

TER 3 Appendix 1

Species / Habitat Associations

TER 3 Appendix 1. Species/habitat associations for the Lewis River Hydroelectric Projects¹

Species ³	Habitat Types ²															
	LPP	M	MD/AG	MS	MX	OG	OR	P	RI	RE	SH	SS	UD	WL	DST	ROCK
AMPHIBIANS (16)																
western red-backed salamander					X	X			X						X	X
rough-skinned newt		X	X		X	X			X			X	X	X		
ensatina	X				X	X			X					X	X	X
Pacific giant salamander					X				X							
Cope's giant salamander									X							
Cascade torrent salamander*									X				X			X
Larch Mountain salamander*									X						X	X
Van Dyke's salamander*									X							X
long-toed salamander														X		
northwestern salamander									X					X		
frog (sp.)									X					X		
Cascade frog														X		
tailed frog									X					X		
Pacific treefrog		X	X	X		X			X				X	X		
northern red-legged frog						X			X					X		
bullfrog									X				X	X		
western toad*									X					X		
TOTAL AMPHIBIANS	1	2	2	1	4	5	0	0	14	0	0	1	4	10	3	5
REPTILES (4)																
garter snake (sp.)												X		X		X
northwestern garter snake														X		X
rubber boa																X
northern alligator lizard					X						X	X			X	X
painted turtle														X		
TOTAL REPTILES	0	0	0	0	1	0	0	0	0	0	1	1	0	2	1	3

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BIRDS (114)																
Waterfowl and Waterbirds (14)																
waterfowl (sp.)				X						X				X		
common loon*										X						
western grebe										X				X		
pied-billed grebe										X						
double-crested cormorant*										X						
Canada goose				X	X			X				X	X	X		
mallard									X	X				X		
American wigeon										X				X		
blue-winged teal														X		
wood duck*									X					X		
ring-necked duck														X		
lesser scaup														X		
bufflehead*										X				X		
common merganser									X	X				X		
hooded merganser*										X				X		
Total Waterfowl & Waterbirds	0	0	0	1	1	0	0	1	3	9	0	1	1	11	0	0
Gulls and Shorebirds (8)																
Caspian tern						X										
gull (sp.)	X								X	X				X		
glaucous-winged gull										X						
ring-bill gull										X						
California gull									X	X						
great blue heron*									X	X				X		
green heron														X		

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	LPP	M	MD/AG	MS	MX	OG	OR	P	RI	RE	SH	SS	UD	WL	DST	ROCK
killdeer					X				X	X				X		
spotted sandpiper									X	X				X		
Total Gulls & Shorebirds	0	0	0	0	1	1	0	0	4	6	0	0	0	4	0	0
Raptors, Vultures, and Owls (9)																
bald eagle*	X					X		X	X	X				X		
sharp-shinned hawk	X											X	X			
red-tailed hawk	X	X		X	X				X		X	X	X	X		
osprey [#]	X	X		X	X	X		X	X	X		X	X	X		
owl (sp.)													X			
great horned owl	X															
barred owl				X												
northern spotted owl*		X														
pygmy owl						X		X						X		
turkey vulture	X		X						X	X		X		X		
Total Raptors, Vultures & Owls	6	3	1	3	2	3	0	3	4	3	1	4	3	5	0	0
Gamebirds (7)																
band-tailed pigeon*		X			X			X				X	X			
mourning dove									X	X		X		X		
blue grouse*						X						X				
ruffed grouse				X						X		X		X		
common snipe														X		
wild turkey*								X								
peacock												X				
Total Gamebirds	0	1	0	1	1	1	0	2	1	2	0	5	1	3	0	0
Nightjars, Swifts, and Hummingbirds (5)																
belted kingfisher	X				X				X	X				X		
Vaux's swift*												X		X	X	

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	LPP	M	MD/AG	MS	MX	OG	OR	P	RI	RE	SH	SS	UD	WL	DST	ROCK
common nighthawk	X															
hummingbird (sp.)	X								X		X			X		
rufous hummingbird	X		X	X		X			X	X	X	X	X	X		
black-chinned hummingbird	X												X			
Total Nightjars, Swifts, and Hummingbirds	4	0	1	1	1	1	0	0	2	2	1	2	2	3	1	0
Woodpeckers (5)																
woodpecker (sp.)	X		X	X	X	X			X				X	X		
red-breasted sapsucker		X	X	X					X			X	X	X		
pileated woodpecker*	X	X	X		X	X		X	X	X		X	X	X		
northern flicker	X	X		X	X	X		X	X		X	X	X	X		
downy woodpecker	X				X	X		X	X	X		X	X	X	X	
hairy woodpecker		X		X		X			X		X	X	X	X		
Total Woodpeckers	3	4	2	3	3	4	0	3	5	2	2	5	5	5	1	0
Flycatchers and Swallows (11)																
flycatcher (sp.)					X											
Hammond's flycatcher	X	X		X	X	X			X	X	X		X	X		
alder flycatcher												X				
Pacific slope flycatcher		X	X	X	X	X		X	X	X	X	X	X	X		
willow flycatcher			X	X	X	X		X	X	X		X	X	X		
olive-sided flycatcher			X													
western wood-pewee		X		X	X								X	X		
swallow (sp.)	X	X			X					X		X	X	X		
tree swallow									X	X				X		
violet green swallow									X	X				X		
cliff swallow									X	X						
barn swallow			X						X	X			X	X		
northern rough-winged swallow									X	X				X		

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	LPP	M	MD/AG	MS	MX	OG	OR	P	RI	RE	SH	SS	UD	WL	DST	ROCK
Total Flycatchers & Swallows	1	3	4	4	4	3	0	2	8	8	2	3	5	8	0	0
Jays, Crows, and Creepers (6)																
scrub jay	X												X			
Steller's jay	X	X	X	X	X	X		X	X	X	X	X	X	X		
American crow	X	X		X	X	X	X	X	X	X	X	X	X	X		
common raven	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
brown-headed cowbird	X				X				X				X	X	X	
brown creeper		X				X										
Total Jays and Crows	5	4	2	3	4	4	1	3	4	3	3	3	5	4	2	0
Chickadees, Wrens, and Thrushes (17)																
chickadee (sp.)	X	X	X		X	X		X				X	X	X		
black-capped chickadee	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
mountain chickadee	X				X											
chestnut-backed chickadee	X	X		X	X	X		X	X	X	X	X	X	X	X	
bushtit												X	X	X		
red-breasted nuthatch	X	X		X	X	X		X		X	X	X	X	X		
white-breasted nuthatch													X			
winter wren	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
marsh wren														X		
kinglet (sp.)					X									X	X	
ruby-crowned kinglet	X				X					X		X		X	X	
golden-crowned kinglet	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
hermit thrush					X			X								
Swainson's thrush	X	X	X	X	X	X		X	X	X	X	X	X	X		
varied thrush	X	X		X	X	X		X		X	X	X	X	X	X	
American robin	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
American dipper									X	X				X		
cedar waxwing			X	X	X		X		X	X	X	X	X	X		

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European starling									X	X			X	X	X	
Total Chickadees, Wrens, & Thrushes	10	8	6	9	12	8	2	9	9	12	9	11	12	14	7	0
Vireos and Warblers (13)																
Hutton's vireo					X	X					X	X		X	X	
Cassin's vireo				X						X	X		X	X		
warbling vireo	X				X			X	X	X	X	X	X	X		
warbler (sp.)													X			
orange-crowned warbler									X				X			
black-throated gray warbler	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
yellow warbler									X		X	X		X		
yellow-rumped warbler					X								X	X		
Nashville warbler											X	X				
MacGillivray's warbler		X	X		X	X		X			X	X		X		
hermit/Townsend's warbler		X				X										
hermit warbler		X														
Wilson's warbler			X	X	X	X		X	X	X	X		X	X		
common yellowthroat		X	X						X	X	X		X	X		
Total Vireos & Warblers	2	5	4	3	6	5	0	4	6	5	9	6	7	9	2	0
Grosbeaks, Buntings, and Sparrows (11)																
black-headed grosbeak		X	X	X		X		X			X	X	X	X		
lazuli bunting			X													
evening grosbeak						X			X		X	X	X	X		
spotted towhee	X		X	X	X	X		X			X	X	X	X	X	
savannah sparrow			X													
song sparrow			X	X	X	X	X	X	X	X		X	X	X		
chipping sparrow												X				
dark-eyed junco	X	X	X	X	X	X		X	X	X	X	X	X	X		

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white-crowned sparrow	X		X	X	X	X		X	X	X		X		X		
golden-crowned sparrow			X					X								
pine siskin				X										X		
Total Grosbeaks, Buntings, & Sparrows	3	2	8	6	4	6	1	6	4	3	4	7	5	7	1	0
Blackbirds, Orioles, and Finches (7)																
red-winged blackbird										X				X		
Brewer's blackbird									X					X		
northern oriole														X		
western tanager	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
finch (sp.)												X				
American goldfinch	X					X	X		X	X	X	X	X	X		
red crossbill								X								
purple finch	X			X				X				X		X		
Total Blackbirds, Orioles, & Finches	3	1	1	2	1	2	2	3	3	3	2	3	2	7	0	0
TOTAL BIRDS	37	31	29	36	40	38	6	36	53	58	33	50	48	79	14	0
MAMMALS (13)																
Townsend's big-eared bat*																X
Townsend chipmunk						X							X			
Douglas squirrel	X	X		X	X	X		X		X	X	X	X		X	
beaver			X						X				X	X		
mink*									X	X				X		
coyote												X		X	X	
bobcat													X			
black bear				X	X											
elk*	X	X	X	X	X	X		X	X		X	X	X	X	X	
black-tailed deer*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

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pocket gopher												X				
striped skunk				X		X					X					
raccoon														X		
TOTAL MAMMALS	3	3	3	5	4	5	1	3	4	3	4	5	6	6	4	1
Total No. of Species³	41	36	34	42	49	48	7	39	71	61	38	57	58	98	22	9

* WDFW priority species (1999).

Osprey is currently being reviewed for removal from the WDFW priority species list (pers. comm., N. Nordstrom, PHS Program, WDFW, Olympia, Washington, February 4, 1999).

¹ List is based on observations at Yale (1995-1998), Merwin (2000), and Swift (2000). The Swift bypass reach is included as part of the Yale Project; the Saddle Dam Farm area was included as part of the Yale Project in the 1995-1998 surveys, but observations in 2000 were recorded for Merwin. The amount of time spent at each project is not equivalent; observations at Yale included 6 bird surveys in different seasons and habitats, as well as incidental observations. Observations of birds at Merwin and Swift were all incidental to other field studies. Bird observations included species flying overhead.

² Habitat types: LPP-lodgepole pine, M-mature conifer, MD/AG-meadow/agriculture, MS-mid-successional conifer, MX-mixed conifer/deciduous, OG-old-growth conifer, OR-orchard, P-pole conifer, RI=riparian deciduous/riverine, RE-reservoir/shoreline, SH-shrubland, SS-seedling/sapling, UD-upland deciduous, WL-wetland, DST-disturbed, ROCK-rock/talus/cave.

³ Wildlife not recorded to species (e.g., frog sp.) are not included in totals.