



Final Report by Yukon Conservation Society

## Off Road Vehicle Terrain Analysis & Awareness Project

For Yukon Fish and Wildlife Enhancement Trust

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### Table of Contents

Project Activities: Goals and Work Performed.....	2
Comments on Results.....	4
Communications.....	5
Applicant Suggestions.....	5
Final Report Budget Sheet.....	7
Budgetary Differences.....	8
Appendix A: ORV Working Group Recommendations and Cover Letter.....	8
Appendix B: Approved Educational Text.....	9
Appendix C: School Presentation for Grade 7.....	16
Appendix D: Communications and Advertising Copies.....	23
Appendix E: ORV Hikes Report.....	23
Appendix F: Public ORV Survey.....	33
Appendix G: Project Coordinators Work Report.....	34

# Project Activities

**Goal #1: PROVIDE PUBLIC EDUCATION:** *To communicate to the public the ethical and practical guidelines for ORV travel in Yukon wilderness (including riding tips that minimize impacts, suitable terrain types, and other considerations); by creating and delivering a multi-media communications plan; to include “Tread Lightly ®” standards and tools with a Yukon context, as well as other information such as rider safety, Canadian Standards Association ATV training manual, or other relevant information for users of Yukon off-road trails.*

## Activities Performed:

### **Per Work Plan:**

- ✓ By consulting with YG, RRC’s, FNs, and community groups, conducting general public surveys, public hikes, and information gathering through our Working Group members; and by researching Yukon ecology, wildlife & habitat issues, geography, and current issues related to ORVs: we were able to develop information (reviewed and approved by the members of the Working Group) to be used in educational materials, brochures and other media, and we developed a 2+ hour classroom discourse and activities for use in grade 7. **\*See Appendix B & C**
- ✓ We created website pages dedicated to this project, posted relevant reference materials, links, and information on this website, including our research and findings, and linked all members of the Working Group to this site and encouraged the wide distribution of this web information. **\*See:** <http://www.yukonconservation.org/orv.htm>
- ✓ Our Working Group jointly approved final communications/ educational text for use in publications and/or media and in a timely manner.

### **Additional Activities:**

- The YLA Select Committee on ORVs produced a Report with Recommendations for YG, which our Working Group reviewed and has produced collective additional Recommendations for YG, as a means of enhancing the YLA Report and advancing the YG initiative to deal with ORVs in the environment. Our Working Group recommendations were widely distributed. **\*See Appendix A.**
- A series of public ORV Awareness Hikes were conducted. Hikes took place in Haines Junction, Carcross dunes, McIntyre Creek, Hillcrest, and Crestview to raise awareness about ORV issues, and to collect information about current issues and ORV concerns from the public. The information gathered on the ORV Hikes as well as research done by Y2C2 and YCS staff was incorporated into the ORV Working Group’s work developing the educational materials for use in schools and outdoor culture camps, and for public promotions and media. This hikes series provided us an invaluable opportunity to meet with ORV riders and other interested people to discuss ORV issues and learn what needs to be in future Yukon ORV educational materials.
- We advertised our ORV Awareness Hikes publicly (Yukon News, Whitehorse Star, CBC Radio interview and ads, Community Group Email-lists, websites, Posters posted at ORV service and sale locations, FNs Band offices, community center businesses, etc). **\*See Appendix D & E**
- We conducted a public survey on-line via the Working Group members e-lists, and Survey Monkey, and in-person at Canadian Tire in Whitehorse for two weeks as a means of raising awareness about the issue, and gathering information from riders for riders, about their observations and ideas for best practices in the Yukon.

**GOAL #2: WORKING COLLABORATIVELY:** *To strike a Working Group with balanced representation of interested stakeholders that will share information and work collaboratively in order to identify some popular trail samples for discussion, to collectively advocate for trail stewardship through a dynamic education and awareness program. The Working Group members will analyze and reach consensus on: the trails to be discussed, the ecological and social impacts currently observed on existing trails; the factors contributing to those impacts; solutions to minimizing the impacts and/or related factors; target audiences for providing the collected information; effective ways to communicate the information to the target audiences; and assess and agree upon the final communications materials.*

### **Activities Performed:**

#### ***Per Work Plan:***

- ✓ Created an “ORV Working Group” comprised of key partners/individuals that collaborated on goals. Working Group members included: Yukon Conservation Society, Yukon Fish & Wildlife Management Board, Yukon Fish & Game Association, Yukon Off-Road Riders Association, Klondike Snowmobile Association, Trails Only Yukon Association, and Wilderness Tourism Association of the Yukon. The Working Group worked according to a Terms of Reference; met quarterly to discuss and approve the work accomplished to date and plan next steps; worked according to the collaborative Goals set out; and reached consensus on all final materials developed and approved. Areas where consensus could not be reached were noted in drafts but discarded from the final approved documents.
- ✓ YCS staff had meetings and on-going communications with First Nations, Renewable Resources Councils, the Southern Lakes Wildlife Coordinating Committee, the Fish & Wildlife Management Board, and the Yukon Government department of Environment to consult with them and provide updates on this project.
- ✓ Hired & trained Project staff/ contractors (to work on various aspects of the project). Christina Macdonald was hired as the Project Coordinator; 8 people provided Special Guest Interpretation on ORV Hikes
- ✓ YG Y2C2 & YCS summer students/ volunteers trained and provided assistance: 3 Y2C2 Staff provided In-Kind support as researchers for 3 weeks during the summer; Karin Sederberg was hired to help with Summer ORV Awareness Hikes and assist with promotions.

#### ***Additional Activities:***

- 2 Canada World Youth volunteers were trained in September and conducted a public survey of ORV operators for two weeks at Canadian Tire in Whitehorse. They also compiled the survey study results.

**GOAL # 3: TRAIL ANALYSIS:** *To analyze a minimum of 10 trails, including a variety of terrain types; To identify the key attributes of the trails including sensitive habitat areas; trail conditions (terrain types, width, depth, physical barriers, etc.); trail spurs; current user types and frequency of use; times of day or seasonal issues, ecosystem types, etc.; to consider how the attributes contribute to or take away from the trails suitability for use; and to agree on appropriate uses of the trails or terrain types with reasoning for and with related references. The purpose of the trail analysis is to support the Working Group’s analysis, for developing comprehensive communication materials using physical examples.*

### **Activities Performed:**

#### ***Per Work Plan:***

- ✓ We collected data while delivering interpretive hikes on 5 different community trails. We also researched trail attribute/terrain information, and Best Practices information. The Working Group met 4 times and approved all educational materials and recommendations developed. ***See: Appendix E***

- ✓ Once we collected and compiled the data, the materials were refined into usable text materials for media purposes; Communication tools were refined and we began distributing approved sections, in particular, the management recommendations. Final revisions to communications information and recommendations were made

## Comments on Results

Our goal for 2011 was to establish a Working Group, begin the trail analysis process, and get what information we could gather, assess, and collectively agree upon, out to target audiences and the general public. The collaborative engagement of these organizations on this topic was anticipated to be among the greatest accomplishment of this project, as it would help develop common understanding, and common language for continuing to tackle this complex issue. To these ends, we feel we've been very successful.

We said we would consider the project a success if the Working Group were to successfully identify and agree upon:

1. sample trails for Group analysis;
2. the factors affecting trail integrity; and
3. a collaborative communication strategy and plan, including target audiences to reach.

Two out of three isn't bad. We collaborated on a communications strategy and plan, including target audiences to reach out to, and we did come to agreement on messaging that addresses factors affecting trail integrity. However, while we did use a few specific trails as examples within our Working Group discussions, it was agreed that information about recommended uses of specific identified trails was not part of our communications strategy or plan, so in the end, we did not disclose information regarding specific trails, but rather created education material that explains types of environments which are preferred for riding, or not-preferred, due to the nature of the environment. **See: Appendix A, B & C for the materials developed.**

**Goal 1: PROVIDE PUBLIC EDUCATION:** Our results exceeded our expectations. We developed 5 different possible message themes, for use in advertising, articles, brochures, posters, radio ads, etc., and we developed a school presentation for grade 7 target. We also went into communities and conducted 5 public interpretive hikes. Only because we were able to hire Christina on full time through her working on other YCS files, were we able to get more time out of her for this project, we helped us reach and exceed our project Goals.

**Goal 2: WORKING COLLABORATIVELY:** We were unable to secure a member of the Southern Lakes Wildlife Coordinating Committee, a First Nation member, or a Renewable Resources Council member to the Working Group due to political limitations: our Working Group was deemed "Interest Group" and therefore these parties felt unable to participate in an official capacity. However, members from all of these did express interest in being kept informed of our WG activities and accomplishments. We sent our ORV Recommendations to all parties. With the organizations that did participate on the Working Group, we were very successful collaborating on all materials developed.

**GOAL # 3: TRAIL ANALYSIS:** We had planned to analyze a minimum of 10 trails, including a variety of terrain types, to identify the key attributes of the trails including sensitive habitat areas; trail conditions (terrain types, width, depth, physical barriers, etc.); trail spurs; current user types and frequency of use; times of day or seasonal issues, ecosystem types, etc.. All of these issues were discussed within the Working Group, however, specific trail examples did not become a part of the end reports. Rather, our results ended up being more generalized in nature, pertaining to terrain type, or machine type. The difference between effects of snow machines, ATVs, and other ORVs were discussed, as well as effects of ORVs in Alpine environments, Wetland environments, and general Yukon environment were discussed. Impacts to Wildlife and aquatic habitat were also discussed. Educational materials were created that speak to the different environments and different types of appropriate uses and cautionary messages for each.

We do hope that the Yukon Government will implement the ORV Management Recommendations that the Working Group prepared and delivered to them for consideration. If the Recommendations are implemented, ORVs will have less impact to fish

and wildlife habitat as a result of law. In the meantime, the educational materials the Working Group developed will begin to roll out into the public, and the more people know and hear about the best methods for operating their ORVs, the better decisions they are able to make. Over time, peer pressure should also have an influence on continuing to change behaviours toward increased stewardship.

## Communications

To ensure our results were shared with the appropriate groups, people, or government, we sent our final report to all municipalities and Local Area Councils, all RRCs, all First Nations, every member of the Yukon Legislative Assembly, not to mention our Working Group members, and all other interested community organizations.

The Enhancement Trust Funding was recognized:

1. on the Projects Website: <http://www.yukonconservation.org/orv.htm>
2. In Initial meetings with the Working Group;
3. In the Working Groups' ORV Recommendations Report sent to the YLA Select Committee on ORVs and CC'd to all interested organizations and councils throughout the Yukon;
4. On a PowerPoint presentation presented to various groups regarding this Project;
5. On the Radio when we advertised the ORV Awareness Hikes; etc.

The main communication materials used to promote this project and its objectives include:

1. The Project Website: <http://www.yukonconservation.org/orv.htm>
2. The ORV Awareness Hikes Posters and Advertisements **\*See Appendix D**
3. Emails and Letter communications regarding this project, mainly addressed to all First Nations and Renewable Resource Councils.
4. The Final Reports Including the ORV Recommendations, Brochure/media text documents, School Presentation document and related letters.

## Applicant Suggestions

Yukon Governments and First Nations do not feel they are able to join a Working Group initiated by a non-government organization. Also, governments seem to agree that identifying trails for specific uses and promoting them as such, is premature until all trails are identified and can be promoted at the same time. Otherwise, you will end up having the few promoted trails overused and abused.

Yukon First Nations and Yukon Government department of Environment both had similar responses as we began to solicit participation on the Working Group, and with respect to the plan's focus on specific trails. Basically, they both felt that this Working Group was not appropriate for their participation, and both strongly discouraged identifying and discussing specific trails as it was deemed an unproductive approach. Here is an example reply from one First Nation Senior Manager in this regard:

***"Most of the issues discussed, in my opinion are conversations that need to happen on a government to government bases... As a First Nation Government we need to refrain from sitting or participating in interest groups... I support your initiative on the education of ORV use in the backcountry, although there has been some work done on educating, it seems it has not been enough... I will refrain from participating in the group... But would be interested in***

***the final documents... As for GPSing the trails, I remind you that [we] have existing rights to traditional trails within [our] traditional territory as outlined in [our] Final Agreement...***

***Although this may seem to be a discouraging response to your project, understand that we as a government are embarking on similar initiatives and working towards a common goal of a sustainable environment."***

**What's Needed:** There is a need for government to government conversations about managing ORVs in the environment, including on how specific trails should be designated for use and managed. Non-government organizations can participate in future management planning, in large part, by providing public opinion and relevant user-group information to support government-to-government discussions. Non-government organizations can also assist with providing public education on: Yukon's environment and the effects of ORVs; and existing ORV rules, regulations and best practices.

**Work still to be done:**

The Yukon Conservation Society and members of the Working Group will continue to work with the government as they come to adopt the Working Groups Recommendations.

In the meantime, for 2012, our focus will be on delivering the educational messages that we developed in 2011 (see: Appendix B). We plan to apply for more funding to be able to print materials for distribution throughout the Yukon. We plan to use radio, newspapers, internet, brochures, posters, article opportunities and other media. We plan to meet directly with government agencies, First Nations, community groups, RCMP, ORV retailers and others who will help distribute the materials to the public.

We also need to deliver our ORV School Presentation to grade 7 students (see: Appendix C). If our funding application is successful, our ORV project coordinator will promote the Presentation to School teachers via the department of Education and Yukon Teachers' Association, as well s to community organizations and First Nations throughout the Yukon. The Coordinator will recruit and train volunteers to deliver the grade 7 presentation in school classrooms and summer camps, as interest permits, and will deliver some presentations herself.

We very much appreciated the opportunity to work with the Yukon Fish & Wildlife Management Board on this project and we do hope we can continue to work with YWFMB and YFWET in the future. We are grateful for the opportunities this funding has provided.

YCS Project: Off Road Vehicle Terrain Analysis & Awareness Project

**Final Report Budget Sheet**

Expenditure Categories	Item	Projected Cost	Actual Cost	✓ Receipts Included
<b>YFWET Funds:</b>				
<b>Wages, Contract Services</b>	Contractors wages (Christina's time: R&D of education and communication information; website development; photo's; communications; coordination; group facilitation etc.)	\$8,000.00	\$10,000.00	✓
<b>Materials and Supplies</b>	Website databasing, Brochure and advert costs, comm. tools, etc	\$1,000.00	0.00	* Paid by YCS & YG EAF
<b>Travel Expenses</b>	.40/km x 6250 km mileage	\$1,000.00	0.00	* Paid by YG EAF
<b>TOTAL (YFWET)</b>		<b>\$10,000.00</b>	<b>\$10,000.00</b>	
<b>OTHER Funds:</b>		<b>Source:</b>		
<b>Wages, Contract Services</b>	1. Contractor Wages (Christina)	1. \$0.00	1. \$3,080.00	YCS
	2. Management wages (Georgia's time: hiring contract staff & WG team dev't; overseeing project staff; review product dev't; managing deliverables & budget; meetings with FN's, RRC's, YFWMB, YSLWCC, ORV WG, etc.; final reporting)	2. \$6,000.00	2. \$8,280.00 \$1,250.00	YCS YG EAF
	3. Summer staff (1) and Special Guest speakers Honoraria (2)	3. \$5,000.00	3. \$1,427.70	YG EAF
	4. InKind: Working Group members time (approx. 300 hrs x \$30)	4. \$30,000.00	4. \$9,000.00	TOYA; KSA; YCS; YORRA; YFWMB; WTAY; YFGA
	5. InKind: YG Summer Student (3 weeks) & Canada World Youth volunteers	5. \$3,000.00	5. \$1,856.25 \$2,153.00	YG Y2C2 CWY
<b>Materials and Supplies</b>	Website databasing, Brochure and advert costs, comm. tools; printing	0.00	\$1,034.70 \$889.28	YG EAF YCS
<b>Administrative Expenses</b>	Administration (web host fees, bookkeeping, office, phone, audit, etc.)	\$3,000.00	\$2,637.00 \$363.00	YCS YG EAF
<b>Travel Expenses</b>	.40/km x 6250 km mileage (YG EAF \$)	\$1,000.00	\$324.60	YG EAF
<b>TOTAL (Other Sources)</b>		<b>\$48,000.00</b>	<b>\$32,295.78</b>	
<b>TOTAL PROJECT</b>		<b>\$58,000.00</b>	<b>\$42,295.78</b>	

## **Budgetary Differences:**

<u>Overestimated Items:</u>	<u>Reason For Difference:</u>
Summer Staff Hours	Project Coordinator and Project Manager took over this portion of work.
In-Kind Working Group Hours	The Working Group only met 4 times in person, the rest was accomplished via phone and email communications, requiring less time for Working Group members.
Travel Expenses	Working Group met in Whitehorse; Travel was only billed for ORV Hikes in Communities; other Travel was provided in-kind and not recorded.

<u>Underestimated Items:</u>	<u>Reason For Difference:</u>
Project Coordinator	The Coordinator took a bit more time to get up to speed on the project than was expected, and ended up having to do more of the work herself which was originally expected of other people. *see overestimates.
Project Management	Assisting the Coordinator and overseeing her work required more involvement by the Manager than was anticipated. Meeting YFWET proposal requirements and project preparation also took more time than anticipated. Orienting Volunteers took more time.
In-Kind Summer Student	Y2C2 were unable to fulfill their commitment of staff time to this project due to a high demand for Y2C2 services; However, we ended up getting Canada World Youth Volunteers who were able to pick up the slack and provided more support than was originally budgeted for Y2C2.
Materials and Supplies	We did a lot of advertising of ORV Awareness Hikes, and we developed some web pages requiring website management that cost somewhat more than expected.

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## **APPENDIX A: ORV WORKING GROUP RECOMMENDATIONS and COVER LETTER**

The ORV Working Group Recommendations and Cover Letter addressed to Minister Brad Cathers are enclosed at the end of this report as additional documents. The following list also received copies of the Working Group Recommendations with Cover Letters:

- Honourable Currie Dixon, Minister of Economic Development, Minister of Environment
- All members of the Yukon Legislative Assembly
- All Yukon First Nations
- All Yukon Renewable Resources Councils
- Yukon Fish and Wildlife Management Board
- Southern Lakes Wildlife Coordinating Committee
- Yukon Local Advisory Councils and Municipalities (all)
- Whitehorse Cross Country Ski Club
- Wildlife Conservation Society of Canada
- Yukon Outfitters Association
- Department of Environment, Deputy Minister and interested personnel



## **APPENDIX B: APPROVED EDUCATIONAL TEXT**

### **TEXT DOCUMENT #1:**

#### **ATVs and the Yukon Environment**

The Yukon backcountry is shared by many outdoor enthusiasts. There are many sources of impacts on the land whether caused by an individual, a group, a community, industry, or by natural causes such as climate change. While it may not seem like one person makes much of an impact, the effects are cumulative and they add up. We all have a responsibility to our outdoor home. By being good stewards, minimizing impact and being respectful of others, everyone can enjoy the freedom and fun the great outdoors offers. Let's work together to ensure the Yukon wilderness stays healthy and accessible for future generations.

#### **Save money and the environment with these fuel saving tips!**

- Increase the kms your ATV can travel per gallon of gasoline by backing off the throttle and riding it less aggressively.
- Modifying your ATV for greater performance will likely come with decreased fuel economy compared to Original Equipment Manufacturer specifications.
- Stick to smooth, level trails – terrain that demands more from an ATV's engine is going to result in additional fuel needs.

#### **Other tips to reduce your impacts on the land:**

- Check with the store where you bought your ATV to be sure that it meets environmental standards. For example, some companies that manufacture ATVs have ISO 14000 certification, which indicates that they design and manufacture their vehicles according to high international environmental standards.
- Use top quality oils and gasoline, which burn cleaner and release fewer harmful particles into the environment.
- Make sure that your exhaust system is as quiet as possible.
- Do regular inspection and maintenance on your machine yourself but ensure that you have a trained mechanic look at your vehicle as well.
- Install a spark arrestor on your machine to help prevent forest fires.

#### **Do Your Part**

- Carry a trash bag on your vehicle and pick up litter left by others.
- Prevent unnecessary noise created by a poorly tuned vehicle or revving your engine without need. Man-made noise can reduce the quality of the natural experience and can be detrimental to wildlife. Be aware that continued exposure to unnatural noise could cause chronic stress to wildlife. Take appropriate measures to reduce travel in areas inhabited by wildlife.
- Before and after a ride, wash your ATV to reduce the spread of invasive species such as White Sweetclover. Invasive species can replace native plants and change an entire habitat.

#### **Be Aware**

The Yukon's harsh winter and short growing season make habitat sensitive to disturbance and wildlife vulnerable to additional stress. Vegetation can recover if the level of impact is low but recovery can take decades. Be aware of seasonal sensitivities such as migrating species, mating, birthing/nesting animals and birds, as well as the potential to interfere with feeding patterns and to damage the wild foods that Yukon species rely on.

Wetlands are particularly susceptible to damage by ORVs and even low usage can impact the vegetation. Wetlands are essential to the welfare of waterfowl like ducks, geese and swans and provide high quality habitat for many other animals including moose, river otter, fish and amphibians. Do not drive through wetlands or boggy areas. Look for trails around the edges, where the ground is firmer and drier. It is preferable to stay on hard-bottomed trails and avoid wetlands altogether.

When you cross a meadow, stay on the existing trail. If the trail is too muddy, turn around or find an alternate legal trail to your destination. Don't make new trails across meadows or marshes. Riding through undergrowth or across meadows can destroy bird nesting sites.

The Alpine is very susceptible to damage and ATV activity should be restricted to existing trails and roads only and no new recreational trails should be built. During the fly season and late pregnancy and calving times, caribou may be found in alpine regions and are particularly sensitive to disturbance.

#### **How You Ride Makes a Difference**

Following these tips will help you negotiate the terrain, enjoy the ATV experience and protect the environment. Anyone can drive quickly, but it takes a skilled operator to ride slowly over challenging terrain with minimal impact on the ground. Using skill and common sense, not speed, will help you get there smoothly and safely.

- Reduce ATV travel when soil is wet or muddy, to reduce damage to the ground.
- On switchbacks, avoid roosting around the apex of the turn when climbing or brake-sliding during descent, both of which gouge the trail.
- Throttle back. Many operators think it's better to use more throttle on wet trails, but usually the opposite is true. When wheels spin quickly the tires pick up mud and turn trails into "slicks." Ruts in alpine can quickly fill with water and lead to permafrost thawing, erosion and extensive, long-term damage.
- Use the manual clutch (if your machine has one) to "feel" for traction. The goal is to maintain forward motion while minimizing wheel spin.
- When using a tree as an anchor, use a wide tree strap to avoid damaging the trunk of the tree.
- Cross only at established crossing points in streams. Cross streams slowly to prevent stirring up the sediment in the stream bottom which makes it harder for fish to breathe and find food. Sediment can cover fish eggs and prevent them from hatching.
- Ideally, remove trail obstacles or drive over, not around obstacles to prevent destroying vegetation and widening the trail.
- Use trails designed for ATV use. Well-drained soils with a majority of gravel and rock are the most suitable soils for ATV trails.
- The wide, low-pressure tires on ATVs means that as the load increases a greater area of each tire touches the ground which distributes the pressure on the ground. However, ORVs used for hunting typically carry more than 1 passenger and/or gear. Successful hunters transport hundreds of pounds of meat, and often pull trailers. These factors increase the impact and the duration of damage and make it especially important to stay away from sensitive habitat.

### **Be Aware of Legislation**

The Quartz Mining Act requires that temporary trails be blocked to prevent further vehicular access. Obey signs and do not use gated roads. Mining roads allow access into remote areas including the alpine which can result in increased hunting pressure on wildlife populations, trail proliferation and habitat fragmentation.

All fish habitat – both freshwater and marine – is protected under Canada's *Fisheries Act*. It is illegal to harmfully alter, disrupt or destroy fish habitat through chemical, biological or physical means.

**Did you know?** The Mackenzie Mountains host the richest areas of plant biodiversity in Canada.

If you are unsure if your activities are legal or are damaging an ecosystem, contact your local Yukon Environment office. If you see a suspected violation or know of one, contact your local Conservation Officer Services office, or call 1-800-661-0525 as soon as possible.

*Turn in Poachers & Polluters (TIPP Line) 1-800-661-0525*

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### **TEXT DOCUMENT #2: ORVs and the Alpine**

Mountainous terrain and high snowfall make alpine areas in the Yukon attractive to skiers and snowmobilers. Camping, hiking, mountaineering, horse back riding, ATVing and hunting are popular summer activities.

The Yukon backcountry is shared by many outdoor enthusiasts. There are many sources of impacts on the land whether caused by an individual, a group, a community, industry, or by natural causes such as climate change. While it may not seem like one person makes much of an impact, the effects are cumulative and they add up. We all have a responsibility to our outdoor home. By being good stewards, minimizing impact and being respectful of others, everyone can enjoy the freedom and fun the great outdoors offers. Let's work together to ensure the Yukon wilderness stays healthy and accessible for future generations.

## **Alpine Tundra**

- Alpine tundra occurs at high altitudes where trees are not able to grow due to lack of moisture, cold temperatures and short growing seasons. The dominant vegetation is often grasses, mosses, wildflowers, lichens and small shrubs like bearberry.
- The sub-alpine area exists between the woodland and the alpine zone. Tree growth is stunted due to the harsh environment. Typical vegetation includes subalpine fir, shrub birch (“buck brush”) and willow.

## **Alpine and sub-alpine animals**

- The alpine and sub-alpine zones form important habitat for a range of wildlife including caribou, grizzly bear, black bear, Dall's sheep, moose, wolf, hare, lynx, wolverine and mountain goat. The pika and hoary marmot are only found in mountainous regions of the Yukon.
- Many Yukon birds use alpine and sub-alpine areas, including the golden eagle, the rock and willow ptarmigan, American robin, peregrine falcon, cliff swallow, dark eyed junco, golden crowned sparrow and the mountain bluebird.

## **Alpine impacts of ORVs**

- Vegetation growth in alpine areas is especially slow because of the severe winters and short growing season. Cold temperatures also slow down the processes that create soil, so soil in this zone is typically shallow. These factors mean that the alpine tundra is especially sensitive to disturbance and the effects of ORVs in alpine zones are more drastic and long-lasting than in other more productive ecosystems.
- ATVs may dig ruts into the soil and uproot lichens, which can take decades to regrow. Lichens help control erosion in windy alpine area and are also an important food source for caribou, Dall's sheep and mountain goats.
- Permafrost is ground (soil or rock) that remains at or below 0°C over at least two consecutive winters and an intervening summer. Vegetation and soil provides a critical insulating layer and if this is removed by ORVs, it can result in permafrost thawing, increased erosion and long lasting damage.
- Freezing temperatures and deep snow may make winter the most difficult time of the year for wildlife. Disturbance from snowmobiles can result in additional stress and energy loss at this critical time of year.
- The nests of birds in alpine regions are built on the ground and are susceptible to disturbance or destruction by ORVs.
- ORVs may spread the seeds of invasive plant species into alpine areas which can result in loss of native species and food sources for wildlife.
- ATV use in the alpine during the calving period may displace caribou out of their traditional alpine calving areas. Since caribou use these high elevation areas to space themselves from predators at a vulnerable time, displacement into less preferred habitat could lead to increased predation
- Snowmobile trails provide hard packed travel corridors which allow wolves to move into the alpine and may make hunting moose and caribou easier for wolf packs.

## **How to minimize ORV impacts in the alpine**

- Alpine areas are sensitive to disturbance. If you must go through an alpine area avoid vegetation where birds may be nesting and stick to existing hard-bottomed trails to avoid damaging habitat.
- Be aware of wildlife and sensitive times of the year. For example, Caribou are most sensitive to harassment during the calving and rutting periods in May/June and October.

## **Be Aware**

Under the Wildlife Act, it is illegal to harass any wildlife or use a vehicle to chase, drive, flush, exhaust or fatigue wildlife for the purpose of hunting or to assist another person hunting.

Under the Environment Act, every adult resident in the Yukon who has reasonable grounds to believe that a person has impaired or is likely to impair the natural environment may commence an action in the Supreme Court

## **Did You Know?**

Mountain goats are found only in western North America, including Alberta, British Columbia, Alaska and the Yukon and thinhorn sheep, including Dall's sheep, are only found in Canada's northwest and in Alaska?

If you are unsure if your activities are legal or are damaging an ecosystem, contact your local Environment Yukon office. If you see a suspected violation or know of one, contact your local Conservation Officer Services office, or call 1-800-661-0525 as soon as possible.

**TEXT DOCUMENT #3:**

**ORVs and Yukon Wetlands**

The Yukon backcountry is shared by many outdoor enthusiasts. There are many sources of impacts on the land whether caused by an individual, a group, a community, industry, or by natural causes such as climate change. While it may not seem like one person makes much of an impact, the effects are cumulative and they add up. We all have a responsibility to our outdoor home. By being good stewards, minimizing impact and being respectful of others, everyone can enjoy the freedom and fun the great outdoors offers. Let's work together to ensure the Yukon wilderness stays healthy and accessible for future generations.

Wetlands are the link between land and water. They include ponds, marshes, swamps, peatlands and shallow lakes. Some wetlands are seasonal, and only have standing water during certain parts of the year. Wetlands are home for a large diversity of plants and provide important habitat for many different animal species. Plants and animals are not the only ones who can benefit from wetlands. Lakes, ponds and wetlands are popular areas for humans to pursue recreational activities.

**Importance of Wetlands**

Wetlands serve as breeding grounds for migrating birds and resident amphibians and permanent homes for fish species. Wetlands also support a host of other animals including moose, shrews, bats, voles, muskrat, mink, beaver and river otter.

Wetlands are important for erosion, flood and drought control. They act like a sponge and accept water when levels are high and release water when levels are low.

Wetlands purify water by filtering sediments, nutrients and toxic chemicals from water before it reaches the water table.

**ORV Impacts on Soil and Vegetation**

Ruts caused by ATVs and dirt bikes can affect water flow in wetlands. This can cause some areas to become wetter or others to dry up completely.

ATVs and dirt bikes can destroy vegetation in wetlands. Loss of vegetation exposes soils to invasion by weeds such as sweet clover and smooth brome which can also be carried in on these machines.

Soil compaction by ORVs leads to restricted root growth, decreased nutrient absorption and reduced ability to filter sediments and chemicals passing through wetlands.

Fuel spills on frozen ponds can introduce chemicals into the water when the ice melts which are toxic to wetland plants and animals.

Snowmobile use along riparian areas and up and down banks can damage frozen shrubby vegetation, which is brittle and snaps off when run over especially if there is inadequate snowpack.

Winter motorized activities can result in compacted snow which can form barriers that alter spring runoff patterns resulting in soil erosion and gullies.

**ORV Impacts on Wetland Wildlife**

Warblers, kingfishers, osprey and bald eagles often nest along streams, ponds and lakes. Many bird species are particularly sensitive to disturbance and noise may cause nest abandonment and interfere with communication during incubation and fledgling phases.

Noise from ORV traffic can cause short and long term behavior changes in wildlife such as abandonment of preferred foraging areas which can then lead to changes in the health of a population. Intense weekend ORV traffic that causes displacement for 2-3 days may eventually result in driving a particular species away from the area.

Winter recreation can be more detrimental than warm-season recreation for wildlife because animals may be weak and stressed in the winter.

ATV use may increase sediment runoff into streams and wetlands which creates muddy water. This reduces oxygen and sunlight penetration needed by aquatic life and can kill wetland vegetation, as well as fish, amphibians and their eggs.

Snow compaction by snowmobiles results in loss of its insulating value and causes the ground temperature to drop. This can affect activities and survival of small mammals which move underneath the surface of snow and changes the natural freeze-thaw regimes of soils and plant life.

### **How to Minimize your Impact on Yukon Wetlands**

Go around wetlands not through them. Even if there is an existing trail through the wetland, avoid it to prevent becoming stuck in mud and causing damage.

Stay on existing hard-bottomed trails where possible. Expanding routes and crisscrossing trails reduce habitat quality and may impact wildlife.

Slow down. Reduced speed means less noise and pollution, reduced fuel costs, and fewer accidents. It is also easier on soil and helps to prevent erosion. Ruts bare the soil and create pools of water which attract amphibians and insects into the path of ATVs and dirtbikes.

### **Be a steward of the land! Educate others about the importance of staying away from wetlands!**

For more information about Leave No Trace® principles or responsible operation of ORVs in the Yukon, contact the Yukon Conservation Society at 867-668-5678. With your cooperation and support, we can establish Yukon ORV wise-use standards that make sense for everyone.

If you are unsure if your activities are legal or are damaging an ecosystem, contact your local Environment Yukon office. If you see a suspected violation or know of one, contact your local Conservation Officer Services office, or call 1-800-661-0525 as soon as possible.

**Turn in Poachers & Polluters (TIPP Line) 1-800-661-0525**

**Did you Know?** There are 46 key wetlands in the Yukon, however only about a quarter of these have received protection.

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## **TEXT DOCUMENT # 4:**

### **Snowmobiles and the Yukon Environment**

The Yukon backcountry is shared by many outdoor enthusiasts. There are many sources of impacts on the land whether caused by an individual, a group, a community, industry, or by natural causes such as climate change. While it may not seem like one person makes much of an impact, the effects are cumulative and they add up. We all have a responsibility to our outdoor home. By being good stewards, minimizing impact and being respectful of others, everyone can enjoy the freedom and fun the great outdoors offers. Let's work together to ensure the Yukon wilderness stays healthy and accessible for future generations.

#### **Reduce your emissions**

- Consider purchasing a snowmobile with a 4-stroke engine. While 4-stroke engines may be more expensive, they produce cleaner emissions and also have approximately 40% better fuel economy than older two-stroke snowmobiles.
- Inspect and maintain your machine regularly
- Use the correct quantity and quality of lubricating oil
- Consider purchasing a snowmobile with a direct fuel injection system. Two-stroke engines with direct fuel injection reduce hydrocarbon emissions by more than eighty per cent and are more fuel efficient than older two-stroke snowmobiles.

#### **Reduce your impacts**

- Low snow, don't go. Plants and young trees are vulnerable to severe damage from snowmobiles. Damage can occur even if trees are fully or partially covered with snow. A snowmobile's spinning track may damage plants and soils just below the snow surface. Hill climbing in these conditions is especially damaging.

- Avoid riding on sensitive areas around meadows, lakeshores, wetlands and streams, unless on designated routes.
- Be respectful of wildlife’s wintering habitats. Avoid “spooking” wildlife and keep your distance. In the harsh Yukon winter, animals need to conserve energy to survive, so don’t frighten them into using energy unnecessarily. If your presence alarms or disturbs wildlife take action to lessen your impact as much as you can.
- Snowmobile activity and trails can fragment habitat and displace moose and caribou from their preferred habitat. Be aware of the wildlife around you and encourage other snowmobilers to stay on the main trails and away from critical, seasonal habitat.
- If you’re using your snowmachine to hunt, park your machine in low lying areas and snowshoe to the crest of the ridge or a lookout to watch for animals. This reduces impacts on slopes and minimizes noise that could spook animals.
- Do your part by leaving the area better than you found it. Properly dispose of waste, minimize the use of fire, restore degraded areas and join a local snowmobile association.
- Carry a trash bag on your snowmobile and pick up litter left by others.
- Educate yourself by obtaining travel maps and regulations from public agencies, planning for your trip, taking recreation skills classes, and knowing how to use and operate your equipment safely.
- To minimize harmful emissions, keep your engine in tune. Protect the soundscape by preventing unnecessary noise created by a poorly tuned vehicle or revving your engine without need.

**Be Aware**

- Refrain from replacing the manufacturer's certified and approved muffler with noisy after market pipes that may disturb wildlife, increase emissions and annoy others.
- **Did you Know?** Under the Motor Vehicles Act, no person shall create or cause the emission of any loud and unnecessary noise from a motor vehicle, which includes snowmobiles.

If you are unsure if your activities are legal or are damaging an ecosystem, contact your local Environment Yukon office. If you see a suspected violation or know of one, contact your local Conservation Officer Services office, or call 1-800-661-0525 as soon as possible.

*Turn in Poachers & Polluters (TIPP Line) 1-800-661-0525*

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**TEXT DOCUMENT #5:**

**Existing Yukon Legislation Pertaining to ORV Impacts**

Yukon is the only jurisdiction in Canada without legislation specific to ORVs or ATVs. However, the following legislation is in place:

**Canada Fisheries Act**

All fish habitat – both freshwater and marine – is protected under Canada’s *Fisheries Act*. It is illegal to harmfully alter, disrupt or destroy fish habitat through chemical, biological or physical means (unless authorized by DFO). The Act prohibits the deposit of a deleterious (harmful) substance, such as pollutants and sediment, in waters frequented by fish.

**Environment Act**

Every adult resident in the Yukon who has reasonable grounds to believe that a person has impaired or is likely to impair the natural environment may commence an action in the Supreme Court.

If an environmental protection officer has reason to believe that a development or activity is causing or is likely to cause irreparable damage to the natural environment the environmental protection officer may order the person to shut down the development or cease the activity causing the damage to the natural environment

**Forest Resources Act**

Despite anything in any other enactment, the Director may construct or authorize the construction of roads to assist forest resource harvesting and may restrict the use of these roads to seasonal use or for reasons of public safety, environmental protection or fish and wildlife conservation

If a forest officer has reason to believe that an activity involving forest resources is causing or is likely to cause irreparable damage to the natural environment; the forest officer may, in writing, order the person in control of or conducting the activity to shut down or cease the activity causing the damage to the natural environment or the harm to public health or safety, or to take any other action necessary to prevent, remedy, or mitigate the damage to the natural environment or harm to public health or safety.

## Forest Resources Act - Forest Resources Regulations

No person may use a motor vehicle on a forest resources road for any purpose unless the person is the holder of one of the following that authorizes the person to use the forest resources road:

(a) a harvesting licence; (b) a forest resources permit; (c) a cutting permit; or (d) a forest resources road permit.

### **Highways Act**

The Commissioner in Executive Council may close a highway or part thereof to traffic for protection of the environment for as long as the Commissioner in Executive Council considers necessary. When a highway is closed under this section, no person shall enter on or travel on the highway except under the authority of the Minister.

### **Lands Act**

If a person uses or occupies Yukon lands without lawful authority, the Minister may serve that person with a notice requiring them (a) to immediately cease the unauthorized use or occupation; and (b) to restore the lands to a condition satisfactory to the Minister or to pay the costs of having the lands so restored.

### **Motor Vehicles Act**

- No person shall operate a vehicle on a highway unless they are the holder of an operator's licence authorizing them to operate that class of vehicle.
- "highway" means any cul-de-sac, boulevard, thoroughfare, street, road, trail, avenue, parkway, driveway, viaduct, lane, alley, square, bridge, causeway, ice-road, trestleway or other place, whether publicly or privately owned, any part of which the public is ordinarily entitled or permitted to use for the passage or parking of vehicles.
- No person shall create or cause the emission of any loud and unnecessary noise from a motor vehicle

### **Quartz Mining Act**

Temporary trails must be blocked to prevent further vehicular access.

### **Wildlife Act**

A person shall not use a vehicle to chase, drive, flush, exhaust or fatigue wildlife for the purpose of hunting or to assist another person hunting

A person shall not harass any wildlife. A person shall be deemed to harass wildlife if the person:

(a) captures, handles or manipulates wildlife, or attempts to do so; (b) is the owner of a dog, or has a dog in his or her charge, and allows the dog to run after or molest a big game animal, specially protected animal, or a fur bearing animal; (c) operates a vehicle or boat in a manner that might reasonably be expected to harass any wildlife; or (d) attempts to interfere with the movement of any wildlife across any road or watercourse.

**Yukon Territory Fishery Regulations:** Molesting or injuring fish can result in a \$250 fine

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## **APPENDIX C: SCHOOL PRESENTATION**

### **Yukon Conservation Society School Presentation - Grade 7**

A 2 hour long interactive presentation with demonstrations, props and group activities that introduces the concept of cumulative impacts in the Yukon, encourages students to consider the impacts of their activities on the land and educates students about the environmental impacts of ORVs and how to minimize them.

#### **1.0 Cumulative Effects Discussion (20 mins):**

The focus of this presentation is safe and environmentally responsible ORV use, but it is important to situate ORV use in the broader context of environmental impacts so that the presentation is relevant to students who don't use ORVs and the lessons learned can be applied more generally to students' activities on the land.

#### **1.1 Discuss impacts on Yukon wildlife and habitat from a range of different sources. Encourage contribution from students:**

- Climate change (more extreme weather events, spruce beetle outbreaks because of mild winters, permafrost thawing which leads to infrastructure damage, changes in plant and animal communities).
- Mining and oil and gas (pipelines, increased access into remote areas, habitat destruction and increased disturbance to wildlife).
- Forestry (logging activities may increase in the Yukon with increased interest in biomass energy sources).
- Human settlements.
- Roads (fragment habitat, road kill, alter animal behaviour).
- Hunting and fishing (direct animal mortality, habitat impacts from traveling with ORVs).
- Energy demands (dams can impact habitat for fish and wildlife).
- Recreational activities - mechanized (ORVs) and non-mechanized (hiking, canoeing, horse back riding, bird watching, skiing, mountain biking).

#### **1.2 Introduce concept of cumulative effects and how individuals need to do their part to protect the environment.**

Cumulative effects are changes to the biophysical, social, economic, and cultural environments caused by the combination of past, present and "reasonably foreseeable" future actions. Impacts (changes) can be caused by natural events such as forest fires, or by human activities such as mining. Cumulative effects on the land might be seen as changes to the number of wildlife or birds, increases in non-native plants, or the melting of permafrost. Activities such as logging, oil and natural gas development, commercial fishing, mining, hunting, recreation and human settlement all contribute to cumulative effects.

It's often easy to think of how industrial development harms the environment, but human activities can also produce benefits. For example, the establishment of a mine can lead to job creation which is important for overall community health. There are many people, individuals, groups, business and industries working to find ways to allow development to happen in a way that doesn't permanently harm the environment.

There has been considerable growth in some of these activities in the Yukon. Understanding the cumulative effects of such activities is important for making informed decisions in managing land, water and other natural resources.

No one activity causes cumulative effects. Cumulative effects are caused by the addition or accumulation of impacts from different activities over time. One impact by itself may not be a cause for concern; it might even seem insignificant. However, the addition of many small impacts over time adds to the end result – cumulative effects and an increase for concern.

#### **1.3 Group activity (25 mins)**

An activity that demonstrates the connections between plants, wildlife and humans and illustrates the effects of cumulative impacts. This activity has been adapted from Tread Lightly (<http://www.treadlightly.org/images/education/respect.pdf>)

**Activity at a Glance:** Students will construct a web of connected elements in nature and discuss the impacts of human activity on this web using a case study.



**Step 1:** Put students in a circle and hand each student an ecosystem card. Each card provides clues to how the element fits into the ecosystem. Instruct the group to look around and find which cards apply to them: something they need to survive or something that needs them. (i.e., the tree would connect with a bird or raccoon as food or shelter).

**Examples of ecosystem cards:**

Soil	Mouse	Worm	Common	Frog
Stream	Beaver	Spruce Tree	Nighthawk	Bee
Grayling	Moose	Aspen Tree	Owl	Fungus
Salmon	Wetland	Raspberry	Caribou	Lichen
Otter	Dragonfly	Bush	Black Bear	

**Step 2:** The first person holds onto the ball of string and throws the ball to someone who connects with him/her. That person in turn holds on to the end and throws the ball to someone that he/she connects with. The process continues until each person in the group is holding a section of the string. Some people may be connected to more than one element and are holding more than one section of string. Throughout this process ask students to explain why they have chosen a particular connection. In the end, they have created a web of connections or a web of life.

**Step 3:** Briefly review the connections within the ecosystem. Next, discuss how humans and their activities may interact with various components of the system. Read out the following cumulative effects scenario and have students who are impacted pull on their string each time their ecosystem card is impacted. By pulling on the string the group feels the interconnections.

**Case Study:** How do cumulative effects occur?

Imagine a mid-sized river running through undisturbed boreal forest. The water is cold and clear, and moves quickly. A good number of fish live and spawn in this river, and the water is good to drink.

At one point, the river passes by an outfitter's camp. It isn't a big camp, but even so, it has an effect on the river. The grey water from the kitchen is emptied into a hole in the ground (sump). Gasoline and oil for boat motors and generators are stored on site and sometimes small amounts are spilled when refueling. There is an outhouse at one end of the camp. Over many years, when rain water and snow melt flow through the soil, they carry contaminants from the sump, fuel storage and the outhouse down to the river.

Later, the river flows through an area that has been logged. When trees are clear-cut, the soil loses a lot of its natural protection, and more soil washes into the river when it rains and when snow melts. The river now becomes murky because of the particles of soil that are suspended in the water. Since it is difficult for fish to feed or reproduce in this kind of water, there are now fewer fish in the river.

Further downstream, water is being pumped from the river to supply a mining operation which needs a lot of water to crush and wash the ore that is being mined. The water that is left over is then treated to remove harmful chemicals, and pumped back into the river, but it now contains a few more chemicals than before it was taken from the river. As a result, the water level in the river is a little bit lower, and the water might now be unsafe to drink without treating it first.

The river soon reaches an area where there are a number of farms. Water is needed for use in farm homes, as well as for livestock and irrigating crops. When run off from rain or snow passes through this area, it sweeps contamination from livestock waste into the river, as well as pesticides and insecticides from adjoining fields. By the time the river passes through this area, the water level is much lower. The quality of the water has also dropped because of increased chemicals, bacteria, and suspended solids. Fewer fish live in this portion of the river than do upstream. It is a very different river than the one we saw flowing through the boreal forest.

**Other scenarios that can be introduced:**

- River flows through a forest fire, introducing sediments and nutrients into the water. Forest fires can also attract animals because of new vegetation growth and new snags which birds and mammals use for roosting, denning, foraging and other life functions
- A motor boat from BC introduces an invasive algae into the river, resulting in loss of native plant species, which in turn impacts animals.

## 2.0 ORV Discussion (30 mins)

### 2.1 What are Off Road Vehicles (ORVs)?

An ORV is any wheeled or tracked motorized vehicle designed or adapted for cross-country travel on land, water, ice, snow, marsh, swamp land or other natural terrain

Examples of ORVs:

- All Terrain Vehicles (ATVs), including side-by-sides, Argos
- Motorbikes
- Trucks
- Snowmobiles

### 2.2 Why are ORVs an issue in the Yukon?

- As the population increases in the territory so do the number of ORVs.
- ORVs are more powerful and more dependable and so can go further into the backcountry than they could before. Mining roads allow ORV users to access remote areas and animal populations.
- ORVs can damage habitat. Yukon's harsh winters and short growing season means the land is very susceptible to damage and it takes much longer for the land to heal than it does further south.
- ORV use can impact wildlife. ORVs allow hunters easy access to remote areas and make transporting hunted animals easier. ORV noise and presence can cause changes to animal behaviour, stress animals and decrease their energy reserves and prevent animals from accessing preferable habitat.
- Yukon is the only territory or province without regulations governing ORV use.
- Lack of enforcement capability and a huge, unpopulated area to monitor.
- No requirements for taking ORV training courses that teach safe and environmentally responsible ORV use.
- Conflicts between different user groups.

### 2.3 ORV Impacts

Describe the effects of ORV use on different Yukon environments, focusing on the most sensitive habitats which are wetlands and alpine areas. Use photos and props where possible. Encourage students to discuss how to minimize these impacts

#### Wildlife

Wildlife is negatively impacted by the presence and noise of ATVs, ORVs, and snowmobiles, although some mammals (deer, for example) may become, over time, habituated to these vehicles. Repeated disturbance of wildlife can result in increased energy expenditure and reduced reproduction. Noise and disturbance from ORVs can result in a range of impacts including increased stress, altered movement patterns (from preferred to marginal habitat), avoidance of high-use (ORV) areas or routes, and disrupted nesting activities. Disruption of breeding and nesting birds is a particularly well documented problem.

The cumulative effect of loss of habitat security, soil erosion, vegetation loss, introduction of non-native invasive species, and forest fragmentation results in the loss of functional wildlife habitat that supports healthy individuals and populations of wildlife. Animals may be impacted directly and/or indirectly. A direct impact may be an ORV that collapses a small mammal burrow or runs an animal over. An indirect impact would be reduced habitat for cavity-nesting species caused by increased access for firewood collection. Any additional habitat loss for sensitive, threatened, and endangered species is also of concern. Several studies have found that large animals such as elk, wolves, and bears are negatively impacted by the loss of habitat security resulting from increased motorized access. Depending on the species, some wildlife are more sensitive to disturbance during critical times of year, such as winter habitat for ungulates or areas important for grizzly bear food sources during spring.

Studies show that snowmobiles compact the insulating layers of snow and thus compromise the habitat of mammals living below the snow layer including shrews, voles and mice. Since snowmobiles share the same noise characteristics as ATVs and ORVs, they may put undue stress on large ungulates, including caribou, moose and deer.

## **Soil and Vegetation**

Soil compaction and the shear forces of motorized vehicles create mud holes and gullies that can decrease water infiltration, increase runoff, and cause severe erosion problems.

ORVs are frequently cited as the key link in the spread of invasive or noxious plants.

ATV use has been found to widen and rut forest roads in some places, and to increase the sediment load to streams which may threaten fisheries. ATVs and ORVs offer access to resource areas that are typically less accessible and more remote.

Recovery times are dependent on many factors including soil types, magnitude of soil compaction, rainfall rates, propagation rates of vegetation, and the degree of human disturbance. The Yukon's harsh winters and short growing season makes the land and wildlife more susceptible to damage and stress than the south.

Gasoline and motor oil from ORVs can contaminate soil and water. Be sure that your vehicle is properly maintained and check for fuel leaks regularly to avoid fuel spills.

## **Recreation**

ORV use can conflict with non-motorized uses, such as hiking and cross-country skiing. Additionally, noise and intrusion of the modern world into nature can compromise the enjoyment of many user groups. Many ORV operators actively manage and promote responsible use of trail systems and are stewards of the land.

## **Wetlands**

Wetlands are the link between land and water. They include ponds, marshes, swamps, peatlands and shallow lakes. Some wetlands are seasonal, and only have standing water during certain parts of the year. Wetlands are home for a large diversity of plants and provide important habitat for many different animal species. Plants and animals are not the only ones who can benefit from wetlands. Lakes, ponds and wetlands are popular areas for humans to pursue recreational activities. Yukon has 46 key wetlands spread out across the territory. Yukon wetlands provide an important link between Alaskan breeding grounds and wintering grounds elsewhere in North and South America.

## **Importance of Wetlands**

Wetlands serve as breeding grounds for migrating birds and resident amphibians and permanent homes for fish species.

Wetlands also support a host of other animals including moose, shrews, bats, voles, muskrat, mink, beaver and river otter.

Wetlands are important for erosion, flood and drought control. They act like a sponge and accept water when levels are high and release water when levels are low.

Wetlands purify water by filtering sediments, nutrients and toxic chemicals from water before it reaches the water table.

## **ORV Impacts on Soil and Vegetation**

Ruts caused by ATVs and dirt bikes can affect water flow in wetlands. This can cause some areas to become wetter or others to dry up completely.

ATVs and dirt bikes can destroy vegetation in wetlands. Loss of vegetation exposes soils to invasion by noxious weeds such as sweet clover and smooth brome which can also be carried in on these machines.

Soil compaction by ORVs leads to restricted root growth, decreased nutrient absorption and reduced ability to filter sediments and chemicals passing through wetlands.

Fuel spills from snowmobile activity on frozen ponds can introduce chemicals into the water when the ice melts which are toxic to wetland plants and animals.

Snowmobile use along riparian areas and up and down banks can damage frozen shrubby vegetation, which is brittle and snaps off when run over especially if there is inadequate snowpack.

Winter motorized activities can result in compacted snow which can form barriers that alter spring runoff patterns resulting in soil erosion and gullies.

## **ORV Impacts on Wetland Wildlife**

Warblers, kingfishers, osprey and bald eagles often nest along streams, ponds and lakes. Many bird species are particularly sensitive to disturbance and noise may cause nest abandonment and interfere with communication during incubation and fledgling phases.

Noise from ORV traffic can cause short and long term behaviour changes in wildlife such as abandonment of preferred foraging areas which can then lead to changes in the health of a population. Intense weekend ORV traffic that causes displacement for 2-3 days may eventually result in driving a particular species away from the area.

Winter recreation can be more detrimental than warm-season recreation for wildlife because animals may be weak and stressed in the winter.

ATV use may increase sediment runoff into streams and wetlands which creates muddy water. This reduces oxygen and sunlight penetration needed by aquatic life and can kill wetland vegetation, as well as fish, amphibians and their eggs.

Snow compaction by snowmobiles results in loss of its insulating value and causes the ground temperature to drop. This can affect activities and survival of small mammals which move underneath the surface of snow and changes the natural freeze-thaw regimes of soils and plant life.

## **How to Minimize your Impact on Yukon Wetlands**

Do not drive through wetlands or boggy areas. Look for trails around the edges, where the ground is firmer and drier. Even if there is an existing trail through the wetland, avoid it to prevent becoming stuck in mud and causing damage. Riding through undergrowth or across meadows can destroy nesting sites.

Stay on existing hard-bottomed trails where possible. Expanding routes and crisscrossing trails reduces habitat quality and may impact wildlife.

Slow down. Reduced speed means less noise and pollution, reduced fuel costs, and fewer accidents. It is also easier on soil and helps to prevent erosion. Ruts bare the soil and create pools of water which attract amphibians and insects into the path of ATVs and dirtbikes.

Cross only at established crossing points in streams. Cross streams slowly to prevent stirring up the sediment in the stream bottom which makes it harder for fish to breathe and find food. Sediments can cover fish eggs and prevent them from hatching.

## **Alpine**

Mountainous terrain and high snowfall make alpine areas in the Yukon attractive to skiers and snowmobilers. Camping, hiking, mountaineering, horse back riding, ATViing and hunting are popular summer activities.

## **Alpine Tundra**

Alpine tundra occurs at high altitudes where trees are not able to grow due to lack of moisture, cold temperatures and short growing seasons. The dominant vegetation is often grasses, mosses, wildflowers, lichens and small shrubs like bearberry. The sub-alpine area exists between the woodland and the alpine zone. Tree growth is stunted due to the harsh environment. Typical vegetation includes subalpine fir, shrub birch ("buck brush") and willow.

## **Alpine and sub-alpine animals**

The alpine and sub-alpine zones form important habitat for a range of wildlife including caribou, grizzly bear, black bear, Dall's sheep, moose, wolf, hare, lynx, wolverine and mountain goat. The pika and hoary marmot are only found in mountainous regions of the Yukon.

Many Yukon birds use alpine and sub-alpine areas, including the golden eagle, the rock and willow ptarmigan, American robin, peregrine falcon, cliff swallow, dark eyed junco, golden crowned sparrow and the mountain bluebird.

## **Alpine impacts of ORVs**

Vegetation growth in alpine areas is especially slow because of the severe winters and short growing season. Cold temperatures also slow down the processes that create soil, so soil in this zone is typically shallow. These factors mean that the alpine tundra is especially sensitive to disturbance and the effects of ORVs in alpine zones are more drastic and long-lasting than in other more productive ecosystems.

ATV's dig ruts into the soil and uproot lichens, which can take decades to regrow. Lichens help control erosion in windy alpine area and are also an important food source for caribou, Dall's sheep and mountain goats.

Permafrost is ground (soil or rock) that remains at or below 0°C over at least two consecutive winters and an intervening summer. Vegetation and soil provides a critical insulating layer and if this is removed by ORVs, it can result in permafrost thawing, increased erosion and long lasting damage.

Freezing temperatures and deep snow make winter the most difficult time of the year for wildlife. Disturbance from snowmobiles can result in additional stress and energy loss at this critical time of year.

The nests of birds in alpine regions are built on the ground and are susceptible to disturbance or destruction by ORVs.

ORVs may spread the seeds of invasive plant species into alpine areas which can result in loss of native species and food sources for wildlife.

ATV use in the alpine during the calving period may displace caribou out of their traditional alpine calving areas. Since caribou use these high elevation areas to space themselves from predators at a vulnerable time, displacement into less preferred habitat could lead to increased predation.

Snowmobile trails provide hard packed travel corridors for predators like wolves to move into the alpine.

## **Minimize your impacts**

The Alpine is very susceptible to damage and ORV activity should be avoided where possible. During the fly season and late pregnancy and calving times, caribou may be found in alpine regions and are particularly sensitive to disturbance.

Reduce ATV travel where soil is wet or muddy, to reduce damage to the ground. Well-drained soils with a majority of gravel and rock are the most suitable soils for ATV trails.

On switchbacks, avoid roosting around the apex of the turn when climbing or brake-sliding during descent, both of which gouge the trail.

Throttle back. Many operators think it's better to use more throttle on wet trails, but usually the opposite is true. When wheels spin quickly the tires pick up mud and turn trails into "slicks." Ruts in alpine can quickly fill with water and lead to permafrost thawing, erosion and extensive, long-term damage.

Ideally, remove trail obstacles or drive over, not around obstacles to prevent destroying vegetation and widening the trail.

The wide, low-pressure tires on ATVs means that as the load increases a greater area of each tire touches the ground which distributes the pressure on the ground. However, ORVs used for hunting typically carry more than 1 passenger and/or gear. Successful hunters transport hundreds of pounds of meat, and often pull trailers. These factors increase the impact and the duration of damage and make it especially important to stay away from sensitive habitat.

## **Props and Demonstrations**

pass out an example of tree rings in the Yukon and tree rings from a tree further south to show how it takes much longer for things to grow in the Yukon.

Soil compaction demonstration (taken from Tread Lightly <http://www.treadlightly.org/images/education/Travel.pdf>)

## **Soil Compaction Demonstration**

**Step 1:** Poke holes on one of the short ends of each rectangular tray. Fill tray with soil.

**Step 2:** Fill both tray with soil. Plant grass seed in one of the tray. Place both pans in the sunlight; keep the soil moist. When the grass is an inch high proceed to the next step.

**Step 3:** Place blocks of wood under the end of the tray without the holes so that the tray are on an angle or slope. Place the bucket underneath the other end.

**Step 4:** With a watering can sprinkle water at the high end of one of the trays. Repeat the process with the other tray. Make sure you pour from the same height.

**Step 5:** Empty the bucket into a clear container, compare your results, and write down your observations.

### **Questions:**

What process is taking place?

What role do the plants play?

What do you think would happen if the soils were compacted both with the plants and without? Could you design an experiment to test your conclusions?

**Materials:**

2 rectangular trays ; Soil; Grass seed; Water can; Bucket; 2 clear containers; Water

**2.4 Yukon Legislation (10 minutes)**

While the Yukon does not have legislation specific to ORVs, there is existing legislation pertinent to ORV use that students should be aware of to a) understand there are penalties for certain activities and b) be empowered to report illegal activities.

**Motor Vehicles Act**

- No person shall operate a vehicle on a highway unless they are the holder of an operator's licence authorizing them to operate that class of vehicle.
- "highway" means any cul-de-sac, boulevard, thoroughfare, street, road, trail, avenue, parkway, driveway, viaduct, lane, alley, square, bridge, causeway, ice-road, trestleway or other place, whether publicly or privately owned, any part of which the public is ordinarily entitled or permitted to use for the passage or parking of vehicles.
- No person shall create or cause the emission of any loud and unnecessary noise from a motor vehicle.

**Environment Act**

Every adult resident in the Yukon who has reasonable grounds to believe that a person has impaired or is likely to impair the natural environment may commence an action in the Supreme Court.

**Wildlife Act**

A person shall not use a vehicle to chase, drive, flush, exhaust or fatigue wildlife for the purpose of hunting or to assist another person hunting

A person shall not harass any wildlife. A person shall be deemed to harass wildlife if the person

- (a) captures, handles or manipulates wildlife, or attempts to do so;
- (b) is the owner of a dog, or has a dog in his or her charge, and allows the dog to run after or molest a big game animal, specially protected animal, or a fur bearing animal;
- (c) operates a vehicle or boat in a manner that might reasonably be expected to harass any wildlife; or
- (d) attempts to interfere with the movement of any wildlife across any road or watercourse.

**Canada Fisheries Act**

All fish habitat – both freshwater and marine – is protected under Canada's *Fisheries Act*. It is illegal to harmfully alter, disrupt or destroy fish habitat through chemical, biological or physical means (unless authorized by DFO). The Act prohibits the deposit of a deleterious (harmful) substance, such as pollutants and sediment, in waters frequented by fish.

**3.0 Conclusion (10 mins)**

Review Tread Lightly principles with students.

**Travel Responsibly** on land by staying on designated roads, trails and areas. Go over, not around, obstacles to avoid widening the trails. Cross streams only at designated fords. When possible, avoid wet, muddy trails.

**Respect the Rights of Others** including private property owners, all recreational trail users, campers and others so they can enjoy their recreational activities undisturbed. Leave gates as you found them. Yield right of way to those passing you or going uphill.

**Educate Yourself** prior to your trip by obtaining travel maps and regulations from public agencies. Plan for your trip, take recreation skills classes and know how to operate your equipment safely.

**Avoid Sensitive Areas** on land such as meadows, lakeshores, wetlands and streams. Stay on designated routes. This protects wildlife habitats and sensitive soils from damage. Don't disturb historical, archeological or paleontological sites.

**Do Your Part** by modeling appropriate behavior, leaving the area better than you found it, properly disposing of waste, minimizing the use of fire, avoiding the spread of invasive species and repairing degraded areas.

### **3.2 Jeopardy Quiz Game to test knowledge.**

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## **APPENDIX D: COMMUNICATIONS & ADVERTISING COPIES**

We advertised our ORV Awareness Hikes publicly (Yukon News, Whitehorse Star, CBC Radio interview and ads, Community Group Email-lists, websites, Posters posted at ORV service and sale locations, FNs Band offices, community center businesses, etc). Unfortunately, we are unable to provide many of these materials as we forgot to save them. What copies we do have (from paid advertisements in newspapers) we have also included at the very end of this report.

## **APPENDIX E: ORV HIKES REPORT**

### **YCS Guided Hike Series to Discuss Off Road Vehicle Issues**

The Yukon Conservation Society conducted five guided hikes this summer to bring community members together to discuss trail planning and Off Road Vehicle environmental issues. Hikes were conducted in three Whitehorse locations (Paddy's Pond/Ice Lake Park, the Middle McIntyre Creek area and Crestview), the Carcross Dunes, and Haines Junction at the location of the mud-bogging section of the Jorg Schneider Memorial Poker Run. A Summary of the information collected is included below followed by Observations and Planning Considerations in full for each of the five hikes.

#### **The following is a Summary of Planning Considerations:**

##### **WATER COURSES, WETLANDS & WILDLIFE:**

- Marshy areas and ponds can provide important habitat for wildlife including frogs, waterfowl and beavers.
- Ponds in developed areas tend to see heavy use by snow machines in winter.
- Moose, bears and other animals depend on rivers as travel corridors. While the impacts of ORVs on wildlife in some areas may currently be minimal, increased use of ORV's along or near river corridors could impact wildlife movement and habitat.
- Trail planning processes should reduce access to ponds and wetlands so that wetlands can retain their function to absorb, filter and hold water.

## **SIGNAGE AND INFRASTRUCTURE:**

- Educational signage that provides information on wildlife use of an area and requests people avoid using the area during the rainy season would be important for preserving sensitive wetlands. Developing an alternative trail that directs people around ponds and keeps trail users on higher dry ground is another possibility for trail planning.
- Bridges and other infrastructure like fences can help reduce and prevent damage to sensitive environments such as aquatic habitat and riparian vegetation.

## **DESIGNATED TRAILS & AREAS:**

- More information needs to be made available on how trails are designated in Whitehorse neighbourhoods and what these designations mean for motorized and non-motorized use.
- Well designed trails and signage are essential to ensure snowmobilers avoid sensitive riparian habitat.
- ORV events, such as mud-bogging activity, can result in deep rutting of the land that makes the area unsuitable for other recreational activities. Therefore, mud-bogging or other ORV events must be restricted to areas designated for that purpose.
- Increased housing development in growing communities will lead to increased traffic on neighborhood trails. All precautions should be taken to limit activity to existing trails to reduce environmental impacts. Urban area trails require designation and signage to minimize user conflicts.
- Trail planning processes should reduce access to ponds and wetlands so that wetlands can retain their function to absorb, filter and hold water.

## **EDUCATION:**

- Education can play a role in shifting values towards respectful use of the environment and promoting responsible trail use.
- ORV Events, such as a Poker Run provide an opportunity for experienced ATV users to demonstrate safe and environmentally responsible use of their machines. They provide a venue for sharing Tread Lightly! and Leave No Trace® principles that promote skills and practices that minimize environmental impacts.

## **PLANNING:**

- Ongoing communication between trail planners and community members is an essential component of successful trail planning.
- How will areas zoned “Park” adjacent to “Industrial” zoning coexist over time?
- CONSIDER THE USER GROUP: Centrally located Park areas may see more ‘Sunday’ drivers, or inexperienced ORV users, frequenting the area. This should be factored into trail design as these drivers may not have the skills to negotiate technical topography or wet, muddy conditions with minimal impact to the environment.
- Trail planning processes should reduce access to ponds and wetlands so that wetlands can retain their function to absorb, filter and hold water.
- New roads or highway extensions can effectively reroute riparian drainage channels leading to flooding, softening of off-road trails and making them susceptible to more holes and rutting. An example of this is the effect of the Hamilton Blvd extension on Paddy’s Pond run-off.
- Dune ecosystems poses particular challenges for development. Through stabilization, development activity will impact plant and animal life in the ecosystem.
- NEED FOR STUDIES: Government and expert assessments of the environmental and wildlife impacts of ORVs would be useful additions to the land and trail planning process.



- As the population of the Yukon increases, trail use conflicts between different user groups will also likely increase. Events and activities that impact people’s enjoyment and use of publicly held land (for instance deep rutting by ATVs that makes horseback riding unsafe) highlight the importance of ensuring community concerns over trail use are collaboratively addressed at the local level and that all community members have an opportunity to contribute to land use planning.
- EQUAL RIGHTS: The Yukon landscape is being impacted by the mining industry, commercial outfitting companies and other land use activities. Policy and legislation addressing environmental impacts of ORVs need to affect the different user groups equally, not just recreational riders.
- Esthetics is an important factor to consider in land use planning. Some people do not want to see ATV tracks marking the land.

## **Guided Hikes**

### **1. Paddy’s Pond/Ice Lake Park, Whitehorse**

**“The colours in here in the fall, the bird life is amazing, it’s a gem...there’s a lot of really neat plant life in here.”**

- Joan Turner, Hillcrest resident, speaking about Ice Lake

### **Whitehorse Official Community Plan Background Information**

The Paddy’s Pond/Ice Lake area is one of five parks that have been identified in the 2010 City of Whitehorse Official Community Plan (Map 6). These areas have been targeted for preservation as they contain recreation facilities and trails as well as environmentally sensitive areas. As a result, the City will consider prioritizing Trail Plan implementation measures in these areas in a process that involves working with stewards, user groups and interested residents to further define these unique areas within the City, subject to City resources.

The Paddy’s Pond/Ice Lake Park is 190 ha in size and lies on the west side of the Alaska Highway across from the airport. A strip of land designated KDFN Lands and Mixed Use Industrial/Commercial lies between much of the park and the highway. The western boundary of the park is Hamilton Blvd. The park itself has been designated both Recreation Area and Environmentally Sensitive Area with the southernmost region of the park designated as ‘Green “Connection” Area’ (natural areas not identified as Environmentally Sensitive or of Recreational Value, but included in the Green space Designation on Land Use Designation Maps).

A trail guide published by the City of Whitehorse and Whitehorse Parks and Recreation provides trail maps for the different neighbourhoods in the city. The trail system in the Paddy’s Pond/Ice Lake area is a mix of Primary/Recommended Double Track trails, Primary/Recommended Single Track trails and Secondary Double Track trails and Secondary Single Track. A Rough Road extends west from the Ice Lake Road to just before the Hamilton Blvd. No Motorized Trails are designated in the area.

### **Guided Hike**

Long-time resident, Joan Turner, led the group on a tour of the trail system around Ice Lake. The hike started on the Ice Lake Road before turning west and moving along double and single track trails first to Ice Lake, then to the

junction of Hamilton Blvd and the Lobird cutline and then back to the highway. This trail system is well used by walkers, cross country skiers, snowshoers and ORV users (snowmobiles, ATVs, motorcycles and 4x4s). Kayakers have been seen on Ice Lake Pond. Wildlife also use the trails – fresh caribou tracks were observed during the hike close to the Ice Lake Road.

### **Observations**

- ORV use of the area accelerated about two or three years ago and residents speculate the increased use is due to the extension of Hamilton Blvd. Increased use of the trails has caused trail widening and environmental damage of wet areas, primarily during the shoulder seasons. Rain and creek overflow areas also make trails more sensitive to disturbance. Disturbed areas provide good habitat for invasive plant species to establish.
- A variety of other activities impact the Paddy's Pond/Ice Lake Park area. Bush parties leave behind beer cans and garbage and the area is occasionally used as a dumping ground for bags full of garbage and unwanted garden materials. A number of dogs were observed off leash during the hike; dogs are required to be kept on leash when off of their owner's property (this includes in greenbelts, country residential zones and public property).
- Construction and ATV activities have caused extensive damage of a seasonally wet area near the junction of Hamilton Blvd and the Lobird cutline. While a Double Track Trail suitable for ATV use runs from the Hamilton Blvd underpass to a Motorized Trail at the southern edge of Copper Ridge, ATVs were deliberately moving off this trail to drive through the wet areas on either side causing considerable damage.
- Cutline's such as the Lobird Cutline provide suitable trails for ORV traffic. These trails are prone to widening, however, as ORV users maneuver around exposed tree stumps.
- Features have been put in place to try and control trail use including the installation of a gate just east of the Hamilton Blvd. underpass to discourage car and truck use of the area.

### **Planning Considerations**

- A Trail Committee of representatives from Copper Ridge, Granger and Hillcrest neighbourhoods have been meeting with trail planner, Jane Koepke since early April and have conducted five walkabouts with Jane to discuss trail issues and planning in the area. Jane Koepke has been contracted by the City of Whitehorse to work with communities across Whitehorse to plan local trails as part of the implementation of the City's 2007 Trail Plan.
- The trail system on the east side of the Yukon River is often used as an example of a successful trail planning process. However, it should be noted that the trails on the east side of the river are not as attached to one community as many of the other trail systems in the city; future planning for trail systems that are more closely connected with specific communities may require compromises from all community members. Ongoing communication between City trail planners and community members will be key for successful trail planning in these neighbourhoods.
- The west side of the Ice Lake Road is zoned "City Park". KDFN also has a land selection in the area zoned "Industrial". How will these two zonings coexist over time?
- The central location of the Paddy's Pond/Ice Lake Park area may mean that more 'Sunday' drivers, or inexperienced ORV users, frequent the area. This should be factored into trail design as these drivers may not have the skills to negotiate technical topography or wet, muddy conditions with minimal impact to the environment.
- The two lakes within the Paddy's Pond/Ice Lake Park boundary are Paddy's Pond and Ice Lake. Community members are very interested in ensuring these areas are protected from potential environmental damage

caused by heavy use of the area. Some community members have suggested that a designated walking trail be built around Ice Lake to decrease off-trail activity that can lead to environmental damage. The land around Ice Lake has not been designated as an Environmentally Sensitive Area and it is unclear from Map 1 in the OCP whether the land around Paddy's Pond has been designated an Environmentally Sensitive Area. Since the development of the Hamilton Blvd. extension, community members have observed that Paddy's Pond is not draining as quickly and is draining through new channels, now running off along the main multi-purpose trail, softening the trail and making it susceptible to more holes and rutting.

- The trail planning process must provide community members with the opportunity to participate and rationales for decisions must be clearly communicated. When the Hamilton Blvd. extension was planned, the City consulted with local area residents about the plan. Residents had asked for some viewing sites to be built into the design, as well as connectivity with the Lobird trail. These recommendations were not incorporated. The City did incorporate an underpass at the request of the Klondike Snowmobile Association. However, this underpass was paved which is a less than desirable surface for snowmobiling and other winter activity as pavement enhances snowmelt and icing.

## **2. Jorg Schneider Memorial Poker Run, Haines Junction**

This event consisted of a discussion of the annual spring Lions Club Poker Run and the different concerns community members have about the event, particularly the mud-bogging section of the route. The group discussion was followed by a tour of a small section of the mud-bogging area.

The mud-bogging section of the Poker Run is a small portion of the overall route and was first put through by a CAT – it has been used for the past 19 years by the Lions Club for their annual spring Poker Run event. The mud-bogging area is dominated by thick heavy bush and wet meadows in the spring. In addition to ORV users, the CAT trail is used by hikers, bird watchers, horse riders and in the winter, skiers and for snowshoeing. On the tour, variable degrees of rutting were observed as well as trail proliferation and widening caused by smaller ATVs going around deep, muddy areas during the event. The trails and ruts we observed on the hike were dry and hard and there was new vegetation growth on the trail including some fox tail (invasive). Wildlife tracks were observed including, moose, grizzly, coyote and lynx tracks.

The Lions Club will be conducting an assessment of their Poker Run event to identify ways to improve their safety protocols and contain participants within the existing impacted trail area.

### **Planning Considerations**

- As the population of the Yukon increases, trail use conflicts between different user groups will also likely increase. Events and activities that impact people's enjoyment and use of publicly held land (for instance deep rutting by ATVs that makes horseback riding unsafe) highlight the importance of ensuring community concerns over trail use are collaboratively addressed at the local level and that all community members have an opportunity to contribute to land use planning.
- The Poker Run provides the Haines Junction Lions Club with an opportunity to be a leader in addressing land use conflict between ATV users and other recreational users. Events such as the Poker Run also provide important opportunities for experienced ATV users to demonstrate safe and environmentally responsible use of their machines. Tread Lightly! and Leave No Trace® principles that promote skills and practices that minimize environmental impacts could be distributed and discussed at group events such as the Poker Run.

- ORV users have in-depth knowledge of areas of land that are being impacted by the mining industry, commercial outfitting companies and other land use activities. Policy and legislation addressing environmental impacts of activities that take place on the land need to affect the different user groups equally.
- Moose, bears and other animals use the Dezadeash River as a travel corridor. While the impacts of the Poker Run on wildlife may currently be minimal as the event only occurs once a year, increased use of the area could impact wildlife movement and habitat.
- Government and expert assessments of the environmental and wildlife impacts of ORVs would be useful additions to the land and trail planning process.
- Concern was raised that if the current location of the mud-bogging section gets too heavily impacted by the Poker Run, the location will be moved to another region, resulting in further habitat loss and impacts on different users' enjoyment and use of the area. Ensuring that rutting and trail expansion is minimized during the Poker Run is crucial so that the event is contained to its current location and the route can be used safely and enjoyably year after year.

### 3. Carcross Dunes, Carcross

**“You go for a walk around here and every single trail you take is different, because of the sculptures of the trees and the lay of the land and the patterns...it’s just such a spectacularly beautiful place.”**

- Bruce Bennett, Wildlife Viewing Biologist, Yukon Territorial Government

Bruce Bennett, Wildlife Viewing Biologist with the Yukon Territorial Government, led a hike through the Carcross Dunes along the edge of Bennett Lake. The ecology of the dune ecosystem was discussed as well as the effects of disturbance, natural and human.

While a desert at first glance may seem devoid of life, Bruce Bennett pointed out, “there is a whole web of things that grows in this little area of the dune system”. The plants and animals that live in the Carcross Dunes have adapted to the shifting sands and windy environment that characterize the dune ecosystem and some species can only be found in Carcross. Stabilization of the dunes through housing and road development or excessive disturbance from foot and motorized traffic could alter the natural balance and impact the interdependent web of life that lives in this ecosystem.

#### Observations

- The Carcross dune ecosystem is finely balanced – too much disturbance prevents vegetation from growing and too little disturbance allows succession to proceed past the disturbance-tolerant stage that characterizes the Carcross dune ecosystem. Sand from the Watson River is constantly blown on shore by the prevailing winds – this natural disturbance allows only vegetation that tolerates being buried to thrive in the dunes. Human sources of disturbance include foot and motorized traffic as well as developments such as houses and accompanying infrastructure including roads and septic systems. Foot and motorized traffic such as ATVs can cause too much disturbance to the ecosystem which prevents any vegetation from growing whatsoever. An example of a dune ecosystem where high levels of human activity impact the ability of vegetation to grow is the Carcross Desert. Houses and accompanying infrastructure disrupt the

natural balance of the dune ecosystem by stabilizing the environment and allowing succession to proceed, affecting the plants and animals that have adapted to the sand dune ecosystem.

- Houses not only impact the dune ecosystem by stabilizing the area but they are costly to build and maintain as they may require specialized foundations and ongoing maintenance to address wind and sand scouring of paint jobs and windows. The gravel often used around these homes to stabilize the area can allow for the establishment of invasive species. Houses act as wind barriers and alter the flow of sand which can lead to large, potentially problematic, sand drifts. On our hike we observed that sand had blown around a shoreline house and into the nearby schoolyard playground.
- Once trails are established, others will follow. In a sandy, windy environment such as the Carcross dunes, heavy use can cause trails to quickly widen. The trail system near the dunes was originally established for hikers and cross country skiers but is now also used by ATVs.

### **Planning Considerations**

- Carcross is sheltered from the wind by Montana Mountain, however, the winds are much stronger closer to the Watson River. The sandy, windy environment that characterizes the Carcross dune ecosystem may pose particular challenges for development. Through stabilization, development activity in the Carcross dunes will alter the ecosystem and have a range of impacts on the established plant and animal life.
- Should ATV use be contained in certain areas already impacted heavily, such as the Carcross Desert?
- Esthetics is an important factor to consider in land use planning. Some people do not want to see ATV tracks marking the Carcross dune and desert ecosystems.
- The Carcross dunes and desert already see heavy use by ORVs due to the closeness of Montana Mountain (a popular ORV destination), local ATV tourism and the popularity of the desert amongst local and visiting snowmobilers and other off-road vehicle users. As the population of the territory grows, the Carcross area will likely see a corresponding increase in ORV use of the area. This makes it even more essential for the local area planning process to work with all community members to develop ways to manage and mitigate the environmental impacts of ORV use in these ecologically special and fragile desert and dunes.

### **4. Middle McIntyre Creek, Whitehorse**

**“There is room for multiuse but I think that it has to be planned and with everybody providing their input and there’s going to be give and take, there has to be. Not everyone is going to get what they want. We all have to be responsible citizens.”**

- Tami Hamilton, local expert, referring to trail planning for motorized and non-motorized trail users in the Middle McIntyre Creek area.

### **Whitehorse Official Community Plan Background Information**

McIntyre Creek is one of five parks identified in the Whitehorse Official Community Plan. This 3,620 ha park runs the length of McIntyre Creek from its headwaters in McIntyre Mountain to where the creek joins with the Yukon River, north of downtown.

The Guided Hike was led by Tami Hamilton and took place in the Middle McIntyre Creek area, located between the Alaska Highway and Mountainview Drive.

The Whitehorse Official Community Plan identifies sections of the Middle McIntyre Creek area that have been excluded from the Park boundaries. These areas are designated First Nation Lands, Mixed Use Industrial-Commercial and Residential-Urban Development. The area in Middle McIntyre Creek included within the Park boundaries has a mixture of land designations including Recreation, Environmentally Sensitive, and Green Connection Areas.

The Middle McIntyre Creek area is crisscrossed by an extensive trail network. Trails in this area are designated Trans Canada, Gravel and Rough Roads, Motorized Trails, Primary and Secondary Double Track Trails, Primary and Secondary Single Track Trails.

The Middle McIntyre Creek is a well used and highly impacted area; if management and mitigation of the impacts of trail users is not addressed promptly, cumulative impacts in this area will destroy the beautiful wetlands and forests of this region that we value so highly.

### **Observations**

- White Sweet clover is common throughout the Middle McIntyre Creek area. White Sweet clover is an invasive species that rapidly colonizes gravelly, well drained soils such as roadsides, waste areas and river banks and bars and can cause habitat loss, loss of subsistence resources and economic loss.
- The semi arid climate and short growing season as well as the composition and thin depth of the soils in the area make vegetation sensitive to human disturbance. Heavy use of trail systems can kill vegetation, leaving behind sandy soil which blows up and kills more vegetation. As a result, narrow trails can widen quickly with use.
- Widening trails and roads in the Middle McIntyre Creek area are encroaching on wetlands. As wetlands fill in with sediment, the hydrology and vegetation composition changes. Soil compaction near wetlands reduces the ability of the area to filter sediments and chemicals from overland runoff which affects water quality. Spring freshets, or flooding resulting from heavy rain or spring thaw, also become more common as the compacted soil around wetlands loses its ability to slowly filter water.
- The Klondike Snowmobile Association worked with the City of Whitehorse to build the Trans-Canada non-motorized bridge and the multi-use bridge by the Pump house. The multi-use bridge by the pump house has directed traffic away from sensitive aquatic habitat and streamside vegetation and has improved water quality in the creek. Re-growth of vegetation along the stream banks is also occurring as impacts from foot and ATV traffic have decreased. The Yukon Fish and Game Association and Yukon Salmon Sub-Committee have conducted shoreline restoration work in Middle McIntyre Creek.

### **Planning Considerations**

- Education can play a role in shifting values towards respectful use of the environment and promoting responsible trail use.
- Increased housing development in areas such as Whistle Bend, Porter Creek-D, and Takhini North will lead to increased traffic on McIntyre Creek trails. All precautions should be taken to limit activity to existing trails to reduce environmental impacts. ORV trails are designated in the area and ORVs should stick to designated ORV trails. Trail planning processes should reduce access to the ponds and wetlands in the area so that wetlands can retain their function to absorb, filter and hold water.

- Bridges and other infrastructure like fences can help reduce and prevent damage to sensitive environment such as streambeds and streamside vegetation.
- Signage is needed to keep people out of wetlands
- Many different user groups use the Middle McIntyre Creek Area. For ORV users, ‘out and away’ trails that the City is proposing may not be appropriate for outings with children.

## 5. Crestview, Whitehorse

**“One way you can think of a trail is that it’s environmental damage by consensus. Everybody agrees to damage this piece and then we’ll leave all the rest alone.”** - Crestview resident and hiker

**“Everybody likes a challenge, right, and when they see something like this they think, ‘well, let’s see how far I can get’, but really it’s not right. I think education would go a long way.”**

- Crestview resident and ORV user about ATV and motorcycle damage of marshy land near neighbourhood lake

### Whitehorse Official Community Plan Background Information

The Whitehorse Official Community plan designates the Crestview Neighbourhood as primarily Residential-Urban with some Commercial–Service in the south. Crestview is separated from the Industrial region of Kulan to the south by a narrow section of land designated as a Future Planning Area. A large area of land west of Kulan is also designated as a Future Planning Area. West of Crestview, the land is designated Green space, consisting of Recreation, Environmentally Sensitive and Green “Connection” Areas.

The City of Whitehorse and Whitehorse Parks and Recreation’s *Guide to the Popular Trails of Whitehorse* identifies several trails in the area. Running around the entire neighbourhood is a trail designated as Primary/Recommended Double Track. Further west is the Fire Break which is designated as a motorized trail. The Trans Canada Trail connects with this motorized trail from the south before branching west and a sparse network of Primary/Recommended Single Track Trails and Secondary Single Track trails weaves through the Green space west of Crestview.

### Observations

- Crestview provides a good example of a multiuse trail system used by a diversity of users including ORV users, hikers, cyclists, skiers and families with strollers. Locals on the hike agreed that the multiuse trail that runs around the community is wide enough to support the various trail uses and that different user groups generally get along well with one another on this trail. The relatively smaller population of this neighbourhood and its distance from downtown may mean that the trails see less traffic and are used predominantly by locals, resulting in fewer user conflicts.
- Topography and trail features can control trail use; ORVs cannot access some of the trails in Crestview due to steep hills so these areas are primarily used by hikers and mountain bikers. Steep hills and shallow soils can also lead to erosion problems making it even more important for trail planning that avoids environmentally sensitive areas.
- Trail use is affected by factors that may not be obvious in trail planning efforts. For instance, Fire smarting in the Crestview neighbourhood has led to increased snowmobile use of trails as people gather firewood

and the relocation of a tourism pull-out to the opposite side of the Alaska Highway from the community resulted in a decrease in ATV traffic on Crestview trails.

- Trail damage is often caused by inexperienced ATV users. Deep ruts on gravelly hills were common throughout the Guided Hike. On steep trails, operate an ATV in 4-wheel drive and maintain a steady speed to the top of the hill.
- The biggest concern participants had with the neighbourhood trail activity was with regard to children on ORV machines in the area. Machines built for children tend to have louder engines. In addition to being noisy, children tend to “play” on the machines more than adults do and remain close to residential area resulting in noise complaints and conflict.

### **Planning Considerations**

- The southern marshy areas of Third Pond were badly rutted by ATV and motorcycle use. This area provides important frog, waterfowl and beaver habitat. Educational signage that identifies the wildlife use of the area and requests people avoid using the area during wet times would be important for preserving this area. Exploring an alternative trail that directs people around the pond and keeps trail users on higher dry ground is another possibility for trail planning in this area.
- Ponds in the area see heavy use by snow machines in winter. Well designed trails and signage are essential to ensure snowmobilers avoid sensitive riparian habitat.
- More information needs to be made available on how trails are designated in the neighbourhood and what these designations mean for motorized and non-motorized use.
- Some infrastructure has been put in place in Crestview including bridges but more is required to reduce impacts of trail use on aquatic habitat and riparian vegetation. This area does not have designation as a park and so may not be a priority for City-led trail planning. The local community association may have to independently seek funding for trail signage and other features.



## **APPENDIX F: PUBLIC SURVEY**

The survey provided additional public input for our Working Group to consider when formulating the information that would go into the educational materials. The following is the survey that was distributed on-line by the members of the Working Group, through Survey Monkey, and by in-person solicitation for two weeks at Canadian Tire in Whitehorse.

# **Do you ride an Off Road Vehicle (ORV) in the Yukon?**

## **The Yukon Conservation Society needs your help.**

The Yukon Conservation Society is collecting information on safe and environmentally responsible ORV use. This information will be used to develop Yukon specific educational material for school children, the public and new ORV users. As people who are out on the land throughout the year, your knowledge of the environment and first-hand experience with ORVs is very valuable. Please help us by filling out this survey with as much detail as possible. Together we can keep the Yukon accessible and natural.

This is a voluntary survey. The Yukon Conservation Society will keep the names of individuals responding to the survey confidential. Your name will not be disclosed, nor will comments be identified by individuals' names. We would like to be able to contact you in case we need to clarify your survey responses and for feedback on the educational material that we develop. If you are willing to be contacted, please provide your name and contact information at the end of this survey.

## **Survey Questions**

1. What type of ORV do you use? Please check all that apply: a) Snowmobile; b) ATV; c) Motorbike; d) Argo; e) 4x4; f) other
2. There are many different uses of the Yukon landscape from mining and exploration to recreation activities. What environmental damage do you see on the land that the Yukon Conservation Society should be aware of?
3. What are the important skills new ORV riders should learn before taking their machines on the land?
4. Can you describe an example of a situation where you made a specific effort to limit your environmental impact with your machine? For example, using a nylon strap instead of a chain around a tree to winch yourself out of a mud hole.
5. What should be the main messages for school children and new ORV users about ORV use as it relates to the environment and safety?
6. If you could create a bumper sticker that promotes safe and environmentally responsible ORV use – what would it say?
7. Is there anything else you would like to add?

# Off Road Vehicle Terrain Analysis & Awareness Project Coordinator Work Report

Christina Macdonald, ORV Project Coordinator

**Total Hours: 436 hours x \$30/ hour = \$13,080** \*Paid throughout the year.

## Summary of work performed:

### **July 2011 (49.5 hours)**

Began work as the Off Road Vehicle Project Coordinator on July 13; Familiarized myself with ORV legislation across North America as well as ORV research conducted in the Yukon (primarily work commissioned by the YFWMB); Met with Georgia Greetham (Project Manager) to further define project goals; Met with members of the ORV Working Group individually to answer questions about the intent of the ORV Working Group;

Recorded discussion and took photos during a Guided ORV Awareness Hike around Ice Lake, Whitehorse

### **August 2011 (87 hours)**

Met with Yukon government Regional Biologist and Technician in Haines Junction to discuss ORV impacts on local wildlife and habitat; Recorded discussion and took photos during an ORV Guided Hike at the site of the Lion's Club spring Poker Run, Haines Junction; Hiked with Riverdale community member through Hidden Lakes area and assessed area for ORV impacts;

Met with the Southern Lakes Wildlife Coordinating Committee to discuss the ORV Project and receive feedback

Recorded discussions and took photos during a Guided ORV Awareness Hikes with Tami Hamilton (Middle McIntyre Creek), Bruce Bennett (Carcross) and in the Crestview neighbourhood; Worked with Georgia to direct Green Team Members in conducting research on existing ORV legislation in North American jurisdictions; Attended Stinky Lake Motorcycle race to distribute information pamphlets on safe and environmentally responsible ORV use;

Transcribed recordings of ORV Guided Hikes

### **September 2011 (75.5 hours)**

Wrote summaries of the ORV Guided Hikes identifying key local issues and lessons learned;

Developed initial set of ORV Management Recommendations based on what was learned during ORV Guided Hikes; and research into existing legislation across North America; Prepared presentation for the ORV Working Group; Collected educational materials from Klondike Snowmobile Association; Discussed ORV management and educational material with City of Whitehorse Bylaw Services; Follow-up discussion with Haines Junction community member; Developed ORV survey, distributed hard copies and created online survey; Collaborated with Georgia to give direction to Canada World Youth volunteers, primarily on how to deliver ORV survey

### **October 2011 (62.5 hours)**

Summarized results of ORV survey; Delivered a presentation to the ORV Working Group which provided a project update and facilitated discussion of initial recommendations relating to ORVs and the environment; Delivered presentation to the YFWMB about work conducted to date by ORV Working Group; Provided volunteer with direction on developing educational materials on Yukon-specific safe and responsible ORV use

### **November 2011 (38 hours)**

Continued to develop educational material on Yukon-specific safe and responsible ORV use, ensuring that the results of the September ORV survey were incorporated; Communicated with ORV Working Group Members to ensure YCS received their input on ORV Management Recommendations; Synthesized feedback from ORV Working Group Members and developed a new set of ORV Management Recommendations and Educational Material

### **December 2011 (78 hours)**

Continued to finalize ORV Management Recommendations and Educational Material

### **January 2012 (46 hours)**

Incorporated final feedback from ORV Working Group Members into recommendation and education documents

Prepared for and facilitated ORV Working Group Meeting



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## OFF-ROAD VEHICLE WORKING GROUP

### **Recommendations to the Yukon Government** **on Off-Road Vehicle Management**

**January 2012**

**Prepared by:**

Christina Macdonald, Project Coordinator  
Georgia Greetham, Program Manager

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# Background

In the spring of 2011, the Yukon Conservation Society (YCS) received funding from the Yukon Fish and Wildlife Enhancement Trust and the Yukon Environmental Awareness Fund for a project to address the growing concerns about the impacts of Off-Road Vehicles (ORVs) on Yukon habitat and wildlife. Two primary goals were identified for the project: 1) to develop educational materials for the public about environmentally responsible ORV use in the Yukon, and 2) to develop ORV management recommendations.

A collaborative approach to the project was identified as important to ensure the input of a wide range of stakeholders. To this end, an ORV Working Group was struck consisting of representatives from seven Yukon organizations:

Klondike Snowmobile Association (KSA), Mark Daniels (President);  
Trails Only Yukon Association (TOYA), Ken Taylor, Tony Grabowski (Directors);  
Wilderness Tourism Association of Yukon (WTAY), Jill Pangman (Director);  
Yukon Conservation Society (YCS), Meagan Christie (Board Member);  
Yukon Fish and Game Association (YFGA), John Carney (Director), Gord Zealand (E.D.);  
Yukon Off Road Riders Association (YORRA), Chris May (President)

Yukon Fish and Wildlife Management Board (YFWMB), Graham Van Tighem (Executive Director) - Observation and Assistance<sup>1</sup>.

Between the spring of 2011 and winter of 2012, the ORV Working Group met three times to address the two project goals. At these meetings, the ORV Working Group provided input and feedback on educational material developed by YCS and developed ORV management recommendations. Information exchange was also conducted via email and one-on-one meetings.

A central document in discussions of the ORV Working Group was the 2011 Yukon Legislative Assembly *Report of the Select Committee on the Safe Operation and Use of Off-road Vehicles*. Recommendations #3, #4, #10 and #14 in the Select Committee Report deal specifically with minimizing impacts of ORV use on the Yukon natural environment through education, driver training, research and legislation.

All stakeholders in the ORV Working Group with the exception of the Yukon Fish & Wildlife Management Board (see *Footnote 1*) support these four recommendations of the Select Committee. In addition, the ORV Working Group came to consensus on ways to further develop each of these four recommendations. These further recommendations are presented below, grouped under the Select Committee Recommendations #3, #4, #10 and #14.

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<sup>1</sup> The Yukon Fish & Wildlife Management Board facilitated several ORV projects in the past and therefore offered staff support with the creation of this document – however, the Board as a whole did not review the recommendations developed by the ORV Working Group and therefore did not support or reject the recommendations. The Board’s mandate is to make recommendations to the Minister, First Nations or Renewable Resources Councils and its participation will be defined at a later date when legislation or policy are being decided.

# ORV Management Recommendations

## ***2011 Select Committee Recommendation #3:***

*THAT, government undertake an extensive advertising/educational campaign to raise public awareness of any and all existing restrictions on off-road vehicle use along with penalties and means of enforcement.*

### **The ORV Working Group supports the above Recommendation #3 and adds the following:**

- Government should partner with the established stake holders to best utilize resources and gain inroads to user groups.
- Education should also reach non-motorized groups so that all users understand what is permitted.
- The Yukon government should review ORV legislation across Canada and assess its applicability for the Yukon.
- The Department of Environment should include information on ORV environmental impacts in Hunter Education and Ethics Development (HEED) training.
- Education should teach why legislation is in place, why it is important to comply with the legislation and the consequences of not complying.

## ***2011 Select Committee Recommendation #4:***

*THAT, government undertake an educational campaign which, in addition to existing laws and regulations, focuses on the safe, responsible and respectful operation of off-road vehicles as well as environmental stewardship.*

### **The ORV Working Group supports the above Recommendation #4 and adds the following:**

- Government should partner with the established stake holders to best utilize resources and gain inroads to user groups.

- Education should also reach non-motorized groups so that all users understand what is permitted.
- Educational campaign should include trail etiquette for all users of multi-use trails. ORV users require definitive information as to where they may travel unrestricted and where restrictions are in place.
- Educational campaign should include information on trail stewardship, and the need for quality infrastructure.
- Provide incentives for the sale or use of equipment that reduces noise and emission levels of ORVs. Include information pamphlet or video with the sale of each new ORV to educate riders about environmentally responsible ORV use in the Yukon and where to access educational and training resources.
- The sale or use of equipment, or mechanical alterations, that increase noise and emission levels should be strongly discouraged.
- Use national standards for trail signage, maps and other ORV publications for public and field office use. Provide updates for ORV users about trail designations, bylaws, changes to rules and regulations, etc, and provide links to other motorized ORV-related sites.

***2011 Select Committee Recommendation #10:***

*THAT, government encourage and support voluntary driver training on the safe and environmentally responsible operation of ATVs and snowmobiles.*

**The ORV Working Group supports the above Recommendation #10 and adds the following:**

- Government should partner with the established stake holders to best utilize resources and gain inroads to user groups.
- Training should be industry standard and transferable to/from other jurisdictions. See: *Appendix A*
- Incentives should be built into regulating frameworks to encourage rider training, such as WCB or liability insurance deals for trained riders. WCB should be encouraged to use nationally recognized courses.

**2011 Select Committee Recommendation #14:**

*THAT, off-road vehicle legislation and regulations provide for the ability to mitigate environmental damage and cumulative negative impacts to sensitive wildlife and fish habitats. Ensure that legislation and/or regulations provide for the ability to restrict the growth of trail networks in sensitive areas, to close trails or overused areas as necessary, to exclude off-road vehicles from specific types of land or habitats, and to have certain areas designated as access routes only;*

*THAT, environmental and access restrictions be implemented in areas where problems exist or are developing and, when not required for wildlife or environmental protection, efforts be made not to reduce access to existing use areas;*

*THAT, government review penalties for environmental damage caused by any method, motorized or non-motorized means, to ensure penalties are appropriate. The Committee further recommends that government take steps to improve public awareness of these penalties; and*

*THAT, government consider separate environmental protection legislation that targets and penalizes environmental damage rather than restricting specific users.*

**The ORV Working Group supports the above Recommendation #14 and adds the following:**

- Government should partner with the established stake holders to best utilize resources and gain inroads to user groups.
- Regulation, and any consequential penalties or restrictions should be of general applicability, and not specific to ORVs.
- Scientific criteria to assess violations of environmental protection laws need to be established. Restrictions should be based on this criteria and not anecdotal evidence or complaints.
- The Department of Environment should be mandated to conduct research on environmental impacts of ORVs and work with other departments to ensure sensitive habitats are protected. This will help support evidence based environmental legislation.
- There should be restricted access in place in sensitive habitat areas during critical seasons, such as spring wet conditions, lambing areas, etc.

- Restrictions should be the least onerous in scope, area, and duration to meet the protective goal.
- Identification of individual ORVs and the ability to link the machine to the owner is critical in any investigation.
- Users should pay for the restoration of any area intentionally damaged.
- The Lands Planning Branch should be mandated to exclude specific types of land from ORV use in places or during times when an unacceptable level of impact will occur through usage.
- YESAB should consider ORV impacts when assessing cumulative impacts.
- A temporary land use permit should be required from the appropriate Yukon government office for any recreational events that could damage the land, such as a mud-bog event.
- Criteria needs to be established and included in legislation for what constitutes, among other terms, “loud and unnecessary noise”, “damage” and “impair”.

### **Additional Recommendations of the ORV Working Group**

- **Government Departments (Education, Community Development Fund, Environmental Awareness Funds, or new specific “Funds”) should be encouraged to fund proposals that help address these Recommendations.**
- **Government should continue to work with the members of this ORV Working Group to apply these Recommendations.**
- **Yukon Environment and other relevant Yukon government departments should be mandated to address these Recommendations.**



# Appendix A

## **Additional Recommendations Related to Education**

*Education can raise awareness of how human activities impact land and wildlife and how to minimize these impacts as well as empower people to pursue their recreational activities with confidence and take stewardship of the land.*

1. All training materials should include the following content
  - a. *TreadLightly!* principles.
  - b. Specific Yukon environment & wildlife information (alpine, dunes, etc.)
  - c. Cause and Effect messaging:
  - d. Practicum: Hands-on ORV training
  - e. Classroom component
  - f. Existing Laws, Rules and Regulations and Penalties
  - g. Canadian Standardized ORV operation training, as available
2. Training should be targeted to groups
  - a. By age to: 1) Youth & Teens, and 2) New Adults Riders
  - b. By area travelled: urban, rural, backcountry
  - c. By ORV type: *TreadLightly!* training specific to the vehicle used
  - d. By user group: Hunters, Outfitters, Tourism, Trappers, Recreational riders, Mineral & gas exploration/ operators, surveying companies
3. General Public ORV Awareness is needed, including Why and How to:
  - a. Minimize impacts to environment & wildlife: Why it's important, How you do it
  - b. Maintain personal safety and be a steward for the land
  - c. Access rider training
  - d. Know the Laws: Follow existing laws/ regulations
  - e. Licence and register your ORV
  - f. Join an ORV organization/ support local community trail or stewardship association
  - g. Existing ORV groups' Guidelines & Principles
  - h. Trail Building – cumulative impacts
  - i. Reduce conflict: stay on trails that are appropriate or designated for you
4. Approaches to Public Awareness:
  - a. Multi-media approach (flyers, radio, newspapers, etc.)
  - b. Public Surveys and Public Engagement.
  - c. Training

\*Note: The ORV Working Group has also developed text for use in awareness materials:

- ATVs and the Environment
- Snowmobiles and the Environment
- ORVs and the Alpine
- ORVs and Wetlands
- Existing Yukon Legislation pertaining to ORV impacts

And, The ORV Working Group has also developed a classroom presentation and learning activities suitable for grade 7. Contact us for more information.



TRAILS  
ONLY  
YUKON  
ASSOCIATION



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## OFF-ROAD VEHICLE WORKING GROUP

January 31, 2012

Honourable Brad Cathers  
Minister  
Energy, Mines & Resources CM-3  
Box 2703 K-320, Whitehorse, Yukon, Y1A 2C6

### Re: Recommendations to the Yukon Government on Off-Road Vehicle Management

Dear Minister Cathers,

In March 2011, the Select Committee on the Safe Operation and Use of Off-road Vehicles produced a report summarizing the findings of their investigations into public opinion on the safe operation and use of all terrain vehicles and snowmobiles in the Yukon. The Select Committee (hereafter called "Committee") produced a number of recommendations in their report and concluded that "*implementation of its recommendations is an important step in ensuring the respectful and responsible operation of these vehicles.*"

In recognition of the importance of implementing and building on the recommendations of the Committee, a number of stakeholders have worked together since the spring of 2011 to build consensus on how to move forward with off-road vehicle (ORV) management in the Yukon.

The focus of this ORV Working Group has been on ORV management as it relates to reducing impacts on wildlife and habitat. To this end, the ORV Working Group has collaborated to advance the Committee's recommendations #3, #4, #10, and #14 which pertain to minimizing impacts of ORV use on the Yukon natural environment through education, training, research, and raising awareness of existing legislation.


We are pleased to provide you with the enclosed ***Recommendations to the Yukon Government on Off-Road Vehicle Management*** report of our Working Group, which we feel represents a fair and balanced approach to ORV management in the Yukon.

Included in our recommendations, we ask that the Yukon government institute a mandate for Environment Yukon and other relevant Yukon government departments specifically to address these Recommendations.

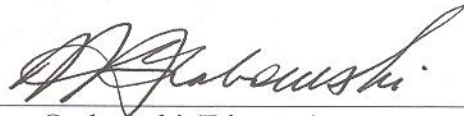
We would be pleased to discuss these recommendations with you in more detail. **If you have any questions about this report, or our ORV Working Group, please contact** Christina Macdonald, Project Coordinator ycswild@ycs.yk.ca, or Georgia Greetham, Program Manager ycsoffice@ycs.yk.ca, or contact the Yukon Conservation Society at 867-668-5678.

It is our hope that this report and our commitment to ongoing collaboration and socially and environmentally responsible use of the Yukon wilderness will assist the Yukon government in moving forward with the recommendations made by the Select Committee in their 2011 report.

Sincerely,



Mark Daniels (President)  
Klondike Snowmobile Association



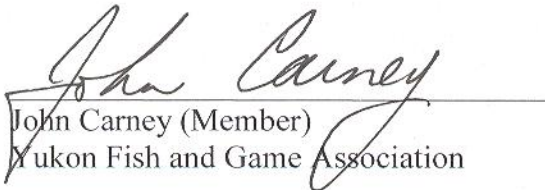
Tony Grabowski (Director)  
Trails Only Yukon Association



Jill Pangman (Director)  
Wilderness Tourism Association of Yukon



Meagan Christie (Board Member)  
Yukon Conservation Society



John Carney (Member)  
Yukon Fish and Game Association



Chris May (President)  
Yukon Off-Road Riders Association

CC:

Honourable Currie Dixon, Minister of Economic Development, Minister of Environment  
Yukon First Nations (all)  
Yukon Renewable Resources Councils (all)  
Yukon Fish and Wildlife Management Board  
Southern Lakes Wildlife Coordinating Committee  
Yukon Local Advisory Councils and Municipalities (all)  
Whitehorse Cross Country Ski Club  
Wildlife Conservation Society of Canada  
Yukon Outfitters Association  
Department of Environment