

Review of Botanical and Wildlife Resources Attalia Property Walla Walla, Washington

Prepared for:

Port of Walla Walla

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1. Introduction

The Port of Walla Walla proposes to develop an industrial park on approximately 1,879 acres of land (the “Attalia Property”) in the Attalia area, north of the town of Wallula, Washington. The Attalia Property is located to the south and east of the existing Port of Walla Walla Dodd Road Industrial Site, east of the Boise Cascade Corporation Wallula Mill, and south of the J.R. Simplot Company Feedlot.

The majority of the Attalia Property is located in Township 7 North, Range 31 East, Willamette Meridian. The northernmost parcel, totaling 134 acres, is located in section 35 of T8N, R31E, W.M. An isolated parcel of about 160 acres is located east of the main parcel in section 18 of T7N, R32E, W.M.

The Attalia Property is zoned under the following three categories: the portion of the Attalia Property in section 35 of T8N, R31E and the portion of the Attalia Property in section 11, T7N, R31E W.M. are zoned agriculture-industrial light (774 acres); the portion of the Attalia Property in section 2, T7N, R31E W.M. is zoned agriculture-industrial heavy (625 acres); and the portions of the Attalia Property in section 14, T7N, R31E W.M. and in section 18, T8N, R32E W.M. are zoned primary agriculture 40 acres (480 acres).

The Attalia Property was previously owned by Boise Cascade Corporation and was managed in part as the Cottonwood Fiber Farm. The majority of the site, about 1,200 acres, supports irrigated stands of hybrid poplar; the northernmost 448 acres is comprised of formerly irrigated fields that are currently fallow. Figure 1 shows the location and vegetation cover types of the Attalia Property.

As part of the Port’s due diligence review of the site, botanical and wildlife resources of the Attalia Property were assessed. This report summarizes existing information on wildlife and botanical resources of the Attalia Property and provides the results of field surveys conducted in April and May, 2007.

2. Pre-Field Review of Special Status Species Occurrence

Prior to conducting field surveys of the Attalia Property, information from various agencies was reviewed to investigate occurrence of special status species. For this review, special status species were defined as those federally listed as endangered or threatened, candidates for federal listing, and federal species of concern. Washington State threatened, endangered, sensitive, candidate and review status (plant) species also were included. Information on threatened and endangered species and other species and habitats with special management status was obtained from the U.S. Fish and Wildlife

Service (USFWS 2007a), Washington Department of Fish and Wildlife (WDFW 2007). Washington Department of Natural Resources Natural Heritage Program (WNHP 2007a, b, c, and d), and the Walla Walla County Weed Control Board (Walla Walla County NWCB 2007). WDFW priority habitats documented within or adjacent to the project vicinity also were reviewed.

Table 1 presents the special status species and priority habitats that may occur in Walla Walla County. The likelihood of the species occurring on the Attalia Property was determined based on geographic range and habitat requirements.

Table 1. Special Status Plant and Animal Species Known or Suspected to Occur in Walla Walla County

Common name	Scientific Name	Federal Status	State Status	Habitat Requirements	Occurrence
Plants					
Thistle milk-vetch	<i>Astragalus kentrophyta</i> <i>var. douglasii</i>	Species of Concern	Possibly extirpated	Sandy ground, dunes, or eroded riverbanks at low elevations	Regional endemic known only from extremely vague historical records, likely collected near or within the 'Great Bend' of the Columbia River in WA or OR; not seen since 1883, habitat possibly flooded by damming of the river; unlikely to occur
Bristly sedge	<i>Carex comosa</i>		Sensitive	Marshes, lake shores, wet meadows	Documented in Walla Walla County (H); habitat lacking on Attalia Property; unlikely to occur
Gray cryptantha	<i>Cryptantha leucophaea</i>	Species of Concern	Sensitive	Unstabilized sandy soils and dunes along the Columbia River	Documented in southwestern portion of Attalia Property; not relocated in 2001; may occur
Beaked cryptantha	<i>Cryptantha rostellata</i>		Threatened	Coarse substrates along dry drainages in open grassland and shrub-steppe	Documented in Walla Walla County (H); may occur
Snake Canyon desert-parsley	<i>Lomatium serpentinum</i>		Sensitive	Open, often rocky slopes in and near Snake River Canyon	Documented in Walla Walla County (H); habitat lacking on Attalia Property; unlikely to occur
Prairie lupine	<i>Lupinus cusickii</i>	Species of Concern	Review	Sagebrush steppe and grasslands	Documented in Walla Walla County (H); may occur
Sabin's lupine	<i>Lupinus sabinii</i>		Endangered	Low to mid-elevation coniferous forest and transitional grassland	Documented in Walla Walla County; habitat lacking on Attalia Property; unlikely to occur

Common name	Scientific Name	Federal Status	State Status	Habitat Requirements	Occurrence
Liverwort monkey flower	<i>Mimulus jungermannioides</i>	Species of Concern	Possibly extirpated	Occurs in basalt crevices in seepage zones in vertical cliff faces and canyon walls	Known in WA from a single occurrence in early 1900's in Klickitat County; habitat lacking on Attalia Property; unlikely to occur
Pulsifer's monkey flower	<i>Mimulus pulsiferae</i>		Sensitive	Seasonally moist, seeps, springs and riparian areas	Documented in Walla Walla County (H); habitat lacking on Attalia Property; unlikely to occur
Washington monkey-flower	<i>Mimulus washingtonensis</i>		Review	Moist sites, east Cascade Mountains	Documented in Walla Walla County (H); habitat lacking on Attalia Property; unlikely to occur
Ute Ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened	Endangered	Broad low-elevation intermontane valley plains, with deltaic meandered wetland complexes.	Four known sites in Washington, Okanogan and Chelan counties; habitat lacking on Attalia Property; unlikely to occur
Plumed clover	<i>Trifolium plumosum</i> var. <i>plumosum</i>		Threatened	Dry hillsides and meadowlands, Blue Mts. of WA south to OR	Documented in eastern Walla Walla County; Attalia Property outside of known range; unlikely to occur
Priority Habitats (plant communities)					
Shrub-Steppe			Priority	One or more layers of perennial grasses and a conspicuous but discontinuous layer of shrubs	No PHS-mapped areas on Attalia Property; shrub-steppe habitat is present as small, fragmented parcels of disturbed habitat with high proportion of non-native plant species

Common name	Scientific Name	Federal Status	State Status	Habitat Requirements	Occurrence
Birds					
Bald eagle	<i>Haliaeetus leucocephalus</i>	Delisted, recovered, effective August 8, 2007 (Formerly Threatened)	Threatened	Winters in areas where food is abundant and disturbance low; mature trees used for perching	Documented November–March in vicinity of Attalia Property: Columbia River, Walla Walla River, and McNary NWR; compost mounds near US Highway 12; no suitable breeding or perching habitat on Attalia Property; may occur as occasional visitor
Ferruginous hawk	<i>Buteo regalis</i>	Species of Concern	Threatened	Shrub-steppe and juniper-savannah, avoiding croplands; nests on rock, trees, or artificial structures; sensitive to human disturbance	Documented breeder March–August approximately 4 miles east of Attalia Property; may occur as occasional visitor
Golden eagle	<i>Aquila chrysaetos</i>		Candidate	Open sagebrush, ponderosa pine and grasslands near cliffs and plateaus	Locally uncommon resident in Columbia River Basin; not documented on Attalia Property but may occur as occasional visitor
Loggerhead shrike	<i>Lanius ludovicianus</i>	Species of Concern	Candidate	Open shrublands and woodlands, including sagebrush, juniper communities	Rare summer resident in region; occasional winter visitor to McNary NWR; may occur as occasional visitor
Merlin	<i>Falco columbarius</i>		Candidate	Open woodland and savannah	Rare migrant and winter visitor to McNary NWR; Dodd Road; Simplot Feedlot lagoons; may occur as rare visitor

Common name	Scientific Name	Federal Status	State Status	Habitat Requirements	Occurrence
Northern goshawk	<i>Accipiter gentilis</i>	Species of Concern	Candidate	Mature and old-growth conifer forests with relatively open canopy; open woodlands	Uncommon migrant or winter visitor; documented at McNary NWR, Snake River (Burbank), Walla Walla River; unlikely to occur on Attalia Property
Olive-sided flycatcher	<i>Contopus borealis</i>	Species of Concern		Open coniferous and mixed forests with streams and wetlands; nest in conifers	Rare migrant along Columbia and Walla Walla rivers; unlikely to occur on Attalia Property
Peregrine falcon	<i>Falco peregrinus</i>	Species of Concern	Endangered	Cliffs typically used for nesting, often near water; feed on large concentrations of waterfowl and shorebirds	Uncommon breeder in Columbia River gorge; documented occasional visitor to J.R. Simplot Feedlot lagoons, May through November; may occur as occasional visitor
Sage sparrow	<i>Amphispiza belli</i>		Candidate	Sagebrush-steppe	Rare summer visitor; not documented on Attalia Property; may occur
Sage thrasher	<i>Oreoscoptes montanus</i>		Candidate	Nest in shrub-steppe, particularly sagebrush	Rare migrant, rare summer resident; not documented on Attalia Property; may occur
Vaux's swift	<i>Chaetura vauxi</i>		Candidate	Breeds in tree cavities in forested habitats; uses trees and chimneys for roosting	Not documented on Attalia Property; migratory flocks congregate at Walla Walla River delta in September; unlikely to occur on Attalia Property
Western burrowing owl	<i>Athene cunicularia hypugea</i>	Species of Concern	Candidate	Nest in underground burrows in grassland and shrub-steppe	Uncommon summer resident, rare winter resident; not documented in vicinity of Attalia Property during 2001 surveys; present 3 miles east in 2001; may occur

Common name	Scientific Name	Federal Status	State Status	Habitat Requirements	Occurrence
Willow flycatcher	<i>Empidonax traillii</i>	Species of Concern		Breeds in dense riparian shrub thickets, especially willow	Uncommon migrant and summer resident; documented breeder at Walla Walla River delta; not documented on Attalia Property; unlikely to occur
Mammals					
Black-tailed jackrabbit	<i>Lepus californicus</i>		Candidate	Shrub-steppe habitats and grasslands with rabbitbrush	Documented in 1996 along Chevron Petroleum Products pipeline in 1996; may occur
Long-eared myotis	<i>Myotis evotis</i>	Species of Concern	Monitor	Forested habitats, roosting in tree cavities, under bark, inbuildings, caves, rock crevices; . foraging occurs over water	Not documented on Attalia Property; habitat lacking on Attalia Property; unlikely to occur
Pale Townsend's big-eared bat	<i>Corynorhinus townsendii pallescens</i>	Species of Concern	Candidate	Inhabits forested and arid habitats; requires undisturbed buildings, caves, mines or bridges for roosting	Not documented on Attalia Property; habitat lacking on Attalia Property; unlikely to occur
Washington ground squirrel	<i>Spermophilus washingtonii</i>	Candidate	Candidate	Shrub-steppe with native bunchgrasses	Not documented on Attalia Property; recorded several miles south of Walla Walla River; may occur
White-tailed jackrabbit	<i>Lepus townsendii</i>		Candidate	Unfragmented sagebrush-steppe and native bunchgrass habitats	Not documented on Attalia Property; habitat lacking on Attalia Property; unlikely to occur

Common name	Scientific Name	Federal Status	State Status	Habitat Requirements	Occurrence
Reptiles					
Northern sagebrush lizard	<i>Sceloporus graciosus graciosus</i>	Species of Concern	Candidate	Loose soil in sagebrush, and open juniper woodlands and coniferous forests	Not documented on Attalia Property; may occur
Striped whipsnake	<i>Masticophis taeniatus</i>		Candidate	Sagebrush-steppe at low elevation, usually associated with open rocky areas	Columbia Plateau ecoregion; only 26 observations in WA, most along Columbia River in Grant County; may occur on Attalia Property
Amphibians					
Columbia spotted frog	<i>Rana luteiventris</i>	Species of Concern	Candidate	Quiet and slow-moving water with stable water level and consistent temperatures, emergent vegetation	Not documented on Attalia Property; habitat lacking; unlikely to occur
Oregon spotted frog	<i>Rana pretiosa</i>	Species of Concern	Endangered	Cool, permanent, quiet waters and shorelines of ponds, springs, marshes	Western WA/OR species; habitat lacking on Attalia Property; unlikely to occur
Western toad	<i>Bufo boreas</i>	Species of Concern	Candidate	In and near perennial streams, ponds and lakes; shelters by digging in loose soils or small mammal burrows	Known to occur in the region; habitat lacking in the Attalia Property; unlikely to occur

Priority Habitats (wildlife habitat)				PHS Mapped Polygon	General Location
Ring-necked pheasant	<i>Phasianus colchicus</i>			Regular large concentration	Majority of 2,000+ acre mapped area located south of Attalia Property; approximately 240 acres located within southern portion of Attalia Property
Waterfowl				Regular concentration	North of Attalia Property
Waterfowl				Regular concentration	West of Attalia Property

(H) = Historic records only; pre-1980.

Federal Status: *Endangered* - Species in danger of extinction throughout all of a significant portion of its range; protected under the Endangered Species Act of 1973, as amended (ESA)

Threatened - Species likely to become endangered within the foreseeable future throughout all or a significant portion of its range; protected under ESA

Candidate - Species considered for possible addition to the List of Endangered and Threatened Species

Species of Concern - Species for which the USFWS does not have sufficient information to support a listing proposal at this time

State Status: *Endangered* - Any taxon in danger of becoming extinct or extirpated from Washington within the foreseeable future if factors contributing to its decline continue

Threatened - Any taxon likely to become endangered in Washington within the foreseeable future if factors contributing to its population decline or habitat degradation continue

Possibly Extinct or Extirpated from Washington - Based on recent field searches, a number of plant taxa are considered to be possibly extinct or extirpated from Washington. Taxa in this group are all high priorities for field investigations. If found, they will be assigned one of the above status categories.

Sensitive - Any taxon that is vulnerable or declining and could become endangered or threatened in the state without active management or removal of threats

Review (plants) - Taxa of potential concern, but for which no status has yet been assigned

Priority (habitats) - Habitats or elements with unique or significant value to a diverse assemblage of species

2.1 Special Status Plants

The USFWS includes the federally-threatened plant species Ute ladies'-tresses (*Spiranthes diluvialis*) on their list of species potentially occurring in the county (USFWS 2007a). However, the species has not been documented in Walla Walla County and is known from only four sites in Washington, in Chelan and Okanogan counties (WNHP 2007a and c). Suitable riverine habitat for the species is absent from the Attalia Property, and the species is not expected to occur. No other federally listed or candidate species are suspected to occur in the county.

Several federal species of concern may occur in the county; of these, only three species may be present on the Attalia Property, based on geographic range and habitat. Gray cryptantha (*Cryptantha leucophaea*) has been reported from the Attalia Property (WNHP 2007b). This species is designated as Washington State sensitive and as a federal species of concern. Gray cryptantha is a regional endemic from the Columbia and lower Yakima rivers. It grows on sandy substrate, typically unstabilized sand dunes. The most suitable habitat for this species on the Attalia Property is the shrub-steppe habitat which occurs on highly sandy soils in the SW ¼ of Section 11, T7N, R31E W.M., in the area of the five northern wells.

Beaked cryptantha (*Cryptantha rostellata*) is a state threatened species not tracked by USFWS. It occurs in extremely dry sites, often dry drainages, dominated by big sagebrush and bluebunch wheatgrass. It is known from Kittitas County, and historically from Walla Walla County (WNHP 2007c).

Prairie lupine (*Lupinus cusickii*) is a state review species and a federal species of concern that occurs in sagebrush steppe habitat. The species is known historically from Walla Walla County (WNHP 2007a); however, the species is currently thought to be restricted to Oregon and Washington occurrences may be mis-identifications (pers. comm. S. Swope Moody, WNHP 2001).

WDFW was contacted for a review of the Priority Habitats and Species (PHS) database. No wetlands, shrub-steppe, or other priority habitats for plant communities are tracked by WDFW on the Attalia Property (WDFW 2007). (Priority habitats for wildlife species are discussed in the following section). The shrub-steppe habitats on the Attalia Property are highly disturbed, very small in area, and have a very high proportion and percent cover of non-native species; therefore, these habitats are not well-developed, high quality shrub-steppe meeting the definition of priority habitat.

USFWS National Wetland Inventory maps (USFWS 2007b) were reviewed to determine the presence of mapped wetlands on the Attalia Property. The mapping database does not show the presence of any wetlands or water bodies. The nearest open water features are the lagoons at the J.R. Simplot Company Feedlot to the north and irrigation ponds on the Worden Farms property to the east. Field review confirmed that no streams, water bodies, or wetlands are present on the Attalia Property.

2.2 Special Status Wildlife

One species formerly listed as federally threatened, the bald eagle, has been observed in the general vicinity of the Attalia Property (Smayda Environmental 2001b). This species was delisted by USFWS due to successful recovery efforts, effective August 8, 2007 (72 FR 37345-37372). Bald eagles are occasionally present along the Lake Wallula reach of the Columbia River during winter, where they feed on a variety of items, particularly waterfowl. They also are occasionally observed during the winter on the compost mounds adjacent to US Highway 12 and Raindance Road, and at the J.R. Simplot Company Feedlot lagoons. No wetlands or water bodies are present on the project site; therefore, no high quality winter foraging habitat for bald eagle is present. No suitable bald eagle nesting habitat occurs on or adjacent to the Attalia Property. No large diameter trees suitable for perching are present on the Attalia Property.

No federally listed endangered or threatened species are known or suspected to occur on the Attalia Property.

Ferruginous hawk is a federal species of concern and state threatened species known to breed on artificial nest platforms several miles east of the Attalia Property (WDFW 2000). Adult hawks may forage on the Attalia Property; however, no suitable nesting or perching habitat for the species is present.

Golden eagle is a state candidate species. Golden eagles are considered uncommon in this portion of the Columbia River basin. They may pass through the vicinity during foraging; however, no nest sites are currently documented in proximity to the Attalia Property (WDFW 2007).

Loggerhead shrike is a federal species of concern and a state candidate species. They are rare summer breeders in the region, but are occasional winter visitors to the McNary NWR (McNary NWR 2007). Shrikes may be occasional visitors to the Attalia Property during winter months, but are more likely to be observed along the Walla Walla river riparian/shrubland interface to the south.

Merlin and peregrine falcon have been documented as occasional winter visitors to the McNary NWR (McNary NWR 2007) and have been observed as rare visitors in proximity to large waterfowl concentrations north of the Attalia Property (Denny pers. comm.). Neither species breeds in the vicinity, and suitable perching habitat is not present on the Attalia Property.

Sage sparrow and sage thrasher, both state candidate species utilizing sagebrush steppe, are rare visitors to the McNary NWR (McNary NWR 2007) and are not known to nest in the area (Denny pers. comm.).

Western burrowing owls are present in western Walla Walla County and adjoining Franklin County. A reproductive pair of burrowing owls was observed about three miles east of the Attalia Property during 2001 (Smayda Environmental 2001a). Surveys of the Attalia Property conducted in 2001 did not detect any individual burrowing owls or their burrows.

Black-tailed jackrabbit is a state candidate species that uses grasslands and shrub-steppe habitats. The species was documented east of the project site in 1996 (Kleinfelder and EnviroNet AeroSciences 1997) at an unspecified location along the Chevron Petroleum Products pipeline. Surveys on and near the Attalia Property conducted in 2001 did not detect the presence of black-tailed jackrabbits (Smayda Environmental 2001a).

The federal candidate species Washington ground squirrel has been documented several miles south of the Walla Walla River, but is not known from the Attalia Property. This species is endemic to grassland and shrub-steppe habitats in southeastern Washington and northeastern Oregon. The species is associated with silty loam soils, particularly those in the Warden series (USFWS 2007c). The high silt content and deep deposition of the Warden soils may make them well-suited to excavation of deep and stable burrows. Soils on the Attalia Property are very high in sand content, and do not include any mapped Warden soils (Harrison *et al.* 1964). Surveys on and near the Attalia Property in 2001 did not detect any evidence of Washington ground squirrel presence (Smayda Environmental 2001a).

Northern sagebrush lizard is a federal species of concern and a state candidate. The species has not been documented in the Attalia area, but may occur in the sagebrush steppe habitats of the Attalia Property (WNHP 2007d). Striped whipsnake is an extremely rare species, associated with rocky areas within sagebrush habitats. The Attalia Property is within the known range of this species, but striped whipsnake has not been reported from the vicinity (WNHP 2007d).

Three WDFW priority habitat areas for wildlife have been documented in the vicinity of the Attalia Property (WDFW 2007). Two of the wildlife priority habitats are located outside of the Attalia Property, to the north and the west; these two areas are designated waterfowl concentrations on water bodies. The third priority habitat is designated for ring-necked pheasant. This area is comprised of over 2,000 acres located adjacent to, and extending north from, the riparian zone of the Walla Walla River. The mapped priority habitat area incorporates portions of the southernmost part of the Attalia Property, including part of the SE ¼ of section 14, T7N, R31E and part of the SW ¼ of section 18, T7N, R32E W.M.

The Attalia Property is located about 1.25 miles inland from the Columbia River, which is a migratory flyway for many bird species. The McNary National Wildlife Refuge units at the Walla Walla River delta, along the eastern shore of Lake Wallula, and near Burbank, provide habitat for waterfowl and other bird species. Wintering waterfowl also use agricultural lands for forage during winter months. The Attalia Property is not within the primary flyway, nor does it provide a major food source for migratory birds. However, migratory birds may pass through the area traveling to and from NWR lands, water bodies, and agricultural fields.

No major migration corridors for big game are known to exist on the Attalia Property. Most white-tailed deer use is concentrated in the Walla Walla River corridor and along wooded portions of the Columbia River. Mule deer are typically found further inland in shrub-steppe habitats as well as draws and canyons. Mule deer are occasionally observed in and around the Attalia Property. However, no large concentrations of deer have been documented on the Attalia Property or immediate vicinity (WDFW 2007).

Field surveys were conducted for the following target species of wildlife: black-tailed jackrabbit, Washington ground squirrel, western burrowing owl, northern sagebrush lizard, and striped whipsnake. These species could potentially breed on the Attalia Property.

The following special status avian species may use the Attalia Property on an infrequent basis as visitors or short-term foragers: bald eagle, ferruginous hawk, golden eagle, loggerhead shrike, merlin, peregrine falcon, sage thrasher, and sage sparrow. None of these species is known or expected to breed in the immediate area. Suitable perches are lacking for the raptors, and use of the Attalia Property by any of these species is expected to be transitory at most. No surveys were conducted for these species, as they are not expected to have any substantial use of the Attalia Property and would not likely be detected.

3.0 Spring 2007 Field Surveys

3.1. Botanical Surveys

3.1.1 Survey Objectives

A late-spring survey of the plant site and laterals was conducted to determine the occurrence and distribution of rare plants. The secondary objectives of the survey were to document the occurrence of weed species listed by Walla Walla County and the state of Washington and to identify any areas of high quality shrub-steppe habitat.

3.1.2 Target Species

Data provided by the WNHP indicate that one plant species listed on Table 1 has been documented historically on the Attalia Property. This species, gray cryptantha, grows in loose, sandy soils and flowers in May and June. This was the primary target species of the rare plant survey. Two other rare plant species may occur on the Attalia Property, based on habitat requirements: beaked cryptantha and prairie lupine. Beaked cryptantha blooms from late April to mid-May, and can be identified through mid-June. Prairie lupine flowers in May to June.

Other plant species listed in Table 1 are unlikely to occur on the Attalia Property due to lack of suitable habitat.

3.1.3 Survey Protocol

Pedestrian surveys of the Attalia Property were conducted on April 24 and 25, 2007 and May 29 and 30, 2007. This survey period is appropriate for the identification the target species gray cryptantha, beaked cryptantha, and prairie lupine. The majority of potentially occurring weed species also are identifiable at this time.

The survey area included all disturbed shrub-steppe habitats on the Attalia Property. The intuitive controlled survey method (Whiteaker *et al.* 1998) was used to review the sites. Per this method, the surveyor walks the perimeter of the survey site and meanders through the interior,

until almost all of the survey site has been covered; attention is focused on the portions of the site providing the most suitable habitat for the target survey species. Shrub-steppe habitat was surveyed using closely spaced meandering transects. Shrub-steppe dominated by native plant species was surveyed more intensively than habitat dominated by non-native species. In the vicinity of the historical sighting of gray cryptantha, a complete survey (100 percent coverage) was performed of the most suitable habitat: unstable sandy soils.

The hybrid poplar stands do not provide suitable habitat for rare plant species, but do support weeds. These stands were surveyed primarily to document weed species occurrence. Locations of well heads within the stands (five southern wells) also were surveyed.

3.1.4 Botanical Survey Results

A list of plant species observed during the field surveys is presented in Table 2. Appendix 1 includes a list of plants observed by survey site and copies of the field survey data and maps.

None of the target special status plant species, gray cryptantha, beaked cryptantha, and prairie lupine, was detected during the surveys. The most suitable habitat for the cryptantha species occurs in the vicinity of the five northern wells; this habitat was surveyed with 100 percent coverage during the May surveys. The same survey area had been searched for these species with no detections during May and June of 2001 (Smayda Environmental 2001a). Based on these results, it is not expected that any of the three species occurs on the Attalia Property.

The majority of shrub-steppe habitat on the Attalia Property has been farmed or otherwise disturbed by human activity. The dominant shrub species include gray rabbitbrush (*Chrysothamnus nauseosus*), green rabbitbrush (*Chrysothamnus viscidiflorus*), and big sagebrush (*Artemisia tridentata*). Big sagebrush is most abundant in the southernmost patches of shrub-steppe, and in the vicinity of the five northern wells. The latter site also supports abundant bitterbrush (*Purshia tridentata*), which is otherwise almost completely absent from the Attalia Property.

Dominant grasses and forbs across the Attalia Property include cheatgrass (*Bromus tectorum*), tumble mustard (*Sisymbrium altissimum*), yellow starthistle (*Centaurea solstitialis*), and in areas that have been intentionally reseeded, cereal rye (*Secale cereale*) and crested wheatgrass (*Agropyron cristatum*). Native grass species are present scattered across the Attalia Property, and include Sandberg's bluegrass (*Poa secunda*), Indian ricegrass (*Oryzopsis hymenoides*), and needle-and-thread grass (*Stipa comata*).

Two sites on the Attalia Property support a higher percentage of native species than the remainder of the disturbed shrub-steppe habitats. The first site is located in the SW ¼ of section 11, T7N, R31E W.M., in the vicinity of the five northern wells. This site includes duneland soil complexes, which are very high in sand content, as well as rockier soils on the northern hillslope. Several native plant species characteristic of these types of soil conditions were documented; none of them are considered rare.

The second site with a higher proportion of native species is in the northernmost portion of the Attalia Property, including the northern ½ of section 2, T7N, R31E W.M. and the SE ¼ of section 35, T8N, R31E W.M. This portion of the Attalia property includes remnant shrub-steppe patches located between previously center-pivot irrigated circles. These remnant patches are dominated by non-native grasses and forbs, but also exhibit very small patches of moss-lichen crust and a higher proportion of native plant species and than other shrub-steppe in the vicinity. Due to their small size, patchy distribution, and lack of connection to large, contiguous patches of high quality shrub-steppe, these remnant shrub-steppe patches do not meet the WDFW definition of priority habitat.

Table 2. Plant Species List for the Attalia Property

<i>Scientific Name</i>	Common Name
<i>Achillea lanulosa</i>	western yarrow
<i>Agropyron cristatum</i>	crested wheatgrass
<i>Agropyron spicatum</i>	bluebunch wheatgrass
<i>Amsinckia lycopsoides</i>	tarweed fiddleneck
<i>Artemisia tridentata</i>	big sagebrush
<i>Asclepias speciosa</i>	showy milkweed
<i>Asparagus officinalis</i>	asparagus
<i>Astragalus sclerocarpus</i>	Dalles milk-vetch
<i>Astragalus succumbens</i>	crouching milk-vetch
<i>Brassica kaber</i>	wild mustard
<i>Brodiaea douglasii</i>	brodiaea
<i>Bromus mollis</i>	soft brome
<i>Bromus tectorum</i>	cheatgrass
<i>Capsella bursa-pastoris</i>	shepherd's purse
<i>Centaurea diffusa</i>¹	diffuse knapweed
<i>Centaurea solstitialis</i>¹	yellow starthistle
<i>Chaenactis douglasii douglasii</i>	hairy chaenactis
<i>Chenopodium album</i>	lamb's quarters
<i>Chrysothamnus nauseosus</i>	gray rabbitbrush
<i>Chrysothamnus viscidiflorus</i>	green rabbitbrush
<i>Cirsium arvense</i>²	Canada thistle
<i>Delphinium nuttallianum var nuttallianum</i>	upland larkspur
<i>Eleagnus angustifolia</i>	Russian olive
<i>Elymus caput-medusae</i>	medusa head
<i>Elymus cinereus</i>	basin wildrye
<i>Erigeron filifolius</i>	thread-leaf daisy
<i>Eriogonum niveum</i>	snow desert buckwheat
<i>Erodium cicutarium</i>	redstem filaree
<i>Erysimum asperum</i>	prairie rocket
<i>Galium aparine</i>	cleavers
<i>Kochia scoparia</i>¹	kochia

<i>Scientific Name</i>	Common Name
<i>Lapsana communis</i>	nipplewort
<i>Lesquerella douglasii</i>	Columbia bladderwort
<i>Oenothera pallida pallida</i>	pale evening primrose
<i>Onopordum acanthium</i>¹	Scotch thistle
<i>Opuntia polycantha</i>	prickly pear cactus
<i>Oryzopsis hymenoides</i>	Indian ricegrass
<i>Petalostemon ornatum</i>	western prairie-clover
<i>Phacelia hastata</i> var. <i>leucophylla</i>	silver-leaf phacelia
<i>Phlox longifolia</i>	long-leaf phlox
<i>Plantago patagonica</i>	woolly plantain
<i>Poa bulbosa</i>	bulbous bluegrass
<i>Poa secunda</i>	Sandberg's bluegrass
<i>Populus</i> sp.	hybrid poplar
<i>Psoralidium lanceolatum</i>	lance-leaf scurf pea
<i>Pteryxia terebinthina</i> var. <i>terebinthina</i>	turpentine wave-wing
<i>Purshia tridentata</i>	bitterbrush
<i>Rumex acetosella</i>	red dock
<i>Rumex venosus</i>	winged dock
<i>Salsola iberica</i>	tumbleweed
<i>Secale cereale</i>²	cereal rye
<i>Sisymbrium altissimum</i>	tumble mustard
<i>Sphaeralcea munroana</i>	orange globe mallow
<i>Stipa comata</i>	needle and thread grass
<i>Taraxacum officinale</i>	common dandelion
<i>Thlaspi arvense</i>	field pennycress
<i>Tragopogon dubius</i>	western salsify

Noxious weed species shown in **bold** typeface.

¹ Class B non-designate: weeds managed on private land by the landowners, with containment as the primary goal; the County Weed Board acts in the capacity of 'Coordinator for Landowners'.

² Class C: weeds called to the attention of landowners; educational assistance in management methods is provided by the County Weed Board.

The northern portion of the Attalia Property (specifically, the northern ½ of section 2, T7N, R31E W.M. and the SE ¼ of section 35, T8N, R31E W.M.) includes sites that were previously center-pivot irrigated. These sites were reseeded, apparently with cereal rye and crested wheatgrass, of which the cereal rye has been most successful. These sites are dominated by greater than 90 percent cover of cereal rye and do not support any shrub species. These sites exhibit the lowest plant species diversity of any of the shrub-steppe habitats on the Attalia Property.

Non-native weeds are common across the Attalia Property, both in the disturbed shrub-steppe habitat and along the margins of the hybrid poplar stands. No Class A or Class B-designate weed species were observed on the Attalia Property. Several Class B non-designates and Class C species currently tracked by Washington State and Walla Walla County are present

on the site. The following species are Class B non-designates: diffuse knapweed (*Centaurea diffusa*), yellow starthistle, kochia (*Kochia scoparia*), and Scotch thistle (*Onopordum acanthium*). These species are managed on private land by the landowners, with the County Weed Board acting in the capacity of 'Coordinator for Landowners'. The Class C noxious weed species cereal rye and Canada thistle (*Cirsium arvense*) are present on the Attalia Property. Cereal rye is a dominant species in the northern portion of the Property. Category III species are weeds that are called to the attention of landowners; the County Weed Board provides educational assistance with management methods.

3.2 Wildlife Surveys

3.2.1 Survey Objectives

Pedestrian transect surveys were conducted to detect the presence of special status wildlife species within suitable shrub-steppe habitat. The primary survey objective was to determine occurrence of the target species. The surveys also provided incidental observations of other wildlife on the Attalia Property.

3.2.2 Target Species

Target species for the wildlife transect surveys were selected based on the results of the prefield review. Special status wildlife species that may occur on the Attalia Property, and could potentially breed there, were included in the survey. Those species which are unlikely to occur on the Attalia Property, or may occur only as occasional or non-breeding season visitors, were not included in the surveys. Incidental sightings of any special status species listed in Table 1 were recorded during the surveys.

Target species for the surveys include black-tailed jackrabbit, Washington ground squirrel, western burrowing owl, northern sagebrush lizard, and striped whipsnake. All of the target species are associated with shrub-steppe habitat. Breeding sites for western burrowing owl have been documented within a few miles of the Attalia Property (Smayda Environmental 2001a). Black-tailed jackrabbit was observed somewhere in the general locale of the Chevron Petroleum Products pipeline in 1996 (Kleinfelder and EnviroNet AeroSciences 1997); the pipeline crosses the northern part of the Attalia Property and extends to the Walla Walla River several miles east of the Attalia Property. The other target species have not been documented on or near the Attalia Property, but could potentially be present.

3.2.3 Survey Protocol

All shrub-steppe habitat on the Attalia Property was surveyed. Better quality shrub-steppe habitat, supporting a higher proportion of native plant species (described in section 3.1.4, above), was surveyed most intensively, as it provides the most suitable habitat for the target species. Tightly spaced pedestrian transects were used to survey these better quality shrub-steppe habitats. Three sites were surveyed intensively: the vicinity of the five northern wells (SW ¼ of the SW ¼ of section 11) and the NE ¼ of section 2, both in T7N, R31E W.M.; and the SE ¼ of section 35 in T8N, R31E W.M. (the northernmost tip of the Attalia Property). These

areas were surveyed on multiple dates, including at least one survey in the early morning hours to target animal activity periods and to avoid wind and traffic noise which increase later in the day.

Less intensive walk-through surveys were conducted on disturbed shrub-steppe habitats dominated by non-native plant species throughout the remainder of the Attalia Property. Due to their disturbed nature and high proportion of non-native plant species, these areas are considered low quality habitat for the target species, and are unlikely to support breeding populations. Surveys were conducted on April 24 and 25, and May 29 and 30, 2007.

Incidental observations of other wildlife species in and over the remainder of the Attalia Property, including the hybrid poplar stands, and adjacent habitats were recorded during the surveys. Although the hybrid poplar habitat provides cover for several species, it is not a stable resource due to its temporary nature. The rotation length of the hybrid poplar stands is about seven years, with the first year or two providing low cover and canopy closure values. The stands' value as wildlife cover is limited to about four to five years duration.

3.2.4 Wildlife Survey Results

Wildlife transect surveys were conducted within shrub-steppe habitats on the Attalia Property on April 24 and 25, and May 29 and 30, 2007. A list of wildlife species observed during both the wildlife surveys is presented in Table 3. Appendix 2 contains the field data from the wildlife surveys.

None of the target wildlife species, or their sign, was observed on the Attalia Property. The most suitable habitat for the target species occurs in SW ¼ of the SW ¼ of section 11, T7N, R31E W.M. (the vicinity of the five northern wells) and the remnant shrub-steppe habitats at the northern end of the Attalia Property in the NE ¼ of section 2, T7N, R31E W.M. and the SE ¼ of section 35, T8N, R31E W.M. The same sites were surveyed with no detections during May and June of 2001 (Smayda Environmental 2001a). Based on these results, it is not expected that the target species occur on the Attalia Property.

Table 3. Wildlife Species Observed on or adjacent to the Attalia Property

Common Name	Scientific Name
American crow	<i>Corvus brachyrhynchos</i>
American goldfinch	<i>Carduelis tristis</i>
American kestrel	<i>Falco sparverius</i>
American robin	<i>Turdus migratorius</i>
Badger	<i>Taxidea taxus</i>
Barn swallow	<i>Hirundo rustica</i>
Black-billed magpie	<i>Pica pica</i>
Brown-headed cowbird	<i>Molothrus ater</i>

Common Name	Scientific Name
California quail	<i>Callipepla californica</i>
Cedar waxwing	<i>Bombycilla cedrorum</i>
Common raven	<i>Corvus corax</i>
Coyote	<i>Canis latrans</i>
Dark-eyed junco	<i>Junco hyemalis</i>
European starling	<i>Sturnus vulgaris</i>
Great blue heron	<i>Ardea herodias</i>
House sparrow	<i>Passer domesticus</i>
Killdeer	<i>Charadrius vociferus</i>
Lazuli bunting	<i>Passerina amoena</i>
Mourning dove	<i>Zenaida macroura</i>
Mule deer	<i>Odocoileus hemionus</i>
Northern harrier	<i>Circus cyaneus</i>
Nuttall's cottontail	<i>Sylvilagus nuttallii</i>
Ord's kangaroo rat*	<i>Dipodomys ordii</i>
Pocket gopher, unidentified species*	<i>Thomomys sp.</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Ring-necked pheasant	<i>Phasianus colchicus</i>
Short-eared owl	<i>Asio flammeus</i>
Song sparrow	<i>Melospiza melodia</i>
Striped skunk	<i>Mephitis mephitis</i>
Unidentified buteo	<i>Buteo sp.</i>
Unidentified gulls	<i>Larus sp.</i>
Western kingbird	<i>Tyrannus verticalis</i>
Western meadowlark	<i>Sturnella neglecta</i>
Western wood peewee	<i>Contopus sordidulus</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>
Wild turkey	<i>Meleagris gallopavo</i>

* sign observed only

Commonly observed wildlife on the Attalia Property include a number of species that frequent disturbed, open habitats, such as ravens, crows, badgers, and meadowlarks. Ord's kangaroo rat is common through the shrub-steppe habitats of the Attalia Property, wherever

sandy soils are exposed, such as along road cuts. This species is characteristic of the sandy soils in this portion of the Columbia River basin.

Along the edges of the hybrid poplar stands and adjacent center-pivot irrigated fields, black-billed magpies, ring-necked pheasants, crows, western meadowlarks, and mourning doves are common. Western kingbirds were observed in a few locations, primarily along the southern boundary of the Attalia Property in the vicinity of irrigated orchards. Wild turkeys are present along the southwestern edge of the Attalia Property; an adjacent landowner is stocking a grain-feeding station just outside the poplar stands. Ring-necked pheasants and California quail are some of the most abundant inhabitants of the fiber farm stands, using the poplar for cover, and foraging along the outer edges of the stands where grass and forb cover is more abundant. Mule deer are present occasionally within the fiber farm stands, using the poplars for cover. Coyote use the stands as well, obtaining water by chewing through the drip irrigation hoses. In some of the oldest stands (approximately six to seven years), black-billed magpie nests and juveniles were observed.

Although the hybrid poplar habitat provides cover for several species, it is not a stable resource due to its temporary nature. The rotation length of the hybrid poplar stands is about seven years, with the first year or two providing low cover and canopy closure values. The stands' value as wildlife cover is limited to about four to five years duration.

4. Summary of Botanical and Wildlife Resources

4.1 Botanical Resources

The botanical resources of the Attalia Attalia Property reflect the prevalent land uses of the past several decades. Irrigated agriculture has been, and remains, the primary land use on and adjacent to the Attalia Property. The majority of the area (about two-thirds of the Attalia Property, or 1,200 acres) is currently irrigated hybrid poplar stands. Of the remaining area, about 312 acres was formerly center-pivot irrigated and remains dominated by non-native grass and forb species. The remaining approximately 370 acres consists of disturbed shrub-steppe habitats, at scattered locations across the Attalia Property, including the northern portion, at the location of the five northern wells, and in the isolated unit to the west in T7N, R32E W.M.

Surveys of the shrub-steppe habitats in April and late May 2007 resulted in no detections of rare plant species. Based on the high level of disturbance that has occurred, no special status plant species are expected to occur on the Attalia Property.

No unique or special status habitats were observed on the Attalia Property. No wetlands, stream courses, or water bodies are present. No high quality shrub-steppe habitat is present.

No Class A or Class B-designate noxious weed species were observed on the Attalia Property. Four noxious weed species listed by the County as Category II are present: diffuse knapweed, yellow starthistle, kochia, and Scotch thistle. Management of Category II species by the landowner is mandated and coordinated by the County Weed Board. Two Category III

species are present, cereal rye and Canada thistle. Landowners are encouraged to control these weed species, populations of which are increasing in the County.

4.2 Wildlife Resources

Wildlife resources on the Attalia Property are comprised of a variety of species associated with disturbed shrub-steppe, agricultural lands, and edges between open and deciduous forest habitat. Irrigated agriculture has been, and remains, the primary land use on and adjacent to the Attalia Property. The majority of the Attalia Property (about two-thirds of the area, or 1,200 acres) is currently irrigated hybrid poplar stands. The poplar plantations are used by a number of wildlife species, primarily for cover. The shrub-steppe habitats on the Attalia Property are used by a wide variety of commonly occurring wildlife species.

Surveys of the Attalia Property habitats in April and late May 2007 resulted in no detections of rare or special status animal species. Due to the lack of well-developed shrub-steppe habitat on the site, and the high level of habitat disturbance, no special status wildlife of shrub-steppe habitats are expected to use the site for breeding. Special status avian species, such as bald eagle, are occasionally or seasonally present in the general vicinity, and may pass through the Attalia Property. However, the Attalia Property does not provide nesting, perching, or roosting habitat for these species.

No unique or special status wildlife habitats were observed on the Attalia Property. No wetlands, stream courses, water bodies, or high quality shrub-steppe habitats are present. WDFW (2007) has designated a priority habitat area for ring-necked pheasant that encompasses a small portion of the Attalia Property in the SE ¼ of section 14, T7N, R31E W.M. and part of the SW ¼ of section 18, T7N, R32E W.M. The majority of this priority habitat site is located to the south of the Attalia Property, along the riparian zone of the Walla Walla River and adjacent irrigated orchard and croplands, which provide good food and cover for pheasant.

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ATTALIA PROPERTY VEGETATION COVER TYPES

