

## **Déjà View Trail and Power Wagon Trail Wildlife Assessment**



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## Background

The Columbia Valley Greenways Trail Alliance is interested in sanctioning the locally known Déjà View and Power Wagon trails. These trails are located on Crown Land east of the Columbia River and west of Highway 93/95, south of Radium Hot Springs. These single-track rolling trails are adjacent to the Old Coach Trail (gravel road).



**Figure 1. Déjà View trail on left, and Power Wagon trail on right**

The Columbia Valley Greenways Trail Alliance conducted a survey among all CVGTA trail users in the valley and found that the Déjà View is the most popular trail in the valley among respondents. It is used by dog-walkers, trail runners, hikers and mountain bikers year-round, but receives most of its use between March and November. It is a spectacular trail with magnificent views of the Columbia Wetlands. In addition, it is a very accessible



trail close to the towns of Radium Hot Springs and Invermere, which accounts for its high use.

### **Columbia Wetlands Wildlife Management Area**

Wildlife Management Areas are areas that are designated under Section 4 of the BC Wildlife Act, that are used to conserve and manage important habitat for the benefit of regionally or internationally significant fish and wildlife species. Both of these trails are entirely within the WMA.



Figure 2. View from Power Wagon looking down on Old Coach Trail and Déjà View on bluffs. This image illustrates the typical habitat – open grassland with Douglas Fir forest.

### **Wildlife Species**

A number of wildlife species were identified as being of interest in the area including Bighorn Sheep, Badgers, Flammulated Owls, Lewis's Woodpeckers, and Long-billed Curlews.

#### ***Bighorn Sheep usage***

Rocky Mountain Bighorn Sheep (*Ovis canadensis canadensis*) are a Blue-listed species or considered “vulnerable” in British Columbia. In the winter they use open grasslands, often

with steep escape terrain, as well as areas within the town of Radium. Thus they are a species of interest along the Déjà View/Power Wagon trail as this area represents important winter-range habitat for the sheep. There was evidence of heavy use of bighorn sheep at the northern end of both the Déjà View and Power Wagon trails. Grassy outcrops/bluffs were covered with sheep pellets.

Kootenay National Park conducted a long term monitoring program on Bighorn Sheep in the Radium area from 2002 to 2009. They tracked the location of approximately 60 sheep every 4 hours for 8 to 9 months during this period. Based on this data, Alan Dibb of Parks Canada was able to provide information on the use in the area around these two proposed trails. Almost all of the usage was from the most southern pullout on the Mile Hill to the north end of the trails. This is approximately the most northern 1 km of trail. Sheep use was concentrated on open grassland patches in this area. Seasonal use was highest from November to April with use tapering off in May and June and in September and October. There was almost no use in July and August. Females typically move to higher elevations in May to lamb and return in September and males typically move out in June and return in October (A. Dibb, pers. comm.).



Figure 3. Grassy bluff with evidence of heavy use by bighorn sheep. Old Coach Road is visible below.





Figure 4. Sheep pellets cover the majority of the ground on grassy bluffs.

Parks Canada telemetry locations match our own observations on the trail, with large amounts of pellets indicating use in the open grasslands on the northern end of this trail. It is important to note that although this area is used as winter range habitat, lambing areas are at higher elevations and will not be impacted by these trails.

#### Possible solutions

1. Voluntary closure – One possible solution is to put in signs at the north end of the trail indicating voluntary closure of the trail during peak bighorn sheep use (November 1 to May 1). This may require connecting the Déjà View Trail to the Power Wagon trail before the upper pullout on the Radium Mile Hill. As well, it would likely be beneficial to have an additional connection to the Old Coach Trail, to accommodate users approaching from the Radium. Other trails in the region including trails in Golden and Revelstoke have instituted temporary voluntary closures on certain trails for bighorn sheep and caribou respectively.
2. Decommission trail at north end – Another possible solution would be to decommission the trail at the north end. However, considering that the majority of human use on these trails occurs from May – September, during non-peak bighorn sheep use periods, this option seems more drastic, but could be considered if temporary voluntary closures are not effective.

3. Consider additional signage at both starting locations of the trail to inform users that this is a wildlife management area and to keep pets/dogs under control at all times.

### ***Badger***

The American badger (*Taxidea taxus jeffersonii*) is on the provincial Red List in British Columbia. In Canada, the B.C. population is listed as Endangered (COSEWIC 2000). In British Columbia, most badger activity is at low elevations in dry regions within grasslands or open Douglas-fir forests, similar to the habitat found along the Déjà View Power Wagon trails.



Figure 5. Badger and ground squirrel use adjacent to trail.

Badgers in southeastern BC are at the northern edge of their range, have very low population densities and have large home ranges. Here, badgers may use hundreds of different burrows within their home range and will often change locations daily; they usually reuse old burrows rather than digging new holes and will reuse burrows from year to year, thus it is important that burrows are not destroyed (Newhouse 2001).

Columbian ground squirrels are their primary food source and badgers will often dig burrows in close proximity to ground squirrels. Maternal dens are generally larger with a

large dirt mound, and there are often many tracks present. Here, females will remain at a site with her kits for an extended period of time (kits are usually born from mid-March to mid-April).

The main threats to badgers in southeastern BC, as identified in the Recovery Strategy for badgers, include habitat loss and degradation, road mortality, persecution, and loss of prey (Jeffersonii Badger Recovery Team 2008).

We found a number of badger holes along the Déjà View and Power Wagon trails, but none appeared to be used this season. Due to the active ground squirrel populations in the area, and previous badger use, it is highly likely that badgers will reuse this area in the future. The presence of trail users, and their dogs in particular, may cause badgers some stress when badgers are in the area. However, because badgers are most active at night, this disturbance is likely to be modest relative to the other threats badgers face (N. Newhouse personal communication).

The current location of the Déjà View and Power wagon trail is unlikely to pose a substantial threat to badgers at this time, and it is possible that educational opportunities along this trail could improve the public's knowledge and awareness of Badgers and increase stewardship of badgers and badger habitat, which is one of the provincial recovery teams objectives. The larger concern for badgers in this location would be loss of habitat through forest ingrowth and loss of their primary prey source – the Columbian ground squirrel (Newhouse and Kinley 2000, 2001).

Because badgers frequently reuse burrow sites, it is necessary to ensure that burrows are not destroyed. In addition, if a natal den is established in the future, the area should be avoided until the female has moved her new family.

Possible trail options:

1. Maintain current trail – although the current Déjà View trail passes immediately beside badger burrows, it is unlikely that walking, running, or biking will destroy these burrows.
2. Alter sections of trail to avoid being directly beside burrows, however it may be difficult to avoid being close to burrows in some locations of the trail.
3. Include educational signage in areas with high badger and ground squirrel use inform the public about badgers and their ecology including the importance open grassland habitat and ground squirrels for badger survival.
4. If, in the future, a maternal den is found close to the trail, implement a temporary trail closure or reroute the trail around the den site.
5. Consider additional signage at both starting locations of the trail to inform users that this is a wildlife management area and to keep pets/dogs under control at all times and avoid harassment of wildlife including ground squirrels.



## ***Flammulated Owl***

In British Columbia, Flammulated Owls (*Otus flammeolus*) are restricted to a narrow range of habitat in old Douglas-fir and ponderosa pine forests, where large trees provide foraging sites, snags provide nesting sites and thickets of young trees provide roosting cover. The Flammulated Owl is on the provincial Blue List in British Columbia. It is designated as a species of Special Concern in Canada (COSEWIC 2010a).

Snags or wildlife trees (dead trees with cavities) within 50m of the trail were surveyed. This was done by scratching on the base of the tree and watching to see if any owls emerged from suitable cavities. When Flammulated Owls hear something on their nest tree they look out to investigate and make sure they don't get caught in the nest by a predator (D. Cannings, Pers. Comm).



Figure 6. Example of a wildlife tree surveyed for Flammulated Owl.



No Flammulated Owls were found along the trails, however, the habitat appeared suitable.

#### Recommendations:

- Leave wildlife trees and large firs in the area.
- Set up nest boxes in forests that have few or no suitable nest sites.
- Close sections of trail within 50 m of a Flammulated Owl nest if a nest is detected in the future.

#### ***Lewis's Woodpecker***

The Lewis's Woodpecker (*Melanerpes lewis*) is a Blue-listed species in British Columbia, and is listed as Threatened in Canada (COSEWIC 2010b). They use open ponderosa pine forests, old cottonwood stands in riparian areas with adjacent open fields, burned-over stands of Douglas-fir, and grassland with scattered decaying trees.

Surveys along the Déjà View and Power Wagon trails did not locate any Lewis's Woodpeckers. In addition, previous surveys of Lewis's Woodpeckers in East Kootenays did not locate any Lewis's Woodpeckers in the vicinity of the trails. There was one area with open grassland adjacent to riparian cottonwoods that appeared moderately suitable for Lewis's Woodpeckers, but this area is a long way from the nearest portion of trail and it is unlikely that trails users would disturb birds if they were to nest there in the future.

#### ***Long-billed Curlew***

Long-billed Curlews (*Numenius americanus*) are a Blue-listed species in British Columbia and listed as a species of Special Concern in Canada (COSEWIC 2011). They use large open grasslands with low vegetation height. Curlews were searched for opportunistically along the Déjà View and Power Wagon trails, but none were located. The habitat in this area has low suitability for curlews as they tend to prefer more open areas with shorter vegetation.

#### **Invasive Plants**

A few invasive plants were found along the trail including Knapweed, Leafy Spurge and Common Tansy. The locations of these plants have been reported to the East Kootenay Invasive Plant Council ([www.ekipc.com](http://www.ekipc.com)).



Figure 7a,b. Images of Leafy Spurge and Common Tansy respectively found adjacent to the trail.



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