydryas editha taylori</i>	Taylor's checkerspot	C	---	1	Y	Need prairie & savanna habitat. Currently use <i>Plantago lanceolata</i> (narrow-leaf plantain) as larval host; historically, likely used <i>Castilleja</i> . Historic in Lane Co. (Coburg Hills).
H	U	<i>Icaricia icarioides fenderi</i>	Fender's blue butterfly	LE	---	1	Y	Use prairie and savanna habitat. Almost exclusively use <i>Lupinus sulphureus</i> ssp. <i>kincaidii</i> (Kincaid's lupine) as larval host. Rarely, <i>Lupinus albicaulis</i> and <i>L. arbustus</i> .
MAMMALS								
M	V	<i>Arborimus albipes</i>	White-footed vole	SOC	SU	4	---	Within range, but more riparian-associated.
M	U	<i>Arborimus longicaudus longicaudus</i>	Red tree vole	SOC	---	4	---	Prefers young to mature conifer stands.
H	U	<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SOC	SC	2	Y	Uses caves. Mines, buildings for maternity and other roosting and hibernacula.
M	L	<i>Lasionycteris noctivagans</i>	Silver-haired bat	SOC	SU	4	---	Prefer large tree cavities for maternity and other roosting. May be associated more with old growth. Snags likely important.
M	U	<i>Myotis californicus</i>	California myotis	---	---	4	Y	Use a wide range of habitats, roost in crevices, possibly caves. Snags likely important.
M	L	<i>Myotis evotis</i>	Long-eared myotis	SOC	SU	4	---	Associated with conifer forests. Uses snags, buildings, bridges and other structures.
M	L	<i>Myotis volans</i>	Long-legged myotis	SOC	SU	4	---	Associated with late-successional conifer forests, likely using snags.
H	C	<i>Sciurus griseus</i>	Western gray squirrel	---	SU	4	Y	Oak savanna and woodland is best habitat, and mixed pine or other conifer element is good. Prefer large OR white oak cavities for birthing/rearing.
L	V	<i>Tadarida brasiliensis</i>	Brazilian free-tailed bat	---	---	4	---	Prefer large tree cavities for maternity and other roosting, so snags are important. Peripheral: southern WV is the northern edge of range.
M	U	<i>Thomomys bulbivorus</i>	Camas pocket gopher	SOC	---	4	---	Prairies and openings with good drainage. Generally at lower elevations than the S. Eugene Ridgeline area.

V	O	Scientific Name	Common Name	Fed	FW	NH	CS	Habitat Notes	
PLANTS									
M	L	Apocynum cannabinum	Hemp dogbane	---	---	---	---	B	Open, mesic areas. Can tolerate some disturbance. Ag field edges may be OK.
M	U	Apocynum sibiricum var. salignum	Clasping-leaved dogbane	---	---	---	---	B	Open, mesic areas. Can tolerate some disturbance. Ag field edges may be OK.
M	U	Asclepias fascicularis	Narrow-leaved milkweed	---	---	---	---	B	Open, mesic areas. Can tolerate some disturbance. Ag field edges may be OK.
M	L	Calycadenia truncata	Rosin weed; tackweed	---	---	---	---	B	Dry prairies and savannas. (Added 2006.)
M	U	Carex aurea	Golden-fruited sedge	---	---	---	---	B	Dry prairies and savannas. (Added 2006.)
H	U	Cicendia quadrangularis	Timwort	---	---	2	---	A	Vernal pools, pond edges; sparsely-vegetated parts of wet prairie when drying out in spring.
H	C	Cimicifuga elata	Tall bugbane	---	C	1	---	A	Slightly moist north slopes in conifer forest, usually with bigleaf maple in the understory. Rare on E and W slopes. Often in small gap.
M	U	Cypripedium montanum	Mountain lady's-slipper	---	---	4	---	B	Dry, open mixed deciduous/coniferous forests. Historic sighting in SRHS area; likely extirpated.
H	V	Delphinium oregonum	Willamette Valley larkspur	SOC	C	1	---	A	Floodplain forest edges and gaps. Possibly moist prairie.
M	U	Dodecatheon pulchellum var. macrocarpum	Beautiful shooting star	---	---	---	---	B	Wet to moist prairies.
H	U	Erigeron decumbens var. decumbens	Willamette Valley daisy	LE	LE	1	Y	A	Moist to upland prairie, possibly savanna.
H	C	Eucephalus (Aster) vialis	Wayside aster	SOC	LT	1	Y	A	Oak savanna, mixed forest gaps and edges.
M	U	Gilia sinistra ssp. sinistra	Sinister gilia	---	---	3	---	C	Historic sighting in SRHS area.
M	V	Hierochloe odorata	Holy grass	---	---	3	---	---	Moist slopes, meadows and streambanks.
H	V	Horkelia congesta ssp. congesta	Shaggy horkelia	SOC	C	1	---	A	Moist to upland prairie and savanna.
H	U	Howellia aquatilis	howellia	LT	---	1	Y	C	Low elevation pond shorelines.
H	C	Lathyrus holochlorus	Thin-leaved peavine	SOC	---	1	---	A	Often associated with moist OR white oak / OR ash forest, on edges. Usually on floodplains, can be on hillsides or hilltops.
M	U	Lathyrus vestitus var. ochropetalus	Pacific pea	---	---	---	---	B	Forest openings and edges.
H	U	Lomatium bradshawii	Bradshaw's lomatium	LE	LE	1	Y	A	Wet prairie; occasionally gaps in wet, Oregon ash forest.

V	O	Scientific Name	Common Name	Fed	FW	NH	CS	Habitat Notes	
M	U	Lomatium macrocarpum	Large-fruited lomatium	---	---	---	---	B Dry prairies and savannas. (Added 2006.)	
M	C	Lupinus affinus	Fleshy lupine	---	---	---	---	B Meadows, prairies.	
H	U	Lupinus sulphureus ssp. kincaidii	Kincaid's lupine	LT	LT	1	Y	A Upland to slightly moist prairie.	
M	U	Montia dichotoma	Dwarf montia	---	---	---	---	B Vernal moist areas.	
H	C	Montia howellii	Howell's montia	---	C	4	---	A Vernal moist areas with sparse vegetation. Wet prairies (occ. on ant mounds); seepy, gravelly areas. Can grow in gravel in parking areas, road shoulders.	
M	V?	Navarretia leucocephala	White-flowered navarretia	---	---	3	---	C Vernal pools.	
H	U?	Navarretia willamettensis	Willamette navarretia	---	---	1	---	---	Vernal pools.
M	C	Olsynium douglasii	Grass widows	---	---	---	---	B Grassy balds, rocky areas.	
M	L	Orobanche pinorum	Oceanspray broomrape	---	---	---	---	B Parasitic on <i>Holodiscus discolor</i> .	
H	V	Pellaea andromedifolia	Coffee fern	---	---	2	---	A Warm, south-facing rocky areas.	
M	V	Polygonum punctatum	Dotted smartweed	---	---	3	---	C Wet areas, including marshes.	
H	V	Pyrrcoma racemosa var. racemosa	Racemose pyrrcoma	---	---	2	---	A Wet to moist prairies.	
H	U	Romanzoffia thompsonii	Thompson mistmaiden	---	---	1	---	A Seepy areas on south slopes. Does not compete well with taller vegetation. Historic sighting in SRHS area.	
H	V	Rotala ramosior	Toothcup	---	---	2	---	C Shorelines.	
M	V	Scirpus pallidus	Pale bulrush	---	---	3	---	C Wet areas, including ditches.	
H	U	Scirpus pendulus	Drooping bulrush	---	---	2	---	A Wet areas, including ditches.	
M	C	Senecio macounii	Puget groundsel	---	---	---	---	B Savannas, open woodlands. (Very old Spencer Butte site. Added 2006.)	
H	C	Sericocarpus rigidus (Aster curtus)	White-topped aster	SOC	LT	1	Y	A Prairies and savannas, upland to moist. Sometimes with some disturbance.	
H	L	Sidalcea campestris	Meadow checkermallow	---	C	4	---	A Dry to moist prairies and savannas; also edges and gaps	
M	U	Sidalcea cusickii	Cusick's checkermallow	---	---	4	---	---	Damp to wet prairie, forest edges and gaps.
M	V	Silene hookeri ssp. hookeri	Hooker's pink	---	---	---	---	B Dry prairies and savannas. (Added 2006.)	
H	C	Sisyrinchium hitchcockii	Hitchcock's blue-eyed grass	SOC	---	1	---	A Wet to moist prairie.	
M	U	Triteleia grandiflora ssp. howellii	Howell's brodiaea	---	---	---	---	B Dry to moist prairies.	
M	U	Verbena hastata	Blue verbena	---	---	4	---	B Moist areas.	

V	O	Scientific Name	Common Name	Fed	FW	NH	CS	Habitat Notes
M	U	<i>Viola hallii</i>	Hall's violet	---	---	---	---	B Upland prairie.
M	C	<i>Viola praemorsa</i> ssp. <i>prae.</i>	Upland yellow violet	---	---	---	---	B Dry prairies and savannas. (Added 2006.)
H	V	<i>Wolffia borealis</i>	Dotted water-meal	---	---	2	---	A Stagnant water.
H	V	<i>Wolffia columbiana</i>	Columbia water-meal	---	---	2	---	A Stagnant water.

TABLE 3: HABITAT AND RANGE OF UNCOMMON AND RARE ANIMALS AND PLANTS OF THE SOUTH RIDGELINE HABITAT STUDY AREA

The following paragraphs contain narratives addressing research and field findings for the original target species of this study, plus any others that were documented to occur within or very close to the study area. As previously noted, field observation of these species was limited to incidental detection during general habitat surveys. Plant ranges are from sources listed at the end of this appendix. Additional plant range information from Flora of North America and the Oregon Flora Project (both on the web).

Notes:

V = Value, from Uncommon and Rare Animals and Plants of the South Ridgeline Study Area (Table 2).

06 = Seen (Y) or not seen (N) during the summer 2006 SRHS inventory.

Common name	V	06	SRHS area population information	Habitat & range
PLANTS				
Fleshy lupine	M	N	Seen roadside (mowed, in public ROW) adjacent to HAU 11. Known in HAU 11 from previous record.	Open areas. Endemic to SW OR and NW CA.
Grass widows	M	N	Only population known in SRHS area is in rocky habitat at top of Spencer Butte, where hundreds are present. Early flowering. Not visited as a part of SRHS study.	Open areas, usually rocky. Small, historic population on Skinner Butte likely extirpated by trail construction or use. Small population known on Mt. Pisgah. Scattered in western N. America.
Hitchcock's blue-eyed grass	H	Y	Seems to be most common in HAU 2 habitats that were opened up from logging. Found in two other HAUs.	Large population in upper Amazon basin, on valley floor near creek. Widely scattered elsewhere in moist, open habitats in our area. Endemic to southern Willamette Valley (Lane Co.), Roseburg area (Douglas Co.), and Humboldt Co. (CA).
Howell's montia	H	N	Known from near the SRHS area.	Wet prairies (rare); moist, low spots in gravel

Common name	V	06	SRHS area population information	Habitat & range
				(uncommon). Scattered, ephemeral (waif); may “come and go.” Ranges from SW BC to NW CA, west of the Cascades. Most known sites are within the southern Willamette Valley ecoregion.
Kincaid’s lupine	H	N	Several populations known lower in the Willow Creek area close to the SRHS area. Other small populations known elsewhere in West Eugene. One large population on hillside to southwest of study area. Sickle-keeled lupine, a similar species, was seen in HAU 8. (Because it is an alternate host for the Fender’s Blue Butterfly, surveys for that species should be conducted.)	Primarily an upland prairie and savanna species, but can grow in or very close to wetlands (as in the West Eugene Wetlands area). Western Oregon endemic: ranges from Yamhill County south into Douglas County.
Meadow checkermallow	H	Y	Seen in 3 VMUs in HAU 12.	Scattered in open areas, particularly along fence lines or on edges. Endemic to the Willamette Valley.
Puget groundsel	M	N	Not seen at the historical Spencer Butte site for many decades.	Grows in open habitats. Range is from BC to Baja, but no extant populations known in southern Willamette Valley or Umpqua Valley.
Shaggy horkelia	H	N	Historic Spencer Butte population not seen for many decades.	Grows in prairies and savannas, from moist to fairly dry conditions. Endemic to western Oregon.
Tall bugbane	H	Y	Several recorded populations exist within the study area, each having a fairly small number of individuals. Some were seen during the SRHS inventory.	Found most often in our area in gaps or on edges of moist conifer forests. It occasionally can be found in shady, somewhat drier forests. Generally, it grows on north slopes, but it can occur on east, or rarely, west, slopes. As shady canopies close over populations, they may either disappear entirely, or wane as nonflowering plants until a new gap opens.

Common name	V	06	SRHS area population information	Habitat & range
				Endemic to western Oregon and Washington (small overlap into SW BC), occurring mostly in western Oregon. If the two varieties gain recognition by the Oregon Flora Project, only var. <i>elata</i> will be in our area, ranging from Douglas County northward.
Thin-leaved peavine	H	N	Known from nearby to the west.	Typical habitat for this species in our area includes edges, riparian areas, oak savanna and woodland, fencerows and roadsides. It tends to climb weakly on other vegetation. Essentially a Willamette Valley endemic , with a small extension into WA, and possibly, Douglas County.
Thompson's mistmaiden	H	N	This species has not been seen in the study area for many years, and only one location was noted historically. It is possible that grazing, development, woody encroachment, invasion by exotics, and other impacts resulted in local extirpation of this species.	The exact site of the historic location is not known (at the "base of Spencer Butte"), and the nearest known population is on BLM land several miles to the east. Normally, it prefers moist seeps in southerly-sloping prairie areas. Endemic to the W. Cascades of Oregon from Marion Co. south to Jackson Co. Few populations to the west in the Willamette Valley ecoregion.
Upland yellow violet	M	N	Known previously from HAU 11 and 13.	Upland prairies, and possibly savannas. Grows from SW BC to CA. Quite a few sites with small numbers in the Willamette Valley, and scattered throughout mountainous areas of Oregon.
Wayside aster	H	Y	Several recorded populations exist within the study area. Some were seen during the SRHS inventory. Two new populations were recorded: one in HAU 10, one adjacent to HAU 13.	It grows in forest openings and edges, woodlands and savannas. It is somewhat difficult to identify because it has nondescript foliage, and flowers without petals. Endemic to SW Oregon , from southern Linn County, to Jackson and Josephine counties. Vast majority of recorded populations are in Willamette Valley foothills of southern Lane County.

Common name	V	06	SRHS area population information	Habitat & range
Willamette daisy	H	N	Known only in the SRHS area from the Willow Creek Preserve and other West Eugene Wetlands sites.	Grows in prairies and savannas, from moist to fairly dry conditions. A Willamette Valley endemic.
White-top aster	H	N	One site that was recorded recently in HAU 3 was not seen during the SRHS inventory. Other sites are in the W. Eugene Wetlands area.	Grows in prairies and savannas, from moist to fairly dry conditions. Endemic to the Willamette Valley – Puget Trough ecoregion , with the vast majority in the Willamette Valley, and a few in WA at the south end of Puget Sound.
WILDLIFE				
Little willow flycatcher	H	Y	Found erratically in and near the SRHS area.	Prefers shrubby habitats, such as willow thickets, clearcuts, etc. Known in 19 counties in 4 ecoregions in western OR. Also known in WA and CA.
Mountain quail	M	Y	Found erratically in and near the SRHS area.	Prefers shrubby areas bordering on open habitats. Ranges from WA and ID south to Baja California.
Northern red-legged frog	H	Y	Population size and density unknown in the SRHS area, but there have been several sightings in recent history. (See Supplemental Information at the end of this document.) Incidental sightings during the SRHS in HAUs 12 and 13.	Need shallow water for breeding, with adjacent forests with dense understories for dispersal. Ranges from BC south to Baja California, generally in or west of the Cascade-Sierra mountains. The Northern subspecies ranges south into northern CA, and the CA subspecies ranges south from that point.
Olive-sided flycatcher	H	Y	Occasional on ridge tops in and near the study area. Particularly noticeable if singing from an exposed perch (although usually high in a tree).	Nests in forests; perches and flycatches from conspicuous snag. Ranges across North America.
Pileated woodpecker	H	Y	Found with some regularity in mature forests in the SRHS area. (See Supplemental Information at the end of this document.)	Associated with forest habitats. Ranges across northern North America, all of U.S. east of Mississippi, down W. Coast to central California.
Western gray	H	Y	Found with some regularity in drier forests,	Associated with oak habitats from WA, through OR to CA,

Common name	V	06	SRHS area population information	Habitat & range
squirrel			and occasionally in developed areas, in and near the SRHS area.	and a small part of NV.
Western rattlesnake	H	Y	Known only from Spencer Butte in the study area. Mostly extirpated from Willamette Valley.	Open, rocky areas and dry forests. Found mostly to the south and east, but broad ranging.
White-breasted nuthatch	H	Y	Occurrence is irregular in the area. Known to occur in the white and black oaks near the Morse Ranch.	In our area, generally associated with oaks, especially if there are some larger diameter individuals present. Ranges across the US, and also in western Canada and in Mexico. The subspecies that occurs west of the Cascades is the slender-billed.
Yellow-breasted chat	H	Y	Noted in 2 HAUs during the SRHS inventory, and seen in a third previous to the project.	Occurs in dense, brushy areas and thickets, especially near water. Ranges across the US and into Mexico.

Supplemental information for Northern Red-legged Frog and Pileated Woodpecker

The following two wildlife species receive more detailed treatment here at the request of the City, because they had been highlighted by citizens interested in the SRHS inventory.

Northern red-legged frog. Much of the background information below was obtained from Hayes et al. 2006 and Pearl et al. 2005. These and additional sources are noted where specifically applicable.

Northern red-legged frogs breed in wetlands and spend non-breeding time in moist forests at lower elevations. In particular, their aquatic, breeding habitats have declined due to development, encroaching woody and invasive exotic vegetation, introduction of predacious, exotic species, and hydrologic changes.

Northern red-legged frogs prefer seasonal ponds for breeding, and attach their eggs in late winter to submerged vegetation or sticks. After hatching, and metamorphosing through the tadpole stage to adults in spring and early summer, they leave the aquatic habitat and disperse into moist forests to forage until the next winter breeding cycle begins. The herpetologist for this project developed inventory protocols for recording suitable habitat features for this species. Suitability mapping then was produced using this “fine scale,” observed features, and a second suitability map was produced using a “coarse scale” method tied to the recorded vegetation cover type.

Context and importance regionally and in the SRHS study area. Northern red-legged frogs are a federal Species of Concern, and an ODFW Sensitive Vulnerable species and Strategy Species for the Willamette Valley (ORNHC 2004, ODFW 2006), as they are known to have been more common historically, but have declined as their wetland habitats have been drained, converted to other uses, or altered by invasive, exotic vegetation, fish and possibly bullfrogs (Pearl et al. 2005).

The moist, deciduous forest areas near breeding areas used for post-breeding dispersal and feeding (Hayes et al. 2006) could be maintained in conditions favorable for this species so as to preserve existing populations, and potentially, restore them where feasible. Because roads can lead to adult mortality (Hayes et al. 2006), their construction between breeding and dispersal/feeding habitats should be minimized if possible.

Pileated woodpecker. Much of the habitat and life cycle information for this section is drawn from Appendix __. Additional sources are noted where applicable.

Nesting. This large woodpecker excavates nesting cavities in large snags (generally 20" dbh or larger), and usually in conifer or mixed forests over 70 years old. Most nests are in dead conifers, but they may occasionally be in hardwood trees. Although they normally excavate a new nest hole each year, a fledgling was noted in a previously-used hole in Hendricks Park during the course of this study (Gleason, pers. comm.) This was the only active nest confirmed during our study, but others are suspected based on the number and spacing of detections. Gleason (pers. comm.) noted that during nesting, the birds become very secretive, so nests may be difficult to detect. (Nest surveys were not a part of this project.)

Unused nesting cavities may be used by Pileated woodpeckers for night roosting, or may be used by other species of wildlife (Appendix __). Most of the listed secondary users listed in the Attachment are common species, and others are not expected to occur in this area. One species (Silver-haired bat) is on both the target list for the SRHS area and on the Attachment list, and may use abandoned Pileated woodpecker nest cavities. It has not been documented in or near the study area, but could occur – especially in any areas beginning to achieve late-successional structure.

It is possible that Pileated woodpeckers inoculate living and dead wood with fungal spores inadvertently transported from excavations at other sites (in Aubrey and Raley 2002), or that their bark removal and excavations may create sites for later inoculation by other means. Fungal inoculation could lead to two future, favorable conditions for Pileated woodpeckers: softening of heartwood, which can facilitate creation of nest cavities (although nests can be excavated in uninfected wood, also), and condition wood to favor carpenter ant infestation (and thus, create a food source).

Foraging. Pileated woodpeckers may forage wherever preferred foods can be found. Carpenter ants are the highest priority food, with beetle larvae, termites, and seasonally-available fruits and nuts also important. Carpenter ants tend to occur most commonly in rotting snags and logs, and at the bases of trees with butt and/or heart rot. Evidence of Pileated woodpecker foraging excavations can be seen in those situations. Smaller, exploratory holes are round, and larger holes are rectangular. In addition to the mature forests associated with nesting, younger forests and woodlands, including riparian areas, also provide foraging opportunities – especially if large trees, snags and/or logs are present and stand age is over 40 years.

Regional and local context. From an historical perspective, the 1851 vegetation map (Appendix __) shows little forest habitat type suitable for Pileated woodpeckers present within or near the SRHS area: the exception being the northwest slope of Spencer Butte.

Gabrielson and Jewett (1940; quoting Woodcock 1902, for Oregon) state that Pileated woodpeckers were hunted by native peoples, and after EuroAmerican settlement, “the birds are now on the increase.” They mention in 1940 that the bird was “fairly common and widely distributed for so large and conspicuous a bird.” In addition to the noted decrease in aboriginal hunting, these observations apply well to the SRHS area because of the increase in area of forest habitat after EuroAmerican settlement (and throughout the ecoregion) discussed earlier likely provided suitable habitat where it did not previously exist.

Marshall et al. (2003) in *Birds of Oregon* identify the Pileated woodpecker as “an uncommon, permanent resident in older forests” in the Willamette Valley and elsewhere in Oregon “limited altitudinally by habitat availability; higher and lower elevations may lack large enough trees for nesting, roosting, and foraging.”

ODFW listed the Pileated woodpecker as Sensitive-Vulnerable in 1998, but they did not include it as a Strategy Species (ODFW 2006) for the Willamette Valley ecoregion as it did not meet the criteria. (Similarly, mature conifer forest did not meet the criteria as a Strategy Habitat in the Willamette Valley ecoregion.) Revised ODFW sensitive species listings are expected in late 2006 or early 2007. ORNHIC (2004) did not include the species on any list in their triennial rare species publication.

The ornithological expert consulted for this study evaluates the presence of Pileated woodpeckers in the overall SRHS area as “uncommon,” but “common” within areas of suitable habitat (Gleason, pers. comm.)

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