

# ALBERTA WILDERNESS ASSOCIATION BIGHORN WILDLAND RECREATION MONITORING PROJECT, 2004

## EXECUTIVE SUMMARY

Wilderness recreation is a popular and growing pastime in Alberta; however, wilderness degradation from human use and misuse, particularly from motorized off-highway vehicle (OHV) and equestrian use, is of increasing concern. With increasing demand for outdoor recreation, it is critical that the impacts of recreational activities be well-managed within wilderness areas to address both vital ecological integrity and economic sustainability issues.

In Alberta's Bighorn Wildland, equestrian and motorized vehicle use is an escalating threat to ecological and watershed integrity. In 2003, Alberta Wilderness Association (AWA) initiated a four-year study to monitor recreation use and impacts in the Eastern Slopes Bighorn Wildland Upper Clearwater/Ram Forest Land Use Zone (FLUZ). (Figures 1 & 2) The study, by assessing the pattern, intensity, extent and impact of recreational use in the area, encompasses the following:

- 1) Monitoring of trail conditions of legal and illegal trails
- 2) Monitoring of legal and illegal OHV activity

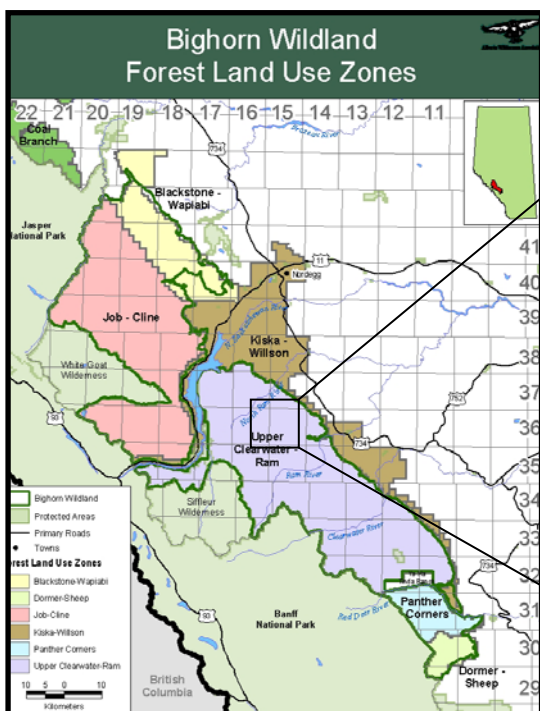


Figure 1. General location of study area

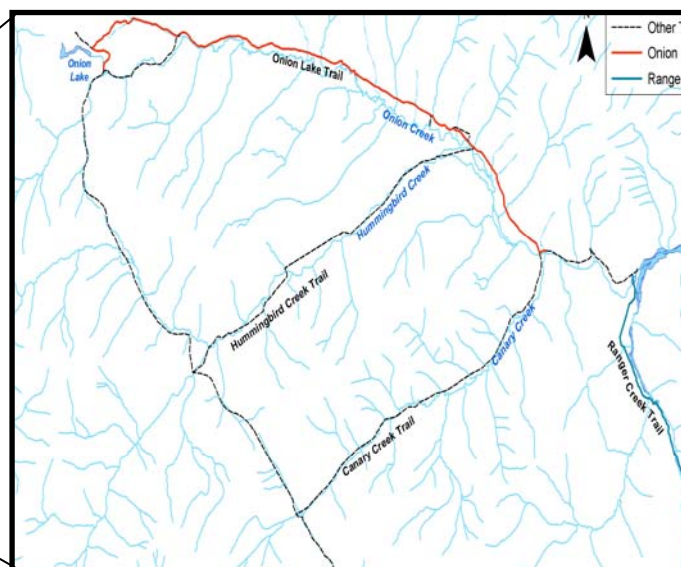


Figure 2. Specific study area and trails

Observations to date in the study area have revealed:

- 1) Trail damage (on legal and illegal trails):
  - a) structural damage ranging from negligible to severe.
  - b) vegetation damage, ranging from none to severe in grass, shrub, forest, and marsh habitat with heavy impacts from random camping.
- 2) Illegal OHV activity:
  - a) during out-of-season restrictions.
  - b) on illegal secondary trails and frolic areas, especially in marshy habitat.

The designated or primary trails monitored are trails with timing restrictions for off-highway and snow vehicles. Year-round use for all other users is permitted, unless otherwise posted. The Onion Lake, Hummingbird Creek, and Canary Creek trails are restricted to legal OHV and snowmobile use from July 1 to April 30, with the Ranger Creek trail use restricted to December 1 to April 30. All other secondary or informal trails observed are illegal for OHV or snowmobile use.

The results from monitoring data acquired to date indicate approximately 50% of the study area is experiencing some level of damage with the majority of that damage, 52%, resulting from OHV Activity. (Figures 3 & 4)

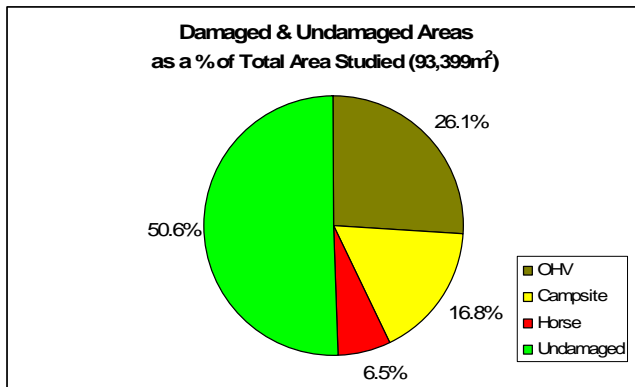


Figure 3. Spatial extent of damage

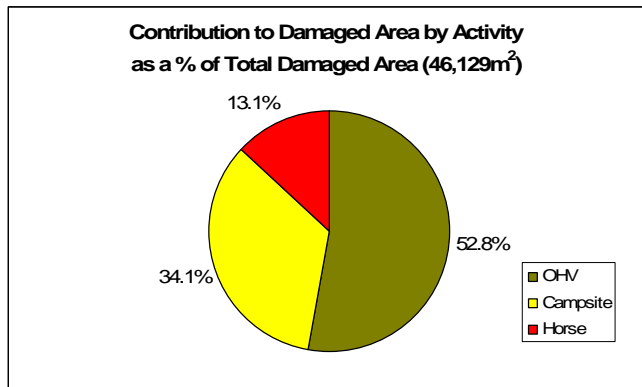
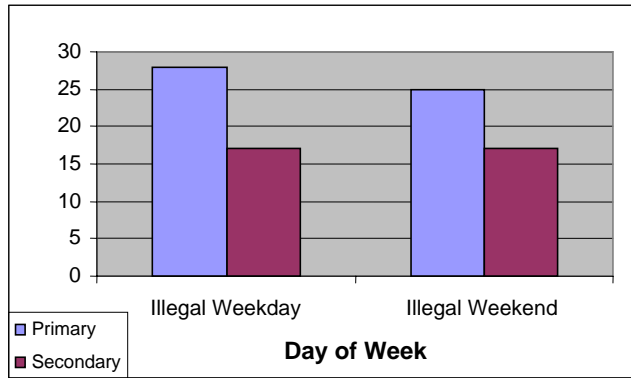
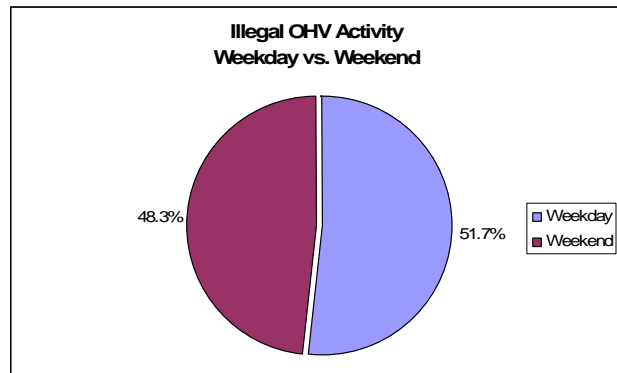


Figure 4. Damage contribution by activity

Of particular concern is the illegal activity of OHVs. As illustrated in the graphs above, OHV activity is a major contributor to damaged areas. Damage is occurring from illegal activity on secondary trails, (Figures 5 & 6) and also during designated periods when OHVs are supposed to be restricted from operating in the area.



**Figure 5. Illegal OHV activity**



**Figure 6. Illegal OHV activity timing (by %)**

## CONCLUSIONS

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Based on preliminary results, the number of secondary trails, damaged sites, and overall total of damaged area indicate that the study area within the Bighorn Wildland is subjected to intensive recreational use in the form of OHV and equestrian use. These recreation activities have resulted in environmental degradation including off-trail use, braiding, rutting and erosion of trails and illegal off-trail/out of season use.

Monitoring recreational use and the associated impacts in the Bighorn Wildland must continue based upon observed and measured damage to trails, quantity of secondary trails, quantity of total damaged area and the level of illegal OHV use. Also, continued monitoring and more action by Alberta's Sustainable Resource Development Department (SRD) to enforce regulations, restrict access, improve signage and restore damaged areas is of paramount importance.

## KEY RECOMMENDATIONS

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- 1) Close and reclaim secondary trails and braided areas along the primary trails. Repair primary trails to avoid continued braiding, as well as discourage creation of secondary trails.
- 2) Post more signs with clear and concise messages at the entrance to all trails, and provide educational outreach, which would include equestrian users.
- 3) Increase officer presence and alternate the timing of patrols in the area.
- 4) Reduce the total number of random campsites and designate some formal campsites with clearly defined rules about random camping.
- 5) Continue cooperative communications between SRD's monitoring & maintenance teams and AWA.
- 6) Continue with AWA's Bighorn Wildland Recreation Monitoring Project for two additional seasons.