

Columbia Mountains Institute of Applied Ecology

Creating Bear Aware Communities
November 16-17th 2001
Revelstoke BC

Summaries of Presentations

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Summaries of Presentations

BEAR BEHAVIOUR AND BIOLOGY – WHY BEAR BEHAVIOURS CAN LEAD TO CONFLICTS IN OUR COMMUNITIES.....	3
THE PROVINCIAL PERSPECTIVE – AN OVERVIEW OF BEAR/HUMAN CONFLICTS IN COMMUNITIES ACROSS BC	3
THE BC “BEAR SMART” COMMUNITIES PROPOSAL - HOW COMMUNITIES COULD BECOME “BEAR SMART”	4
CREATING A BEAR AWARE COMMUNITY CASE STUDY: REVELSTOKE BC	7
ANIMAL PROOF WASTE HANDLING SYSTEM – THE TOWN OF CANMORE EXPERIENCE	7
IS THERE A NEED FOR A “COMMUNITY” BEAR SAFETY VIDEO?	14
CREATING A BEAR AWARE COMMUNITY CASE STUDY: WHISTLER BC.....	14
THE ROLE OF NON-GOVERNMENTAL ORGANIZATIONS IN BEAR SMART COMMUNITIES.....	15
CREATING A BEAR AWARE COMMUNITY CASE STUDY: BEAR MANAGEMENT IN LAKE LOUISE, 1970 – 2001	17
A REVIEW OF A SUCCESSFUL BEAR EDUCATION PROGRAM IN PLACE AT WHISTLER BC	17
ELECTRIC FENCING AS A MANAGEMENT TOOL FOR BEAR CONTROL.....	17
WORKING WITHIN THE MUNICIPAL STRUCTURE.....	19
KARELIAN BEAR DOGS AND THE PARTNERS IN LIFE PROGRAM	19

“Creating Bear Aware Communities”

November 16-17, 2001
Revelstoke Community Centre
Revelstoke BC

This workshop was hosted by the Columbia Mountains Institute of Applied Ecology. We are grateful for the financial and in-kind support of:

- The Columbia Basin Trust, through the Columbia Kootenay Fisheries Renewal Partnership
- City of Revelstoke
- Haul-All Equipment
- Margo Supplies
- Parks Canada
- Revelstoke Printing Company
- Rollins Machinery
- Revelstoke Bear Aware Committee

One day of presentations was followed by a half-day field trip around the City of Revelstoke. This event was attended by 65 participants from BC, Alberta, Ontario, Northwest Territories, Yukon, and Idaho. A senior biology class from Revelstoke Secondary School attended some of the presentations.

Friday, November 16, 2001

Bear Behaviour and Biology – Why Bear Behaviours Can Lead to Conflicts in Our Communities

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No summary is available. Look in the Research Highlights section of the CMI web site at www.cmiae.org for information on Dr. Woods' bear research in the Columbia Mountains.

The Provincial Perspective – An Overview of Bear/Human Conflicts in Communities Across BC

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British Columbia is bear country and bears and humans inhabit much of the same areas or habitats. Many of our communities are home to bears on a seasonal basis and this proximity results in conflict between bears and humans.

Over the past five years there has been a gradual increase in the number of complaints (15%) of conflict with black bears and a corresponding increase in management actions (6%) by conservation officers.

The number of grizzly bear complaints is static, but the number attended by officers has dropped by 16%. The types of management actions are changing as black bears killed has increased 18% and relocations have decreased 30% for black bears and 25% for grizzlies. Improved science around relocation and budget implications are likely the reasons for these changes.

Increased conflicts are likely due to a number of factors, but certainly increased human population has to be a significant factor. Other issues likely include urbanization of the human population and the resulting loss of knowledge of “wild things”; changes in human activities that are promoting conflict instead of avoiding conflict and also the likelihood of an “urban” bear that has habituated to human presence and become dependant on non-natural food sources.

The options available to conservation officers to deal with these conflicts are limited to eliminating one or both participant—this will likely be the bear and not the human; or taking actions to prevent the conflict in the first place. In both circumstances the means for carrying out these options are limited. In the first instance they are limited to killing or removing the bear. In the second instance they are limited to education, issuing Dangerous Wildlife Protection Orders and laying charges in very rare instances.

Local governments and concerned citizens have other options available that can be used to minimize the conflict in the first place. Community education, bylaws to reduce attractants, fencing of landfills and minimizing bear habitat in the community are likely far more effective at preventing the conflict in the first place.

The BC “Bear Smart” Communities Proposal - How Communities Could Become “Bear Smart”

Mike Badry, Research and Conservation Section, Wildlife Branch
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The "Bear Smart" Communities initiative is currently awaiting approval through the government's Core Review Process. Contact Mike Badry for an update on the program's status.

During bear season, Conservation Officers (COs) in British Columbia respond to thousands of calls and complaints about bears. Most of these problems begin when people allow bears to access non-natural food sources. Unfortunately, because there are few alternative control methods once bears have learned to access human food, Conservation Officers are usually forced to kill "problem" bears.

Sources of Bear Problems

Access to Human Food

If bears are allowed to access human food and garbage, they quickly learn to associate it with people and become what is called food-conditioned. These bears lose their fear of humans and become habituated to people.

Habituated and food-conditioned bears are more difficult to drive away than wild bears. If a bear develops a taste for human food, it usually keeps coming back for more. Wild bears can become permanently food-conditioned after only one encounter with non-natural food.

Food-conditioned bears learn to expect human food and are more likely to approach people than wild bears. These bears can damage your property and they are a potential risk to you and the safety of your family. In most cases, however, when a bear comes into conflict with people, it's the bear that loses.

Human Development

Both bears and humans like to settle in valley bottoms and along streams. More people are developing in these areas which means that bears will be living in closer proximity to people. Bears that live near human settlements can become "problem" bears if they are allowed to access non-natural food.

"Problem" Bear Costs

"Problem" bears cost BC taxpayers big money. The BC Conservation Officer Service spends more than \$1 million every year responding to bear complaints and relocating or destroying bears. Property damage, which is not included in this figure, is estimated to be in the hundreds of thousands of dollars a year. Bears damage household items, fruit trees, apiaries, livestock and vehicles.

Management Options

Managing "problem" bears is a tough job. Once bears learn how to access human food, they'll do almost anything to get it. Unfortunately, the management options available, besides destruction of the bear, are all short-term band-aid solutions.

The only long-term solution is to prevent "problem" bears from being created in the first place.

Translocation is one management option available. Bears are trapped, moved, and released into the wild. Translocation, however, is rarely successful as often these bears return to their original home territory or they become "problem" bears in other communities. In addition, translocated bears often fail to adapt to their new habitat. They likely starve to death or are killed by bears that already occupy the territory.

Aversive conditioning is another "problem" bear management option. It involves using deterrents to teach the bear to associate humans or human food with a scary or negative experience. Bear deterrents include: rubber bullets, plastic slugs, anti-riot batons, foul-tasting chemicals, electric shock, acoustic devices, and trained bear dogs. In order to be effective, these deterrents must be used immediately after the "problem" bear behaviour and every time the bear behaves badly.

Aversive conditioning is most effective when it is used to prevent bears from becoming conditioned to human food. However, it is not considered effective in reducing "problem" bear behaviour over time because it does not address the root causes of the problem (i.e. the bears' initial access to human food).

New Legislation

There is now legislation in effect that can help prevent the creation of "problem" bears and provide public safety. Under the new amendments to the Wildlife Act, it is an offense for people in BC to feed dangerous wildlife (bears, cougars, coyotes and wolves) or disobey orders to remove and clean up food, food waste or other substances that can attract dangerous wildlife to their premises. Conservation Officers may issue a written dangerous wildlife protection order, which requires "the removal or containment of compost, food, food waste or domestic garbage." If people fail to comply with the order they could face a heavy penalty of up to \$50,000 and/or six months in jail.

"Bear Smart" Communities

The "Bear Smart" Community initiative is a proactive conservation strategy that encourages efforts by communities, businesses and individuals to reduce bear/human conflicts. The goal of the strategy is to focus efforts on addressing the root causes of bear/human conflicts, reduce the number of conflicts and, ultimately, reduce the number of bears that have to be destroyed due to conflicts.

This initiative will be based on a series of criteria that communities must achieve in order to be designated as "Bear Smart". It is a co-operative venture and entirely voluntary on the part of communities. The

responsibility to manage bear/human conflicts rests with everyone and it will require participation from the provincial government, municipal governments, and local citizens to successfully implement this strategy.

Once a community is recognized as "Bear Smart", it opens up opportunities on how bears can be managed. Fewer bears will be coming into conflict, and those that do will not be receiving a readily accessible food reward.

This will allow the ministry, with co-operation from local officials and stakeholders, the option of applying non-lethal reactive techniques such as aversive conditioning to any bear/human conflicts that occur in the future. Aversive condition of bears will only be considered in communities that are designated as "Bear Smart".

"Bear Smart" communities may also be recognized by presenting them with a plaque (i.e. suitable for attaching to a sign welcoming people to a community). It has also been suggested that a "Bear Smart" Community logo may be placed next to the community's name in the provincial Accommodations Guide (subject to agreement by the Ministry of Small Business, Tourism and Culture).

The Ministry of Water, Land and Air Protection will provide technical advice to communities that are seeking to obtain "Bear Smart" status. Several BC communities have been proactive in reducing bear conflicts and have already met one or more of the criteria required to be "Bear Smart". A background report providing detailed information on each of the criteria and including examples of their successful application will be prepared and made available to communities that are interested in pursuing this initiative. Brochures outlining the "Bear Smart" Community initiative will also be prepared for the general public.

Criteria for Designated "Bear Smart" Communities

1. Prepare a bear hazard assessment of the community and surrounding area.
2. Prepare a bear/human conflict management plan that is designed to address the bear hazards and land-use conflicts identified in the previous step.
3. Revise planning and decision-making documents to be consistent with the bear/human conflict management plan.
4. Implement a continuing education program, directed at all sectors of the community.
5. Develop and maintain a bear-proof municipal solid waste management system.
6. Implement "Bear Smart" bylaws prohibiting the provision of food to bears as a result of intent, neglect, or irresponsible management of attractants.

The "Bear Smart" Communities initiative is currently awaiting approval through the government's Core Review Process. For further information on "Bear Smart" and its status please contact:

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Creating a Bear Aware Community Case Study: Revelstoke BC

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Revelstoke is a relatively isolated community adjacent to prime bear habitat. There is a history of bears entering the community. Concerns over the high numbers of bears being destroyed within the city prompted the creation of the Bear Aware Program.

The goal of the Bear Aware Program is to reduce bear/human conflicts by educating the population on the methods of bear proofing. To reach as many people as possible the message must be delivered in various ways, such as through the media, school programs, and a door-to-door campaign. The decrease in the numbers of bears being destroyed shows that the program has been successful but a number of challenges remain.

Animal Proof Waste Handling System – The Town of Canmore Experience

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The Town of Canmore is situated in the Bow Valley at the gateway to the Canadian Rockies. Canmore, straddling the Trans-Canada highway, is one hundred kilometres from Calgary and two kilometres from the gates of Banff National Park in Alberta.

Canmore began as a coal mining town at the end of the 1800s. The mine remained the Town's primary employer until 1979 when the mine was closed permanently. It went through some tough economic times until the 1988 Olympic Games in Calgary that saw the Nordic events competed at the newly constructed Canmore Nordic Centre. Since the Olympic Games, the economy has improved steadily with a growth rate from 6% – 10% annually throughout the 1990s. We now have a population over 10,500 of permanent residents.

Canmore Demographics

Demographics of the population range from the service industry, professionals, home businesses, construction and trade, small business, retirees and non-permanent persons. Approximately 20% of the homes serve as second homes and are not occupied year round. The average home in Canmore is worth \$250,000 (2000).

Future Growth

Do we foresee an economic slow down? Are things going to decrease, plateau or increase? In light of the September 11th terrorist attack in New York and with that the present global unease, the economy is starting to slow down. Oil prices have dropped and people are now uneasy about spending especially on big-ticket items such as a new or second home. Despite this, Alberta as a whole is still booming and with a development moratorium in Banff, Canmore is still growing and with that so increases the potential for an increase in bear-human encounters.

Objectives to Minimize Impact

Throughout the 1990's, as Canmore was experiencing steady growth, there were pressures on the Town to implement programs that would minimize the impact on our environment and wildlife population. In the Solid Waste Services department this translated to the establishment of recycling programs, toxic round-ups and an animal proof waste handling system.

To assist with program implementation, the Town took advantage of grass roots movement and established a Waste Management Committee (WMC) made up of interested and concerned citizens. The WMC was used extensively during the implementation of the animal proof waste handling system and proved to be a tremendous asset.

Waste Collection - History

Up until 1997, the Town of Canmore provided its residents with a traditional curbside waste collection program.

In the fall of 1996, responding to increasing concerns from the public and environment groups regarding bears in waste, Council requested the Waste Management Committee to investigate options for animal proofing the Town's waste handling system. The committee recommended that the Town eliminate curbside collection and implement a communal 'bear bin' collection system. Despite this recommendation, Council voted in favour of a dual system waste handling system that included both curbside collection and neighbourhood animal proof waste containers. There was the perception at the Council level that residents were opposed to the complete elimination of curbside collection. This hybrid system gave residents the option of continuing to place waste out for curbside pick up on their collection day or use the bear proof containers any time.

Coinciding with the start of the dual system in April 1997, strict new standards for storage and placement of waste were written into the Town's Waste Control Bylaw. These include:

- Waste must be stored in an animal proof location between pick-up days (i.e. house or garage not garden, shed or wooden box)
- Waste placed for collection must be in a can with secure lid (i.e. no boxes or waste bags)
- Waste could not be placed out for collection earlier than 6AM on collection day (i.e. not the night before)

Anyone not able to meet these storage and/or placement requirements would have the option of taking their waste to one of the central animal proof waste containers.

Commercial Sector

The commercial sector was required to have implemented an animal proof waste handling systems as well. Existing businesses were allowed one year from the Waste Control Bylaw's enactment to replace their waste-handling container with an acceptable animal proof container. New businesses were required to conform to the new Waste Control Bylaw immediately.

What Type of Container

Providing a communal waste collection system required the evaluation for an acceptable waste container. Of the tender submissions received, there were two types of containers that met the criteria for animal proof as established by the lead biologist for the Eastern Slopes Grizzly Project Committee on Resources and the Environment who was also a member of our Waste Management Committee. Having a respected bear expert working with us as part of the WMC proved to be a valuable tool as it gave the WMC clout and credibility.

The containers had to meet the following criteria to be defined animal proof:

- Tight lids to reduce odours.
- Lids must be self-closing.
- Latches for its lids and bag removal must be bear proof (i.e. claws unable to reach the latch trigger mechanism).
- Hinges and latches for lids must be sufficiently strong such that they can not be pried open by claws (able to withstand several thousands of force). The rule of thumb is that it can be dismantled using a crowbar then it is not bear proof.
- The container must be sufficiently stable or capable of being anchored to prevent tipping by large bears.
- Container material must be sufficiently strong to prevent bears chewing, battering or crushing the containers (i.e. able to withstand several thousand pounds of force).

After review it was agreed that the Town of Canmore would purchase the Haul-All Equipment container system manufactured in Lethbridge, Alberta due to following advantages:

- Proven track record within the national parks
- Aesthetic appearance
- Ergonomic access doors
- 20 year life expectancy

Communal Waste Container Locations

The first order of business in implementing the dual system was the siting of sixty bear proof containers in neighbourhoods and multi-residential areas. Placement of the sixty waste containers proved to be a difficult exercise for several reasons:

- New – Introduction of container and service (new containers and service)
- NIMBY – Proximity of containers to homes
- Space constraints – Multi-Family Complexes have limited common space

Despite the difficulty, we felt the containers should be located within the neighbourhoods for several reasons:

- Ownership
- Self-policing
- Shared services

The Siting Process

A review was completed of the entire community to find sixty suitable locations. The process started with administration sending a letter and map to all visually affected homeowners of all proposed locations. The public was given two weeks to reply with comments and / or concerns. The majority of the public was receptive to the introduction of the waste containers, as they were aware of the wildlife concern and community obligations. Some other comments received included:

- Money and time could be better spent destroying the bears.
- Several people who agreed with the new service did not want the containers close to their homes as the containers would attract wildlife.

The placement hurdle succeeded with a comprehensive education program that included the following:

- Flyer mailed to every household (explaining the new system with helpful hints)
- Information booth at Canmore Trade Show

- Advertisements in the local paper

Was It Working?

An evaluation of the program began immediately based on the following criteria:

- Were bears and /or other animals getting into the waste?
- Cost to deliver program
- Use of communal containers by residents

Minimize Animal / Waste Encounters

When the program began there were several bear / waste related altercations in each year. The change to the new system saw a slight decrease in activity. However, the number of bear / waste altercations did not drop as significantly as hoped. Despite the stiff fines under the Waste Control Bylaw for improperly storing waste, some residents continued to keep waste generated between collection days outside in sheds or storage boxes that were not animal proof. Therefore the bears continued to have access to as easy food source.

Cost To Deliver Program

The Town of Canmore contracts out its waste collection program. A new contract was tendered for the start of the new dual waste collection system. The contract was awarded on:

- a price per residential unit (includes single units and units in multi-family complexes),
- a tipping rate for container service,
- and a disposal fee at Calgary area landfill site.

After several months, the community began to warm to the containers and their convenience and they became very popular. People could dispose of their waste at any time, 6PM on a Thursday or 8AM on a Sunday. Typically larger volumes of waste are generated on weekends (especially with many homes occupied on weekends only). The containers were quickly becoming the only means of disposal for many of Canmore's residents.

On the downside, the program was becoming very costly to operate as the town paid for a complete curbside program for all residents many of who were now choosing to use the bear proof system. As more and more residents chose to use the communal containers, the operating price tag increased.

Communal Containers Use

During the summer months of 1997, members of the Waste Management Committee completed a Curbside Monitoring Program. The committee members rode on the trucks during the curbside collection days and recorded the number of homes that did not have waste out at the curbside. It was assumed that if no waste was placed out for collection, then the household was using the animal proof waste containers for disposal of waste.

The monitoring results indicated an average of 55% of households used the bear proof waste containers. It was also noted that some neighbourhoods achieved up to 77% in favour of the animal proof waste containers. This information was provided to Council who indicated they would consider eliminating curbside collection if the total number of households using the bear proof waste containers reached 66%.

Summer of 1998

In the summer of 1998, due in part to a poor berry crop, the number of bear sightings grew in town and the number of bear / waste related incidents increased substantially. Local Fish & Wild officers pleaded with the Town via the local newspaper to remove curbside collection and provide a complete animal proof waste handling system. In addition, members of the public were sending letters to the paper editor requesting the Town eliminate curbside collection.

The summer season continued and the number of bear / waste related problems increased to such a level that the Mayor sent a letter to all residents urging the use of the animal proof waste containers only until the bears went into hibernation.

When the summer season ended there were over 300 bear sightings recorded, nine bears relocated and four habituated bears destroyed.

As in 1997 the Waste Management Committee conducted a curbside monitoring program from March to August of 1998 and the total town participation in the animal proof waste containers was 62% for 1998. The use of the animal proof waste containers increased 7% over the previous summer to 62%.

Council Eliminates Curbside Collection

That September the Waste Management Committee undertook another audit and found that only 23% of households were using the curbside collection program.

Despite this fact the Town was paying the contractor based on a 100% of households receiving curbside collection. The costs associated with running the dual collection system continued to rise. The recommendation was accepted unanimously by Council.

The Second Siting Process

Town administration and the Waste Management Committee were now faced with the task of siting an additional sixty animal proof waste containers to service all neighbourhoods. Providing adequate volume for weekends and holidays when Canmore triples in population was imperative. The following criteria was developed:

- 3.0 m³ waste container for every 20 homes
- 4.5 m³ waste container for every 30 homes
- Waste containers would be a maximum of one block from every home
- Waste containers would be located on municipal reserve (i.e. public land)
- Waste containers would be doubled only when required
- Waste containers would be not be combined with other services whenever possible (i.e. beside a Canada Post mail kiosk)

Similar to the first siting process, the next hurdle was to work with the public to identify suitable locations for placement of containers. The following steps were taken to establish container locations:

Administration and the Waste Management Committee (WMC) reviewed the entire community to determine ideal locations based on the above criteria. Maps were used to determine adequate coverage. A letter and site map indicating the exact location was sent to all visually affected residents. The letter stated the Town's intent and stated there was a two-week response period for comments or complaints. If no comments were received the locations was deemed permanent. If a comment or complaint was received it was recorded and brought to the following WMC meeting for further review.

The WMC reviewed the contested locations by:

- Reviewing letters of protest

- Conducting site visit
- Identifying alternative locations

If the WMC agreed with the concerns another location was sought with the process starting over again. If the WMC disagreed with the concerns the location was not changed and the homeowner was notified that they had with the option to take their concerns to Council for a final decision.

Siting Hurdles

The community wanted the containers but did not want them within their neighbourhoods. Over 600 letters were sent out and almost immediately we received phone calls and letters of concern or comments as listed below:

- Animal attractant – Bears will be attracted to the containers
- Smell – Rotting waste
- Real estate depreciation – Price of home will drop in resale value
- Soil contamination – Effluent from containers entering storm sewer or groundwater
- Eye sore – View container from kitchen window
- Noise – Banging of lids
- Difficult to use – Doors are hard to operate for disabled and elder members of the community
- Increased automobile traffic – Neighbours will drive to container
- Closer? – Can we have it closer to our home?

Public & Council Meetings

Several sites required public meetings that included the affected residents, administration, a Waste Management Committee member and a Council representative.

After the public meetings were completed and no consensus was met some neighbourhoods requested that their site be reviewed and decided on by Council. The council meeting was standing room only and it was quite evident that people were tense and stressed. In the end administration and the Waste Management Committee successfully located all but one of the proposed animal proof waste containers.

Bear Proof Waste Containers Only

In May of 1999 the curbside collection system was eliminated and the residents of Canmore had the communal waste containers only. Throughout the summer the success of the complete animal proof waste handling system became evident. There were several sightings of bears in and around Canmore town site however there were zero bear / waste incidents.

The next community to our east was not as lucky. They still provided a curbside collection program and were inundated with bears eager to continue consuming human food.

Thankfully the community introduced an animal proof waste handling system this March with much success and minimal public opposition, due in part to the large media attention received in Canmore.

Other Animal Attractants

During the first complete summer season in 2000, the change to a complete bear proof waste handling system proved very effective towards garbage / bear related encounters as not one incident occur.

Now that human garbage was unavailable to bears as they continued through town they started going after other animal attractants such as birdseed and hummingbird feeders. Bears were now accessing birdfeeders filled with birdseed in backyards and even up poles.

During the winter of 2000 we also had problems with cougars. A cougar killed a dog while attempting to eat dog food on a back deck. On a sad note, a cougar also killed a resident of Banff when she was cross-country skiing alone in the Lake Minnewanka area.

Residents now appreciated a need to regulate the use of all other animal attractants in Canmore. Administration spent the spring of 2001 preparing a new Waste Control Bylaw that included the following highlights:

- Restrict use of all animal attractants (including hummingbird feeders, pet food, suet balls and outdoor composting of kitchen organic waste)
- Permit use of birdseed from October 31st to April 1st
- Remove all references to curbside garbage collection
- Restrict cardboard in all waste containers

Other Challenges

Large sundry items such as mattresses and chairs are being left beside waste containers and have become a real concern. A large item clean up is provided in the spring and fall but some people have chosen not to wait. Town staff remove these items as soon as they are identified and together with the waste collection contractor ensure that areas around the containers are kept as tidy as possible.

Other challenges include:

- Graffiti on containers
- Increase volume of material disposal (easier to throw items away at the end of each block then compared to our recycling depots)
- Abuse of containers from commercial businesses such as contractors and landscapers, etc.
- Container screening
- Litter around containers

Litter Management Strategy

In the past year, litter has become an issue of concern especially in ditches along major roadways, in the downtown core and within parks and trail systems. Litter is typically food wrappers and cigarette butts and may include food waste such as fruit peels and cores. Litter such as food also collects around each of the 145 waste containers through the service process and over time can become unsightly and attract ravens and stray dogs or even other larger animals.

The LMS is a proactive strategy to control litter by allocating staff specifically for the collection of litter while also working with the local restaurants (specifically the fast food type). Administration prepared a Litter Management Strategy (LMS) which Council is presently reviewing for approval and implementation in the spring of 2002.

Enforcement

Our present Waste Control Bylaw has “teeth” providing our Municipal Enforcement officers an enforceable document to ensure instances between animal and garbage is minimal.

Some residents leave garbage bags outside a waste container defeating the purpose of the program. Quickly ravens rip open and spread the contents everywhere. Fortunately invoices and letters are included in the mess. The assumption is the bag originated from the address on an invoice or letter. A letter is sent from Solid Waste Services stating the infraction while also educating the resident that this is in violation of the Waste Control Bylaw and if incident occurs again Municipal Enforcement will be notified.

Infractions carry a minimum fine of \$100, \$200 and \$500 for 1st, 2nd and 3rd and subsequent violations respectively. Our experience has shown one letter is sufficient to educate and “embarrass” the resident from further infractions.

Summary

Points that greatly assisted the implementation and success of the program:

- Waste Management Committee – Committee made up of concerned and interested citizens established and sanctioned by Council
- Public concern / environmental group putting pressure on Council
- Experts – Wildlife biologists working with Town
- Waste Control Bylaw – a Council approved bylaw with teeth that listed the infractions and subsequent fines
- Supportive community – Concerned members of the community embracing the program

Conclusion

The Town of Canmore is now very proud of its waste handling system and animal attractant regulations and how the community has embraced the change. We are very fortunate to be living in the Rockies with its mountaineous landscape and the opportunity to catch a glimpse of our graceful wildlife when we can. We have completed a long successful process due to public consultation and expert assistance and feel this has enabled us to co-exist with wildlife in terms of waste generation and disposal.

Is There a Need for a “Community” Bear Safety Video?

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Andy was involved with the production of two bear safety videos released in the spring of 2001, titled "Staying Safe in Bear Country" and "Working in Bear Country". He outlined the possibility of working with the Safety in Bear Country Society and the International Association of Bear Research and Management to produce a video about community bear safety issues.

Creating a Bear Aware Community Case Study: Whistler BC

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No summary is available.

The Resort Municipality of Whistler has a web site at <http://www.whistler.net/rmow> . The Reading Room section offers PDF documents of the community’s environmental strategy, and other documents.

The Role of Non-Governmental Organizations in Bear Smart Communities

Sylvia Dolson, J.J. Whistler Bear Society

Note: The contact information for the program in Whistler has changed to:

Get Bear Smart Society

PO Box 502

Whistler BC V0N 1B0

<http://www.bearsmart.com/>

Non-profit groups, such as the J.J. Whistler Bear Society, play an important role in the development and implementation of bear smart criteria in the community. Our role is to speak for those who can't - to ensure the best interests of the bears are met – to educate and act as the community watchdog to ensure the bear management plan is being carried out as intended.

The J. J. Whistler Bear Society (JJWBS), is a non-profit registered charity formed in early 1995. The foundation's mandate is to protect the well-being and lives of bears by establishing a healthier coexistence between people and bears. We believe people and bears can live in harmony! Our current mission is to reduce the number of nuisance bears destroyed by increasing public understanding and appreciation of bears; educating people on dealing with bears in their communities; and promoting non-lethal bear management practices among wildlife managers.

Several years ago, Whistler gained the political will to invoke change. Our community was appalled by the high number of bears being destroyed and vowed to change the situation. Making Whistler a bear-proof and yet bear-friendly town was a community effort. Sharing the financial commitment across all sectors of the economy from individual members of the community to business to government and the non-profit sector, ensured the plan's success.

A team effort is crucial to the successful implementation of your bear management plan. Involving all stakeholders in the process from the very beginning was absolutely key to moving forward with our plan. Buy-in and ownership of the solution was developed early on with a determination by all to achieve a successful outcome. All participants made a commitment, on behalf of the group they represented, to supply the manpower and financial resources to ensure the plan's success.

Obtaining funding is one of the biggest challenges a non-profit organization faces. JJWBS has sought funding from several sources. As with anything diversification is key to long-term sustained funding. Funding sources include: government programs, donations from individuals or corporations, grants from foundations and fundraising events.

There are many web sites and printed materials to help you find funding sources. Your community members, both individuals and business, are worthwhile pursuing. This can be done through a plea over the media (papers, radio, or cable TV) or via a direct mail campaign. One of our more successful campaigns was our 'Adopt-a-bin' program – soliciting donations for the purchase of bear-proof containers, where the donor's generosity was gratefully acknowledged with a plaque on the container. Participation was well received from businesses as well as individual donors. Newspaper and radio ads were used to announce the campaign. We also made requests via personal letters to businesses and the 'face to face' ask (the most successful way to obtain any funding). Coin Collection Boxes placed at retail outlets throughout your town also work well.

Not all initiatives are a financial burden. A community can amend its garbage bylaws to be more bear-smart. Educational programs can include public service announcements to the community in the local papers, on the radio, or on cable TV – public service announcements are free. A strategic media release often generates interest for stories about living with bears. Volunteers can be used to deliver educational programs. Low cost training workshops are available to communities who want to train their officials in non-lethal bear management (contact us at info@bearsmart.com for more information).

I welcome you to contact us to become part of a larger network to share ideas and programs. The goal is to minimize duplication of work and effort, and to provide for consistency of information and programs. If any groups or individuals are interested in forming a coalition to support bear-related issues, please contact us. We are keen to present a stronger and more united front in bringing issues of concern to the forefront, both in a public forum and politically.

Aside from the challenges of fundraising, we also face a bigger challenge – one that we need to overcome to achieve coexistence. We need to move beyond the widespread misconceptions that bears are dangerous, unpredictable animals. These ideas only serve to harbour fear and misunderstanding. We must promote RESPECT for wildlife, not FEAR.

We know that bears are generally passive in nature; they are not normally aggressive. Bears are not mean or malicious. In fairness to both people and bears, we must be truthful, teaching both bears and people to respect each other's boundaries and limits. Bears too can be taught, through our human dominance, rather than submission, to be respectful of *our* territory.

In our educational efforts, we must be mindful of the terminology we use, being careful not to perpetuate fear, misconception and misunderstanding.

The truth is finally surfacing in literature and video. The newly released IBA video, *Staying Safe in Bear Country*, states that "bears are more predictable than most of us think. Labelling them as unpredictable shuts the door to understanding."

The following excerpt from the introduction of the video is a good example of a more reasonable approach. "Most interactions between bears involve considerable tolerance and restraint. They usually display the same tolerance towards people. Most bears avoid people without the person even knowing it was there. Each year countless interactions occur between people and bears without harm. A meeting... a mutual departure... no attacks, no injury, *no news*. But on *rare* occasions a meeting between a bear and a person results in human injury or death. Each year, on average, three people are killed in bear attacks in North America. More are seriously injured. Sometimes it's necessary to destroy bears in defence of life and property, but each year, *hundreds* of bears are also shot needlessly."

Let's not forget - conserving bears in your community contributes monetary value to the economy. Bears have a definite value as a tourist draw. A 'green' community draws eco-tourism. When bad things happen to bears in your town - it's bad for tourism.

Keep in mind, the needless destruction of our wildlife is an emotionally charged issue that is in the hearts and on the minds of many residents. It is our personal responsibility to be *bear smart!* Bears and people can live in harmony!

Please visit us at www.bearsmart.com to learn more.

Creating a Bear Aware Community Case Study: Bear Management in Lake Louise, 1970 – 2001

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Hal's presentation focussed on bear management in national parks over the last thirty years with particular emphasis on Lake Louise. He touched on a range of re-active and some pro-active actions, relocation, destruction, aversive conditioning, attractant control and removal, and communications. Emphasis was given to the importance of common sense approaches for living in bear country. Social values must support actions or all is for naught. Management of bear/human conflicts is primarily a value conflict and in the parks, managing social expectations will ultimately be the deciding factor.

A Review of a Successful Bear Education Program in Place at Whistler BC

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Michael presented an overview of his bear education program and the research program that compliments it. He addressed the following points:

- Overview of Whistler bear research 1994-2001
- Whistler bear education strategy
- Public programs
- Elementary school programs
- Recreation and backcountry staff programs
- Bear viewing
- Bear habitat camps
- 2002 projects

Electric Fencing as a Management Tool for Bear Control

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Electric fencing is a widely used technique to contain livestock, control wildlife and exclude predators. For many years it has been employed effectively as a method to prevent bear raids in agricultural and non-agricultural applications. Electric fencing has proven to prevent bear entries at resource industry, recreation, and military camps in wilderness settings. Often electric fencing of temporary and semi-permanent camps has eliminated bear problems without destroying previous offenders.

Black, grizzly, and polar bears can be controlled by electric fencing. The supposition that polar bears are immune to electric shock or that dangerously high levels of voltage and current are required for effective control is incorrect. There is no difference between voltage requirements for black, grizzly or polar bears.

The minimum voltage to deter bears (and all long hair animals such as racoons, dogs, etc.) is generally accepted to be 5000 V. This is compared with pigs at 1000 V (hairless) and 3000 V for cattle/horses and other livestock. Since hair/wool/fur are poor conductors of electricity (therefore, good insulators), then, the longer the hair the more voltage needed to jump the gap and reach the hide.

Modern fence controllers (energizers) are self limiting, i.e., the maximum amount of voltage output is determined by the unit's design, which must be C.S.A. (Canadian Standard Association) and UL (Underwriters Laboratory) tested and approved. The output voltage can be as high as 10,000 to 12,000 V. This depends on the total amount of resistance and how well a system is grounded.

An electric fence must hurt but not harm. Most modern fence energizers can deliver the desired effect with total safety for accidental human contact. High voltage is combined with low amperage in a pulsating charge. Amperage in an electric fence is at a level to counter the resistance of the fence wire. Similar systems are employed at zoos and in agriculture where there is a requirement for animal control with proximity to people. Remember farmers do not want to injury or cause damage to their livestock or to their children and other family members.

When a shock is experienced, there is an involuntary muscle contraction. The pulsating charge allows one to let go during the 3/4 second time off. The preferential use of smooth wire over barbed wire is important, as getting clothing caught in the barbs is possible.

Electric fences are suited for any application that requires bear exclusion. Landfill sites are good candidates for permanent electric fencing. Normally, they are areas of long time use. The lure value is high and usually the animals have been habituated to the site. Bears often resist harassment efforts, and many return when moved. Also, the need for effective exclusion is high. The human safety risk is magnified as zonal tolerances break down in this setting between both man and beast.

In every community that has elected to construct an electric fence at a landfill site, people have commented that the fence will push the bears to town. It is true that no one can predict with absolute certainty bear behaviour in and around communities once the dump site entry is denied. However, after electric fencing, most sites in BC, Alberta, Yukon and the NWT experienced a decline in bear complaints over the long term.

Since bear activity may continue in and around communities, it is important to maintain vigilance by all interested parties. It is important that on site personnel monitor the fence perimeter for signs of digging. If evidence is discovered, the holes must be effectively, and immediately, filled in. Fence monitoring should be a routine, daily function, especially in the period after installation and during times of high pressure (spring and fall). Spoiled bears must be dealt with if they persist in attempts to see the dump or present a problem in the community. Residents should do everything possible to reduce attractants.

An electric fence will break the cycle of bear-dump-town that exists as a consequence of bears associating the availability of food with human activity. In addition, both bears and people become accustomed to each other at landfill sites and the potential for serious problems are magnified. The direct link between habituated bears and problem animals in communities are well documented. Usually if bears are at the dump, there are bears in town. Lesser or sub adult bears often seek out garbage in town after being ejected from dumps by more dominate animals, which parallels the effect of an electric fence.

Working Within the Municipal Structure

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John's presentation focused on how to achieve positive steps towards bear-proofing communities with a non-confrontational approach to municipal and regional district governments, based on the success of the program in Kamloops. Receiving funding for the program was secondary to reducing bear – human interactions.

Emphasis was placed on learning the municipal organizational structure, determining existing municipal protocols for dealing with related issues, and identifying ground level staff who would benefit from the program's delivery goals. Action plans could then be drawn up for immediate, short term, and long term resolution of problems. Middle and senior level managers would become involved in refining the program and championing its delivery. Finally, these individuals could present the program to members of council, with an eye to instituting bylaws and long term planning procedures to meet the program's goals.

Emphasis at each level is placed on quantifying objectives and results based on tangible items. Early preparations should include cost / benefit and needs analyses. Preparation is crucial for success: anticipate any questions that may arise, and be prepared to deal with them positively. Use the partnerships that arise from this program to expand into other municipalities and regional districts.

Karelian Bear Dogs and the Partners in Life Program

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Pedigreed pepper spray? Handguns that heel? Bear bells with a bark? Bear biologist Carrie Hunt and her team of Bear Conflict Specialists and Karelian Bear Dogs are working from Alaska to Montana to Yosemite National Park to implement the Wind River Bear Institutes (WRBI) "Partners In Life" Program. The Program's goal is to change both human and bear behaviours to avoid conflicts and prevent bears from being conditioned to view human territories as potential food sources.

Traditionally, management of bear/human conflicts has been limited to relocation or euthanasia of problem bears, methods that treat symptoms not root causes of bear "problem behaviour". Today, WRBI is developing and implementing the only existing method of changing bear's problem behaviour. Known as the "Partners in Life" Program, it relies on four "partners" working together: the bears, the public, bear management agencies and specialists and WRBI's experienced bear-conflict teams.

The "Partners In Life" Program uses specially trained Karelian Bear Dogs in combination with aversive conditioning tools and structured learning situations to teach bears to recognize and avoid human territory. The lessons are designed to reverse the positive association that bears acquire when they successfully locate food by venturing within human territory. The Program reconditions bears at the site where the conflict is occurring, whenever possible.

Based on research into how bears learn in the wild, WRBI is developing techniques that employ the instinctual "boundary-awareness" bears have evolved over centuries of adapting to bear-to-bear relationships and hierarchies. "Bear shepherding" techniques are an innovative combination of animal-to-

animal communication using Bear Dogs and human-to-bear communications, using the knowledge of bear behaviour to structure learning experiences that a bear can absorb and retain.

But retraining bears is only half of WRBI's work. Saving bears is only possible long-term if the public participates as a full partner. Community-based involvement in teaching bears correct behaviours through prevention of conflict is a principal component of the Partners in Life Program. For this reason, WRBI devotes special attention to on-site coaching of local residents, landowners and recreationists to secure bear attractants and to report bear activity early, before the bear is heavily conditioned. This prevention work helps achieve lasting change. In the future, WRBI hopes to help develop and implement community-based prevention programs wherever the Partners in Life Program exists.

WRBI works to prevent or reduce the incidence of three principal situations that cause the majority of bear conflicts: bears encountering humans, bears becoming accustomed to human presence, and bears being rewarded by finding food within human boundaries.

Director Carrie Hunt has been a bear biologist with government and private agencies for over twenty years in Montana, Wyoming, New Mexico, and Canada. Hunt is known for her pioneering work in the area of bear-human conflict resolution, and in particular in "teaching bears NO". She developed the use of the red pepper spray system that today is widely used to turn approaching bears. She also conducted the first investigation of aversive conditioning of free-ranging grizzly bears with problem behaviours, by using rubber bullets. Six of seven bears in the Yellowstone ecosystem that were destined to be moved or destroyed were successfully turned around. Two have since produced several wild litters.

In 1982, after becoming interested in using dogs to deter and repel bears, Hunt found a breed that seemed perfect for the task--the Karelian Bear Dog. Unknown in most parts of the world, the Karelian has been bred and used by grizzly bear hunters and farmers in Finland and western Russia for centuries. Just as a Border Collie has an instinct for moving sheep, some Karelians out of each litter enter the world with an instinct for handling bears safely. Karelian Bear Dogs weigh about 40-60 pounds when grown, and are black and white with a racoon-like black mask around their eyes. Their body is similar in shape to that of a Husky.

WRBI, under the direction of Hunt, raises, selects and specially trains Karelian Bear Dogs to serve as partners for agency bear-management specialists and people that live, work, or play in bear country. The Karelian Bear dog is highly intelligent, sensitive, independent, and purposeful, with an innate love for people and children. WRBI has successfully trained and used Karelians for bear shepherding for ten years.

Over the last six years the WRBI team has worked in Yosemite and Glacier National Parks, Northwest Montana, Southwest Alberta and in Banff and Waterton National Parks. The team has worked hundreds of grizzly bears and black bears during this time. Montana Fish, Wildlife and Parks' conservative estimates are that a minimum of sixteen grizzly bears in northwestern Montana have been saved through this effort in 1998 and 1999 alone. Recently featured in National Geographic and Reader's Digest magazines and TV documentaries, the Program has enjoyed a history of international publicity that will continue with upcoming documentary films including Animal Planet and National Geographic Explorer, coverage by the BBC, and print stories in various magazines.

If you would like more information about the Program, please contact the Wind River Bear Institute or visit our website at www.beardogs.org.

Saturday, November 17, 2001

Field Trip

The half-day field trip led by Paula Couterier and Debby Robinson looked at a number of points of interest related to the local Revelstoke Bear Aware program. The field trip began with a demonstration by Haul-All Equipment. Sites visited included the Revelstoke landfill, the spawning channel maintained by the Revelstoke Rod and Gun Club, an elementary school, the Best Western Wayside Inn, and other locations.