

District of Invermere Urban Deer Management Committee Final Report and Recommendations July 2011



Executive Summary

For a number of years the District of Invermere has continued to see an increase in the urban deer population that has resulted in damage to personal property, increased costs to protect personal property, threatened public health and safety, increased risk of vehicle collisions, contributed to increased presence of predators within the District and has threatened the welfare of the deer and the public.

Deer management is often considered a topic of varied and sometimes conflicting opinions among the residents of Invermere. The issues stem from a variety of opinions of residents and in some cases the lack of adequate knowledge regarding wildlife – human conflicts. Through this process, it has become clear that a number of residents view the urban deer as pets and encourage their presence through feeding them, ignoring bylaws and supporting the suggestion that the deer population be left alone. This in its self propagates the problem and increases human deer conflicts without any consideration for some form of population control to mitigate the conflicts within the community.

Residents clearly are concerned about the urban deer problem within our community and seeking some form of population control. In the residential survey conducted to assess the public perception and to collect feedback, it was overwhelming clear that residents were very concerned about the increasing deer population within the District. The comments submitted indicate a large degree of frustration from residents. They have grown increasingly tired of replacing shrubs, trees and flowers that have become the primary food source for Invermere's urban deer. As well, residents are showing increased concern regarding safety of family and pets in their community.

Deer have become habituated to our roads, pathways, sidewalks, parks and people's garbage. This has resulted with increased deer aggression and affects residents' ability to enjoy their backyard, public spaces and freedom of movement throughout the community.

Management of urban deer requires the ongoing collaboration of all community members. The purpose of implementing deer management actions is to maximize the benefits to residents and bring deer populations within the District to a healthy and acceptable level.

The task of the District's Urban Deer Management Committee was not to find consensus where all the concerns could be met, nor to eradicate the deer population from the community. A certain number of urban deer within the community would meet the desires of the community, as residents and visitors enjoy seeing deer occasionally in the community. Residents accept wildlife as part of a healthy community and visitors see it as a component of our environmental framework.

The Deer Committee was tasked with identifying resident issues and concerns, researching and evaluating solutions, determining which potential solutions may work in Invermere and making recommendations to implement the proposed actions. After considering all of the potential options and reviewing the ramifications of reducing the deer population, it is clear there is no simple solution to address the concerns of all residents. Safety, in respect to a reduction in deer human conflicts, vehicle collisions, biological carrying capacity, socio-economic carrying capacity, along with considerations for each management recommendation to solve the existing issues must be considered.

This report summarizes the following as it relates to urban deer in Invermere:

- deer are natural and are a permanent part of the community;
- deer are clearly a public health and safety problem;
- it is recognized that in order to have a healthy and acceptable population deer numbers must be reduced;
- to achieve this reduction lethal and non-lethal actions are necessary;
- any management option must be safe, humane, cost effective and be achievable;
- management options must comply with all bylaws and government regulations;
- annual evaluation of management actions must include consideration for human health and safety, biological integrity, conflict resolution, cost to implement, and social/political realities.

Invermere's Urban Deer Committee recommends to the District of Invermere that the following actions be undertaken firstly:

1. That a permanent Urban Deer Advisory Committee be established;
2. That the District, in partnership with the Province initiate a trap and cull and a relocation program to reduce the urban deer population;
3. That public education be initiated as a continuing program to provide residents solutions to deer proof their properties, mitigate deer-human conflicts and to reduce the feeding of deer;
4. That administrative processes are created to ensure that procedures are current;
5. Annually review actions completed, status of the deer population and to determine what future deer management options are required.
6. That a long term solution to control and manage deer, such as fencing, be reviewed along with other actions being taken.

Respectfully Submitted on behalf of Invermere's Urban Deer Management Committee.

Councillor Ray Brydon
Chairperson

1.0 Introduction

The District of Invermere has been experiencing a rising number of deer-human conflicts within the community for a number of years. Urban mule deer population has increased due to protection from being hunted by humans and traditional predators and increased carrying capacity as a result of Invermere's growth in cultivated areas (gardens, lawns, shrubs, etc.) The existence of all these benefits as well as public feeding of deer, has resulted in extreme habitation and overpopulation within the community today. Due to the high deer density within the community, sightings of predators, such as cougars are increasing.

The presence of urban sprawl in certain areas of the community combined with increased activities outside of our boundaries has rearranged summer and winter range carrying capacities to further contribute to the urban deer problem. We are now seeing mule deer becoming permanent residents (referred to as "homesteading") within urban settings. In addition, human safety is being threatened with increased vehicle collisions and aggressive deer behaviour. Residents have stated that their pets have been attacked and have felt threatened by aggressive deer when walking or running.

The District recently adopted a Deer Feeding and Wildlife Attractants Bylaw and will be considering increased enforcement through an updated ticketing bylaw.

In response to the urban deer issue, the Province developed a report entitled "British Columbia Urban Ungulate Conflict Analysis" (March 2010). The purpose of the document was to review urban deer management options and provide mitigation recommendations. This report was sent to all communities interested and was well received.

Since September 2010, Invermere has been following other communities that initiated the implementation of a number of recommendations outlined in the report. Invermere has completed the following recommendations:

- Adoption and enforcement of no feeding deer bylaw;
- Conducting and analyzing resident surveys;
- Creating an urban deer management committee; and
- Conducting deer population inventories.

Invermere Urban Deer Management Committee

In December 2010, Council adopted the Terms of Reference for the creation of an Urban Deer Management Committee and proceeded to seek residents to participate in reviewing the community's potential solutions. The committee consisted of seven (7) voting members as follows:

1. Two members from the District of Invermere Council;
2. One representative from the Ministry of the Environment (MOE);
3. Four members from citizens selected "at large" to provide balance in the committee.

All members, except for the MOE representative, were required to be residents of the District of Invermere.

The scope of the work, as outlined in the terms of reference, for the committee was to:

- Assess the results of the public survey on urban deer population;
- Coordinate a count of the urban deer population within the boundaries of the District;
- Identify acceptable options for the management of the urban deer population;
- Identify strategies for the prevention and management of human-deer conflicts;
- Present final report to Council with recommendations on management of the urban deer population.

The committee has met regularly since its appointment in January 2011. Several deer management options have been considered and innovative ideas have been presented to the committee for consideration, including education, relocation, culling, restricted hunting, sharpshooting, fertility control, hazing, residential and area fencing. The committee has sought the advice of the Ministry as well as other communities that are further along the management process. A member from the Ministry has attended the majority of the meetings to provide technical advice.

Resident Survey Analysis

In January 2011, the District conducted a survey of residents to determine the public perception of the urban deer issue within the community. A comprehensive survey was mailed to 1800 property owners and was provided online through the District website. The District received 285 completed surveys.

The main concerns are as follows:

- Damage to plantings (67%)
- Aggression to pets (57%)
- Aggression to humans (78%)
- Concern about deer population (84%)
- Deer/vehicle collisions (47%)
- Wish to see a deer reduction (81%)

Urban Deer Count

One of the Committee's first tasks was to organize and conduct an urban deer count. The committee and other volunteers conducted a deer count on February 19, 2011. The District was divided into seven (7) areas. Each survey area was driven and portions walked by 2 or more people within a two (2) hour period. The deer were counted, but were not classified according to sex and age. The count found within the District boundaries 199 deer or 19.5 deer/sq km observed. This count represents the number of deer by driving streets and back alleys and does not represent the total number living within the municipality.

2.0 Urban Deer Management Options

The Committee's approach was to outline a variety of logistically and financially feasible management options to control the urban deer population within Invermere. The Committee has provided a brief description of the management options which suit the Invermere problems and have identified and evaluated the pros and cons of each item, outlined the work completed to investigate these options and provided a final summary on each option. Recommended actions will be identified in a subsequent section of this report.

Relocation

What is it?

Relocation is the process of trapping deer in an urban environment and moving them to a suitable and approved natural environment. The Province has indicated that a potential suitable location to relocate the Invermere deer exists in the Upper Kootenay River Valley.

Pros:

- It has reduced deer populations by moving them to a suitable rural area.
- This method is desirable for herd reductions where no killing is sought.
- The Province of BC has conducted several successful animal relocations thus possesses first hand knowledge to assist.
- Under special circumstances, may be of value for small social groups of deer that are in localized areas.
- May be of value when the deer population at the release site is below carrying capacity.

Cons:

- Relocation may be costly in comparison to the trapping and culling option.
- Relocation leaves a false impression that the deer have not been affected by being relocated. Deer however may suffer from malnutrition, dehydration, decreased immunocompetence and become more susceptible to pathogens and predation if not handled properly.
- Not as humane as the public might think; not necessarily a non-lethal management option.
- Ungulates habituated to urban environments may seek out comparable residential locations from which they came.
- Groups such as the BCSPCA and PETA are concerned about this method of reduction due to possible mortality or injury to the animals.

Discussion

Relocation may at first glance appear to be the most humane option to reduce the urban deer population. However, capture, handling, transport and release in unfamiliar territory can result in moderate to high rates of injury and mortality. The Committee reviewed this option based upon the potential availability of an approved site within the Upper Kootenay River Valley. The MOE representative stated that this location exists and is available to the community for relocation.

The Committee is recommending that a relocation program be initiated in the spring of 2012.

Trap and Cull

What is it?

The process includes baiting, capture and the use of clover traps, and dispatching deer with a Captive Bolt Stunner.

Pros:

- The most effective option in areas where other lethal options cannot be feasibly employed or where individual deer are identified as a problem.
- A potential cost-effective method to reduce large numbers of deer in order to reduce the deer population to acceptable numbers which would allow other non-lethal methods to be implemented.
- Moderate costs once logistics in place.
- Humane, expedient and safe.
- Meat can be processed and distributed to local food banks and people in need.

Cons:

- Initial cost may be high. Requires the purchase of equipment for the program
- Requirements for facilities to dress and process deer for butchering.
- May generate public complaints.
- Requires professionally trained people.

Discussion:

The City of Helena Montana undertakes an annual deer cull using the methodology outlined above. The operations are well organized and have proven to be efficient and cost effective during the past three years. Helena followed the same process similar to the one our Deer Committee has undertaken. Based upon their review, they initiated a trap and cull program in 2008. Their program was supported and partially funded by the State of Montana.

In 2008, approximately \$35,000 was allocated for the program by the City of Helena. This funding was used to acquire the equipment necessary to begin the program. Their estimated cost is \$100/deer and incidental expenses based on an average of four deer/day. In the fall of 2008, 50 deer were culled as part of a pilot project. During the winter 2008/09, an additional 200 deer were culled.

In year two of the program, an additional \$30,000 was allocated but only \$15,000 was used to remove approximately 150 deer. The 2010/11 budget is \$15,000 with 25 deer scheduled to be removed, with an option to remove another 25, depending on weather and timing. Costs rise if the average number of deer/day is not achieved.

Cost Consideration

It is important that the District understands that the cost per deer associated with a cull in Invermere will be higher than the Helena program. It is understood that wherever possible the meat from culled deer would go to food banks and people in need. In Helena, there is a nearby processing plant that charges \$10 to skin a deer and renders the meat into hamburger at a reduced rate because it is going to food banks. Their costs are paid by the individual food banks.

In Invermere, these costs are substantially higher and there is uncertainty regarding how much meat the food bank may accept. Although they appear to be receptive to using some of this meat, their space is limited for storage of deer meat within the existing food bank.

The Committee discussed this issue at great length and suggested that the District review the potential for a contract price for processing deer and that the community food bank is asked to confirm their acceptance of the meat and amount they are capable of storing.

In contrast to Helena, contract cost in Invermere may be higher to trap and cull deer and the lack of available equipment will also increase the costs. The Committee did not make a specific recommendation, but suggested that the District review all costs associated with this program before entering into a private contractual agreement. Locations need to be designated within the community to clean and handle culled deer. Public lands are available within the Industrial Park but all locations need to be reviewed in consultation with the contractor, the District and MOE.

Cost sharing agreements between the District and the Province are recommended.

Process

Traps are placed on residential properties who have signed up to have problem deer removed. Helena uses 12 Clover Traps which are baited between 8:00 and 10:00pm. The next morning, if a deer is trapped they move quickly and efficiently to collapse the trap, secure the deer to the ground, bolt gun the deer, erect the trap, place the deer in a sled and drag it to the truck and move on to the next site. The process takes less than five minutes. Once all traps are visited they return to the cleaning and storage site. The deer are cleaned, sexed, marked for site identification and stored in a cooler. Once they have several deer, they move them to a meat processing plant for skinning and butchering. The meat (hamburger) is distributed to food banks. The food bank pays for the meat preparation.

Administration

The city controls this program and the Police Chief has overall responsibility for the program. A retired police officer with a background in farming is the primary contractor for the program. He has a roster of police officers to draw from to assist him. Public safety issues are minimal using this method and have achieved public support over time for the program.

Considerations

This method of culling deer can initially be costly to implement depending on the facilities and equipment requirements. Helena's programs have ranged from 50 to 7 days in duration. During those days the program is labour intensive. It must also be recognized that this is an ongoing program until deer numbers are reduced to a acceptable number that other methods of control can be introduced.

The Committee is recommending that a trap and cull program, in conjunction with a relocation program, be initiated in the fall of 2011.

Public Education

What is it?

Public education is a management tool to inform residents of the issues involving urban deer. It is also a process to offer non-lethal options to land owners to discourage deer or reduce incidents, such as appropriate landscaping and the use of fencing.

Pros:

- The cost associated with printing and distribution of signs, pamphlets and brochures is minimal.
- Some plants, shrubs, netting and isolating bird feeders costs are considered minimal.
- Begin a concentrated program to inform residents about deer and why the city has a problem.
- Part of the solution to maintain the deer population numbers within acceptable limits.

Cons:

- Eliminating food options to some deer in one area may result in site shifting in another area or residence if these measures are not followed.
- Erecting fences can be costly and may require annual maintenance.
- The complete elimination of damage is unlikely.
- Will not result in the immediate reduction of deer population.

Discussion:

Education material would include information on the illegality and adverse consequences of feeding deer and the risk of attracting predators. It provides an opportunity to inform residents regarding the use of repellents, unpalatable plants, use of native plants and human behaviour modifications.

The Committee is recommending that an extensive public education program be created.

Area Fencing:

What is it?

The placing of a fence to control entry of deer into Invermere. Area fences cover large tracts of land and often extend considerable distances.

Pros:

- A long term solution to control deer entry into Invermere from wild populations.
- Is presently used along highways and within the agriculture industry with good success.
- Reduces culling and translocation costs significantly in the long term.
- Can also decrease the problem with predators in the community.
- Federal and Provincial governments have assisted with construction costs in the past.

Cons:

- Cost of construction is \$30,000 - \$50,000 per kilometer
- Maintenance of fence is required.
- Predators can take advantage of deer until new travel and escape routes are determined by ungulates on outside of fence.
- Need cooperation from private landowners where fence needs to be placed in order for it to be operational.

Discussion:

Invermere has a significant advantage over many other communities when it comes to considering a perimeter fence. With its east boundary lying along and within Lake Windermere and still having a condensed surface area, a perimeter fence is workable. A fence along the north, west and south boundaries would be 8 km. long. A local rancher recently erected 6 km. of ungulate fencing at a cost of \$30,000/km. Discussions with a fencing contractor indicated costs could be as high as \$50,000/ Km for difficult terrain. Wild deer will continue to enter Invermere as well as a growing elk population, along with associated predators unless no habitat remains or a barrier is placed in their way.

Other Management Options Considered

The Committee reviewed other options as well, but primarily focussed on three outlined above. Recommendations were developed for all options reviewed and are contained in the next section of this report.

The options considered by the committee include:

- Fertility control programs
- Hazing
- Controlled Public Hunting
- Sharpshooting

3.0 Recommendations

The Committee reached these recommendations after much discussion and research. Council and those reading this report must realize solutions to the urban deer problem are not simple nor will they be resolved without cost. Finding professionally trained people to carry out many aspects of the recommendations, reducing liabilities and public and personal expense are all part of making these recommendations work and be successful. These recommendations were derived from the best known information of the day and what the majority of the residents of Invermere have communicated to the committee.

Recommendation #1 Relocation/Trap and Cull

Where the Province has indicated that a potential location site for deer exists in the Upper Kootenay Valley;

The Deer Committee recommends:

- The Province be an active participant and in some factions the lead agency with the District of Invermere as a partner;
- Grant funding and cost sharing be requested from the Province and other levels of government;
- The District of Invermere in collaboration with the Province of BC, initiate a trap and cull program beginning in the fall of 2011;
- The District of Invermere, in collaboration with the Province of BC, initiate a deer relocation program in the Spring of 2012, with the Province taking a lead role in determining relocation sites and assembling a relocation crew
- Deer population within the District boundaries be reduced to a maximum of 50 deer by 2014 or sooner

Recommendation #2 Sharpshooting

Relocation/trapping and culling program may not produce adequate results to meet the target population for urban deer;

The Deer Committee recommends seeking a qualified sharpshooter to review locations and options to conduct sharpshooting activities;

These locations and options are approved by Council and the RCMP.

Recommendation #3 Community Fencing

The Deer Committee reviewed the viability of constructing a community fence along municipal boundaries as a long term solution to regulating deer numbers;

The Deer Committee recommends a feasibility study for the route and cost assessment be carried out now, with no fencing occurring until the success and outcome of the relocation/cull program takes place by 2014 or sooner.

Recommendation #4 – Community Network

The Deer Committee recommends the development of a network to monitor ungulate management programs in other communities and sharing of knowledge and equipment.

The Deer Committee recommends that the Provincial Government develops a Province wide Ungulate Aware Program Coordinator to assist communities managing urban ungulates, similar to the Bear Aware Program.

Recommendation #5 – Public Education

The Deer Committee recommends the following:

- The District provide information on landscaping, planting, reference to nurseries offering native plants, and /or deer resistant plants and shrubs, repellents, and fencing options through the creation of informational brochures and pamphlets;
- Public information on deer /ungulate problems be combined with other printed information on reducing bear problems, predator avoidance issue and other deterrents to reduce wildlife/human conflicts;
- Seasonal signs be placed at strategic points to inform residents and visitors that feeding deer is prohibited;
- Information be circulated about urban deer/ungulate management techniques and strategies as deemed necessary;
- Stronger messaging and enforcement to stop deer/ungulate feeding practices.

Recommendation #6 Deer Advisory Committee

The Deer Committee recommends that the District develop a Terms of Reference to establish a permanent Deer Advisory Committee to provide advice to Council in the management of the Urban Deer/Ungulate Management Program.

Recommendation #7 Deer Counts

The Deer Committee recommends the District of Invermere and the Province of BC partner in carrying out deer counts as per the specifications of the Province and the needs of the Deer Advisory Committee.

4.0 Options Not Recommended

Public Hunting

The Deer Committee does not recommend public hunting within the boundaries of the District of Invermere;

The Committee recommends increased hunting opportunities on public and private lands surrounding the District of Invermere, including limited entry hunting for both ungulates and predators.

Hazing

The Deer Committee considered hazing as an option and does not recommend Hazing as an option to manage the urban deer population at this time.

Fertility Control

The Deer Committee reviewed the feasibility of fertility control products along with associated costs and does not recommend the use of fertility control.

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Acknowledgements:

The Invermere Urban Deer Management Committee wishes to thank the following people and organizations that assisted us with their insight and background knowledge.

Mr. Ron Kerr – Committee Chair, Kimberley Urban Deer Management Advisory Committee; Conservation Officer Lawrence Umsonst – B.C. Conservation Officer Service; Mr. John Zender – Deer Adverse Conditioning, Invermere; Mr. Mark Lerum – Helena Urban Wildlife Task Force; staff of the B.C. Ministry of Forests, Land & Natural Resources Operations and Ministry of Environment.



