APPENDIX B

Federally Listed, Proposed, or Candidate Species Known to Occur or May Occur within the Olympic and Johns River Units of the Olympic/Willapa Hills Wildlife Area

Animals	Species Information
Marbled Murrelet (Brachyramphus marmoratus) *Threatened*	There is limited opportunity for Marbled Murrelet nesting at both Johns River and Olympic Wildlife Areas due to the nature of the dense, even-aged, single story canopy that currently exists. Implementation of this project will create future habitat conditions that may be utilized by the marbled murrelets for nesting. The subspecies occurring in North America ranges from Alaska's Aleutian Archipelago to central California. Marbled murrelets forage in the near-shore marine environment and nest in inland old-growth coniferous forests of at least seven acres in size. Marbled murrelets nest in low-elevation forests with multi-layered canopies; they select large trees with horizontal branches of at least seven inches in diameter and heavy moss growth. Based on the lack of suitable habitat, standard forest practices will apply to this salvage operation. The nearest marbled murrelet designated buffer location is over three miles to the southeast from the Johns River Unit and over 3.6 miles to the north from the Olympic Unit. Adverse impacts to marbled murrelets and their habitats are not likely to occur through this project. Habitat conditions that are more suitable for marbled murrelets will be created through this project. Therefore this project does not pose significant biological problems for marbled murrelets.
Bull Trout (Salvelinus confluentus) *Threatened*	The main fork of the Wishkah River is a "presumed" habitat type for bull Trout. The West Fork of the Wishkah River is a "documented/historic" stream type. Only the main fork of the Wishkah River is designated as critical habitat. This designation does not apply to the upland tributaries where each of the logging units exists. Appropriate stream buffers

	on every tributary will be utilized to reduce any potential negative impacts to Bull Trout. Stream buffers will meet or exceed general forest practice standards. Salvage and thinning will not occur within the vicinity of any Type S waters (Wishkah River, West Fork Wishkah River, and Johns River). Overall, management of the Olympic and Johns River Units include improving riparian habitat, restoring fish passage, and proper road maintenance and abandonment. Each of these actions will improve habitat for bull trout. The likelihood for impacts on bull trout is low, and therefore this project does not pose any significant biological problems for bull trout.
Northern Spotted Owl (Strix occidentalis caurina) *Threatened*	The range of the Northern Spotted Owl has been defined into four physiographic provinces: the eastern and western cascades, western Lowlands, and the Olympic Peninsula. There is limited opportunity for Northern Spotted Owl nesting and foraging at both Johns River and Olympic Units due to the nature of the dense, even-aged, single story canopy that currently exists. Implementation of this project will create future habitat conditions that may be utilized by the northern spotted owl for nesting and foraging. Northern spotted owls inhabit predominantly old growth forests (and selected second growth forests with remnants of larger trees) that have a closed canopy (for protection from predators and the elements), large open spaces for flight beneath the canopy, many downed logs and woody debris that serve as prey habitat and old, hollow trees for nesting sites. The nearest occupied Northern Spotted Owl nest to the Johns River Unit is approximately 14 miles to the southeast from the project location. The nearest occupied nest site to the Olympic Unit is approximately 10 miles from the project location. Overall management goals of the Johns River and Olympic Units include protecting, maintaining, restoring and enhancing riparian areas along streams and tributaries, while retaining all existing snags for perches. The likelihood for impacts on Northern Spotted Owls is low, and therefore this

	project does not pose any significant biological problems for Northern Spotted Owls.
Oregon Silverspot Butterfly (Speyera zerene hippolyta) *Threatened*	The historical range of the subspecies extends from Westport, Grays Harbor County, Washington, south to Del Norte County, California. Within its range, the butterfly is known to have been extirpated from at least 11 colonies (2 in Washington, 8 in Oregon, and 1 in California). The Washington population ranges are located in Grays Harbor and Pacific counties along the coast. The current distribution of the Oregon silverspot butterfly includes three distinct (but in some cases co-occurring) ecosystem types — montane/grasslands, marine terraces and headlands, and stabilized dunes. Habitat degradation, land conversion and development are some of the limiting factors. Overall management goals of the Johns River and Olympic Wildlife Area Units include protecting, restoring and maintaining priority habitat and species. Suitable habitat for the Oregon Silverspot Butterfly does not presently exist at either the Olympic or Johns River Units. WDFW manages another unit in the Olympic-Willapa Hills Wildlife Area Complex specifically for the Oregon Silverspot Butterfly however the species currently does not occur on any WDFW property or within the state of Washington. This unit is located approximately 25 miles to the south of the Johns River Unit on the Long Beach Peninsula. Therefore, this project does not pose any significant biological problems for the Oregon Silverspot butterfly.

Brown Pelican (Pelecanus occidentalis) *Endangered*	The Brown Pelican is a coastal bird that is rarely found away from the sea. The birds on the Pacific Coast, nest on islands off the coasts of southern California and Mexico. After the breeding season, they move north along the coast, frequenting shallow marine areas such as bays, offshore islands, spits, breakwaters, and opensandy beaches. Brown Pelicans may be found along the outer Pacific Coast, at the mouth of the Columbia River and along coastal areas in Gray's Harbor. The Olympic Wildlife Area Unit is located approximately 20 miles north of Grays Harbor. The Johns River Wildlife Area Unit, located at the southwest corner of Grays Harbor receives infrequent visits from Brown Pelicans. This occurs in the Harbor itself and on outer islands. This project will occur in the watershed uplands and will place no known impacts on Brown Pelicans. Overall management goals of the Olympic and Johns River Units include protecting, restoring and maintaining priority habitat and species. Therefore this project does not pose any significant biological problems for Brown Pelicans.
Short-tailed Albatross (Phoebastria albatrus) *Endangered*	Short-tailed Albatrosses nest on islands off Japan and spend most of their lives at sea. The Short-tailed Albatross is an extremely rare bird off Washington's coastline. There is no breeding populations in the United States, but several individuals have been seen regularly during the breeding season on Midway Atoll in the northwestern Hawaiian Islands. This project will place no known impacts on the Short-tailed Albatross based on project locations and the extremely infrequent sightings off of the Washington Coast. There is no suitable habitat available for the short-tailed albatross. Therefore, this project does not pose any significant biological problems for the Short-tailed Albatross.
Western Snowy Plover (Charadrius alexandrinus nivosus) *Threatened*	Western Snowy Plovers are found on barren or sparsely vegetated sand beaches along the coast, and on alkaline flats and river bars farther inland. They winter primarily in coastal areas on beaches and tidal flats. Most inland breeders migrate to the coast in winter, but many coastal breeders are permanent residents. The Washington population of Snowy Plovers consists of both resident and migratory birds. Damon Point is this species' northernmost nesting area along the Pacific coast. Habitat degradation, land conversion and development are some of the limiting factors. Overall management goals of the Olympic and

	Johns River Units include protecting, restoring and maintaining priority habitat and species. Western Snowy Plovers do not utilize the forested habitats where this project will be occurring. Therefore, this project does not pose any significant biological problems for the Western Snowy Plover.

Yellow-billed cuckoo (Coccyzus americanus) *Candidate*	This species is dependent upon riparian corridors for breeding and feeding during summer months. The last confirmed breeding records were in the 1930s in Washington. It may now be extirpated from Washington. It has not been documented as historically or presently occurring at the Olympic or Johns River Units. Historic habitat for the Yellow-billed cuckoo in Washington included low elevation wetlands and riparian corridors in the Puget Sound lowlands, including the wetlands associated with Lake Washington. This species is dependent upon riparian corridors for breeding and feeding during summer months. Low-quality and fragmented habitats are some of the limiting factors. Overall management goals of the Olympic and Johns River Units include protecting, maintaining, restoring and enhancing riparian areas along rivers, streams, lakes, ponds and wetlands, while retaining all existing snags for perches. There is no suitable habitat available at the Olympic or Johns River Units for the Yellow-billed cuckoo based on its historical range. Therefore, this project does not pose any significant biological problems for the Yellow-billed cuckoo.
Streaked horned lark (Eremohila alpestris strigata) *Candidate*	Streaked horned larks inhabit open grassland, sparsely vegetated beaches and islands, agricultural fields and generally avoid forested areas. Three subspecies breed in Washington and are ecologically distinct. The streaked horned lark is found on prairies, sandbars, and grassy ocean dunes in western Washington. Populations of this species appear to be relatively stable across the continent. However, the streaked horned lark subspecies has declined sharply in western Washington. The streaked horned lark is local and uncommon along coastal beaches of western Washington and on sandbars in the Lower Columbia River. Habitat degradation, land conversion and development, nest predation, cowbird parasitism and human disturbance are some of the limiting factors. Overall management goals of the Olympic-Willapa Hills Wildlife Area Complex include protecting, restoring and maintaining priority habitats and species. Streaked horn larks do not utilize the forested areas where the project will be conducted. WDFW does manage and protect other parcels that utilized by streaked horn larks, including Damon Point Unit (Approx. 5 miles away), OSB Unit (Approx. 25 miles away), and Scatter Creek Unit (Approx. 50 miles away). Therefore, this project does not pose any significant biological problems for the Streaked Horned Lark.
