

Report Criteria

TSA:	Okanagan	Prov Stat:	
BEC:	IDF mw	Sec7	

Species	Prov Status	Key Stand Features	Crown Closure	Critical Aspect 1	Slope Range Comment	Age Class	Topographic or Distinguishing Feature	Max Elevation	Lead Species	Additional Management Considerations	Likelihood
 American Avocet (Recurvirostra americana)	Red-listed	water's edge, wetlands, alkaline ponds, mudflats	Not Applicable	Not Available	flat or gentle slopes	Not Applicable	wetlands, lakes with islands, alkaline ponds	Not available	Not Applicable	Likely more breeding pairs/small colonies at alkaline ponds and other types of wetlands than documented. Prudent to apply Riparian Area Management Guidebook or Riparian Area Regulation, regardless of wetland or pond size if suitable shoreline exists and water depth >.75m. A no resource extraction or access buffer may enhance success of nesting as well as provide post-fledging areas; adults move young several hundred m or more post-fledging for security. Information gaps large, so prudent to apply what little info is available.	Low-Moderate
 American Avocet (Recurvirostra americana)	Red-listed	water's edge, wetlands, alkaline ponds, mudflats	Not Applicable	Not Available	flat or gentle slopes	Not Applicable	wetlands, lakes with islands, alkaline ponds	Not available	Not Applicable	Likely more breeding pairs/small colonies at alkaline ponds and other types of wetlands than documented. Prudent to apply Riparian Area Management Guidebook or Riparian Area Regulation, regardless of wetland or pond size if suitable shoreline exists and water depth >.75m. A no resource extraction or access buffer may enhance success of nesting as well as provide post-fledging areas; adults move young several hundred m or more post-fledging for security. Information gaps large, so prudent to apply what little info is available.	Low-Moderate
 American Bittern (Botaurus lentiginosus)	Blue-listed	wetlands	Not Applicable	Not Available	Likely flat is most applicable, since nest and forage for in/near water.	Not Applicable	Wetland, riparian, aquatic systems	1300m	Not Applicable	Large wetlands, and aquatic and wetland complexes, should be avoided for any resource use, including timber harvest. For harvesting: maintain a buffer of existing stand, if present, surrounding wetland to avoid impact or disturbance; if grassland surrounding wetland, maintain existing grassland buffer with no roads, etc, sufficient to avoid impact. Dense emergent vegetation is a seral stage and wetland management (MoE?) should ensure sustainability by monitoring and maintaining water levels. Riparian Area Mgmt Guidebook may be used to determine buffer size.	Low-Moderate
 American Bittern (Botaurus lentiginosus)	Blue-listed	wetlands	Not Applicable	Not Available	Likely flat is most applicable, since nest and forage for in/near water.	Not Applicable	Wetland, riparian, aquatic systems	1300m	Not Applicable	Large wetlands, and aquatic and wetland complexes, should be avoided for any resource use, including timber harvest. For harvesting: maintain a buffer of existing stand, if present, surrounding wetland to avoid impact or disturbance; if grassland surrounding wetland, maintain existing grassland buffer with no roads, etc, sufficient to avoid impact. Dense emergent vegetation is a seral stage and wetland management (MoE?) should ensure sustainability by monitoring and maintaining water levels. Riparian Area Mgmt Guidebook may be used to determine buffer size.	Low-Moderate

Species	Prov Status	Key Stand Features	Crown Closure	Critical Aspect 1	Slope Range Comment	Age Class	Topographic or Distinguishing Feature	Max Elevation	Lead Species	Additional Management Considerations	Likelihood
American White Pelican (Pelecanus erythrorhychos)	Red-listed	Riparian/wetland vegetation/forest that provides isolation to aquatic system	Not Available	Not Available	Islands used for nesting are often flat	Not Applicable	Slow flowing aquatic systems, lakes with islands	1220m	Not Applicable	No traffic (vehicular or aircraft) near, on, in, or over lakes/aquatic systems used for nesting, foraging, loafing/roosting (no roads within 1-8km of foraging lakes-consult MoE where foraging is confirmed); no change in water levels; Apply largest reserve as per riparian or lakeshore guidelines under FRPA; maximize core and buffer adjacent to known foraging, roosting, loafing sites to maintain quality and isolation of aquatic habitat ; reserve area should be min 1km around aquatic habitat in use.	Moderate
American White Pelican (Pelecanus erythrorhychos)	Red-listed	Riparian/wetland vegetation/forest that provides isolation to aquatic system	Not Available	Not Available	Islands used for nesting are often flat	Not Applicable	Slow flowing aquatic systems, lakes with islands	1220m	Not Applicable	No traffic (vehicular or aircraft) near, on, in, or over lakes/aquatic systems used for nesting, foraging, loafing/roosting (no roads within 1-8km of foraging lakes-consult MoE where foraging is confirmed); no change in water levels; Apply largest reserve as per riparian or lakeshore guidelines under FRPA; maximize core and buffer adjacent to known foraging, roosting, loafing sites to maintain quality and isolation of aquatic habitat ; reserve area should be min 1km around aquatic habitat in use.	Moderate
Badger (Taxidea taxus)	Red-listed	Not Applicable	<20%	N/A	Not Relevant	<4	Not Available	2800	Not Applicable	Where appropriate, apply restoration treatments to maintain/create grassland and open forest conditions suitable as badger habitat. Where feasible, maintain disturbed, early seral NDT3 sites as badger habitat by delaying and/or reducing restocking. Protect prey species. Do not use rodenticides. Off-road vehicle use (e.g., ATVs) should be restricted in areas of high badger use.	Moderate
Badger (Taxidea taxus)	Red-listed	Not Applicable	<20%	N/A	Not Relevant	<5	Not Available	2800	Not Applicable	Where appropriate, apply restoration treatments to maintain/create grassland and open forest conditions suitable as badger habitat. Where feasible, maintain disturbed, early seral NDT3 sites as badger habitat by delaying and/or reducing restocking. Protect prey species. Do not use rodenticides. Off-road vehicle use (e.g., ATVs) should be restricted in areas of high badger use.	Moderate
 Barn Swallow (Hirundo rustico)	Blue-listed	Riparian habitats and wetlands	Not Available	Not Available	Not Relevant	Not Available	Wetland, riparian, aquatic systems, Open forest or grasslands	Not available	Not Available	Likely use clearcuts since prefer open habitats; also, may use vets since nest in buildings, barns, etc. Retain herbaceous vegetation near wetlands/riparian	Not available
 Barn Swallow (Hirundo rustico)	Blue-listed	Riparian habitats and wetlands	Not Available	Not Available	Not Relevant	Not Available	Wetland, riparian, aquatic systems, Open forest or grasslands	Not available	Not Available	Likely use clearcuts since prefer open habitats; also, may use vets since nest in buildings, barns, etc. Retain herbaceous vegetation near wetlands/riparian	Not available
 Bighorn Sheep (Ovis canadensis)	Blue-listed	Snow-interception, open, steep south aspect slopes; talus; mineral licks; watering features	Not Available	S	27°<Escape terrain<85°	1-9	Steep rocky slopes	3000m	Fd, Py	Avoid introducing invasive species (non-native plants, weeds); retain habitat features in seasonal habitats (old-growth in lower elevation winter habitats). Consider intensive silviculture or habitat enhancement (spacing/thinning) outside Apr-Jul, Oct-Nov.	Moderate

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	Bighorn Sheep (Ovis canadensis)	Blue-listed	Snow-interception, open, steep south aspect slopes; talus; mineral licks; watering features	Not Available	S	27°<Escape terrain<85°	1-9	Steep rocky slopes	3000m	Fd, Py	Avoid introducing invasive species (non-native plants, weeds); retain habitat features in seasonal habitats (old-growth in lower elevation winter habitats). Consider intensive silviculture or habitat enhancement (spacing/thinning) outside Apr-Jul, Oct-Nov.	Unknown
	Fisher (Martes pennanti)	Blue-listed	large, elevated CWD (>65cm DBH), decay classes 2-6 (logs), largest coniferous and deciduous trees available, particularly with heart rot and/or cavities, trees with brooms, wildlife tree classes 2-3 preferred, 2-6 acceptable	30	Not Available	Slope likely not applicable, critical habitat component: stand structure	>4	River/stream, wetlands	2500	Not Applicable	Old forest structure more important than forest type. Large diameter Act critical for breeding, largest trees within a landscape should be retained; highest habitat suitability are characteristics of old growth SBS, SWB, and BWBS zones, particularly riparian/wetland; retain trees with heart rot and >54cm bole diameter at 5m above ground; maintain connectivity between upland and riparian	Moderate-High
	Fisher (Martes pennanti)	Blue-listed	large, elevated CWD (>65cm DBH), decay classes 2-6 (logs), largest coniferous and deciduous trees available, particularly with heart rot and/or cavities, trees with brooms, wildlife tree classes 2-3 preferred, 2-6 acceptable	30	Not Available	Slope likely not applicable, critical habitat component: stand structure	>4	River/stream, wetlands	2500	Not Applicable	Old forest structure more important than forest type. Large diameter Act critical for breeding, largest trees within a landscape should be retained; highest habitat suitability are characteristics of old growth SBS, SWB, and BWBS zones, particularly riparian/wetland; retain trees with heart rot and >54cm bole diameter at 5m above ground; maintain connectivity between upland and riparian	Moderate-High
	Fringed Myotis (Myotis thysanodes)	Blue-listed	some Py >30cm DBH, all Py >50cm DBH, all wildlife trees >30cm DBH in classes ≥3	Unknown	S, SE, SW	steep	5-9	Cliffs, scree/talus, rock outcrop	1200	Py	Prescribe logging in lower diameter classes at a level that ensures large diameter stem recruitment and mimics fire maintained stand (NTD4). Conduct silviculture operations Sept 01 - Apr 30 to minimize disturbance to maternity colonies. See FSP results and strategies	Low
	Fringed Myotis (Myotis thysanodes)	Blue-listed	some Py >30cm DBH, all Py >50cm DBH, all wildlife trees >30cm DBH in classes ≥3	Unknown	S, SE, SW	steep	5-9	Cliffs, scree/talus, rock outcrop	1200	Py	Prescribe logging in lower diameter classes at a level that ensures large diameter stem recruitment and mimics fire maintained stand (NTD4). Conduct silviculture operations Sept 01 - Apr 30 to minimize disturbance to maternity colonies. See FSP results and strategies	Low
	Great Basin Spadefoot (Spea intermontana)	Blue-listed	Uncompacted soils adjacent/nearby aquatic systems, CWD and vets (CWD recruitment)	<30%	S, SW	As per M. Sarell	Unknown	Shallow and ephemeral water: River/Stream, Flooded land, Lake, Pond	1200	Unknown	Confirm breeding by tadpole identification in Jun-Jul; breeding typically < 600m elevation, aquatic habitat; foraging and hibernation in xeric, upland sites; frequent valley bottoms. See FSP results and strategies	Very Low
	Great Basin Spadefoot (Spea intermontana)	Blue-listed	Uncompacted soils adjacent/nearby aquatic systems, CWD and vets (CWD recruitment)	<30%	S, SW	As per M. Sarell	Unknown	Shallow and ephemeral water: River/Stream, Flooded land, Lake, Pond	1200	Unknown	Confirm breeding by tadpole identification in Jun-Jul; breeding typically < 600m elevation, aquatic habitat; foraging and hibernation in xeric, upland sites; frequent valley bottoms. See FSP results and strategies	Very Low

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Great Blue Heron (Ardea herodias herodias)	Blue-listed	Riparian forest, including Act and mixed conif-decid, trees capable of supporting nest platform 50-100cm diameter	Not Available	Not Relevant	Not Relevant	>2	valley bottoms	1100	Act, Cw, Fd, Hw, Sx, Py	Avoid disturbance mid-February-August 31 (breeding period) within 500m of breeding colonies; no harvest core (nest/colony), partial cut 300m buffer, clearcut beyond	Moderate
Great Blue Heron (Ardea herodias herodias)	Blue-listed	Riparian forest, including Act and mixed conif-decid, trees capable of supporting nest platform 50-100cm diameter	Not Available	Not Relevant	Not Relevant	>2	valley bottoms	1100	Act, Cw, Fd, Hw, Sx, Py	Avoid disturbance mid-February-August 31 (breeding period) within 500m of breeding colonies; no harvest core (nest/colony), partial cut 300m buffer, clearcut beyond	Moderate
 Grizzly Bear (Ursus arctos)	Blue-listed	Riparian habitats and wetlands, avalanche tracks and run out zones, Hedysarum (pea family/vetch) and glacier lily complexes, Sub-alpine parkland meadows, berry-producing sites	Not Available	N (denning)	generally steep, north aspects (denning)	1-9	Wetland, riparian, aquatic systems, wetlands	Alpine	Not Applicable	Grizzly bear mgmt should follow a broad landscape approach; listed here are stand and watershed requirements only; see high level plans (ie: FSP results and strategies). At cutblock level, key is to remove bear attractants, and at watershed level implement aggressive access mgmt plan that deactivates roads asap. Across landscape and over time, early seral stages that produce herbs and berries are critical for foraging.	Low-Moderate
 Grizzly Bear (Ursus arctos)	Blue-listed	Riparian habitats and wetlands, avalanche tracks and run out zones, Hedysarum (pea family/vetch) and glacier lily complexes, Sub-alpine parkland meadows, berry-producing sites	Not Available	N (denning)	generally steep, north aspects (denning)	1-9	Wetland, riparian, aquatic systems, wetlands	Alpine	Not Applicable	Grizzly bear mgmt should follow a broad landscape approach; listed here are stand and watershed requirements only; see high level plans (ie: FSP results and strategies). At cutblock level, key is to remove bear attractants, and at watershed level implement aggressive access mgmt plan that deactivates roads asap. Across landscape and over time, early seral stages that produce herbs and berries are critical for foraging.	Low-Moderate
 Lewis's Woodpecker (Melanerpes lewis)	Red-listed	Preferred tree size >44cm, in absence of large trees retain >29cm (acceptable)	<25%	W (west side of valleys)	Not Relevant	5-9	Not Applicable	1160	Act, At, Fd, Py	Nests found >1000m elevation were at burn edges; used shrub, herbeceous openings to forage for insects See FSP results and strategies	Low
 Lewis's Woodpecker (Melanerpes lewis)	Red-listed	Preferred tree size >44cm, in absence of large trees retain >29cm (acceptable)	<25%	W (west side of valleys)	Not Relevant	5-9	Not Applicable	1160	Act, At, Fd, Py	Nests found >1000m elevation were at burn edges; used shrub, herbeceous openings to forage for insects See FSP results and strategies	Low
Long-billed Curlew (Numenius americanus)	Blue-listed	Not Applicable	Not Applicable	Not Available	flat or gentle slopes		Gently rolling grassland	1220	Not Applicable	250-500ha reserve area supports known nesting pairs, incl foraging and brooding habitat; 500m buffer prevents disturbance	Low-Moderate

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	Long-billed Curlew (Numenius americanus)	Blue-listed	Not Applicable	Not Applicable	Not Available	flat or gentle slopes		Gently rolling grassland	1220	Not Applicable	250-500ha reserve area supports known nesting pairs, incl foraging and brooding habitat; 500m buffer prevents disturbance	Low-Moderate
	Night Snake (Hypsiglena torquata)	Red-listed	talus, Rock outcroppings, rocks	Not Available	Not Available	Rugged, rocky, arid slopes	Not Available	talus slopes, rock outcrop, rock fissures	1060	Not Available	Little information is available; likely not impacted from harvesting/silviculture directly, although road construction and other access could destroy dens/rock habitat. Avoid rocky slopes, gravelly soils in arid situations in S. Ok and lower Similkameen valleys.	Unknown
	Night Snake (Hypsiglena torquata)	Red-listed	talus, Rock outcroppings, rocks	Not Available	Not Available	Rugged, rocky, arid slopes	Not Available	talus slopes, rock outcrop, rock fissures	1060	Not Available	Little information is available; likely not impacted from harvesting/silviculture directly, although road construction and other access could destroy dens/rock habitat. Avoid rocky slopes, gravelly soils in arid situations in S. Ok and lower Similkameen valleys.	Unknown
	Olive-sided Flycatcher (Contopus cooperi)	Blue-listed	forest openings, Snags, riparian forest, tall live conifers, standing dead trees taller than surrounding forest	Not Available	Not Available	May not be relevant if wetland/riparian/bog dependent	Not Available	Wetland, riparian, aquatic systems, marsh, bog/fen; ponds	Not available	Not Available	Variable height snags appear to be critical: used for perching, foraging (insect capture). Live coniferous trees may be most important for nest placement (2-15m above ground). Harvest systems should mimic natural disturbance regime: fire, insect, flood, where applicable (ie: openings with standing dead trees some taller than surrounding forest).	Moderate
	Olive-sided Flycatcher (Contopus cooperi)	Blue-listed	forest openings, Snags, riparian forest, tall live conifers, standing dead trees taller than surrounding forest	Not Available	Not Available	May not be relevant if wetland/riparian/bog dependent	Not Available	Wetland, riparian, aquatic systems, marsh, bog/fen; ponds	Not available	Not Available	Variable height snags appear to be critical: used for perching, foraging (insect capture). Live coniferous trees may be most important for nest placement (2-15m above ground). Harvest systems should mimic natural disturbance regime: fire, insect, flood, where applicable (ie: openings with standing dead trees some taller than surrounding forest).	Moderate
 	Peregrine Falcon (Falco peregrinus anatum)	Red-listed	wetlands, cliffs	Not Available	Not Available	Cliffs	Not Available	Cliff face adjacent to aquatic system	2000	Not Available	Historic use of pesticides extirpated local populations; numbers returning under current management; critical to leave cliffs adjacent to rivers, wetlands, lakes undisturbed (limiting features)	Unknown
 	Peregrine Falcon (Falco peregrinus anatum)	Red-listed	wetlands, cliffs	Not Available	Not Available	Cliffs	Not Available	Cliff face adjacent to aquatic system	2000	Not Available	Historic use of pesticides extirpated local populations; numbers returning under current management; critical to leave cliffs adjacent to rivers, wetlands, lakes undisturbed (limiting features)	Unknown
	Prairie Falcon (Falco mexicanus)	Red-listed	Large diameter vets and snags (decay class 2-4), cliffs, largest trees in stand, early seral ground vegetation	Very low-nil	S	Cliffs	6-9	Cliff face, grassland and sagebrush, meadows	900m	Not Applicable	Maintain open country around known nest sites, with grassland/sage structure and/or early seral low density, patchy vegetation components; avoid human activities within 300ha Mar 15-Jul30.	Low-Moderate

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Prairie Falcon (Falco mexicanus)	Red-listed	Large diameter vets and snags (decay class 2-4), cliffs, largest trees in stand, early seral ground vegetation	Very low-nil	S	Cliffs	6-9	Cliff face, grassland and sagebrush, meadows	900m	Not Applicable	Maintain open country around known nest sites, with grassland/sage structure and/or early seral low density, patchy vegetation components; avoid human activities within 300ha Mar 15-Jul30.	Low-Moderate
Racer (Coluber constrictor mormon)	Blue-listed	Rock outcroppings, talus, ground vegetation cover, boulders, CWD	Not Applicable	S	Warm slopes	Not Applicable	rock outcrop, talus, rock fissures		Not Applicable	Maintain/maximize connectivity between dens and foraging habitats	Moderate
Racer (Coluber constrictor mormon)	Blue-listed	Rock outcroppings, talus, ground vegetation cover, boulders, CWD	Not Applicable	S	Warm slopes	Not Applicable	rock outcrop, talus, rock fissures		Not Applicable	Maintain/maximize connectivity between dens and foraging habitats	Moderate
 Sandhill Crane (Grus canadensis)	Blue-listed	Riparian forest concealing characteristics, wetlands	Not Available	Not Available	Flat terrain	0-9	Wetland, riparian, aquatic systems	1220	Not Available	Maintain shallow freshwater wetlands/aquatic systems, retain adjacent riparian forests; avoid harvesting within 800m of aquatic systems used for breeding Apr-Aug (breeding season)	Moderate
 Sandhill Crane (Grus canadensis)	Blue-listed	Riparian forest concealing characteristics, wetlands	Not Available	Not Available	Flat terrain	0-9	Wetland, riparian, aquatic systems	1220	Not Available	Maintain shallow freshwater wetlands/aquatic systems, retain adjacent riparian forests; avoid harvesting within 800m of aquatic systems used for breeding Apr-Aug (breeding season)	Moderate
Sharp-tailed Grouse, columbianus subspecies (Tympanuchus phasianellus columbianus)	Blue-listed	Deciduous shrubs (ie: willow, rose, etc) and trees	Not Applicable	Not Available	Ridges and microsite slopes that provide cover appear to be important	1-9	Grassland or clearcut, structurally diverse, well developed wetlands	1190m	Not Applicable	Maintain natural openings, early seral habitat in clearcuts used as habitat; avoid trenching (>20cm), mechanical site prep that result in deciduous loss; retain deciduous components in clearcuts and wetlands.	Moderate
Sharp-tailed Grouse, columbianus subspecies (Tympanuchus phasianellus columbianus)	Blue-listed	Deciduous shrubs (ie: willow, rose, etc) and trees	Not Applicable	Not Available	Ridges and microsite slopes that provide cover appear to be important	1-9	Grassland or clearcut, structurally diverse, well developed wetlands	1190m	Not Applicable	Maintain natural openings, early seral habitat in clearcuts used as habitat; avoid trenching (>20cm), mechanical site prep that result in deciduous loss; retain deciduous components in clearcuts and wetlands.	Moderate

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	Short-eared Owl (Asio flammeus)	Blue-listed	ground vegetation cover	Not Applicable	Not Available	Not Applicable	<3	Open areas, wetlands	975	Not Applicable	Use non-forested, 'grassland' sites (incl clearcuts). Maintain high grass for microtine population abundance; avoid road building through known nest areas	Moderate
	Short-eared Owl (Asio flammeus)	Blue-listed	ground vegetation cover	Not Applicable	Not Available	Not Applicable	<3	Open areas, wetlands	975	Not Applicable	Use non-forested, 'grassland' sites (incl clearcuts). Maintain high grass for microtine population abundance; avoid road building through known nest areas	Moderate
	Spotted Bat (Euderma maculatum)	Blue-listed	veteran trees, riparian forest, parkland	Not Available	Not Available	steep	6-9	River/stream, wetlands, scree/talus	1200	Not Available	Strong association with cliffs, canyons with nearby water. Monitor and contrast disturbances to Spotted Bat roosts at WHAs and those roosts where disturbances are unregulated to determine adequate configurations for reserves.	High
	Spotted Bat (Euderma maculatum)	Blue-listed	veteran trees, riparian forest, parkland	Not Available	Not Available	steep	6-9	River/stream, wetlands, scree/talus	1200	Not Available	Strong association with cliffs, canyons with nearby water. Monitor and contrast disturbances to Spotted Bat roosts at WHAs and those roosts where disturbances are unregulated to determine adequate configurations for reserves.	High
	Swainson's Hawk (Buteo swainsoni)	Red-listed	Large trees/ shrubs capable of nest/roost support	Not Applicable	Not Available	Not Applicable	Not Available	Open forest or grasslands	Not available	Not Applicable	Historic use of pesticides likely dramatically reduced numbers; likely habitat loss contributed; need to address information gaps	Unknown
	Swainson's Hawk (Buteo swainsoni)	Red-listed	Large trees/ shrubs capable of nest/roost support	Not Applicable	Not Available	Not Applicable	Not Available	Open forest or grasslands	Not available	Not Applicable	Historic use of pesticides likely dramatically reduced numbers; likely habitat loss contributed; need to address information gaps	Unknown
	Townsend's Big-eared Bat (Corynorhinus townsendii)	Blue-listed	Mixed deciduous-coniferous, multi-layered canopy patches, shrubs	Not Available	Not Available	Not Applicable	Not Available	Caves or cave-like features, mosaic landscapes	Not available	Not Available	Tend to avoid grasslands and forage at forest canopy/shrub/riparian vegetation edges	Unknown
	Townsend's Big-eared Bat (Corynorhinus townsendii)	Blue-listed	Mixed deciduous-coniferous, multi-layered canopy patches, shrubs	Not Available	Not Available	Not Applicable	Not Available	Caves or cave-like features, mosaic landscapes	Not available	Not Available	Tend to avoid grasslands and forage at forest canopy/shrub/riparian vegetation edges	Unknown

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Western Grebe (Aechmophorus occidentalis)	Red-listed	Shores of large lakes, marsh edges, wetlands, riparian	Not Available	Not Available	Not Applicable	Not Available	large lakes, marshes, estuaries	Not available	Not Available	Large information gaps for W. Grebe; main impacts appear to be nest disturbance at colonies and complete breeding failure due to boat and water sports on lakes. Although little impact appears to be generated by forestry, avoiding road construction near breeding colonies and leaving a buffer, if any, would help. Similarly, avoid disturbance of coastal wintering colonies. W. Grebes may also overwinter on coastal rivers and interior lakes that do not freeze. Declining across the province.	Unknown
Western Grebe (Aechmophorus occidentalis)	Red-listed	Shores of large lakes, marsh edges, wetlands, riparian	Not Available	Not Available	Not Applicable	Not Available	large lakes, marshes, estuaries	Not available	Not Available	Large information gaps for W. Grebe; main impacts appear to be nest disturbance at colonies and complete breeding failure due to boat and water sports on lakes. Although little impact appears to be generated by forestry, avoiding road construction near breeding colonies and leaving a buffer, if any, would help. Similarly, avoid disturbance of coastal wintering colonies. W. Grebes may also overwinter on coastal rivers and interior lakes that do not freeze. Declining across the province.	Unknown
 Western Painted turtle (Chrysemys picta)	Blue-listed	Large CWD, wetlands	Not Available	S slope fr wetland	Not Applicable	Not Available	Permanent and ephemeral: River/Stream; Flooded Land; Lake; Marsh	Not Available	Not Available	Little information is available for Painted turtles; where they are known to occur, avoid development and disturbance of aquatic systems and adjacent upland, particularly access; consult MoE for Best Management Practices (fencing, tunnel may be required)	Unknown
 Western Painted turtle (Chrysemys picta)	Blue-listed	Large CWD, wetlands	Not Available	S slope fr wetland	Not Applicable	Not Available	Permanent and ephemeral: River/Stream; Flooded Land; Lake; Marsh	Not Available	Not Available	Little information is available for Painted turtles; where they are known to occur, avoid development and disturbance of aquatic systems and adjacent upland, particularly access; consult MoE for Best Management Practices (fencing, tunnel may be required)	Unknown
Western Rattlesnake (Crotalus oreganus)	Blue-listed	CWD, riparian/wetland vegetation	Not Applicable	S	Warm slopes during cooling seasonal temperatures	Not Applicable	rock outcrop, coarse talus, deep rock fissures		Not Applicable	Maintain/maximize connectivity between dens and foraging habitats	Low-Moderate
Western Rattlesnake (Crotalus oreganus)	Blue-listed	CWD, riparian/wetland vegetation	Not Applicable	S	Warm slopes during cooling seasonal temperatures	Not Applicable	rock outcrop, coarse talus, deep rock fissures		Not Applicable	Maintain/maximize connectivity between dens and foraging habitats	Low-Moderate
Western Screech-Owl, "Interior" (Megascops kennicottii macfarlanei)	Red-listed	Large diameter trees in riparian forest, particularly with cavities, incl Act, At, Ew and mixed conif-decid, large snags, shrub understory	<75%	Not applicable	Not Relevant	4-9	River/stream	1000	Act, At, Ew, Fd	Abundant riparian deciduous cover 4-8m likely important. Consider nesting requirements of Pileated and Northern Flickers since woodpecker holes are most commonly used for roosting; most occupied territories have at least 2 cavities (nesting & roosting) See FSP results and strategies	Moderate-High

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	Western Screech-Owl, "Interior" (Megascops kennicottii macfarlanei)	Red-listed	Large diameter trees in riparian forest, particularly with	<75%	Not applicable	Not Relevant	4-9	River/stream	1000	Act, At, Ew, Fd	Abundant riparian deciduous cover 4-8m likely important. Consider nesting requirements of Pileated and Northern Flickers since woodpecker holes are most commonly used for roosting; most occupied territories have at least 2 cavities (nesting & roosting) See FSP results and strategies	Moderate-High
	Western Skink (Eumeces skiltonianus)	Blue - listed	CWD, rocks, riparian, forest openings	Not Available	S	Warm, south aspect slopes for nesting	Not Available	rock outcrop, talus, rock fissures		Not Available	Use a variety of habitats where rock/talus occur, including old-growth and younger forests; require CWD	Unknown
	Western Skink (Eumeces skiltonianus)	Blue - listed	CWD, rocks, riparian, forest openings	Not Available	S	Warm, south aspect slopes for nesting	Not Available	rock outcrop, talus, rock fissures		Not Available	Use a variety of habitats where rock/talus occur, including old-growth and younger forests; require CWD	Unknown
	Western Small-footed Myotis (Myotis ciliolabrum)	Blue - listed	Snags, hollow trees, wildlife trees with bark	Not Available	Not Available	steep	Not Available	Cliffs, scree/talus, rock outcrop	850	Not Available	Use of standing snags/hollow trees; forages over talus slopes, cliffs; roosts in trees, cliffs, caves, mines. Information gaps: critical habitat features not well understood or even known.	Moderate
	Western Small-footed Myotis (Myotis ciliolabrum)	Blue - listed	Snags, hollow trees, wildlife trees with bark	Not Available	Not Available	steep	Not Available	Cliffs, scree/talus, rock outcrop	850	Not Available	Use of standing snags/hollow trees; forages over talus slopes, cliffs; roosts in trees, cliffs, caves, mines. Information gaps: critical habitat features not well understood or even known.	Moderate
	Western Toad (Anaxyrus boreas)	Blue - listed	Riparian areas, all forest and woodland types	Not Applicable	Not Available	N/A	Not Applicable	Shallow water, pools, wetlands,	3000m	N/A	Protect ponds and shallow water as breeding habitat. Follow "Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British Columbia"	Unknown
	White-headed Woodpecker (Picoides albolarvatus)	Red-listed	Snags in various stages of decay (prefer Wildlife	<70%	Not Available	Not Relevant	>4	Not Available	1300	Py	Manage for open forest structure with mature - old-growth trees; habitat enhancement with prescribed understory burns, no stand- replacing fires; create potential nest trees: 5m stumps =60cm DBH Py See FSP results and strategies	Moderate
	White-headed Woodpecker (Picoides albolarvatus)	Red-listed	Snags in various stages of decay (prefer Wildlife	<70%	Not Available	Not Relevant	>4	Not Available	1300	Py	Manage for open forest structure with mature - old-growth trees; habitat enhancement with prescribed understory burns, no stand- replacing fires; create potential nest trees: 5m stumps =60cm DBH Py See FSP results and strategies	Moderate

Williamson's Sapsucker (Sphyrapicus thyroideus thyroideus)	Red-listed	All vets, all mature trees with decay, cavities, damage signs	<75%	N, NE, NW	Not Relevant	>4	Low-mid intensity burn	1490	At, Ct, Ep, Fd, Lw, PI, Py, Se, Sx	Particularly on north aspects, retain patches of some mature and all veteran Lw, Py, Fd, PI >60cm DBH and At >30cm DBH with broken or dead tops, heart rot decay, cavities, feeding signs; silviculture system can be patch or scattered tree retention; increase retention of mature- old mixed spp stands; particularly incorporate large decadent Lw into landscape planning (OGMA, UWR, etc)	Low-Moderate
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Species		Prov Status	Key Stand Features	Crown Closure	Critical Aspect 1	Slope Range Comment	Age Class	Topographic or Distinguishing Feature	Max Elevation	Lead Species	Additional Management Considerations	Likelihood
	Williamson's Sapsucker (Sphyrapicus thyroideus)	Red-listed	All vets, all mature trees with decay, cavities, damage sign, wildlife sign	<75%	N, NE, NW	Not Relevant	>4	Low-mid intensity burn	1490	At, Ct, Ep, Fd, Lw, Pl, Py, Se, Sx	Particularly on north aspects, retain patches of some mature and all veteran Lw, Py, Fd, Pl >60cm DBH and At >30cm DBH with broken or dead tops, heart rot decay, cavities, feeding signs; silviculture system can be patch or scattered tree retention; increase retention of mature-old mixed spp stands; particularly incorporate large decadent Lw into landscape planning (OGMA, UWR, etc)	Low-Moderate
	Wolverine (Gulo gulo)	Blue-listed	Mature - old-growth structure	Not Applicable	Not applicable	Not Relevant	>4	valley bottoms, Riparian corridors	Not available	Not Applicable	Landscape planning is very important for wide-ranging wolverines: adjacency of early and late seral structural stages is important to provide habitat features across all BEC (elevations); avoid development on both sides of a watershed at the same time and provide old forest connectivity between watersheds as travel corridors.	High
	Wolverine (Gulo gulo)	Blue-listed	Mature - old-growth structure	Not Applicable	Not applicable	Not Relevant	>4	valley bottoms, Riparian corridors	Not available	Not Applicable	Landscape planning is very important for wide-ranging wolverines: adjacency of early and late seral structural stages is important to provide habitat features across all BEC (elevations); avoid development on both sides of a watershed at the same time and provide old forest connectivity between watersheds as travel corridors.	High
	Yellow-breasted Chat (Icteria virens)	Red-listed	shrubs	Very low-nil	Not Available	Not Applicable	Not Applicable	Moisture receiving sites capable of dense shrubs: riparian, ephemeral, sub-mesic	800	Act, At, Ew	See FSP results and strategies; key is to retain/regenerate dense shrub understories up to 3.5m tall; trees growing near shrub thickets typically <7m tall.	Unknown
	Yellow-breasted Chat (Icteria virens)	Red-listed	shrubs	Very low-nil	Not Available	Not Applicable	Not Applicable	Moisture receiving sites capable of dense shrubs: riparian, ephemeral, sub-mesic	800	Act, At, Ew	See FSP results and strategies; key is to retain/regenerate dense shrub understories up to 3.5m tall; trees growing near shrub thickets typically <7m tall.	Unknown